Use of a Realist Evaluation to Understand 'What Works' when Delivering Healthcare in an Alternative Setting

Volume 1 of 2

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Abstract

Evaluation Aims

This thesis outlines the Realist Evaluation of Swansea University's Health and Wellbeing Academy, answering the evaluation question of, 'Does the Health and Wellbeing Academy work, for whom does it work, in what ways and why?'

Methods

The evaluation was split into three components including a Stakeholder Perspective Exploration, and Realist Evaluations of two programmes. Mixed methods were used to collect data from a range of stakeholders including programme users and facilitators, outlining the conditions in which the academy works, for whom and why.

Findings and Recommendations

Findings indicate the academy 'works' and is progressing towards its value of focusing on population needs by complementing the NHS, its mission of enhancing student placement opportunities, and its aim of providing holistic, person-centred care. Findings reveal that utilising the unique skill set of stakeholders affiliated with its university context (e.g., academic health care staff) are beneficial in achieving aims, values, and missions. Findings indicate the Academy facilitates internal, 'home-grown' programmes more so than external programmes, and that external programmes would benefit from a dedicated champion/manager to ensure the programmes longevity. Findings indicated that offering evidence-based programmes are successful at improving service user outcomes within this setting and again, suggest that unique contextual factors of the Academy (e.g., skillset of academics) facilitate the development of valuable programmes for Academy provision. Further, findings indicate the Academy offers a service in-line with visions outlined in core Welsh healthcare policy and is well-placed to contribute to the transformation of the Welsh NHS. Recommendations for the Academy to progress towards other aims include utilising the skillset of internal stakeholders to develop a research and evaluation framework, clarifying its aims, and outlining practical steps towards achieving these, by developing a logic model of the Academy, to ensure join-up between service areas, ensuring that programmes are operating in consistent and measurable way.

Declaration and Statements

DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed: Miss Kerry A Dare (candidate)

Date: 26th September 2021

STATEMENT 1

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used, the extent and nature of the correction is clearly marked in a footnote(s).

Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

Signed: Miss Kerry A Dare (candidate)

Date: 26th September 2021

STATEMENT 2

I hereby give consent for my thesis, if accepted, to be available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations.

Signed: Miss Kerry A Dare (candidate)

Date: 26th September 2021

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List of Abbreviations

Table iii/. *List of abbreviations*

Abbreviation	Full Terminology
AAQ2	Acceptance and Action Questionnaire 2
ABBT	Acceptance Based Behavioural Therapy
ABMU Health Board	Abertawe Bro Morgannwg University Health Board
ACT	Acceptance and Commitment Therapy
ARCH	A Regional Collaboration for Health
CBT	Cognitive Behavioural Therapy
CHHS	College of Human and Health Sciences
CMOCs	Context Mechanism Outcomes Configurations
DASS-21	Depression Anxiety Stress Scales – 21-item
DOH	Department of Health
FOC	Fear of Childbirth
GAD-7	General Anxiety Disorder Assessment 7-item
GP	General Practitioner
GPA	Grade Point Average
HCPs	Health Care Professionals
HE	Higher Education
HWA	Health and Wellbeing Academy
IOM	Institute of Medicine
LHB	Local Health Board
LM	Logic Model
MBCP	Mindfulness Birthing and Parenting Programme
MBSR	Mindfulness Based Stress Reduction
MRC	Medical Research Council
MRT	Middle Range Theory
MSES-R	Mindfulness-Based Self Efficacy Scale Revised
NECS	North of England Commissioning Support
NHS	National Health Service
PA	Programme Architect
PCC	Person-Centred Care
PHP	Prudent Healthcare Principles
PHQ-8/9	Patient Health Questionnaire Depression Scale 8-item/9-item
PHW	Public Health Wales
PPP	Positive Parenting Programme
PSE	Parenting Self-Efficacy
PSOC	Parenting Sense of Competence Scale
PT	Programme Theory
RCT	Randomised Control Trial
RE	Realist Evaluation
RFT	Relational Frame Theory
RSES	Rosenberg Self Esteem Scale
SBUHB	Swansea Bay University Health Board
SE	Self-Efficacy
SPE	Stakeholder Perspective Exploration
SU	Swansea University
SWW	South-West Wales
TA	Thematic Analysis

Table iii/. *List of abbreviations (continued)*

Abbreviation	**Full Terminology**
TAU	Treatment as Usual
TPDS	Tilburg Pregnancy Distress Scale
UK	United Kingdom
USA	United States of America
WDEQ/WDEQ-A/WDEQ-B	Wijma Delivery Expectancy/Experience Questionnaire
WEMWBS	Warwick Edinburgh Mental Wellbeing Scale
WG	Welsh Government
WLC	Wait List Control

Chapter 1: Evaluation Rationale

The remit of this PhD was to evaluate the Health and Wellbeing Academy (HWA), a healthcare centre at Swansea University (SU) offering people a range of flexible, affordable services close to where they live (SU, 2020a). The HWA aims to complement the National Health Service (NHS), promoting positive lifestyle choices to enable service users to improve their own health and wellbeing (SU, 2020a). Research, teaching, and developmental opportunities for SU staff and students are important driving factors for the HWA (SU, 2020b).

Chapter 1 introduces A Regional Collaboration for Health (ARCH), the organisation that developed the HWA alongside SU's College of Human and Health Sciences (CHHS). Chapter 1 also presents a literature review introducing the rationale and driving factors leading to the HWAs development, including challenges faced within the Welsh NHS, the need for change and key Welsh healthcare strategies to bring about change. Following this, a figure outlining how these changes can be achieved and mapping out how the HWA might contribute is presented, providing the foundation for the contribution of this evaluation to the wider evidence base of how transformation can be achieved within the Welsh healthcare service.

1.1 General Introduction

1.1.1 ARCH Overview

Formed in 2015, ARCH is a partnership between SU, Hywel Dda and Swansea Bay University Health Boards (SBUHB, formerly Abertawe Bro Morgannwg University Health Board). ARCH recognises several challenges to Welsh healthcare provision, suggesting that now more than ever, things need to be done differently (ARCH, 2015a; 2015b). ARCH suggests that the NHS designed over 70 years ago, is unable to take advantage of technological advancements and subject to resource constraints, is unable to provide the level of care needed (ARCH, 2015a). ARCH (2015b) embeds Prudent Healthcare Principles (PHPs, Aylward et al., 2013)[1] within service provision to drive:

> *alternative approaches to service provision within Wales which use resources wisely and effectively. These changes must resonate more closely with the health, social care and wellbeing needs of future generation (p.4).*

[1] For more information on Prudent Healthcare Principles, refer to chapter 1.2.3.2.

ARCH aspires to offer top-quality care while providing opportunities for Health Care Professionals (HCPs) to develop and advance their skillset (ARCH, 2015a; 2015b). ARCH (2015b) outlines several benefits of its collaboration, a few of which are pertinent to the HWA, including:

- Health care training, research and development delivered in purpose-built, or extensively refurbished facilities
- Establishing a Health and Wellbeing Centre that promotes the notion of self-care, complements NHS provision, and affords community-based training and development opportunities

Note. *The above bullet points were copied verbatim from ARCH, 2015b, p.5.*

ARCH aspires to improve people's health and wellbeing by providing equal access to high-quality care/interventions that promote engagement with an individual's own health and wellbeing (ARCH, 2017). ARCH aim to positively impact the economy by focusing on innovation and contributing to the sustainability of employment within the local area (ARCH, 2017), and have launched several projects in a bid to transform healthcare provision in Wales including the HWA in collaboration with SU's CHHS. These aspirations are in line with the vision for the transformation of the Welsh healthcare system, outlined in chapter 1.2.

1.1.2 HWA Overview

The HWA opened in March 2017 in response to the challenges faced by the Welsh NHS, and the vision of a new model of healthcare provision within Wales (SU & ARCH, 2016). An in-depth discussion of this vision is provided in chapter 1.2, outlining how the HWA can contribute to this, providing the foundation for this evaluation in terms of contributing to the evidence base.

1.1.2.1 HWA Aspirations

The HWA prospectus (SU & ARCH, 2016) outlined key driving factors behind the HWA, including:

- A need for a healthcare workforce that practices across professional boundaries to address the complex needs of the Welsh population
- The need for research to assess the effectiveness of services on offer to inform the healthcare evidence-base

- A need to deliver health and wellbeing services closer to where people live, in-line with PHPs to empower citizens to make informed choices that better their health and wellbeing throughout the lifespan
- The opportunity to complement existing service provision, deflecting demand and reducing service pressures

SU and ARCH (2016) outline strengths of the CHHS that put the HWA in a good place to contribute to said changes, including the wide-ranging health and social science experience and expertise of its staff. SU and ARCH (2016) note that the CHHS has a track record of delivering first-class learning and providing a range of students with research opportunities. The HWA aims to maximise this expertise so that the scope of work undertaken will have a wider impact on the community.

Upon opening, the HWA set several aims, values, and mission statements (table 1).

Table 1/. *Aims, Values and Mission Statements of the HWA (replicated verbatim from SU, 2020b).*

Type	Statement
Aims	The HWA aims to: **A1:** Provide holistic, person-centred care to people of all ages **A2:** Offer support, advice and information that helps people improve their own health and wellbeing **A3:** Offer services that support early identification, diagnosis and treatment of health and social care conditions **A4:** Improve care outcomes for patients **A5:** Undertake excellent research and use this to inform the way we work and the services we provide **A6:** Contribute to delivering a sustainable, skilled workforce fit for the future **A7:** Support economic regeneration by contributing to workforce re-design
Values	The HWA supports the following core values: **V1:** Providing excellent service **V2:** Focussing on the needs of our population **V3:** Working together to enrich lives
Missions Statements	The HWA will: **M1:** Provide a range of high-quality health and wellbeing services closer to where people live **M2:** Engage in cutting edge research that will drive innovation and excellence in all that we do **M3:** Enhance the teaching and learning experience for staff and students to maximise their future employability

The HWA (SU & ARCH, 2016) identified several areas where it could have a wider impact on the healthcare system within Wales including:

- Building research capacity
- Building new models of service delivery through partnership working and providing skills development for the workforce to facilitate this
- Supporting the delivery of prudent health care, with individuals taking ownership of their health, by making the best use of skills and resources
- Enhancing the employability and experience of students, providing links with multi-disciplinary learning and commercial and inter-professional experiences

Due to its university setting, the HWA should be well-placed to deliver on its aspirations to build research capacity and enhance the employability of students by providing a unique alternative placement opportunity for them. Further, due to its proximity to the local hospital (located next door) the HWA should be well placed to work in partnership with the NHS.

1.1.2.2 HWA Service Selection and Management

During the fieldwork phase of this evaluation (2017-2019), operational HWA service areas included wound care, osteopathy, bereavement care, psychological intervention, cardiology, and midwifery. Upon opening, overall delivery of the HWA was steered by a project team, and delivery and design of services led by representatives of a range of academic departments within the CHHS, who are supported by both the project team and heads of their respective departments (for internal programmes). Oversight and governance of the HWA is managed through existing committee structures within SU (SU and ARCH, 2016). Partnership working and engagement with the community are important to the HWA, which aims to establish relationships with policy makers, the NHS, third sector organisations, the community and health and social care providers.

While individual HWA services are designed, managed, and facilitated by different stakeholders, each forms a part of the HWA and therefore, should aspire to work towards the attainment of HWA aims, values, and mission statements. This is considered in the HWA proposal review process[2], undertaken by the HWA operations group, and reported to the HWA governance board when a new service is proposed. Those proposing new services are asked to provide the following information to inform the review:

1) The service/business history
2) The service on offer
3) Whether the services are delivered or operated by professionally trained/qualified staff
4) Operating times (predicted)
5) A description of the services' typical user
6) Required resources (e.g., parking, space, reception cover)
7) Associated risks and how these will be managed
8) How will the service add value to the HWA?

[2] Information provided by the Director of the HWA March 2017-April 2021.

9) How will the service benefit the local community?
10) Are there education, research, and collaborative opportunities?
11) Do the proposed services compete with another service already offered via the HWA?

Reviewers score services on a matrix ranging from one (strongly disagree) to five points (strongly agree), with a maximum of 45 points. The matrix asks reviewers how much they agree with the following statements:

1) The new proposal is a beneficial service that will enhance the HWA reputation
2) The proposal supports the HWA vision, mission, and aims
3) The service offered is low risk. Any risks identified have processes in place to be managed
4) The HWA has the capacity and resources to support the service
5) The service is beneficial to the local community
6) The service offers educational opportunities
7) The service offers research opportunities
8) The service offers funding opportunities
9) The service does not complete with existing services

Proposals scoring under 17 are rejected. The review process ensures services are evaluated in a fair way, confirming they meet or are aligned to the aims of the HWA. HWA programmes are a mixture of internal (i.e., those run by SU) and external programmes (i.e., those run by partners outside of SU).

1.1.2.3 HWA Stakeholders and Financial Model

The HWA is not 'income driven' and the quality of the services offered, the student experience, research and teaching drive financial decision making and planning arrangements (SU & ARCH, 2016). The HWA's financial plan addresses several aims including diversifying and increasing income streams, developing business opportunities from activities, and producing a surplus to re-invest into HWA service provision. It is hoped the financial sustainability of the HWA will be achieved via a blended model of utilising service surpluses to subsidise others, reinvesting reserves back into the HWA (SU & ARCH, 2016). The HWA aspires to bring in additional income through making SU more marketable and attractive to healthcare students, collaboration, and research funding. The initial refurbishment of the HWA and annual running costs are financed through SU[3].

[3] Information provided by SU stakeholder involved with the running of the HWA

The HWA has several stakeholders including ARCH, SU staff and students, service designers, governance groups, service users, the local health board, and local businesses delivering services through the HWA. The HWA like local health boards must operate in line with Welsh health and safety rules but has freedom in terms of the services it provides. In terms of collaboration, the HWA works alongside local health boards and has service level agreements with them[3].

1.2 Literature Review: Challenges Facing Wales, the Welsh NHS and how these can be Overcome.

The HWA offers an alternative to traditional hospital or primary care-based services, and aims to complement the NHS, contributing to the transformation of Welsh healthcare provision. To better understand the contribution the HWA can have in this transformation, and to ascertain whether it can achieve the aspirations set out in chapter 1.1.2, it is important to understand the context in which it is operating (i.e., Wales).

1.2.1 Introduction

1.2.1.1 The Socio-Economic, Health and Wellbeing Landscape Within Wales

With a population of 3 million people, Wales is the most economically deprived of the four UK nations (Organisation for Economic Cooperation and Development (OECD), 2016). According to the 2019-2020 National Survey for Wales (Statistics for Wales, 2020, July) 13% of adults living within Wales are classed as materially deprived. Further, 23% between the years 2017-2018 and 2019-2020 were reported to be living in 'relative income poverty' i.e., in a household with an overall income under 60% of that of the average UK household (Welsh Government (WG), 2021). The complex relationship between health and income is well documented. Recent research states that compared to individuals living within the top 20% of income distribution, those within the lowest 40% are nearly two times more likely to report poor health (Tinson, 2020). Due to the links between income and health, the people of Wales may be disadvantaged.

According to the 2015 Welsh Health Survey (Statistics for Wales, 2016, June) 19% of respondents reported their general health as fair or poor, and 33% reported that due to a disability or a health problem, they were limited in their day-to-day activities. In the same survey, 19% reported smoking, 40% drinking more than recommended guidelines, and 59% were overweight or obese (Statistics for Wales, 2016, June). The

National Survey for Wales reports general health statistics by Local Health Board (LHB). Data for two years of the survey combined (2017-2018 & 2018-2019) showed the percentage of people rating their general health as good or very good was 69% for SBUHB, placing them in joint 5th place (table 2).

Table 2: *General Health Ratings from the 2017-2018 and 2018-2019 National Survey for Wales by LHB.*

LHB	Good or very good general health	Fair general health	Bad or very bad general health
Betsi Cadwaladr University LHB	75%	18%	8%
Powys Teaching Health Board	75%	18%	7%
Cardiff and Vale University LHB	73%	18%	9%
Hywel Dda University LHB	70%	21%	9%
Aneurin Bevan University LHB	69%	21%	11%
Swansea Bay University LHB	69%	21%	10%
Cwm Taf Morgannwg University LHB	68%	20%	12%

According to Edwards (2015), the population of Wales:

> *Is older, sicker and has more deprivation than the population of England. All of these factors affect people's health and therefore mean greater demands on the Welsh Health Service (p. 1, online briefing)*

To understand the impact of such factors on the Welsh Health service, it is important to understand how it is run, governed, and the challenges it faces.

1.2.1.2 The NHS

The NHS provides a range of free healthcare services to UK citizens (Webster, 2002) and is the 4th largest employer in the world (Hancock et al., 2014). The NHS has been running in the UK for over 70 years, made a reality in 1948 by former Health Minister Aneurin Bevan (Webster, 2002). At the time of its creation, the NHS was unique, funded by general taxes and overseen completely by politicians and the government (Webster, 2002). The NHS has provided free-on-entry primary and emergency healthcare services to UK citizens since its inception however, the longevity of the service has been called into question (Abel-Smith & Titmuss, 2016). Numerous factors have contributed to mounting pressures on the NHS, including an increase in hospital admissions exacerbated by a funding gap to the NHS (Smith, McKeon, Blunt & Edwards, 2014). Inappropriate use of NHS services, such as unscheduled care in

emergency departments has placed further strain on the service (Tian, Dixon & Gao, 2012), prompting a priority to reduce such occurrences.

A product of devolution in 1999 (OECD, 2016), the Welsh NHS, or NHS Wales, is a relatively new system largely funded by a grant from the central UK government (OECD, 2016) and unlike the NHS in England, does not have a 'purchase provider split' and instead, LHBs (The Health Foundation & Nuffield Trust, 2014). WG is responsible for overall planning of NHS Wales, while local Welsh authorities, trusts and health boards have established management and planning structures in place. Within Wales, it is the responsibility of LHBs to assess:

> *The needs of their population as a whole…ensuring services are provided that meet those needs (OECD, 2016, p.189).*

LHBs are required to work collaboratively with the NHS and other non-statutory partners and are required to have 'Integrated Medium-Term Plans' that outline projected activities over the next three-year period, keeping health boards to account while allowing flexibility in their plans. The OECD (2016) suggest that while health boards should be well placed to drive innovation and radical changes to system due to their *"proximity to local population needs, and an apparent desire that they are driving local change" (p. 191),* evidence suggests this is happening less than expected (OECD, 2016) and there is work to do.

Data suggests that since 2010, the performance of the Welsh health service on waiting times for planned admissions into hospitals and accident and emergency departments, and response times of the ambulance service have deteriorated at a significant rate in comparison to NHS England (Edwards, 2015). Additionally, research suggests the Welsh NHS is struggling in terms of finance and there are key drivers impacting demand and expenditure.

A report (Watt & Roberts, 2016) exploring drivers of spending within the Welsh NHS identified 'an ageing population' as one of the key drivers, outlining that between 2015-2030, overall population growth in Wales will reach a rate of 5.6%. Watt and Roberts (2016) project the number of individuals aged 65 and over will increase exponentially during that period (28.5%). Additionally, an increase in chronic conditions was identified as a main driver of increased pressure on the NHS (Watt & Roberts, 2016). The report identified that hospital admissions for individuals with at

least one of 12 identified chronic conditions were responsible for 58% of overall in-patient spending in Wales during the 2014-2015 period (Watt & Roberts, 2016). The 2017-2018 National Survey for Wales (Statistics for Wales, 2019, March) reported that one in two adults (aged 16+) described having one chronic/long-standing illness, with one in five reporting having more than one; percentages increased with age. Increased life expectancy and an increase in the prevalence of chronic conditions means there are increasingly more people utilising NHS services. Consequently, if this trend continues, pressures faced by the NHS will continue to increase. The Welsh NHS confederation (2017) released a briefing providing an overview of finances for the NHS in Wales suggesting that by 2031, the annual health and social care funding gap could be between 1.4 and 2.5 billion.

Physical illnesses are not isolated in presenting challenges to the NHS, with an increased prevalence of mental health problems contributing. A UK survey (Mental Health Foundation, 2018, May) found that 74% of respondents felt stressed to a point where they were not able to cope/felt overwhelmed within the last year. Of those who experienced stress, 51% reported feeling depressed, 61% anxious, with 36% reporting chronic/long-term health conditions as the top stressor for both personal illnesses or those of friends and family (Mental Health Foundation, 2018, May). Comorbidity among mood disorders and a range of chronic health conditions including chronic obstructive pulmonary disease, chronic heart failure (Yohannes, Willgoss, Baldwin & Connolly, 2010) and type 2 diabetes (Ceretta et al., 2012) are evident in the literature. Research suggests that the association between psychological and physical conditions is bidirectional, with those with severe mental health problems at an increased risk of certain physical conditions (De Hert et al., 2011) and vice versa (Yohannes, Willgoss, Baldwin & Connelly, 2010; Ceretta et al., 2012).

Complex issues facing the Welsh population including deprivation (WG, 2021) and a high prevalence of poor physical health (Edwards, 2015), alongside challenges to a devolved health system including an increased demand on underfunded services (e.g., Welsh NHS confederation, 2017) means that NHS Wales is struggling, prompting a demand for change.

1.2.1.3 Aims

To understand whether the HWA can contribute to the transformation of the Welsh healthcare system in the ways set out in chapter 1.1.2, it is important to understand the logical pathways identified within Welsh policy to achieve this transformation. In other words, what conditions do Welsh organisations identify as necessary to achieve the long-term aspirations of the health service, and how can providers including universities and the NHS can work together to re-design and re-think healthcare provision. Understanding this will highlight how the HWA can 'fit in' to local healthcare provision and contribute to achieving the vision for the healthcare system. The aims of this review are two-fold:

1. To identify the context in which the HWA is operating, by identifying key health policies/strategies within Wales
2. To explore these policies to identify the logic behind the transformation of the Welsh NHS and use this to better understand how the HWA can work alongside healthcare providers to achieve change

1.2.2 Methodology

1.2.2.1 Review Approach and Strategy

Due to the type of documentation (e.g., policy documents) needed to address aims, a search of grey literature was conducted. Defined at the 4th International Conference on Grey Literature (1999), grey literature refers to that which:

> *is produced on all levels of government, academics, business, and industry in print and electronic formats, but which is not controlled by commercial publishers (cited by Benzies, Premiji, Hayden & Serrett. 2006, p. 56)*

A rigorous search methodology was adopted to ensure relevant documents were identified. Several online resources, databases, and websites were searched to identify relevant literature including the Office for National Statistics, statistics Wales, Info Base Cymru, NHS Wales and GOV.Wales websites, and NICE evidence, Google/Google scholar, and OpenGrey database/engine searches.

An aim of the review was to identify *key* health-related policy documentation for the Welsh health service and therefore, policies specific to a certain topic (e.g., cancer care) were excluded. For database/engine searches, simple search terms for example, 'health policy' and 'Wales' were used and where possible, search results were filtered to include documentation from 2007-2019, 10 years prior to the start (2017) and until

the end of the fieldwork stage of this project. Searching websites included navigating through publication pages relevant to the topic at hand. For example, on the Gov.Wales website this included searching all documentation included in the 'Health and Social Care' and 'Health and Social care strategy' sections. Thousands of titles/abstracts were identified through the online resources, and these were read to identify relevant documentation. Following title/abstract screening, potential documents were read in full, and 11 identified for inclusion.

1.2.2.2 Analysis

A framework approach (e.g., Ritchie & Lewis, 2003) was used to produce a narrative analysis of the documentation included within this review. This involved creating a framework noting key themes that emerged within the included documentation, identifying common goals and visions, and drawing out key actions to achieve these, to identify what needs to happen within Welsh healthcare provision to address the identified challenges and achieve change. By doing this, ways in the HWA can contribute to this change, working alongside healthcare providers to plug existing gaps can be identified.

1.2.3 Results

1.2.3.1 Overview of Included Documentation

Table 3 provides an overview of the documentation included in this review.

Table 3: *An Overview of Included Documentation*

Document ID	Author & Year	Document Overview
1	WG (2019)	**A Healthier Wales: Our Plan for Health and Social Care** This paper sets out the long-term vision and rationale of a 'whole system approach' within Wales's health and social care sector, that focuses on the health and wellbeing of the population and illness prevention. The plan is based on four central aims, interpreted for the Welsh context, which are: 1) Improved population health and wellbeing, 2) Better quality and more accessible health social care services, 3) Higher value health and social care, and 4) A motivated and sustainable health and social care workforce *(WG, 2019, p. 15)*
2	WG (2011)	**Sustainable Social Services for Wales: A Framework for Action** This paper by Welsh Government sets out their priorities for action for sustainable social services within Wales, based on the following core principles: 1) A strong voice and real control, 2) Supporting each other, 3) Safety, 4) Respect, 5) Recovery and restoration, 6) Adjusting to new circumstances, 7) Stability, 8) Simplicity, and 9) Professionalism. The framework sets out core priorities to achieve principles including: 1) A strong national purpose for expectation and clear accountability for delivery, 2) A National outcomes framework, 3) Citizen centred services, 4) Integrated services, 5) Reducing complexity, 6) A confident and competent workforce, 7) Safeguarding and promoting the wellbeing of citizens, and 8) A new improvement framework for Wales *(WG, 2011, p.9-10)*
3	Aylward, Phillips & Howson (2013) *Bevan commission*	**Simply Prudent Healthcare: Achieving Better Care and Value for Money in Wales – A Discussion Paper** This paper outlines a vision for how Wales can make best use of its available resources to ensure that care provided across Wales is both consistent and high-quality. The paper addresses the key challenges facing the health service in Wales and actions for addressing these.
4	Bevan Commission	**A Prudent Approach to Health: Prudent Health Principles** This paper outlines the finalised Prudent Healthcare Principles and guidance for the WG. Recommendations within this paper include that Prudent Healthcare Principles should underpin services throughout Wales, to ensure skills and resources, both within the NHS and external organisations are used to achieve the best outcomes for service users and the people of Wales.
5	WG (2015, April)	**Health and Care Standards** This WG paper outlines the framework needed to help health services across Wales demonstrate that they are doing the right things, in the right manner, with the right staff, and at the right time and place. It is envisaged that the Health and Care Standards framework will become the overarching quality assurance system adopted throughout the Welsh Health system.

Table 3: *An Overview of Included Documentation (continued)*

Document ID	Author & Year	Document Overview
6	Public Health Wales (2019)	**Research and Evaluation Strategy 2019-2025: Generating the Evidence Needed to Make a Difference to Population Health** This paper sets out Public Health Wales's research and evaluation strategy for the years 2019-2025. to ensure that research and evaluation by Public Health Wales can be used to generate the evidence that is needed to achieve the healthier, happier, and fairer Wales set out in WG's earlier strategy (ID 8).
7	Public Health Wales (2009)	**Our Healthy Future** This paper for WG outlines the agenda for public health in Wales from 2010-2020. Long-term visions include among other things, a goal of health and wellbeing that is shared by all and a greater emphasis placed on early intervention and prevention by Wales's health and social services. To achieve this vision, the agenda aims to reduce potential barriers to adopting a healthy life and to deliver the direction of strategy for national and local public health within Wales.
8	Public Health Wales (2015)	**A Healthier, Happier and Fairer Wales: Our Strategic Plan 2015-2018** This paper sets out identified strategic priorities to ensure the work conducted by Public Health Wales has maximum public benefit, reflecting the current challenges faced within Wales. The mission of the paper is to support the vision of Public Health Wales, which is to protect and improve the people of Wales's health and wellbeing, as well as reducing inequalities for Welsh citizens. Priorities within the paper include: 1) Implementing a multi-agency systems approach to attain significant improvements in the health of the public, 2) Cross-sector working to improve children's health within the early years, and 3) Supporting the Welsh NHS in improving patient's health outcomes *(WG, 2015, p. 11).*
9	WG (2018, January) *Parliament*	**The Parliamentary Review of Health and Social Care Within Wales, A Revolution from Within: Transforming Health and Care Within Wales** A 2018 parliamentary review providing the recommendations for, and basis of, WG's 2015 paper (ID 1). The aim of the review was to pave the way forward for WG by making recommendations on how changes can be made, setting out practical terms on how challenges of the years that lay ahead can be met.
10	NHS Wales (2011)	**Together for Health: A Five-Year Vision for the NHS in Wales** This 2011 paper sets out the vision for the Welsh NHS in 2016. This paper outlines a continuing pride in the values and principles of the NHS, and building upon these, utilising more recent policy alongside experiences and the manifesto of commitments put forth by WG. The vision was co-developed with help from local government, the NHS, and its partners as well as trade unions.
11	WG (2015, May)	**Wellbeing of Future Generations (Wales) Act 2015** A 2015 legislated Act centred on improving the wellbeing of the Welsh population in terms of social, environmental, economic, and cultural wellbeing. The Act aims to ensure that listed public bodies consider the long-term vision in Wales, working in better partnerships with communities and individuals to look after each other and prevent potential problems, to develop a Wales where people want to live for a long time to come. To achieve this, seven wellbeing goals are introduced within the Act, that deliver a shared vision for all included public bodies.

Each included document relates to strategies and policies for the provision of healthcare/health-related care within Wales. Six of the documents were authored by or for WG, two the Bevan Commission, three Public Health Wales (PHW), and one NHS Wales. Each document outlined key drivers, aims and goals for the transformation of the healthcare system within Wales, with detail provided as to how these can be achieved.

1.2.3.2 Prudent Healthcare Principles

Several included documents reference, and two regard PHPs [3 & 4]. This section outlines PHPs to develop a more nuanced understanding prior to the narrative analysis.

One way in which Welsh organisations have attempted to improve healthcare provision is by utilising PHPs. Outlined by Aylward et al. (2013), PHPs refer to:

> *Healthcare which is conceived, managed, and delivered in a cautious and wise way characterised by forethought, vigilance and careful budgeting which achieves tangible benefits and quality outcomes for patients (p.3)*

A prudent approach is one that supports health and wellbeing by offering care options suitable for the needs of the individual, avoiding duplicated, ineffective care that is not suitable or beneficial for the patient, and providing care that is financially accountable (Bevan Commission, 2015). Healthcare that utilises PHPs will focus on the patient and should reflect the contribution that individuals can make towards their own health and wellbeing (Bevan Commission, 2015). PHPs advocate the responsible use of resources and recognise the need to balance individual and population level needs (Bevan Commission, 2015). Four finalised PHPs were outlined by the Bevan Commission (2015, table 4).

Table 4/. *PHPs*

1	Achieve health and wellbeing with the public, patients, and professionals as equal partners through co-production
2	Care for those with the greatest health needs first, making the most effective use of all skills and resources
3	Do only what is needed, no more, no less; and do no harm
4	Reduce inappropriate variation using evidence-based practices consistently and transparently

Note. *Reproduced verbatim from thing Bevan Commission, 2015, p. 5.*

The Bevan Commission follows and integrates the six IOM domains of healthcare quality (Institute of Medicine, Wolfe, 2001) within PHPs, these are: Patient-Centred; Patient Safety; Effectiveness; Efficacy; Equity; PCC. PCC is defined as:

> *Care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions (Wolfe, 2001, p.3)*

Research has found PCC to be an important component of care for a range of patient groups, including those seeking treatment for rheumatoid arthritis and congestive heart failure (De Boer, Delnoij & Rademakers, 2013) and has been reported to impact a variety of outcomes across patient groups. For example, PCC has been shown to reduce the length of hospital stays for patients with chronic heart failure (Ekman et al., 2012) and improve levels of self-efficacy in patients with acute coronary syndrome (Fors et al., 2015). PCC appears to be an effective healthcare approach, and in-line with PHPs. Utilising PCC could positively impact healthcare provision in Wales for example, by increasing patient knowledge to contribute to a reduction in dependency on NHS services. The notion of PCC within healthcare provision is not new rather, the purpose of discussing PCC here is to provide an example of the effectiveness of the principles and approaches embedded within PHPs, to demonstrate the evidence-base of the approach.

1.2.3.3 Narrative Analysis

Five themes were identified during the narrative analysis outlining:

1) Commonly identified directions for change to address current issues with the healthcare system in Wales
2) Commonly identified conditions (e.g., activities/actions) to achieve the desired changes

Theme 1: Shifting Towards Community-Based Care

Across included documentation, there was the desire to provide services that are easier to access and closer to people's homes, shifting care away from traditional models of hospital-based care towards newer, innovative models of community-based care.

In their 2019 strategy, WG [1] outlined a vision of people accessing care in as close a proximity to their home as possible. Providing care close to home was outlined as a core principle of effective care within the Welsh Health and Care Standards [5], and

as one of three key shifts needed within the health system in the parliamentary review [9]. PHW [7] outlined that while most health services revolve around hospital-based care, most *can* be delivered within community settings, and that health services should be re-designed to support community-based provision. NHS Wales [10] indicated that new technology can facilitate care closer to where people live, providing clinical staff across Wales with the information they need to provide quality care in community settings.

Several documents outlined benefits of shifting services away from traditional into community-based settings. For example, WG [1] outlined how moving resources into the community will ensure that resource intensive hospital care can be accessed more easily when needed. WG advocate a shift to community-based care that can pave the way for new models of partnership working between multiple providers. PHW [8] outlined the fiscal benefits of providing community-based care, suggesting that while better outcomes are typically observed in countries with robust *primary* health care systems, this tends to correlate with higher spending and therefore, is not in line with PHPs (chapter 1.2.3.3). PHW [8] put forth that by the end of 2016, they would have a clear emphasis on community, primary and integrated care within their organisation.

Documentation outlined co-production with local communities and organisations as key in achieving a shift towards community-based care. For example, NHS Wales [10] acknowledged the scale of challenges facing it and recognised the need for organisations including public bodies and government to work together with the public to tackle these (e.g., by involving communities with designing services). The parliamentary review [9] outlined the need to strengthen involvement in the health care service at both individual and community levels, strengthening the voices of individuals and ensuring that a representative sample of people from different communities and demographic profiles have an equal say. The review outlined how people *want* to have a say in their care and that there is a pre-existing demand for a modernised healthcare service in which individuals have better information, shared decision-making abilities, and greater choices for care including the settings in which it is offered. The review suggests that due to the diversity of Wales's population, services should be designed to meet the needs of the people they serve, through partnership working with local organisations and communities. The Bevan Commission [4] outlined that co-production at both a population and an individual

level are essential and envisage a system where patients in addition to the NHS contribute to an improvement in population health and wellbeing. They positioned that people have an important role to play in protecting their health and using the resources of the NHS wisely and should play a part in the design and delivery of the services they utilise. WG [5] outlined that health services should work together with community groups to engage and support peoples' involvement with designing and delivering health care services in Wales. WG [9] states that partnership should begin with individuals and should reflect real, local-level, community partnership to ensure a welcomed, measurable impact. WG suggest that working in partnership with individuals will enable them to feel more confident and in control of their lives, making better choices for their families and themselves.

Theme 2: Providing Care that is Person-Centred and Promotes Personal Responsibility and Decision Making

Documentation outlined Person-Centred Care (PCC) and promoting personal responsibility and decision making among patients as key to transforming Welsh healthcare provision. Wales is a diverse country with diverse communities from varying socioeconomic and ethnic backgrounds and it follows that for care to be effective, it should focus on the needs and preferences of the individual/community.

In their 2019 strategy, WG [1] outlined that health services will be developed and designed to focus on the unique needs of the individual and that the NHS will coordinate services across the sector in a seamless manner. They outlined ensuring the needs and preferences of individuals are entrenched across services so that care provision is equitable no matter who provides the service. WG suggest that a shift towards a whole system approach will see a difference in the historical relationship between service users and providers, with care that starts by asking 'what matters' to the individual and evolves into a conversation about how individuals can contribute to their own health. Similar concepts are discussed within the five-year vision for the NHS [10].

WG's Health and Care Standards [5] suggest that co-production best facilitates PCC, and that the Welsh health service should ensure individual needs are listened to, respected, and acted upon. WG [1] envisaged a system with a variety of care options available in different settings tailored to individual needs, encouraging people to be

more independent with their health choices. The Bevan Commission [4] envisaged an NHS rooted in PHPs, providing patients with the most suitable care for their needs, achieving mutually agreed upon goals and demonstrating the contribution to health that individuals and communities can make.

Adopting a PCC approach that encourages people to self-manage their health is important due to the unique challenges facing Wales and the desire to embed PHPs within the system. The Bevan Commission [3] propose the health service focus on early prevention, arguing there is an urgency to stop people from getting ill in the first place by providing them with the necessary incentives and skills they need to take better care of their health. WG [1] outline focusing on preventative healthcare believing this to be pivotal in achieving sustainable development and suggest that within the vision of a whole systems approach, healthcare services are only one element, with people being the other. PHW [8] outline the importance of moving towards prevention, and highlight that compared to other UK nations, investment within prevention and health improvement interventions within Wales is low. A key recommendation of the parliamentary review [8] was to improve population health by focusing on prevention, providing people with the health literacy they require to self-manage their health confidently. NHS Wales [10] suggested they have a lot more work to do to enable people to look after themselves, particularly those who are the most vulnerable. They outlined that while people living within Wales have the right to access the best possible healthcare services, they also have a personal responsibility to look after themselves and respect the health care services available to them.

Theme 3: A Transparent and Accountable System Rooted in Evidence and PHPs

Included documents outlined a vision of an NHS that works in partnership to offer the best possible care, focusing on prevention and informed decision making to ensure that current challenges are overcome. Documents outlined key changes necessary to enable this, including the provision of high-quality care based on the most recent evidence, in-line with PHPs.

WG [1] suggest that by using research to understand which services work, and learning from/working with others, better ways of working can be achieved. PHW [8] outlined a need to deliver care utilising the best possible evidence or creating such evidence where it does not exist. As the leader of population health research within Wales, PHW

[6] aspire to pinpoint priorities most essential for population health and influence the research agenda by developing a credible research portfolio. By providing services rooted in evidence, Welsh organisations can work towards providing prudent healthcare, delivering the best quality care possible while making the best possible use of resources. The importance of embedding PHPs was discussed across all documentation.

The Bevan Commission [3] outlines prudent healthcare as that which is thought-out and offered in a way that is wise, considered and includes careful budgeting while achieving good quality care outcomes for patients. The Bevan Commission [4] outline that for care to be prudent it should meet the following criteria:

1) That it provides care that fits the needs of the individual
2) That it makes the best use of the limited skills and resources within Wales
3) That it avoids waste and that it gets rid of ineffective care
4) That it recognises the importance of co-production between healthcare professionals and service users and stresses the importance of reducing inappropriate variation within health by using practice rooted in evidence in a consistent and transparent manner

WG's Health and Care Standards [5] outline the need to fully embrace PHPs to ensure the best quality care is provided, and PHW [8] outline aspirations to embed a framework for action across the NHS that focuses on equal access to healthcare as part of a prudent approach. The parliamentary review [9] suggests that Wales should continually seek the best way to use their resources to attain improved health outcomes to meet the needs of its population. NHS Wales [10] recommends ensuring that every penny counts and is spent in the correct manner, providing the best value for money, and aiming to eradicate poor services. To achieve a prudent system based upon the best possible evidence, Welsh healthcare services need measures to track their progress. Across the included documentation, governance, research, and evaluation were outlined as key to ensuring organisations deliver the combined vision for a better healthcare system within Wales.

WG [5] suggest that health services have a duty to make sure resources are used effectively and efficiently, ensuring the sustainable delivery of useful services. WG indicate that the people of Wales have the right to understand how resources are used, which requires effective governance, accountability, and leadership. PHW [7] summarise that LHBs should set annual targets for action and ensure delivery against

these to demonstrate how health within Wales is improving. WG [1] plan to use research and innovation to pursue high-quality care, measuring and using health and wellbeing outcome data to support improvement within the services they offer. The Bevan commission [4] outline that the NHS have a duty to be transparent and engage the public in prudent healthcare by publishing accessible data. WG [5] suggest organisations should participate in activities (including research) to improve their services, developing new ways of delivering health care. WG also outline the importance of ensuring feedback is measured and published, with action taken in a manner that demonstrates a process of continuous learning and improvement. PHW [8] outline that by 2030 they will have a successful research environment that draws upon and contributes to the best evidence-base which in turn, should attract a range of investments and enable them to employ research talents from around the globe. They also outline how evaluation will underpin their work, allowing decisions to be made early on as to whether services should be stopped or allowed to continue, gauging whether new innovative ways of working are likely to be successful.

Theme 4: Working in Partnership Within and Across Organisational Boundaries Towards a Whole System Approach to Health Care

A key theme included working in partnership to achieve the goals and visions set out by the various stakeholders within Wales's health system. Working in partnership referred to joined up working between different departments of the same organisation and across organisations from various sectors.

The Bevan Commission [4] outline that the Welsh NHS should work with partners across the sector including those in social care, education and the third sector, to ensure that expertise and resources can be combined to ensure the best possible care is available. PHW [6] highlight the need to build a joint research agenda that stretches the breadth of strategic priorities within Wales with several stakeholders (e.g., universities and the public sector) and outline benefits in doing so, including encouraging staff to build their research skills. PHW [6] stress the importance of identifying and advocating opportunities such as academic placements and staff secondments across the boundaries of different organisations, to better understand the value of this and the skills transfer that can result.

PHW [8] identify several priorities within their strategy to ensure the work they conduct has the best possible outcomes for the public, while being mindful of the

current challenges facing Wales. For example, they identify the need to develop protocols for new ways of working across the system with multiple agencies, suggesting that more traditional, siloed ways of working are no longer fit for purpose. They suggest that care works best when provided in collaboration with different providers in a multidisciplinary manner and believe the structure and willingness to ensure this approach can be successful is evident within Wales. PHW seek to work with academic institutions to facilitate impactful and insightful research that can be utilised to inform public health services and policies within Wales. The Parliamentary review [9] outlined how Wales can achieve transformative change by working in partnership, highlighting the benefits of joined up working in areas including service design to meet the needs of local communities.

Working in partnership will be pivotal for Wales to achieve transformation within the healthcare sector. One aspiration outlined in NHS Wales's five-year vision [10] included developing new, simpler, less confusing, and more integrated services to enable people to make the best use of limited resources and working alongside local partners to design services focused on people opposed to organisational needs. Several documents outlined the importance of shared learning to ensure people get the best quality care possible. The Bevan commission [4] outlined the importance of reviewing performance across health services to identify and roll out effective practice, eradicating ineffective practices. PHW [9] aspire to increase levels of engagement in the online research community to share examples of best practice and outline how they will promote quality care by sharing knowledge and best practice in a structured manner. NHS Wales [10] outlined that the NHS will publish performance information and be transparent, to ensure the development of best practice.

Theme 5: Investing in the Workforce to Drive Success, Innovation, and Transformation

Investment within the workforce will be necessary to achieve change for several reasons. Firstly, health services need to ensure the workforce has the expertise and skills necessary to drive change. Secondly, health services need to ensure the workforce is motivated and engaged with the processes necessary to drive this change. Lastly, health services need to ensure they do everything they can to attract the workforce into the Welsh system, ensuring there are ample staff to drive change; All of which were considered within included documentation.

WG [1] believe that every individual working within the health care sector deserves the chance to apply their experience and expertise to inform better ways of working (e.g., combining their clinical health care roles with research). WG reflect that the most successful models within Wales have the common theme of wide-ranging, multidisciplinary teams that work collaboratively and make best use of the whole teams' skills/expertise. WG [1] intend to continue investing in the workforce in terms of training and development, providing the tools and resources necessary to facilitate their involvement with influencing decisions, and acknowledge the benefits of offering community-based care models in providing opportunities to learn/develop in new ways, creating career pathways with greater flexibility. WG's national health care approach [1] will be influenced by new models of care that require the workforce to have skills centred on prevention, and an increase in general skills that can act as a basis for people to diversify throughout their careers. To make this a reality, health organisations can develop partnerships with education institutions.

WG [5] suggest that services should endeavour to nurture learning and professional integrity as well as ensuring the workforce meet the requirements necessary to enable them to deliver quality care. Services need to ensure there are ample staff with the appropriate expertise to meet population needs within Wales. WG suggest that partnerships should be developed to grow a fit-for-purpose, skilled, and sustainable workforce, providing opportunities for the workforce to engage in collaborative practice, and ensuring efforts are not duplicated and resources are used wisely.

PHW [6] frame developing and mobilising the skills of the workforce as necessary to improve population health and wellbeing, and advocate adopting an organisational culture that values research activities and enables healthcare workers to apply their skills to strengthen the evidence-base. PHW suggest the creation of innovative models of staffing, including working with universities to nurture cross-discipline research activity will help to create a sustainable pool of expertise. PHW [8] discuss mechanisms to develop flexibility within the workforce, considering how skills across the organisation can be accessed and better cross-team working promoted. The Parliamentary review [9] suggests that organisations should mobilise new models of care to better understand the impact these will have on the number and skills of the future workforce necessary to achieve these. The review suggests that workforce planning should happen at regional level supported by key stakeholders including

academia, focusing on the expansion of generalist skills within the workforce and new ways of working allowing HCPs to perform at the top end of their skillset.

WG [1] outline the need to promote the unique values and culture of Wales as well as its desired whole systems approach with pride, ensuring Wales is a great place to work and live. PHW [6] outline the importance of a research and evaluation environment that is thriving in attracting a diverse portfolio of investment but also, to employ the best research talents from across the globe. PHW suggest that historically there has been an under-investment in Wales in learning and development activities, and that this needs to be addressed. In line with changing services, requirements for additional skillsets within the workforce will be needed, and while these skills are evident within the workforce market, skilled workers are in demand from organisations external to the NHS [8]. Due to issues attracting/recruiting people into the NHS workforce, PHW will review current structures and care delivery models to explore opportunities to work in closer collaboration with academic partners, pooling appropriate skills to develop a more efficacious structure. They aspire to develop a working environment in which people are passionate about making a positive change within Wales [8]. The Parliamentary review [9] acknowledges the challenges of workforce shortages within Wales and identify this as a critical issue that needs urgent action. NHS Wales [10] also acknowledge the development of a sustainable workforce as a critical issue within some specialities in Wales and suggest this can be offset by utilising the workforce in a different way, using a programme of responsive action to ensure the idea of training, and working within Wales is an attractive prospect to the workforce.

1.2.4 How can the HWA Contribute to Healthcare Transformation in Wales?

This section outlines how the HWA can contribute to achieving the vision outlined for the healthcare system in Wales. This has been achieved by mapping out the vision for the NHS in Wales, the conditions needed to achieve this vision (identified in chapter 1.2.3.3), and considering how the HWA can contribute to this, based on what is known about the HWA, its aims, how it operates, and the services and skills/expertise it offers (chapter 1.1.2).

Figure 1: *The Vision for Welsh Healthcare System, how Change can be Achieved, and how the HWA can Contribute.*

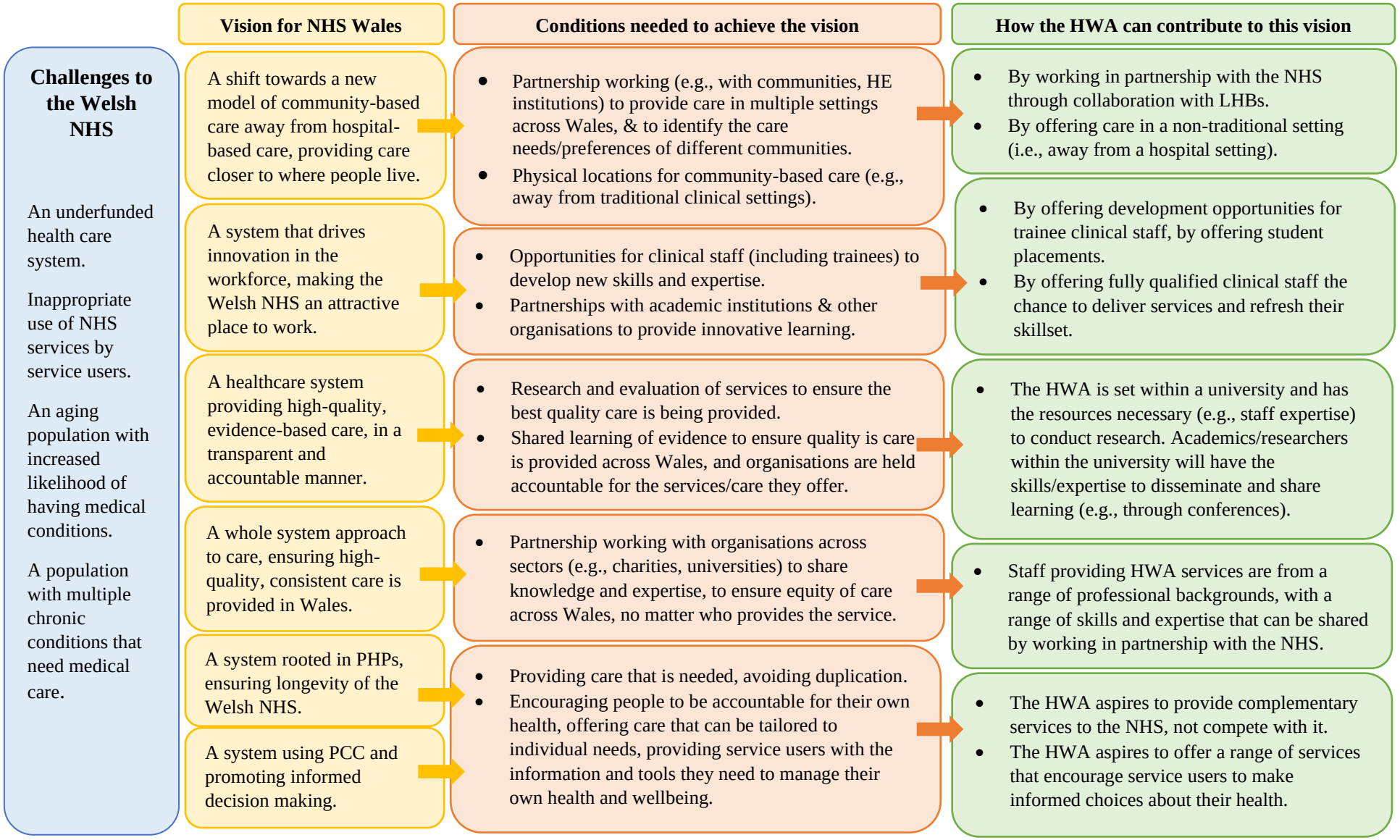


Figure 1 outlines the vision for the healthcare system in Wales, ways (conditions) this might be achieved and how the HWA might contribute to this change. In theory, the HWA is well placed to contribute to this change, facilitating many of the conditions needed to achieve the desired transformations. For example, several HWA programmes offer student placement opportunities (e.g., osteopathy, midwifery), external to an NHS environment, which can contribute to the vision of a healthcare system in Wales that drives workforce innovation. Further, SU staff delivering several HWA services are from a range of academic/professional backgrounds, with a range of skills and expertise that could be shared by working in partnership with others (e.g., the NHS). Partnership working across sectors, sharing knowledge, skills and expertise can contribute to the aim of a whole system approach to care within Wales, ensuring high quality care is provided consistently. Further as an academic institution, the HWA should be well placed to contribute to providing high-quality, evidence-based care, in a transparent and accountable manner, through research, evaluation and shared learning, due to the expertise of its staff (e.g., academics with research backgrounds and experience disseminating research findings).

To summarise, based on knowledge of how the HWA intends to operate and deliver its services (chapter 1.1.2), the HWA should be well placed to contribute to the transformation of the healthcare system in Wales. In Wales, a concept like the HWA is contextually unique, relatively new, and under-researched. To understand how the HWA 'works', why, in what context, and to explore if and how unique factors of the HWA (e.g., the expertise of SU stakeholders, the non-clinical setting) can contribute to the transformation of the Welsh healthcare system, an evaluation of the HWA was needed. While chapter 1 has provided the rationale for the implementation of the HWA, evaluating the HWA will offer insight into the processes, mechanisms, and outcomes of the initiative, and consider how the HWA fits in to local healthcare provision.

1.3 Delivering Care in an Educational Setting: The Evidence base for Student-Run Clinics in the USA and Elsewhere

Chapter 1.2 highlighted the need for a system that drives innovation in the workforce as a key element in transforming the healthcare system. As an academic institution, the HWA is well placed to offer placement opportunities for SU staff and students, while providing care for community members. However, it is unclear what other opportunities (outside of additional placement opportunities) the HWA can offer in terms of development and learning, and what impact this could have for driving innovation in the workforce. In the USA, clinics in which students provide primary care to the public are common among medical schools (Meah, Smith & Thomas, 2009), and may provide some insight into how an initiative like the HWA can develop skills and drive innovation within the healthcare workforce.

Meah et al. (2009) conducted a review exploring the effects of student-led clinics for undeserved patients (i.e., those in areas with reduced access to primary care and higher mortality rates). They found that clinics offered enhanced education for students in several areas, providing students with: 1) The opportunity to learn about important considerations including resource allocation and interdisciplinary collaboration, 2) The chance to lead clinics providing them with the opportunity to problem solve, and 3) An experiential learning environment that could help better prepare them for future clinical work. Meah at al., (2009) suggest future research should develop measures to assess the long-term effectiveness of such clinics. A systematic review by Marsh, Colbourne, Way and Hundley (2015) explored the impact of student-run clinics on educational outcomes for students, and satisfaction levels for service users. They found that clinics offered students an educational advantage, including learning in a low-stress environment, collaborating with other disciplines, and developing a greater understanding of patient's needs. Furthermore, clinics were found to provide effective care for service users, as reported by service users. Stuhlmiller and Tolchard (2015) reported learning, health outcomes and cost savings following the development of a student-run clinic in an underserved community in Australia, established as a collaboration between the university and various community organisations. Results showed improved access to culturally appropriate care for local families, with clinic days increasing from one to three days a week within the first year of service, an improvement in health outcomes for locals utilising the service and estimated cost

savings of $430,000 for local health services. Additional benefits included two-way learning between students and community members. Authors concluded that the implementation of student-run clinics have several benefits for students and service users and additionally, fulfil several government and health reform agendas.

Less is documented about the prevalence/implementation of student-run clinics within the UK. Weidmann, Pammett, Landry and Jorgenson (2015) explored whether there was a case for introducing student-run clinics within the UK and what implications this could have for pharmaceutical education within Scotland. Weidmann et al. (2015) collected data from a survey of 824 Scottish residents. Results revealed that 514 respondents would consider utilising student-led care. Respondents gave examples of the services they would expect to see from a student-run clinic, including smoking cessation, weight management and general health services. Issues raised included accessibility and the ability of students to provide care. Weidmann et al. (2015) suggested positive responses indicate that the implementation of student-run clinics would be well received.

While the HWA is not student-run, research evidencing student-run clinics as effective can be used to identify benefits to students of providing care in an alternative setting (e.g., the development of business skills alongside healthcare skills), which can be further explored in the HWA evaluation and contribute to understanding how the HWA can contribute to developing and driving innovation in the workforce.

Given current challenges to the Welsh NHS (chapter 1.2), a concept like the HWA *could* contribute to improving Welsh healthcare provision, and the HWA evaluation can offer novel insights as to *why*. Chapter 2 outlines the structure, aims, and objectives of this evaluation.

Chapter 2: Evaluation Structure, Aims, and Methodological Approach

Evaluations assess the success of a programme and can utilise several different methodologies (Barker, 2003 cited in Royse, Thyer & Padgett, 2009). Historically, evaluations focus on the impact/outcomes of a programme which by their nature, do not reflect the *processes* involved in producing those outcomes (Scriven, 1999), referred to as 'black box' evaluations; This has changed over time. Greater transparency can be gained from understanding the mechanisms of a programme and contextual factors that interact to produce outcomes, gaining an understanding of how and why programmes work in the way they do; one method that offers this is Realist Evaluation (RE; Pawson & Tilley, 1997). RE was adopted as the core methodology of this evaluation, facilitating an appreciation of the contextual uniqueness of the HWA. This chapter outlines the structure of this RE, evaluation questions and objectives, and provides a detailed outline of RE (Pawson & Tilley, 1997).

2.1 Evaluation Structure

2.1.1 Evaluation Outline

The HWA evaluation included two main components: 1) A Stakeholder Perspective Exploration, and 2) Two HWA Programme Evaluations. Multiple stakeholder perspectives were obtained across both components to inform the evaluation. The Stakeholder Perspective Exploration (SPE, chapters 3-4) consisted of two components: 1) A survey, and 2) A workshop. The insights obtained in each of these were used to inform a logic model of the HWA (chapter 4).

The two programme evaluations (chapters 5-8) utilised traditional mixed methods including interviews and questionnaires to collect data to inform a RE (Pawson & Tilley, 1997) of two HWA programmes. Data was collected from several stakeholders including Programme Architects (PAs, the people who designed the programmes), users and facilitators. For this evaluation, the term 'programme' refers to a health and/or wellbeing service offered via the HWA. Individual evaluation questions and objectives (chapter 5) were developed for the programme evaluations, which were explored alongside overarching RE questions and objectives (chapter 2.1.2.). Findings from the SPE and programme evaluations were combined to address the overall evaluation questions and objectives (chapters 8-9).

The HWA offers several programmes (chapter 1.1.2) and there were many to choose from for the programme evaluations. It was essential that the chosen programmes could provide insight about the functionality of the HWA in its entirety. Subsequently, programme evaluations considered the success of individual programmes (e.g., how they worked and why), explored whether there were specific contextual factors of the HWA including settings and resources that impacted the success of the respective programmes, and how the HWA and those programmes 'fit together' (i.e., did the programmes contribute to the attainment of HWA aims). Evaluation questions and objectives were developed to address these questions, alongside evaluation criteria to aid in the programme selection process. Evaluation criteria can be viewed in full in chapter 5, which details how each programme met the criteria. The two programmes selected were: 1) An antenatal Positive Parenting Programme (PPP), and 2) An ACT based Psychoeducation Programme (chapters 6 & 7 respectively).

2.1.2. Evaluation Aims and Realist Evaluation Questions and Objectives

The aim of this evaluation was to assess the HWA's progress towards the attainment of its aims, values, and mission statements. RE (Pawson & Tilley, 1997) poses specific questions (chapter 2.2.2) that were utilised to develop evaluation questions and objectives (figure 2). The theory and methods used within RE (Pawson & Tilley, 1997) and the rationale for its use in this evaluation are presented in chapter 2.2.2.

Figure 2/. *RE Questions and Objectives (adapted from Pawson & Tilley, 1997)*

Q1: Does the HWA work?	**Objective 1**: To identify whether the HWA is offering the service it set out to offer and to what extent. **Objective 2**: To determine and define the 'value' of the HWA in the larger context of local healthcare provision, identifying whether the HWA adds to local healthcare provision and in what ways?
Q2: For whom does the HWA work & in what ways?	**Objective 3**: To identify the reach of the HWA and its programmes. **Objective 4**: To identify the outcomes/impacts for HWA programme users and other stakeholders, including SU staff and students.
Q3: In what circumstances/ context does the HWA work & why?	**Objective 5**: To identify resources of the HWA/HWA programmes and the responses to these (*mechanisms*) that elicit outcomes for its stakeholders. **Objective 6**: To identify contextual factors of the HWA/HWA programmes that interact with identified mechanisms to produce outcomes for its stakeholders.

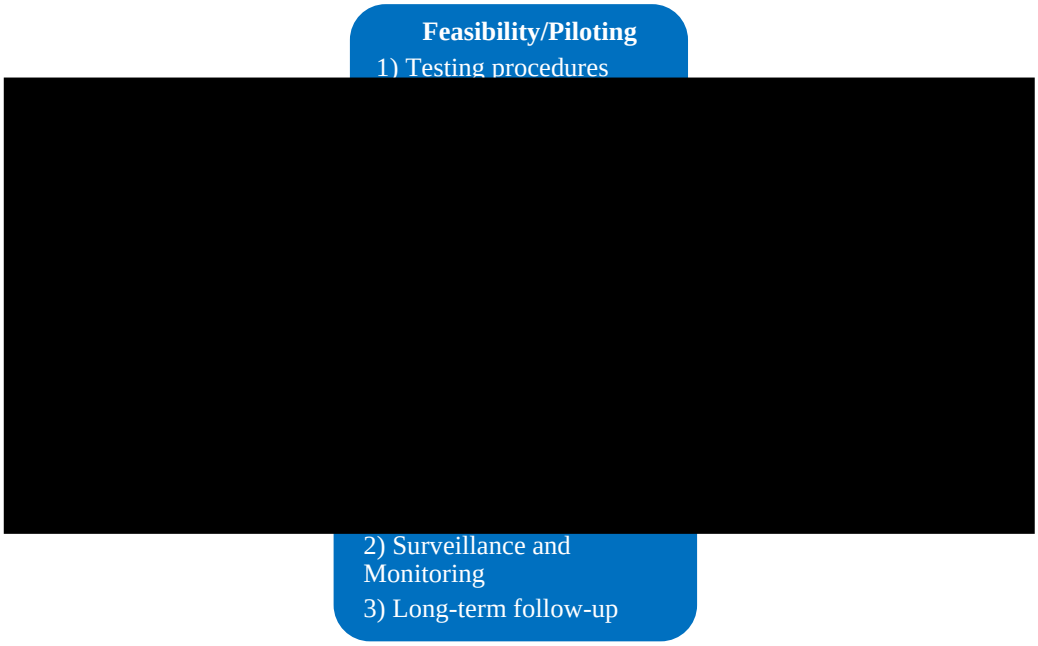
2.2 Evaluative Methodology: Rationale, Theory and Methods

This section outlines Medical Research Council (MRC) guidance for evaluations and introduces the evaluative methodology used in this evaluation, RE (Pawson & Tilley, 1997).

2.2.1 Complex Interventions: MRC Guidance

Craig et al., (2008) describe complex interventions as those, *"that contain several interacting components" (p.1)* and several dimensions of complexity. Complex dimensions refer to components of the programme itself, outcomes (e.g., how many outcomes are expected and how these are measured) or variance within the target population (e.g., do service user characteristics vary in a way that could impact intervention effectiveness). Subsequently, it can be difficult to differentiate between complex and simple interventions (Craig et al., 2008). Complex interventions are common within the healthcare sector and present several issues for those evaluating them thus, the MRC (Craig et al., 2008) outline a framework for evaluating complex interventions, that is sensitive to the nature of such interventions (figure 3).

Figure 3/. *MRC Evaluation Framework for Complex Interventions*



Note/. *Figure replicated from Craig et al., (2008, p.8)*

MRC guidance (Craig et al., 2008) outlines how to develop and evaluate complex interventions. Guidance suggests interventions should be grounded in evidence-based

theory and that an early understanding of the causal mechanisms of change within an intervention are pivotal to predict its success. Programme developers are recommended to conduct a thorough literature review and interview a range of stakeholders during programme development (Craig et al., 2008). The framework suggests researchers should consider who the target population is and in what context the intervention will take place during the development phase, suggesting that context is important for the implementation and evaluation of complex interventions. Regarding evaluation, the MRC (Craig et al., 2008) suggest that complex interventions should be assessed first for feasibility and then piloted before the evaluation is scaled up.

Several methodologies exist for the evaluation of healthcare interventions. One of the most applied designs are Randomised Control Trials (RCTs). RCTs are deductive in nature, utilising strict methods to illicit expected outcomes via experiments that have been derived from theory (Cartwright, 2007). Considered the 'gold standard' of research methodologies for many years (Bothwell, Greene, Podolsky & Jones, 2016) RCTs have come under scrutiny, with some expressing concern over their limited focus on measuring outcomes (Cartwright, 2007), rarely considering how or why outcomes are produced (e.g., the 'black box' of evaluation).

The HWA can be considered as 'complex' for several reasons: 1) The HWA offers services for a range of healthcare needs addressed through a range of interventions, 2) HWA programmes are delivered by a range of professionals including SU staff and students with varying experience and expertise (e.g., antenatal classes co-facilitated with 2nd and 3rd year students), and 3) The alternative care provision setting of a university campus may impact/contribute to stakeholder outcomes. Little is known about the outcomes the HWA may produce, how and why and therefore, it was essential to adopt a methodology that was highly sensitive to context, to unpick these questions within this evaluation.

2.2.2 Realist Evaluation

2.2.2.1 Overview

RE is a theory driven method often used to evaluate social programmes including healthcare interventions (Pawson & Tilley, 1997). RE has roots in critical realism and aims to answer the following questions during evaluation:

> *What works for whom in what circumstances and in what respects, and how (Pawson & Tilley, 2004, p.2)*

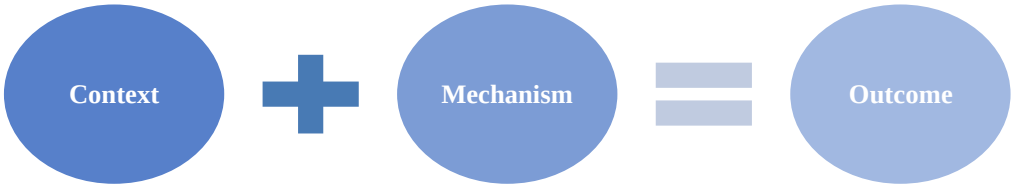
RE explores what it is about a programme that brings about change (Pawson & Tilley, 2004) and has methods for dealing with the influence of contextual and heterogeneous factors, and the scope to provide answers about why interventions work, allowing for causal inferences to be made (Pawson & Tilley, 2004). Consequently, RE is useful in understanding why an intervention may produce dissimilar outcomes when implemented in different settings or for different people (Doi, Jepson & Cheyne, 2015), and is useful for evaluating the effectiveness of programmes designed for delivery in specific settings.

Programme Theory (PT), a central component of RE, refers to the theory behind why a programme should work (Pawson & Tilley, 2004). In RE, PTs should be Middle Range Theories (MRTs), which Merton and Merton (1968) define as those:

> *that lie between the minor but necessary working hypotheses that evolve in abundance during day-to-day research and the all-inclusive systematic efforts to develop unified theory that will explain all the observed uniformities of social behaviour, social organisation and social change (p. 39)*

MRTs are developed over time, considering both established social theories and observations typically gained through empirical research methods. MRTs are useful when it comes to RE as they are specific enough in nature to be tested but also general enough that they can be applied in different circumstances or contexts, important to RE (Merton & Merton, 1968). PTs are developed by creating CMOCs (Context + Mechanism = Outcome Configurations) derived from the evaluation, design, or implementation of a programme (Pawson & Tilley, 2004). In this evaluation, *'if'* and *'then'* statements will be used within CMOCs to highlight the interactions between contextual factors and mechanisms (e.g., Bunn et al., 2017; Pearson et al., 2015).

Figure 4/. *CMOC Diagram*



To better understand how CMOCs are developed to inform PT, it is necessary to understand what is meant by the individual components.

Mechanisms

Identifying mechanisms enables the researcher to answer what it is about a programme that may bring about change. According to Pawson and Tilley (2004):

> *Mechanisms describe what it is about programmes and interventions that bring about any effects…(and) are often hidden (p.6)*

Pawson and Tilley (1997; 2004) reason that it is not a programme that 'works' but rather, the resources a programme offers to its users that allow for a change to occur, and that it is how a person makes use of the resources made available to them that in turn influence outcomes. Put simply, mechanisms refer to the reasoning behind a person's response to the resources on offer to them (Pawson & Tilley, 1997). For example, in a smoking cessation intervention, attendees could be presented with accounts from individuals that have successfully quit smoking (*resource*). One attendee may see similarities between themselves and that individual and be inspired to quit smoking (*mechanism reasoning*). However, individuals can be provided with the same resource and reason with it in a different way, producing a different outcome. Pawson and Tilley (1997) suggest that 'the right conditions' are required for change to transpire which they refer to as context, thus suggesting that mechanisms are dependent on context.

Context

Pawson and Tilley (2004) define context as:

> *Those features of the conditions in which programmes are introduced that are relevant to the operation of the programme mechanisms (p.7)*

Contextual factors help to understand 'in what circumstances' a change occurs and thus, can impact the outcomes produced by either supporting or hindering a

mechanism (Pawson & Tilley, 2004). For example, consider an intervention aiming to increase breast self-checking behaviour among young women. A resource could include a demonstration from the programme facilitator on how to self-check correctly (*resource*). This demonstration may increase an individual's beliefs about their ability to self-check correctly, as the process may be easier than they originally thought (*mechanism reasoning*). A contextual factor that could support or hinder this reasoning is the delivery style of the programme facilitator. For example, a reassuring and positive facilitator could instil confidence among attendees, successfully engaging them with the behaviour change. Conversely, a facilitator who seemed disinterested or unapproachable, may not instil confidence among attendees to partake in the behaviour change. To summarise, contextual factors influence mechanisms which in turn impact programme outcomes.

Pawson and Tilley (2004) identify several issues in relation to the term 'context'. Firstly, they stress the importance of differentiating between context and location, stating that context can refer to many factors including relationships and economic conditions and are not restricted to physical location. Similarly, they suggest that generic demographic characteristics including gender and age cannot truly capture what is contextually important to a programme and believe it paramount that the above points are considered during evaluation, to ensure researchers capture important contextual factors (Pawson & Tilley, 2004).

Outcomes

In RE, outcomes refer to responses elicited due to a programme (Pawson & Tilley, 1997). Healthcare programmes are often complex and can be implemented in more than one place, to more than one population, in more than one context and consequently, varying contextual factors and mechanisms can interact to produce several outcomes at individual and group levels (Pawson & Tilley, 2004).

Outcomes include those that are expected and those that are not (Pawson & Tilley, 2004). For example, in a breast self-checking behaviour intervention, an increase in self-checking behaviour would be an expected outcome. An unexpected outcome could include the adoption of another healthy behaviour (e.g., smoking cessation). Pawson and Tilley (2004) make an important distinction between outputs (the intended targets of an intervention) and outcomes, which they describe as targeted changes in

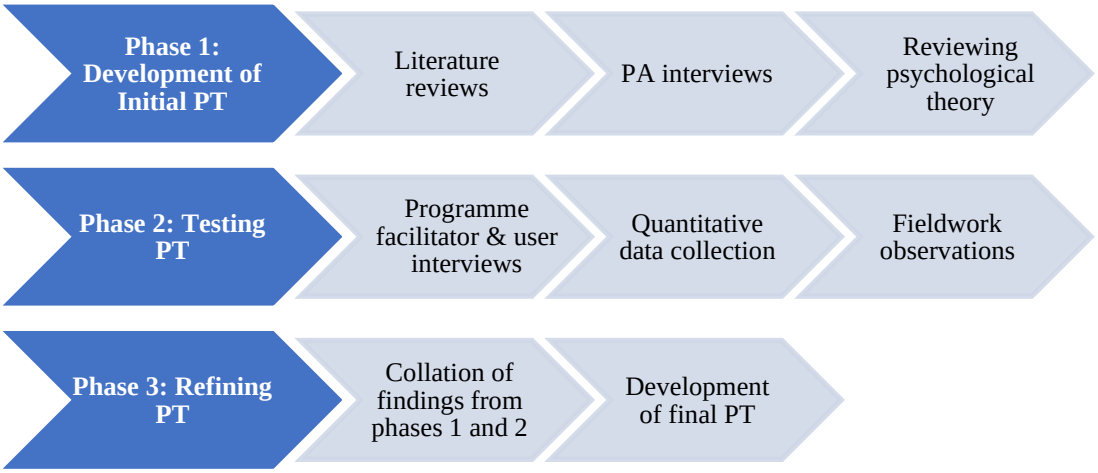
behaviour. In RE, outcomes can be captured in several ways, using quantitative, qualitative and/or observational methods.

2.2.2.2 Use of RE in the Current Evaluation

All three CMOC components are equally important in understanding how a programme works. RE is an iterative methodology (Pawson & Tilley, 2004) and CMOCs are developed, tested, and refined over the course of an evaluation, often in a few pre-set phases.

This evaluation was split into three sections, the Stakeholder Perspective Exploration (SPE) and two programme evaluations. The programme evaluations used traditional data collection methods including interviews and questionnaires to collect data from a range of programme stakeholders, adopting a three-phase RE approach (figure 5) to enable the primary researcher to develop, test and refine PTs for both programmes. The SPE did not utilise a RE approach.

Figure 5/. *The Three-Phase RE Approach used in the Programme Evaluations*



Note/. *The phased approach utilised in this study was informed by the work of Ranmuthugala et al. (2011) who drew upon the RE cycle outlined by Pawson and Tilley (1997).*

Phase one involved conducting literature and psychological theory reviews, and PA interviews to develop an initial PT of the HWA programmes. Developing initial PT provided insight as to how the programmes should work and why in the context of the HWA, highlighting expected outcomes by combining insights from the evidence base and PAs. Phase two involved collecting data via traditional methods (e.g., interviews and questionnaires) to test the PT developed in phase one, exploring whether the

programmes worked in the ways they were expected to as outlined in initial PT. Phase three involved comparing findings and PTs from phase one and two to inform the development of the final PT for both programmes, outlining how they 'worked' and why in the context of the HWA. PTs from each evaluation were then considered alongside each other, and the findings from the SPE, to address the overall RE questions and objectives (chapters 8 & 9).

2.3 Concluding Comments

The NHS faces several challenges including inappropriate use of services, a funding gap, an ageing population, and an increase in co-morbid conditions among other factors (e.g., Smith et al., 2014; Watt & Roberts, 2016). Within Wales, complex issues including a higher prevalence of poor physical health (Edwards, 2015) and challenges to the NHS including an increased demand on underfunded services (e.g., Welsh NHS confederation, 2017), means there is a need for a transformation within Welsh healthcare provision. Chapter 1.2 outlined the vision for change in the Welsh healthcare sector (e.g., shifting towards community-based care, offering care in line with PHPs) and demonstrated how the HWA may offer a viable and valuable contribution to the transformation needed within local healthcare provision (e.g., offering care in an alternative setting to the NHS, reducing pressures on an already stretched service). Due to its university setting, the HWA may be particularly well-placed to contribute to the development of and innovation within the healthcare workforce for example, by offering students the opportunity to learn about the business side of healthcare (e.g., resources allocation, Meah et el., 2009). Due to the uniqueness and newness of the HWA, it was important to utilise a methodology to evaluate the HWA that could unpick what it is about the HWA that works and why. RE (Pawson & Tilley, 1997) considers the contextual factors and mechanisms that are pivotal in producing programme outcomes and therefore, was utilised in this evaluation.

Prior to exploring findings from the HWA programme evaluations, it is beneficial to consider findings relating to the HWA in its entirety. Therefore, the SPE is presented first in chapters 3 and 4, followed by the programme evaluations in chapters 5-8.

Chapter 3: The Stakeholder Perspective Exploration: Stakeholder Survey

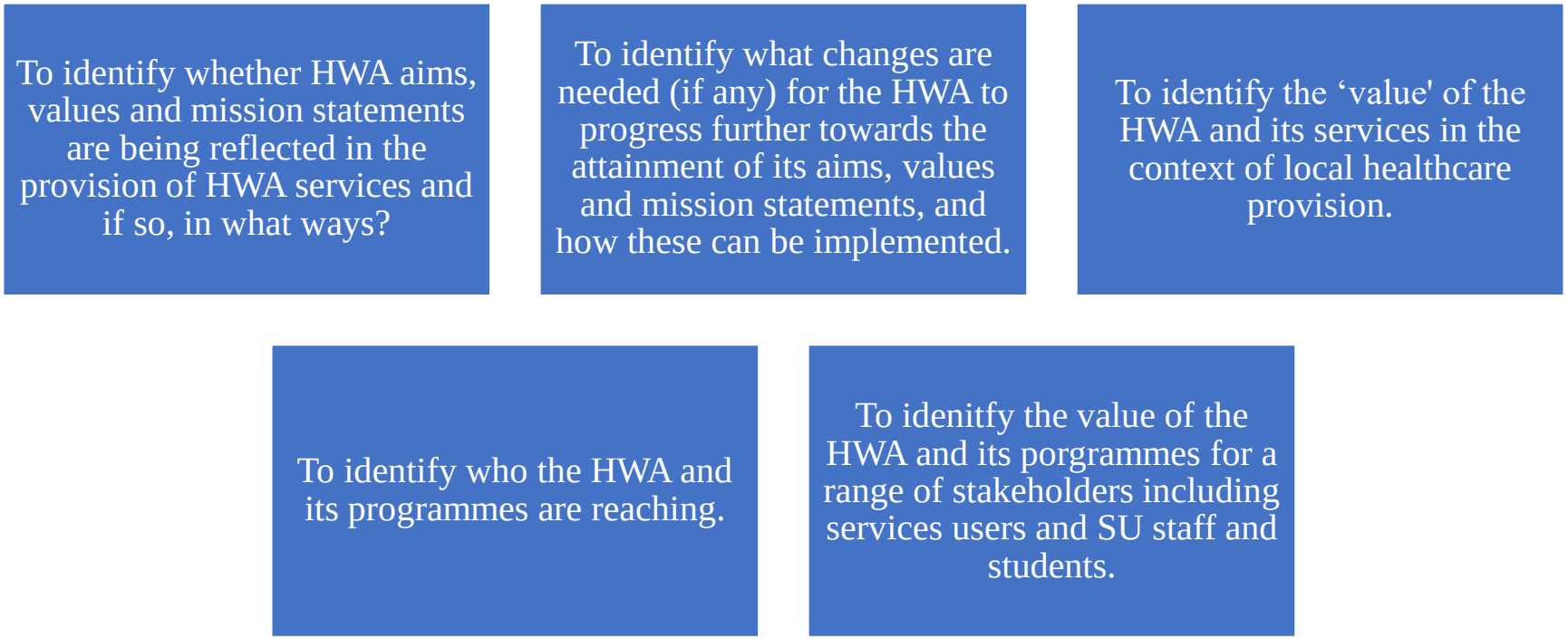
This chapter reports the aims, methods, and findings from the stakeholder survey, the first component of the Stakeholder Perspective Exploration (SPE).

3.1 Rationale, Aims, Questions and Objectives

Complementing the programme evaluations, the wider impact of the HWA was captured through the SPE, including the stakeholder survey. The purpose of the survey was to identify the extent to which HWA programmes were contributing to the attainment of HWA aims, and to explore the scope and impact of the work being achieved by the HWA and its programmes. By gaining insight from a range of HWA stakeholders, the primary researcher could better understand which areas of the HWA were/were not performing 'well' in relation to HWA aims and why.

RE questions and objectives for the overall project are outlined in figure 2 (chapter 2.1.2). Figure 6 outlines stakeholder survey specific objectives.

Figure 6/. *Stakeholder Survey Objectives*



In this evaluation, the term 'value' can be understood as the level of importance that the HWA or one of its programmes has for the individual, group, or organisation in question. A survey was disseminated to HWA stakeholder to explore the objectives outlined in figure 6 via the methods outlined below.

3.2 Methodology: Stakeholder Survey

3.2.1 Ethical Approval

Ethical approval to collect data was obtained from SU's College of Human and Health Sciences Research Ethics Committee (CHHS REC) in December 2017 (appendix A).

3.2.2 Design

The HWA is relatively new, and little is known about 'what works' or 'why' for the HWA. Consequently, this component of the evaluation was exploratory, utilising an open-ended, qualitative, e-survey to gain insight from HWA stakeholders to answer objectives outlined in figure 6.

3.2.3 Respondents

The target sample were stakeholders (both internal & external to SU) involved with the HWA/HWA programmes in one of the following capacities: 1) Management, 2) Programme leads and facilitators, 3) Those involved with implementing the HWA at SU, and 4) Any other HWA staff. Respondents were aged 18 or above and no other inclusion or exclusion criteria were specified. Respondents were part of a purposive sample, facilitating the exploration of the set evaluation objectives.

3.2.4 Materials

Information sheets (appendix B) were circulated to respondents with initial recruitment emails and embedded in the survey. Information sheets outlined information including the purpose of the survey and ethical rights. Debrief sheets (appendix C) were embedded at the end of the survey and outlined information including withdrawal procedures and contact details for the primary researcher. Consent forms (appendix D) were embedded into the survey which was programmed so participants could answer the survey if they did not agree to all consent statements. The e-survey (appendix E) included open-ended questions requiring a qualitative response. The survey was created using online survey software Qualtrics© (https://www.qualtrics.com). Questions were designed to explore evaluation

objectives and largely, asked participants to comment on the progress of the HWA/its programmes towards the attainment of HWA aims, values and mission statements.

2.2.5 Procedure

The primary researcher liaised with the HWA Director to identify the target sample. A recruitment email was drafted by the primary researcher and sent to the HWA Director who circulated it to potential respondents (*n*= 69) alongside information sheets and survey links. The decision was made for the HWA Director to circulate recruitment emails as they had access to the target sample (i.e., could identify and had email addresses for potential respondents) and were known to the target sample. To improve response rates, the recruitment email was circulated three times. Data was exported from Qualtrics© three months after final recruitment emails were circulated for analysis. Data was downloaded onto a password protected university computer and backed up on the student P:\ drive. Responses were anonymised and data was collated in Microsoft Word©.

2.2.6 Methods of Analysis

Due to the nature of data collected (relatively short qualitative answers), formal analysis such as Thematic Analysis (Braun & Clarke, 2006) was not appropriate. Therefore, a more informal, light-touch approach to analysing the data was adopted. For section 1, answers were tallied, and the frequency of responses reported and discussed. For sections 2-6, answers were read, and short narratives that reflected the data were developed.

3.3 Findings

3.3.1 Respondent Characteristics

Overall, 23 respondents opened, 15 started (e.g., answered job role questions) and eight finished (provided at least some answers to main questions) the HWA stakeholder survey. This means that just 33% of the target sample opened, 22% engaged with (i.e., started) and of these, 53% finished the survey. Of the respondents who finished the survey, three were involved with delivering individual HWA programmes, one with marketing and recruitment strategy, one was an SU academic, one a patient involved with the development of the HWA and two chose not to give their HWA associations. Of the respondents who finished the survey, four had

worked/been associated with SU for 10+ years, three for 1-2 years, and one for 2-3 years.

3.3.2 Survey Section 1: Aims, Values, and Importance

Survey section 1 sought to identify:

1) The level of understanding and knowledge about HWA aims and values among HWA stakeholders
2) Whether the importance of specific aims and values differed among stakeholders and why

Responses were grouped into three main categories: patient, service and university related aims and values. Responses are discussed below.

Main Goals/Expectations of the HWA

The most frequently cited HWA goals related to development experiences of students and providing health and wellbeing services for people in the community (both mentioned by 75% of respondents). The opportunity to undertake and/or publish quality research was also noted by 62.5% of respondents. Generally, responses to question 1 confirmed respondents had a comprehensive knowledge of existing HWA aims.

Main Values of the HWA

Respondents identified several HWA values that could be categorised as either patient, university or service related. Respondents demonstrated an awareness of the potential impact of the HWA for a wide range of stakeholders including SU staff and students as well as service users, contributing towards the goal of 'delivering a sustainable, skilled workforce fit for the future'. While this would be an aim of most health care services, the HWA is well-placed to facilitate this, due to its unique setting in an educational institution, facilitating the provision of development opportunities for future Health Care Professionals (HCPs) and utilising the expertise of academic staff in producing research that can influence future provision and policy.

Importance of Goals, Expectations and Values

Responses for question 3 were not biased towards a specific aim or value and were somewhat evenly split among those identified. This suggests all HWA aims and values were considered of equal/similar importance among respondents.

Concluding Comments

Responses to section 1 demonstrated that HWA stakeholders held a comprehensive knowledge of HWA aims and values. Responses to section 1 provided context for responses to later survey sections for example, if respondents were not aware of particular HWA aims, it may explain why they were not being *discussed* by respondents in later sections.

3.3.3 Survey Sections 2-6: Attainment and Progress Towards HWA Aims, Values, and Mission Statements

Survey sections 2-6 aimed to determine the progress of the HWA and its programmes towards achieving its aims, values, and mission statements. Each section focused on one or more specific HWA aims, values, or mission areas. Findings are supported with anonymised respondent quotations.

Section 2: Positive Lifestyle Choices, Informed Health Care Options and Early Diagnosis

Section 2 asked respondents four questions (figure 7) relating to the HWA aim of "*improving the health and wellbeing of its users"* by promoting positive lifestyle choices, fostering informed health care options, and offering early diagnosis. In total, eight respondents provided answers for section 2.

Figure 7/. *Stakeholder Survey Section 2 Questions*

A. In your opinion, does the Health and Wellbeing Academy facilitate its users being able to make informed and positive lifestyle choices?
B. In your opinion, is there anything more that the Health and Wellbeing Academy could do to facilitate users making informed and positive lifestyle choices?
C. In your opinion, do the services on offer support the Health and Wellbeing Academy's aim to facilitate early diagnosis?
D. In your opinion, is there anything more the Health and Wellbeing Academy could do to facilitate early diagnosis?

Most respondents agreed the HWA facilitates the formation of informed, positive lifestyle choices among service users, with some providing examples of how this is being achieved:

> *[the HWA] Osteopathy clinic. Service users can utilise the service as opposed to accessing GPs and being referred into the NHS system. They are given advice on lifestyle changes and where appropriate offered early diagnosis (R3)*

Some respondents suggested that the introduction of support sessions for issues including alcohol intake, smoking and weight management could better facilitate the

formation of positive, informed lifestyle choices among HWA service users however, acknowledged issues with implementing additional services including the need for better marketing and being under-resourced in terms of money, space, and staff. Importantly, one respondent emphasised the role of the service user in successfully promoting informed and positive lifestyle choices, suggesting that while the HWA can provide the resources needed, its *"down to the users to act on the information provided to them" (R2).*

Consensus among stakeholders was that the HWA has acted upon its aim to promote positive, informed lifestyle choices among service users, with the osteopathy clinic highlighted as particularly effective. However, stakeholders failed to provide specific examples of other services contributing towards this aim. This is not to say other services were not contributing to this aim, just that stakeholders were not aware of such services.

Respondents were asked whether HWA services support the early identification and diagnosis of health and/or social care conditions and whether the HWA could do more to facilitate this. While responses were mixed, three respondents suggested that one service has contributed significantly towards this aim, for example:

> *I believe they do especially within [the] cardiology service (R3)*

> *To some extent [cardiology's] work has been very impressive (R8)*

From the responses provided, it was unclear whether services other than cardiology were actively contributing to the attainment of this aim. Respondents suggested the HWA could do more to work towards this aim for example, actively promoting an awareness of early warning signs within the university and local community, collaborating with the NHS, and engaging in cross-referral among services. Interestingly, one respondent suggested that chasing this aim was not imperative, as it would detract from more important priorities:

> *if we committed more time to it, it would detract from our primary reason for working in the university (R5)*

Overall, responses suggest that some services over others are contributing more so to aims explored in this section, and there is variation among services as to the amount of focus that each is allocating towards the attainment of specific HWA aims.

Section 3: The Provision of Complementary and Evidence-Based Services

Section 3 asked respondents three questions (figure 8) relating to the HWA goal of offering *"services that are complementary to the services offered through local NHS facilities"*[4] and services that are evidence-based. In total, seven respondents provided answers for section 3.

Figure 8/. *Stakeholder Survey Section 3 questions*

A. In your opinion, do the services on offer at the Health and Wellbeing Academy differ/provide services that are complementary to those on offer through the NHS? If so, please explain in what ways/how this is achieved. *(You can focus on a specific service if you wish but please specify which one)*
B. Are there any services at the Health and Wellbeing Academy that you feel do not need to be on offer and why? (Please specify which services)
C. Are there any services that you feel need to be on offer through the Health and Wellbeing Academy to complement those on offer through local NHS services?

Overall, respondents agreed the HWA offers services complementary to the NHS, offering examples including osteopathy, bereavement care, and cardiology services. One respondent suggested that beneficial results of offering complementary care via the HWA are already being observed:

> *services have been proven to reduce waiting lists, so people are obviously finding the HWA valuable (R1)*

Three respondents provided examples of how HWA services go beyond offering complementary care and offer services that enhance local NHS provisions, for example:

> *service(s) I have been able to provide there add to the provision available in the NHS as it allows us to write, deliver and evaluate the service alongside academic colleagues. This adds a new skill set which ultimately benefits the service users (R6)*

> *I can only speak about the [bereavement] work. Specific bereavement care is not provided for children and young people or parents in the NHS. They can access a general counselling service but only if this is diagnosed as a medical issue. Thus, we provide a service that is not complementary to the NHS rather one that is additional (R5)*

Six respondents offered suggestions of additional services the HWA could offer to complement the NHS, including mental health support services. One respondent

[4] While not explicitly outlined in official HWA values, providing services that are complementary to the NHS is referenced within ARCH documentation and on the HWA web page. The notion of complimenting the NHS can speak to value 2 (table 1, chapter1) of 'focusing on the needs of our population'

discussed services that would complement the NHS but also, be useful for university staff and students:

> *maybe someone coming in to do Weight Watchers or Slimming World for staff and students and perhaps the facilitation of a walking group or links to the sports centre or yoga (R2)*

A unique aspect of the HWA is its university location and therefore, SU staff and students are one of its key audiences. The addition of services provided specifically for SU staff and students is a logical and interesting suggestion. HWA aims address the benefits of HWA services for student and staff development, but not their wellbeing, which is something that could be considered. While stakeholders had several ideas for new HWA programmes, similar programmes are available elsewhere in the university (e.g., yoga classes) and the HWA aspires to be complementary not competitive.

One participant discussed the importance of building links in the community when introducing new services:

> *there is scope to look at making more links with community partners (local maker spaces, community connectors, volunteer co-ordinators) (R6)*

A value of the HWA is, "working together to enrich lives" therefore, the suggestion of collaborating with community partners is interesting and an action that would be representative of this value. The same respondent felt it would be beneficial to introduce more services utilising student delivery, in keeping with the aim of enhancing student opportunities:

> *There is scope to develop wellbeing services and to make more use of student skills to support this (R6)*

Respondent commentary suggests the HWA is staying true to its aim of offering programmes complementary to the local NHS and in some cases (e.g., bereavement care), providing programmes for previously underserved groups. Respondents identified 'gaps in the HWA market' for new programmes and displayed enthusiasm for the development of the HWA going forward. Generally, respondents agreed that available HWA programmes are appropriate however at times, knowledge about the services on offer was limited. For example, one respondent discussed a programme

they felt might was not needed at the HWA but also admitted that they did not know what the programme offered. HWA programmes are advertised via several sources (e.g., the HWA website, leaflets, university email). Therefore, if stakeholders are not aware of certain programmes or what they offer, it is not clear whether this is due to stakeholders not engaging with HWA advertising materials, or whether HWA advertising and awareness attempts do not go far enough.

Section 4: The HWA Setting

Section 4 asked respondents three questions (figure 9) relating to the location and atmosphere of the HWA. Overall, eight participants provided answers for section 4. It is important to note that RE distinguishes between context and location. This section asked questions relating to both the physical location and attributes of the HWA (question a) alongside questions about atmosphere and other contextual factors (questions b and c) of the HWA.

Figure 9/. *Stakeholder survey section 4 questions*

A. With regards to the location of the Health and Wellbeing Academy, please state what you do and do not like? (Please include comments about the physical building as well as its location)
B. Do you think the atmosphere of the Health and Wellbeing Academy differs from other health services you have visited? If so how and why do you think this is?
C. Do you think the staff and students working with the Health and Wellbeing Academy provide anything extra to the service user experience and if so, what?

Generally, respondents held positive views of the HWA building and its campus-based location. Positives discussed included ease of access for service users (e.g., a ground floor building), spacious rooms and proximity to the local hospital resulting in ease of access for clinicians. One respondent discussed the benefits of a campus-based location in relation to student recruitment:

> *[it's] great to have the facilities on campus, and it's a real bonus for student recruitment activities (R1)*

Three respondents discussed the aesthetic of the academy and overall, views were positive. Respondents described the academy as nice, clean, calming, and modern. Two respondents outlined a drawback of the university location namely, the lack of available parking. RE makes a distinction between location and context, stating that location alone cannot capture the important contextual factors that interact with mechanisms of change to produce programme outcomes. However, it is important to consider characteristics *attributed* to location (e.g., parking) as these could play a part

in a service users' overall impression of a programme. For example, if a patient suffers with chronic pain and wants to utilise the HWA osteopathy programme, limited parking might create an accessibility barrier. Other identified areas for improvement related to physical attributes including a lack of signposting to the HWA from main university buildings.

Respondents were asked to compare the atmosphere of the HWA to other health services they were familiar with (e.g., hospitals). Four respondents suggested the atmosphere of the HWA was in some way improved compared to other health services, commenting on the nice atmosphere, friendly staff, and uniqueness of the HWA as a venue for healthcare provision. Providing examples of how the HWA atmosphere is better than that of some other services, respondents focused on how the HWA differs from more traditional, often clinical environments, producing a nicer atmosphere for service users:

> *I like the layout. It gives a professional atmosphere without being too clinical (R2)*

> *I feel the atmosphere is very different to other healthcare services such as hospitals and GP surgeries. Patients have commented on how calming and reassuring the environment is. I think this is due to the nature of it being housed within a university as opposed to a hospital and the fact staff are a good mixture of clinical and academic backgrounds (R3)*

> *It definitely looks cleaner and fresher than a surgery or hospital (R1)*

Three respondents gave ambivalent answers, stating there was no difference, or it would depend on the service the HWA was being compared to. Two respondents gave suggestions as to how the atmosphere of the HWA could be improved, including the addition of music in reception and an improvement in service user interactions with front of house staff:

> *From personal experience, front line reception staff have a tendency to be "heads down" rather than greeting visitors as a focus" (R7)*

Generally, respondent commentary supported the idea that the HWA as a venue is unique, offering a calming, professional and inviting atmosphere compared to more traditional venues (e.g., hospitals), suggesting there are indirect benefits of providing healthcare in an alternative setting.

One aim of the HWA is to enhance learning and development opportunities and consequently, several services are facilitated by SU staff and students. Respondents were asked whether in their opinion, the use of SU staff and students within HWA services offered anything extra to the service user experience. Most agreed that they do and most notably, respondents spoke favourably about student involvement:

> *Students give a fresh perspective and are exciting and new with their service delivery (R3)*

> *They add value by bringing new ideas, enthusiasm, and time. They also benefit and learn new skills which increases the talent pool in Wales (R6)*

> *I think service users like being seen by students as they feel like they're helping students learn and develop (R4)*

One respondent suggested students could improve upon their interactions with service users to enhance the experience in the future:

> *Students could provide more background knowledge about their involvement. I think that would add to the experience for service users (R1)*

Generally, respondents gave favourable opinions of staff, suggesting their colleagues were welcoming, informative, and offered a fresh and exciting perspective on service delivery for users. It is important to note this perspective is fundamentally a peer perspective (i.e., members of SU staff commenting on their colleagues) and therefore, may be biased.

Generally, the university location of the HWA appears beneficial for a few reasons. For example, stakeholders suggest the non-clinical environment of the HWA has a positive impact on service user experience and the university location facilitates the involvement of students within HWA services, who appear to be highly regarded by stakeholders and whom they believe add something extra to the service user experience.

Section 5: Increased Learning, Development and Teaching Opportunities

Section 5 asked respondents two questions (figure 10) relating to the HWA value of "*increasing opportunities for students at Swansea"*. In total, seven respondents answered section 5.

Figure 10/. *Stakeholder Survey Section 5 questions*

A. In your opinion, has the Health and Wellbeing Academy (so far) increased opportunities for student learning/development? Please explain how.
B. In your opinion, is there anything more the Health and Wellbeing Academy can be doing to improve learning/development opportunities for students?

Six respondents indicated the HWA has increased student learning/development opportunities or is showing promising signs in doing so; one respondent was unable to comment. Respondents recorded several benefits of HWA involvement for students including increased opportunities for clinical placement and multi-disciplinary learning:

> *Opportunities have increased with students being able to access multi-disciplinary observations (R3)*

Respondents suggested students from certain disciplines, including osteopathy and cardiology benefit more from the HWA than other students and that access to opportunities for other students could be improved. Respondents suggested benefits of student engagement within specific services, for example:

> *Our groups invite a limited number of students to help provide the service. They really enjoy the work and find it very rewarding and a good learning experience (R5)*

Students on health-related courses engage with clinical placements as part of their course requirements which take place in several settings including the local hospital. One respondent discussed how the HWA has provided students with an enhanced learning experience compared to previous years before the implementation of the HWA:

> *There are extra services available that students did not have the chance to take part in before the HWA existed, which adds to their student experience. The environment also gives students a chance to improve their employability skills by working in a business rather than a health board (R1)*

The same respondent highlighted the benefits of the HWA for future students:

> *It's also provided a great location for student recruitment, for future students to experience activities before deciding on Swansea. The services are award winning too – which adds to the prestige that students can benefit from (R1)*

Respondents were asked whether the HWA could do more to improve student development. Four respondents suggested there was scope for the HWA to expand student involvement, with several highlighting ways this could be approached:

> *As the Health and Wellbeing Academy develops and expands there will no doubt be more opportunities for placements and for students to design their research projects (i.e., MSc dissertations around the work in the academy) (R6)*

> *I guess we all could think of other possibilities. I keep wondering about mental health groups or options, but again in terms of expectations it really needs properly looking into first (R2)*

> *There should be a clear list of opportunities for students to get involved in. For example, watching another discipline, sitting in with [redacted] healthcare etc. Currently a student wouldn't know this is an option, or what is on offer for them to get involved in (R4)*

Overall, respondents agreed the HWA provides students with increased and sometimes enhanced placement opportunities in comparison to previous cohorts (before the HWA). Furthermore, respondents proposed that HWA student placements offer an attractive prospect to potential students. Respondents were aware of current limitations and believe that the HWA could implement better strategies to promote student involvement with the HWA.

Section 6: Research Excellence

Section 6 asked respondents two questions (figure 11) relating to the HWA aim "*to provide excellence in research"*. In total, seven respondents provided answers for section 6.

Figure 11/. *Stakeholder Survey Section 6 Questions*

A. Do you think the Health and Wellbeing Academy has provided the University with an added opportunity to conduct top quality research? Please explain your answer.
B. Do you think it is important to conduct research on/within the Health and Wellbeing Academy and why/what will this achieve?

Respondents were asked whether they thought the HWA provides the opportunity to conduct top-quality research. Four respondents suggested the HWA has increased research activities, with an increase in access to patient groups highlighted:

> *Yes, as there is access to a wide variety of patients presenting with a variety of symptoms/issues which university researchers haven't had access to before (R1)*

> *the opportunities are there to collect good research due to the fact they have direct access to a number of patients on a daily basis with a wide range of ailments (R3)*

One respondent noted that research is important to service users as well as staff, stating they have received numerous enquiries about HWA evaluation. Two respondents acknowledged ongoing research at the HWA, but would not necessarily class this as top-quality, for example:

> *I'm not sure about 'top-quality' research, but certainly increased research and audit opportunities. I have been able to write posters involving work with the HWA (R4)*

One respondent suggested more action is needed to push research activity at the HWA. Another discussed the value of research opportunities that the HWA has afforded them personally:

> *it has allowed me to develop links with [an SU academic] and together we have been able to integrate theory and practice, co-write and facilitate interventions, publish papers and apply for grants. This collaboration has been exceptionally beneficial for [a local health board] and our service users. It had also taught me a lot (R6)*

Respondents were asked to comment on the importance of conducting research within the HWA and the impact this could have. Respondents agreed it was important that the HWA conduct research for several reasons. For example, respondents discussed the benefits of research to inform policy, teaching, and training:

> *Yes, as it will inform teaching and policy (R1)*

> *Yes [to] develop enhanced care and training techniques (R7)*

Five respondents considered how research could inform the implementation of HWA services going forward, for example:

> *It's important. We could know more in terms of patient experience, impact, cost, effectiveness (R2)*

> *To help shape the service. To ensure the service is sustainable (R4)*

> *I think it is critical because more evidence-based work is needed to support new models of healthcare such that its service are efficient (evidence-based) and sustainable (R6)*

Overall, respondents agreed the HWA has increased the opportunity to conduct research with increased access to patient groups. Respondents believe that HWA research is imperative to improve the service going forward and to support the idea of the HWA as a sustainable and efficient option within local healthcare provision. While some suggested that current HWA research activity is basic, one respondent provided an example of how collaborating with the university and its academic staff has greatly benefitted them.

3.4 A Discussion: Stakeholder Survey

Key findings from the stakeholder survey and how this supports or refutes the evidence considered in chapter 1 are outlined below. The implication of these findings for the HWA evaluation are then considered along with limitations of the stakeholder survey.

3.4.1 Key Findings and Implications for the Evaluation

Survey responses identified that HWA stakeholders have an in-depth knowledge of the key aims, values, and mission statements of the HWA. Furthermore, responses identified ways in which the HWA is 'working' in relation to achieving/progressing towards achieving its aims. To some extent, findings identified the reach of the HWA and outcomes achieved thus far for a range of HWA stakeholders. Key findings are discussed below in relation to overarching HWA aims.

Offering Enhanced Learning and Developmental Opportunities for SU Staff and Students

Findings suggest the HWA is enhancing the learning and development opportunities of SU students by providing more placement opportunities and by providing students the opportunity to deliver healthcare in an alternative setting (i.e., a business setting). These findings support those of Meah et al. (2009) who identify providing students with the opportunity to learn about both resource allocation (i.e., business aspects of healthcare) and interdisciplinary collaboration as a benefit of student-led clinics.

Findings also highlighted benefits of the HWA for prospective students, including the opportunity to observe HWA activity during the university selection process. In this way, the HWA offers a resource that makes the university more competitive in the marketplace for students and thus, can generate additional income.

Findings also suggest that HWA student placements benefit service users for example, respondents commented that students bring a fresh and enthusiastic perspective to healthcare delivery and that service users feel like they are a part of the student's developmental journey; It is important to note that these perspectives are secondary, and the opinions of HWA staff (e.g., facilitators) opposed to programme users themselves. While research on the benefits of student-led clinics (chapter 1.3) discuss benefits for service users in terms of satisfaction with care, there is little consideration given to the impact for service users as a part of student's training and development. This point raises interesting questions about the bi-directionality of benefits between students and services users, in terms of providing student-led care; explored further in chapter 6.2.2.

The perception of 'enhanced student experiences' within the HWA may be specific to individual services, opposed to the HWA in its entirety. Respondents commented that student involvement is limited to specific services (e.g., osteopathy) and suggested more can be done to increase involvement across other services. It is possible that respondents were unaware of student involvement with other services. This raises an important issue, namely transparency. One respondent suggested there are several opportunities available to students that they are unaware of and that there needs to be a clear list of opportunities for students to get involved with. To meet the aim of enhancing the student experience, it is not enough to provide opportunities, the HWA needs to actively promote these.

It should be noted that respondents' views are largely based on observations/personal experiences within the HWA. It was unclear at the time of this survey, whether there was an evidence base to substantiate claims that the HWA has improved student experience (e.g., there was no clear indication that data had been collected to measure the impact of the HWA on students); This is important to highlight. The impact of individual HWA services on student experience was explored qualitatively for this evaluation (chapters 6-7).

Improving the health and wellbeing of service users is a prominent aim of the HWA however, the university location of the HWA means that naturally, student experiences/opportunities are an important focus. Consequently, the importance placed on student opportunities is likely more prevalent in the HWA that it would be

in other health provision settings, e.g., hospitals, where student experience is not as high a priority.

Core Welsh healthcare policy (chapter 1.2) outlines a system that drives innovation in the workforce and makes the Welsh NHS an attractive place to work as important aims for the Welsh NHS. This is important due to demands placed on the NHS including over usage of services (e.g., Tian, Dixon & Gao, 2012), which means the NHS is struggling to keep up with demand. Findings from the stakeholder survey suggest that the HWA can contribute to this vision in several ways. For example, the HWA can offer student placement opportunities in a non-traditional setting and with that, the opportunity to develop a different set of skills (e.g., business skills) that they might not gain through traditional placements, thus driving 'innovation'. Findings also suggest the HWA makes SU a more attractive place to study, giving prospective students a glimpse of the opportunities that await them should they choose to study there, ultimately making Wales a more attractive place for students to study, drawing more talent into the Welsh healthcare pool.

Providing Services Complementary to the NHS

Findings suggest the HWA has been successful in providing services complementary to those on offer via the NHS and in some cases, add to the level of care available locally (e.g., the bereavement service). Being independently run means the HWA has a certain level of freedom in programme selection, meaning the HWA is well placed to offer programmes that might be needed locally but are not a priority elsewhere. In other words, local NHS facilities may prioritise service areas that are a focus for the LHB they fall under, whereas the HWA can make the decision to implement a service solely from within house.

One stakeholder suggested that resources unique to the HWA (e.g., academic staff) enhance local service provision, by bringing a new set of skills to service provision and implementation (e.g., research expertise). Many HWA programmes are logical choices due to the resources naturally on offer at the HWA for example, osteopathy and midwifery have a large presence in the HWA but also in the CHHS. Subsequently, service provision benefitted from readily available SU staff and students to facilitate them and thus, the HWA made good use of the resources available to it.

Respondents were mindful of barriers to implementing new services to further complement the NHS including time, space, and staff. Service areas including osteopathy and midwifery were introduced to the academy during its inception, meaning that space and time slots were more readily available. Introducing services to the HWA now, compared to the inception period, is likely to come with more barriers and more consideration of such barriers. If an aim of the HWA is to complement NHS care provision, it is essential the HWA review and measure the progress and demand for implemented services, to ensure the correct services are being implemented.

Shifting care away from hospital settings and towards community-based settings was outlined in several pieces of core Welsh healthcare policy (chapter 1.2), which could reduce pressures on the NHS by redirecting patients towards alternative sources of community care. Conditions identified as necessary to offer community-based care include physical resources (e.g., buildings to provide care) and partnership working (e.g., between LHBs and HE institutions) to provide care in multiple settings across Wales, identifying the care needs/preferences of different communities and avoiding duplication of care efforts. The HWA is well placed to contribute to this aim, offering care in an alternative location, far removed from traditional clinical premises, with stakeholder survey findings supporting that the HWA venue appears valued by service users. The HWA should be well placed to work in partnership to offer care complementary to the NHS and findings suggest this is being achieved in part for example, by identifying care not on offer elsewhere locally and offering that through the HWA (e.g., bereavement care). Limited commentary also suggested the HWA is working in partnership with local organisations (e.g., the NHS) to deliver care in a collaborative manner however, this needs further exploration to understand the extent to which this is being achieved (explored further in chapter 7).

Producing Excellence in Research

Respondents stated that general research activity is evident within the HWA but there were mixed views about the quality and consistency of research activity across service areas. The aim of the HWA is not to simply 'increase research prospects' but more specifically to 'engage in cutting edge research that will drive innovation and excellence in all that we do' (SU, 2020b). Opinions on the quality of HWA research activity varied among respondents, suggesting one of two things: 1) There is a lack of

communication about research related activity within the HWA, or 2) There is no consensus among stakeholders as to what constitutes 'cutting edge' or 'excellent' research, resulting in varied efforts among services in relation to research activities/efforts. If producing quality research is a key priority, the HWA should develop and implement a research strategy to ensure clarity and quality between services and stakeholders to achieve this aim.

Insights drawn from core Welsh healthcare policy (chapter 1.2) identify the evaluation of services, and shared learning of these findings as conditions necessary to ensure the healthcare system within Wales provides high-quality, evidence-based care in a transparent and accountable manner. Providing high-quality, effective care is an important part of providing care that is prudent (e.g., Aylward et al., 2013). While the HWA should be well placed to contribute to this vision given its university setting, findings suggest that research activity within the HWA is limited and 'light touch' however, it may be that stakeholders were simply unaware of ongoing research activity. Therefore, further exploration is required to understand the extent of research activity within the HWA, to explore whether it is using its resources wisely.

3.4.2 Limitations

Sample Size and Characteristics

Survey response rates were low, with just 33% of the target sample (*n*= 69) opening, 22% engaging with it (e.g., answering job role questions), and just 53% of those finishing the survey. Reasonable and proportionate steps were taken to improve response rates including: 1) Circulating the survey more than once, and 2) Amending the ethics application to allow the primary researcher to disseminate paper copies of the surveys during HWA governance meetings. Most respondents were involved with the HWA in a non-clinical role (e.g., service management, strategic involvement). This is important to note as there was a lot of discussion around university and service-related goal areas (e.g., research, providing services complementary to the NHS) opposed to patient related goals, which may be attributed to the job roles of those responding.

Timing

The survey was first disseminated in 2018, a year after the HWA opened. At that time, the HWA was in its infancy and therefore, progression towards aims was likely to be

minimal. Preferably, the survey would be circulated on a regular basis (e.g., annually), as a standard measure of progress towards HWA aims. Due to timescale, yearly dissemination was not possible within the scope of this evaluation, but this is a recommendation from this evaluation to the HWA going forward.

The timing of the survey may have indirectly impacted the topics discussed by respondents as during this time, university-related activities (e.g., research and student placements) were likely to be at the forefront of stakeholder's focus, to ensure longevity of the services. Similarly, during this early stage, it would be difficult to comment on the wider impact of the HWA, as long-term goals take time to be achieved.

3.4.3 Concluding Comments

Survey responses provided valuable insight into the progress of the HWA towards achieving its aims. Stakeholders highlighted areas in which they observed the HWA to be flourishing (e.g., student involvement), areas where the HWA is less focused (e.g., offering services that support early identification and diagnosis of conditions) and highlighted variation between services in relation to progress towards the same aims (e.g., student involvement and research activities). Findings were able to add some credibility to theories around how the HWA can contribute to transforming the Welsh NHS (figure 1, chapter 1.2.4) for example, by offering care in an alternative setting, contributing to the shift of care away from hospitals and towards the community. Findings suggest the HWA and its stakeholders need clear, pre-defined strategies and frameworks that can be utilised to help individual services work towards and contribute to the attainment of HWA aims. Given this, the development of a tool that could be used by HWA stakeholders to ensure all HWA programmes are contributing to long-term aims, would be beneficial for example, the development of an HWA logic model (chapter 4).

Following the survey, questions remained as to how and why the HWA and/or specific services appeared to be more successful in achieving HWA aims than others. Furthermore, findings prompted a need for clarity for HWA programmes as to how they can contribute towards HWA aims, outlining specific processes that are needed to do so. As a result, an HWA Stakeholder Workshop was conducted (chapter 4).

Chapter 4: The Stakeholder Perspective Exploration: Development of the HWA Logic Model

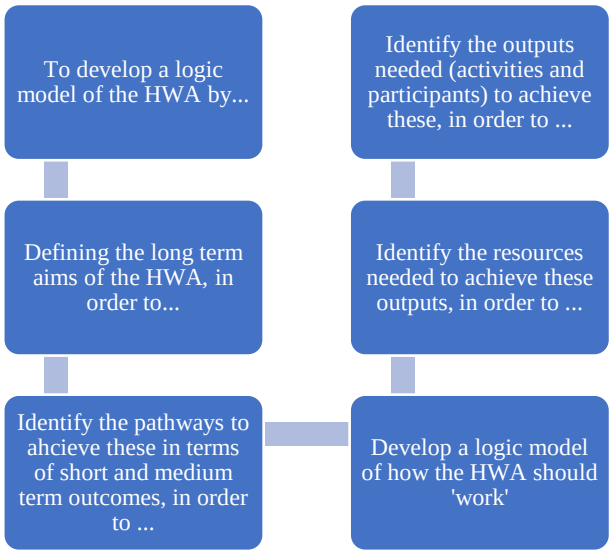
The stakeholder survey demonstrated an awareness of HWA aims, values, and mission statements among stakeholders and offered insight into which programmes were working towards these. Questions remained as to how and why specific programmes appeared to be more successful in achieving HWA aims than others. Additionally, survey findings prompted a need for clarity on the processes necessary for HWA programmes to achieve HWA aims. The HWA stakeholder workshop was conducted to develop these questions for evaluation, by producing a logic model of the HWA.

4.1 Introduction: Stakeholder Workshop

4.1.1 Aims

Developing a Logic Model (LM) of the HWA was beneficial in outlining the inputs and outputs needed to achieve outcomes, and step-by-step pathways to get there. Workshop aims are presented in figure 12.

Figure 12/. *HWA Stakeholder Workshop Aims*



4.1.2 An Introduction to Logic Models

LMs provide a visual representation of the pathways from a programme's resources through to targeted long-term aims, outcomes, or impacts (North of England Commissioning Support [NECS], 2016), allowing stakeholders to appreciate the causal relationship between programme inputs, outputs, and outcomes. The term input refers to the resources needed to conduct all planned activities within a programme for

example, money and staff expertise. Outputs refer to the activities conducted within a programme and what these aim to achieve, including the people they intend to reach (e.g., research training sessions for non-academic HWA staff). Outcomes encompass short, medium, and long-term outcomes produced by the programme, or the changes/results that have come about following the activities conducted within a programme (NECS, 2016). McLaughlin and Jordan (2010) suggest that LMs are useful within evaluations as:

> *The logic model…helps evaluators frame the evaluation reports so that the findings…and measurements can tell a performance story (p.7)*

In other words, having identified the pathway from the resources and outputs needed to generate desired outcomes, LMs can help to develop questions and review the measurements required to obtain evidence of a programmes progress and performance towards long term aims. To develop a LM, stakeholders can utilise a LM worksheet (e.g., WK Kellogg Foundation, 2014) and work from right to left noting expected long-, medium-, and short-term outcomes first, followed by the outputs and inputs (NECS, 2016) of a programme, producing a step-by-step visual aid of how long-term goals are expected to be achieved. The stakeholder workshop facilitated the development of a LM of the HWA that would help focus the evaluation, in relation to the aims set out in figure 12. The LM was also used to relate findings from the programme evaluations back to the overall aims, values, and missions of the HWA, by comparing individual PTs to the LM (chapter 8). LMs and RE methods have been used to complement each other in previous research, as LMs can help to identify and understand CMOCs (Ebenso et al., 2016).

4.2 Methodology: Stakeholder Workshop

3.2.1 Ethics

The CHHS REC were informed of the workshop prior to its commencement. As the workshop was part of a service evaluation, and its purpose was to complement the already approved research, no formal approval was needed (appendix G).

4.2.2 Attendees

Stakeholders involved with the HWA in several capacities were invited to take part in the workshop (*n*= 40). Of the 13 stakeholders who attended, involvement/roles within the HWA varied but included:

- Academics from across SU colleges involved in various HWA programmes
- Researchers
- ARCH representatives including those involved with service and strategy planning
- NHS staff involved with HWA services
- Service users involved with the development of the HWA

3.2.3 Procedure and Materials

The primary researcher liaised with the Director of the HWA to identify stakeholders for the workshop (*n* =40). Initial email contact was made by the HWA Director, informing stakeholders of the workshop and that they would be contacted shortly by the primary researcher with further details. The primary researcher then emailed stakeholders, providing them with an information sheet outlining the purpose/details of the workshop. Stakeholders were asked to confirm their attendance by accepting an email 'meeting request' which was circulated shortly after. In total, 13 (32.5%) stakeholders accepted the meeting request. The half a day workshop took place on SUs Singleton Park campus in 2019 and was facilitated by three presenters (the primary researcher and their supervisory team). The workshop consisted of three elements: 1) A PowerPoint based introduction to LMS, 2) Group work, and 3) Open discussions.

In the first portion of the workshop, facilitators presented a PowerPoint slideshow outlining the rationale for and theory informing LM development, how LMs can be used to inform evaluation and service development, and the process of creating LMs (appendix H).

Group work

Following the PowerPoint presentation, groups of five-six stakeholders were provided with materials including blank LM worksheets (appendix F), a document outlining initial HWA aims, values, and mission statements (table 1, chapter 1), pens, markers, and paper. Stakeholders were asked to fill in blank LM worksheets working in groups to identify expected short, medium, and long-term outcomes of the HWA, the outputs needed to achieve these, and the resources needed to produce identified outputs.

During group work, facilitators circulated the room, interacting with groups to answer any queries, providing points for discussion and to keep group work on track. The group work portion lasted around two hours.

Open Discussion

Following group work facilitators led an open discussion, sharing the ideas of different groups and discussing these to explore other stakeholders' views, highlighting areas where stakeholders agreed and disagreed. During these discussions, stakeholders were encouraged to refine their LMs as they saw fit following new information/insight. Presenters took notes of the points discussed.

4.3 Findings: Pathways from HWA Conceptualisation to Impact

4.3.1 Facilitated Questions and Responses

Stakeholders recorded answers to several pre-set questions during the workshop, replicated from McCawley (2015, p. 3-5). Insights drawn from responses to these questions (and notes taken around discussions of these questions) are discussed below.

What are the problems or opportunities the programme is addressing? / What is the current situation that we intend to impact?

Stakeholders saw the HWA as an innovative alternative healthcare solution, set-up to share the 'burden' that an increased prevalence of chronic illness places on the NHS. Stakeholders suggested that the HWA can 'fill a gap' by offering additional and alternative clinical placements to students outside of the NHS.

Stakeholders suggested the HWA would provide SU academics with increased access to service users to partake in research, the ability to conduct quality research (as an educational institution) and the opportunity to refresh skills during clinical placement.

What will it look like when we achieve the desired situation or outcome?

'End goals' saw the HWA having reached a wide range of people, contributing to a measured improvement in the health and wellbeing of HWA service users. Wider outcomes included the contribution to societal and/or economic impact and providing a sustainable, valuable service. There was a heavy focus on research related outcomes with participants discussing the attainment of grant monies, research income and the development of a dynamic research strategy.

What is the political and economic climate for investing in the programme?

The need for additional health and wellbeing services to support the NHS, alongside a need for services promoting self-management, increasing health literacy, and aiding in early diagnosis to prevent the onset of chronic conditions (which can strain NHS resources) were discussed.

Who are important collaborators/partners for the programme?

Responses focused on external rather than internal collaborators for example, ARCH and NHS stakeholders (e.g., staff, governors) in addition to service users. Participants mentioned 'university colleges' (i.e., academic colleges within SU) but did not offer further discussion on this.

Which part(s) of the issue can the programme realistically influence?

Stakeholders discussed the capacity of the HWA to contribute to the redistribution of service users away from NHS services, reducing NHS pressures. It was suggested that the HWA could contribute to a reduction in inappropriate usage of health care services, by increasing awareness, introducing self-management programmes, and promoting healthier choices.

The HWA was viewed as able to help with the demand for clinical student placements within the NHS, by offering SU students a suitable alternative. Stakeholders were vague in their description of students and did not specify which cohorts they felt the HWA could provide placement opportunities for (e.g., medical or psychology students).

What evaluation measures will accurately reflect project outcomes?

Stakeholders provided several examples of things the HWA should measure including: 1) HWA uptake compared to NHS services, 2) SU staff and student involvement with the HWA, including levels of satisfaction and hours worked, and 3) Service user outcomes including changes in service user knowledge, adoption of appropriate care pathways and self-management following HWA use. It was not clear how these outcomes should be measured and there was a lack of discussion surrounding appropriate research methods. During the workshop, participants identified research training for staff as a key activity.

What other needs must be met to address these issues?

Participants discussed the importance of understanding what services were wanted by local people, the promotion of healthier lifestyle choices, and how to integrate the needs of multiple HWA stakeholders simultaneously. However, responses were vague and did not outline steps needed to address these needs for example, what steps should to be taken to understand local needs?

Concluding Comments

Stakeholders were aware of issues within local healthcare provision and able to identify how the HWA could contribute to addressing these. However, answers were vague suggesting a lack of clarity in relation to the strategies needed to achieve HWA goals. It is important to note that these questions were not the focus of the workshop and were provided to spark discussion for the development of LMs in the group work section and therefore, were less comprehensive.

4.3.2 Development of a Refined, HWA Logic Model

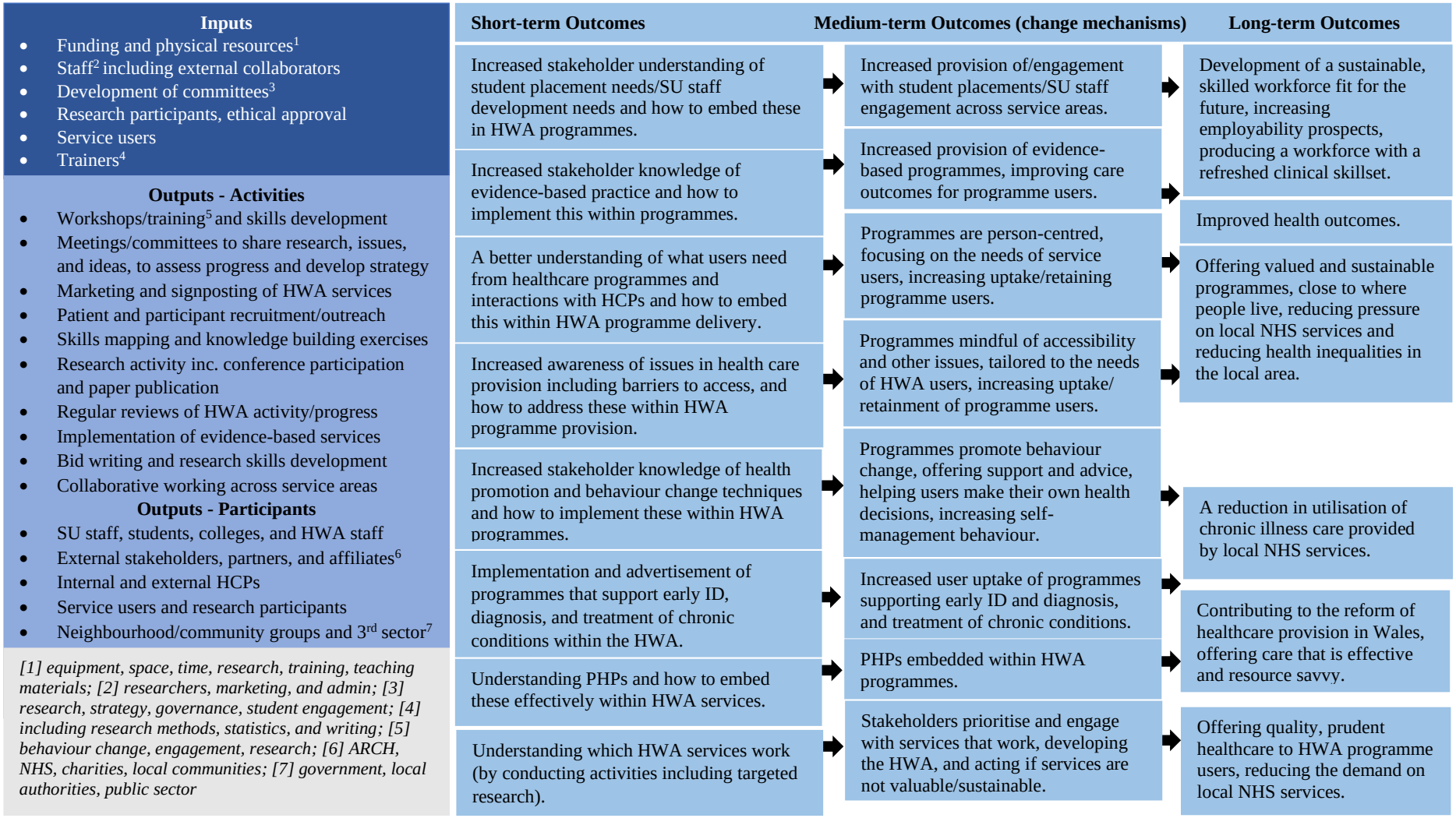
Following the workshop, the primary researcher collated and refined individual group LMs to produce an initial draft of the HWA LM (appendix I). This was the 'first draft' of the LM and was disseminated via email to workshop attendees to use freely and to allow them to provide feedback.

The LM illustrated in this section is the second, refined draft, created by the primary researcher, and utilised as the evaluation LM. The development of this LM was informed by:

1) HWA aims and values as outlined by the HWA upon opening
2) Observations of the primary researcher over the course of the evaluation, including workshop notes
3) Insights provided by stakeholders during the LM workshop
4) Insights from the stakeholder survey

The evaluation LM is outlined in figure 13, followed by a discussion of the LM, highlighting agreements and differences between the evaluation LM and those developed by workshop attendees.

Figure 13/. *Evaluation LM*



4.4 Discussion: Process and Outputs from the Stakeholder Workshop

The process of developing the LM and the differences observed between workshop attendee outputs (i.e., initial draft LMs) and researcher outputs (i.e., the finalised evaluation LM) are discussed in this section. The impact of the workshop for the overall evaluation is then discussed.

4.4.1 Evaluation Logic Model Development: Stakeholder and Researcher Input

This section discusses the input from workshops attendees and how this was refined to create the evaluation LM.

Long-Term Outcomes

Long-term outcomes cited by attendees included:

- Engagement with cutting-edge research, the production of research outcomes that drive "*innovation and excellence in all that we do"*
- The development of a sustainable model of healthcare
- An improvement in the health and wellbeing of local people
- The promotion/implementation of preventative measures/services
- Research collaborations between the NHS and SU
- A reduction in pressures faced by NHS services

Generally, research related outcomes were the most cited.

There was some confusion as to what constituted an 'outcome', with many of the research 'outcomes' discussed by stakeholders being activities (e.g., conducting research). It is not clear whether this was due to confusion with the terminology used or whether this reflected the focus of academic staff. For example, academic staff may produce research as part of their job roles and so in the context of their primary roles, research would be considered an outcome. For the HWA, research is an activity needed to inform the development of quality, evidence-based services and therefore, is a means to an end, and constitutes an activity rather than an outcome per se.

Medium-Term Outcomes

Attendees identified several medium-term outcomes however, there was confusion as to what constitutes a medium-term outcome. For example, attendees commonly cited inputs (e.g., funding) or outputs (e.g., training) as medium-term outcomes. Medium-term outcomes identified by stakeholders included a shift towards preventive programme provision, and promoting positive, healthy lifestyle choices. The

evaluation LM provides a more refined account of the identified medium-term outcomes, reflecting the behaviours and change mechanisms needed to progress towards the attainment of long-term outcomes.

Short-Term outcomes

Attendees identified several short-term outcomes relating to the knowledge or skills needed within the HWA (e.g., understanding what service users want from health care provision). There was some confusion around the definition of outcomes, with several groups citing inputs or outputs as outcomes.

The evaluation LM added to the short-term outcomes identified by attendees, by refining the wording to provide more context about how knowledge developed in the short-term can have impact in the medium-term. For example, the medium-term outcome of, 'increased provision of/engagement with student placements/SU staff engagement across service areas' can be achieved in the short-term by developing an 'increased stakeholder understanding of student placement needs/SU staff development needs and how to embed these in HWA programmes.

Outputs and Inputs

There was a lack of understanding among attendees about the terminology used within LMs, often mistaking inputs and outputs for outcomes, which needed to be rectified. However, terms were defined during the workshop presentation, and facilitators circulated during the workshop to clarify definitions. While stakeholders were supported to understand LMs, attendees' ways of thinking and working on the LMs largely focused on activities/things that needed to be 'done', rather than considering the evidence-base or the justifications warranting specific activities. Points raised were sometimes vague and could have benefitted from further commentary to explain key points. While stakeholders were able to identify several outputs, inputs, and outcomes, these were not necessarily related to one another, i.e., did not illustrate a complete pathway from input through to long-term outcomes for each point raised. These issues were rectified during development of the evaluation LM by placing insights into the correct categories and wording them appropriately.

4.4.2 The Value of the Logic Model for the HWA Evaluation

The LM provides the HWA with a tool that can be used to identify the resources, activities and participants needed to achieve short-term aims to progress towards identified long-term outcomes. Chapters 5-7 outline findings from the PPP and ACT psychoeducation programme evaluations which adopted a RE approach to develop Programme Theories (PTs), outlining how they 'worked' and 'why'. There are similarities between PTs and LMs with each providing a tool to visualise how a programme can work, providing insights about the change mechanisms of a programme (Ebenso et al., 2016). Development of the HWA LM allowed for a comparison with the PPP and ACT psychoeducation PTs, understanding how each of the programmes 'fit in' to the HWA (chapter 8), and whether the LM would be a useful tool for screening, developing, implementing, and managing successful HWA programmes.

4.4.3 Workshop Limitations

Workshop attendance was not optimal, with just 32.5% of invited stakeholders able to attend. The workshop required a half-day commitment from attendees and going forward, it would be recommended that the HWA conduct a series of LM workshops to accommodate stakeholder schedules. Developing LMs is an iterative process, and it is likely that as the HWA grows, new elements may be identified for inclusion within the LM. Therefore, regularly reviewing the LM would be a recommendation.

Workshop facilitators presented a brief theoretical overview of LMs prior to group work, but this may not have been enough. If the HWA runs further LM workshops, a recommendation would be to disseminate LM literature/materials to stakeholders prior to the event.

4.5 Researcher Reflections: HWA Stakeholder Workshop

This section reflects on the stakeholder workshop from the perspective of the primary researcher, outlining observations that may have important contextual ramifications for the interpretation of the LM. All reflective sections in this thesis are presented in italics to allow the reader to easily identify first-hand researcher reflections/observations.

Having co-facilitated the LM workshop with my supervisory team, I was able to engage with stakeholders as they developed their LMs. I was able to ask questions and join discussions and during that time, I made some observations which I believe are relevant to this evaluation and worth consideration.

Stakeholders were encouraged to focus on the HWA opposed to individual services when developing LMs however, several conversations turned to specific HWA service pertinent for stakeholders in that group. This was particularly true for groups with stakeholders who were directly involved with the implementation and/or evaluation of specific services. In groups where stakeholders were involved with the HWA in multiple capacities, discussions were broader and LMs reflected on the HWA as a whole.

During open discussions it became apparent that long-term priorities differed between stakeholders. While it was generally agreed that all aims were important, stakeholders had clear priorities aligned with their individual roles within SU/the HWA. For example, academic stakeholders (e.g., lecturers) expressed that research should be the focus of the HWA, while other non-academic stakeholders disagreed. The importance of research to academic stakeholders was evidenced by bringing discussions back to research, even when discussions had moved on. Some variation in focus among stakeholders was expected however, the reasoning behind that focus should be the same; to provide services in line with HWA aims, values, and mission statements. For example, the core purpose of 'undertaking excellent research' within the HWA should be to 'inform the way we work and the services we provide'. While research is important, it is not the primary focus of the HWA, and should be considered an activity to facilitate longer-term HWA aims, and not an end goal.

From my observation, while stakeholders were knowledgeable of HWA aims and could identify the activities needed to achieve these, not enough thinking had gone into the practicalities of implementing these. For example, stakeholders agreed that workshops to train staff in research methods were important but had not considered what these would look like, when and where they would take place, who would they be delivered by or what content they would cover. Overall, there was a lack detail provided about suggested HWA activities that will be important in the attainment of long-term aims.

A final observation refers to the completion of LM worksheets and stakeholder engagement during the workshop. Some groups engaged with the materials provided and contributed towards the development of each component of the LM; other groups did not. For example, one group gave suggestions of short, medium- and long-term outcomes, but did not identify any outputs or inputs. There was also variation in the depth of information provided between groups, with some providing detailed information while other suggestions were vague. While the group work sessions were only two hours long and stakeholders were not expected to produce polished LMs, it was hoped that all stakeholders would engage in the workshop with a similar level of enthusiasm.

Chapter 5: Programme Evaluation Introductions

Chapter 1 outlined the rationale for the HWA, identifying the challenges faced and vision for change within the Welsh NHS by exploring Welsh healthcare policy and mapping out the HWA can contribute to this change. Chapters 3 and 4 brought wider stakeholder perspectives in to view in the form of the HWA stakeholder survey and LM, outlining how the HWA is thus far contributing to its aims, and identifying the expected pathways to do so. Chapters 5-7 introduce in-depth insights from two HWA programmes, utilising a RE approach to understand how those programmes worked and why in the context of the HWA, addressing the contribution that the HWA can have in the transformation of the Welsh healthcare system, and whether this is happening in the ways expected (e.g., figure 1, chapter 1.2 & figure 12, chapter 4.3.2). This chapter introduces the two programmes that are subjects of the in-depth programme evaluations and outlines how and why these programmes were chosen.

5.1 Programme Selection

During this evaluation, operational HWA areas included Midwifery, Audiology, Osteopathy, bereavement care, Podiatry, Cardiology, and Psychology. Subsequently, there were several programmes to choose from to inform this evaluation. The programmes chosen for evaluation were decided prior to the analysis of findings from the SPE, as several elements of the evaluation were ongoing simultaneously. Deciding which programmes to evaluate required sufficient consideration to ensure evaluation objectives were achieved (figure 2, chapter 2.1.2). The fairest way to choose programmes for evaluation was to develop programme evaluation criteria. Evaluation criteria included practical considerations (e.g., whether the programme's structure could accommodate a RE), and identified programme characteristics that would ensure evaluation insights would support the overall thesis contribution, addressing aims identified in figure 2, chapter 2.1.2 (e.g., evaluation criteria required programmes to offer a solution to a current problem within healthcare provision). Table 5 outlines said criteria and demonstrates how the chosen programmes, the antenatal Positive Parenting Programme (PPP), and the Acceptance and Commitment Therapy (ACT) psychoeducation programme met these. Table 5 also considers how each criterion can support the contribution of this thesis to the evidence base, facilitating the exploration of the contribution the HWA can have in transforming the Welsh healthcare service.

Table 5/. *How the Selected Programmes met the Evaluation Criteria.*

Evaluation criteria	Programme properties	Similarities/Differences	How this criterion supports the thesis contribution
Programmes must be evidence-based	**PPP** ➢ Based on a Department of Health resource, 'Preparation for birth and beyond' (DOH, 2011) ➢ Developed by academic midwives from SU **ACT programme** ➢ An ACT based programme, rooted in Relational Frame Theory (Hayes et al., 2001) ➢ Developed by a Clinical Psychologist	➢ Both programmes have a strong evidence base ➢ The PPP was developed by SU stakeholders, the ACT psychoeducation programme was not	PHPs are key to the vision for the Welsh healthcare service. Offering evidence-based, high-quality care is in line with PHPs. Selecting evidence-based programmes for evaluation facilitated RE (e.g., contributing to the development of a PT) but also, an exploration of whether there were important contextual factors and mechanisms associated with the HWA that impacted the delivery of an evidence-based programme with the context of the HWA. Evaluating one internal and one external evidence-based programme also allowed for the exploration of whether the successful implementation of high-quality, evidence-based programmes differed when the programmes origin differed and why.
Programmes should have aims that are clearly aligned with HWA aims, values, or mission statements, so programme evaluations can shed light on *if* and how these can be achieved	**PPP** ➢ Offers developmental opportunities for staff and students ➢ Provides programme users with tools/knowledge to manage their wellbeing during pregnancy ➢ Complements local healthcare provision, by offering an additional level of care **ACT programme** ➢ Offers developmental opportunities for staff ➢ Provides programme users with tools/knowledge to manage their wellbeing ➢ While on offer in the community, delivery at the HWA provides the programme in an alternative setting to the NHS	➢ Both programmes offer developmental opportunities for SU staff and/or students ➢ Both programmes promote informed decision making among service users ➢ The PPP offers a new programme to local provision, the ACT programme offers an existing programme in a new setting	Evaluating programmes that speak directly to HWA aims allowed for the exploration of not only *if*, but *how* HWA programmes could achieve the aims set out by the HWA. Due to the overlap between HWA aims and the vision for the Welsh healthcare service, evaluations could also speak to the ability of the HWA to contribute towards the transformation of the Welsh health service. Specifically, the evaluation could speak to the HWA's ability to provide additional and enhanced opportunities for staff and students outside of the NHS and how it can contribute to workforce improvements/development. The evaluation could also add to the evidence base of whether providing service users with tools to manage their own health and wellbeing can improve service user outcomes, how contextual factors of the HWA could contribute to this, and whether the HWA is well placed to contribute towards providing PCC. Lastly, the evaluation could speak to how well the placed the HWA is in complementing the NHS and contributing to providing care outside of traditional settings.

Table 5/. *How the Selected Programmes met the Evaluation Criteria (continued)*

Evaluation criteria	Programme properties	Similarities/Differences	How this criterion supports the thesis contribution
Programmes must offer a solution to a current healthcare provision problem	**PPP** ➢ Offers a more personalised (e.g., small group) and holistic (e.g., extended) service than is typically offered elsewhere locally **ACT programme** ➢ Offers care 'closer to home' in a community setting for SU stakeholders (e.g., staff and students), providing them greater access to psychological 'therapy' within the university	➢ The PPP offers a level of antenatal education that differs to what is on offer elsewhere locally ➢ The ACT programme provides greater 'in house' access to psychological care	By evaluating programmes offering a different level/type of care to that already on offer locally (and which address current issues within healthcare provision), programme evaluations could explore the role the HWA can have in complementing local healthcare provision. Further, programme evaluations could explore the success and failure of these services and whether and how the context of the HWA impacted that.
Programmes must not be undergoing another formal evaluation	**PPP** ➢ It was not **ACT programme** ➢ It was not	➢ Neither were being evaluated by others at the same time as this evaluation	This evaluation criterion was a practical consideration that would allow for an evaluation to be conducted without overburdening service users.
Programme structure must accommodate 'pre- and post-test' data collection of measurable outcomes	**PPP** ➢ Seven-week programme ➢ A range of programme user outcomes that could be measured quantitatively **ACT programme** ➢ Four-week programme ➢ A range of programme user outcomes that could be measured quantitatively	➢ Both accommodated pre and post-test data collection	This was a practical consideration that would facilitate pre- and post-quantitative data collection to ensure service users outcomes could be measured over time, to assess if HWA programmes could improve care outcomes for users.

5.2 Programme Overviews

5.2.1 The PPP

The PPP is a free, seven-week antenatal education programme offered to expectant parents (SU, 2020c). The programme is delivered across seven weeks, via one, two-hour session per week, facilitated by midwifery lecturers and supported by midwifery students. The programme covers several topics aiming to better prepare expectant parents for pregnancy, birth, and parenthood. A list of PPP sessions is provided in figure 14 (SU, 2020c). The programme has a maximum capacity of 12 people (six couples) per seven-week cycle. According to the PA, facilitators, and users (chapters 6.1.3 & 6.2.2) the programme offers a unique antenatal experience for expectant parents in the local area, offering an extended, holistic, and intimate antenatal education option. Additionally, the PPP provides unique developmental opportunities for qualified and student midwives at SU. The PPP aims to tailor information for the individual needs of attendees and uses several modes to deliver antenatal education including practical activities, group discussions and observational birth story sessions where new mums share their experiences.

Figure 14/. *The PPP topic list*

Note. *Information replicated verbatim from the 'Antenatal Classes at the Health and Wellbeing Academy' page of the HWA website (SU, 2020**c**).*

The PPP was developed by midwifery lecturers at SU utilising a Department Of Health (DOH, 2011) resource to inform the development of the programme. The DOH (2011) resource is a product from the collaborative effort of an expert group consisting of antenatal educationalists, researchers and practitioners, various parenting

organisations, and service leaders. The resource was informed by an evidence-based review (McMillan, Barlow & Redshaw, 2009), results from several surveys, alongside good practice knowledge (DOH, 2011). The resource provides an overview of antenatal education evidence and theory, a framework for designing antenatal education programmes, suggested content for antenatal programmes, and how to deliver programmes (DOH, 2011). The resource covers topics relating to birth, pregnancy, and early parenthood. PPP PAs utilised the DOH (2011) resource, personal experience/knowledge, and skills as both midwives and academics to inform the development of the programme.

5.2.2 The ACT Psychoeducation Programme

The ACT psychoeducation programme is a free, four-week, psychoeducation programme, based on the principles of Acceptance and Commitment Therapy (ACT, Hayes. Strosahl & Wilson, 1999) and Mindfulness (Kabat Zinn, 1990; 1994). The programme was designed by a Clinical Psychologist and at the time of this evaluation, was on offer to the public in several Welsh health boards. The programme was introduced to the HWA by SU academics. The programme is delivered in four, two-hour sessions over a four-week period. Each session focuses on different elements of ACT and Mindfulness including topics such as values-based living, acceptance and being mindful. The programme is typically delivered by three trained presenters in a lecture style format, supported using PowerPoint presentations, hand-outs, Act-based metaphors, and practical activities. Attendees are also provided with homework activities that they can do in their own time. According to the PA and presenters (chapters 7.1.3 & 7.2.2) the ACT psychoeducation programme uses a range of techniques to introduce psychological concepts to help programme users self-manage a range of psychological issues.

The programme was introduced to the HWA as a staff pilot in 2017 in a collaboration between SU and the SBUHB. The programme was rolled out to students in 2018 as a collaboration between the HWA and SU wellbeing services. The 2017 pilot was facilitated by trained SBUHB staff at Singleton Park campus. The 2018 run was offered to SU staff and students at both SU campuses. The Singleton Park programme was facilitated by SU staff, newly trained in presenting the ACT psychoeducation programme. The programme at Swansea Bay was facilitated by SBUHB staff trained to present the ACT psychoeducation programme. While it was intended that trained

SU staff would deliver these sessions, none were available and SBUHB staff agreed to deliver these. The standard version of the ACT programme was delivered during the pilot and a bespoke version, designed for university students during the 2018 run. The PA designed the bespoke version for use specifically at SU (chapter 7.1.3.3).

5.3 Programme Evaluation Questions and Objectives

To address the overarching RE questions and objectives (figure 2, chapter 2.1.2), programme evaluation specific objectives were developed, outlined below:

1) Does the programme offer a service in line with HWA aims and values and if so, which ones and to what extent?
2) What is the 'value' of the programme in the larger context of local healthcare provision?
3) To identify whether the programme is 'reaching' its target audience and to what extent
4) To identify the outcomes/impacts/effects of the programme for its stakeholders including service users, SU staff and SU students
5) What are the important mechanisms of the programme that interact to produce identified outcomes for all stakeholders?
6) What are the important contextual factors of the programme that interact to produce identified outcomes for all stakeholders?

5.4 Programme Evaluation Structure

Programme evaluations were conducted using a three-phased RE approach (chapter 2.2.2.2), outlined in table 6.

Table 6/. *An Outline of the Phased RE Approach Adopted in the Programme Evaluations*

RE Phase	Methods	Description
Phase 1: Development of initial PT	Literature reviews	Literature reviews were conducted to inform an understanding of the impact the programmes could have, for whom and why. The reviews also highlighted potential outcome measures.
	PA Interviews	Interviews were conducted with PAs to gain insight into the theory behind the programmes (i.e., what impacts they intend to have and how) and to explore the rationale for developing the programmes and implementing them within the HWA.
	Psychological theory reviews	Psychological theory that could help explain how and why the programmes could produce outcomes for stakeholders was reviewed.
Phase 2: Testing PT	1-2-1 interviews with programme facilitators	Interviews were conducted with facilitators of both programmes to explore: 1) The need for the programmes, 2) How they were being delivered and received, 3) The benefits of the programmes for multiple stakeholders, 4) The progress of the programmes towards the attainment of HWA aims, 5) Important contextual factors of the programme, and 6) Underlying psychosocial processes and mechanisms that contribute to producing beneficial outcomes for programme stakeholders.
	1-2-1 interviews with programme users	Interviews were conducted with programme users to understand: 1) How the programmes have been received, 2) Whether they offer services in line with aims of the HWA, and 3) Important contextual components and underlying psychosocial processes and mechanisms of the programmes that contribute to producing beneficial outcomes.
	Quantitative data collection	Programme users completed validated measures of several psychological and wellbeing constructs during of the first and last sessions the programmes to measure programme outcomes.
	Fieldwork observations	The primary researcher engaged in fieldwork for this evaluation, observing the delivery of the programmes on several occasions. Consequently, the primary researcher observed natural interactions among users and facilitators which provided important contextual insight into how the programmes were delivered, received and how they worked. These were recorded and reflected on for the purpose of this evaluation.
Phase 3: PT refinement	Development of PT	Initial PT was developed following phase 1, tested during phase 2 and refined during phase 3, resulting in the final PT of the two programmes.

The PPP and ACT psychoeducation programme evaluations are presented in chapters 6 and 7 respectively.

Chapter 6: The Positive Parenting Programme Evaluation

This chapter outlines findings from the three-phased RE of the PPP.

6.1 Phase One: Developing Initial Programme Theory

Phase one involved developing an initial PT of the PPP via three iterative stages:

1) A literature review
2) A psychological theory review
3) An interview with the PPP PA

Findings from each stage informed the development of CMOC's forming the basis of the initial PT (chapter 6.1.4) to be tested in phase two of this programme evaluation. Phase one contributed to addressing each aim outlined in chapter 5.3.

6.1.1 The Literature Review

The purpose of this review was to better understand whether antenatal education works in improving the mental health and wellbeing of programme users, to what extent and why, identifying whether there are specific programme components that are important in producing beneficial user outcomes. While the review could not indicate how an antenatal education programme may work in the context of the HWA, it could provide some insight about how they work in general, informing the development of evaluation materials (e.g., questionnaire selection, interview schedule development) and initial PT.

6.1.1.1 Introduction: Antenatal Education Review

The antenatal period is a time of great change which can leave expectant parents vulnerable to issues with their mental, emotional, and physical wellbeing (Rubertsson, Hellstrom, Cross & Sydsjo, 2014; Hildingsson, Andersson & Christensson, 2014). Research has established links between antenatal and postnatal wellbeing, and the psychological functioning of mothers and children (Hart & McMahon, 2006; Dunkel Schetter, 2011) and it is recognised that improving antenatal wellbeing can act as an early intervention for issues of postnatal wellbeing.

Antenatal Education

During the antenatal period, expectant mothers have multiple interactions with Health Care Professionals (HCPs) including 1-2-1 appointments with midwives and access to antenatal education. Antenatal education provides expectant parents with an

opportunity to obtain important information to prepare for parenthood (McMillan, Barlow & Redshaw, 2009) pregnancy and birth. The provision of antenatal education varies not only *between* countries but *within*, and it is possible this reflects a difference in healthcare and political agendas (Symon et al., 2016). In the UK expectant parents can access antenatal education free of charge through the NHS or private classes run by the National Childbirth Trust (NCT; Locke, 2009). While the format, content and structure of antenatal education varies (Symon et al., 2016), research suggests antenatal education is beneficial.

Gagnon and Sandall (2007) conducted a large-scale review considering the effects of antenatal education on a range of wellbeing, health, parenting, and other outcomes. Included studies reported antenatal education as helpful in reducing levels of anxiety, depression, and labour pain. Another review by Ferguson, Davis, and Browne (2013) found that antenatal education can lead to a variety of improvements during labour including fewer false labour admissions and lower levels of maternal anxiety. Further research highlights postnatal benefits of antenatal education including reductions in mild-to-severe depression compared to women attending care as usual (Milgrom et al., 2011). Research has explored antenatal education content and whether it is meeting parental expectations. Ahlden, Ahlehagen, Dahlgren and Josefsson (2012) conducted a cross-sectional investigation aiming to understand parental expectations of antenatal education and whether these differed due to factors including gender and level of education. Over 2,000 expectant parents completed self-report questionnaires and results indicated that 91% of women and 90% of men were motivated to attend antenatal education to feel more secure as a parent and better prepared for childbirth. While expectations varied somewhat between groups (including gender), results revealed that preparation for parenthood and the ability to learn skills relating to infant care were among the most desired components of antenatal education. Preparation for parenthood is a valued component of antenatal education and research has considered whether this is being offered effectively. Expectant parents in one qualitative study reported a lack of support and education relating to parenting and baby care during antenatal education, with expectant parents commenting that much of the information they received pertained to labour, providing very little focus on parenting (Deave, Johnson & Ingram, 2008). Another qualitative study (Tighe, 2010) investigated the attitudes of first-time mothers towards antenatal education, considering the perspective

of both attendees and non-attendees in Ireland. Identified strengths of antenatal education included the role of the facilitator, social elements, and information regarding preparing for birth. Attendees identified positive facilitators as those who listened and answered their questions. Attendees valued facilitators who were knowledgeable, engaging and promote discussion. Parents also appreciated the socialisation aspect of antenatal education. Barriers to attending included practical considerations such as working night shifts and transport difficulties, and social and engagement issues including a lack of group discussion.

Research has identified benefits associated with attending antenatal education and the elements of antenatal education most valued by expectant parents. To implement effective, valued antenatal education, research should consider what it is about antenatal education that works, and why. Two constructs that can explain the links between antenatal education and beneficial wellbeing outcomes are self-efficacy and fear of childbirth; discussed below.

Self-Efficacy

Parental (or maternal or paternal) self-efficacy refers to the beliefs a parent holds about their own capabilities to carry out parenting tasks and roles effectively (Leahy-Warren, McCarthy & Corcoran, 2012). Perceived parenting self-efficacy may be pivotal in supporting the transition to parenthood for example, low perceived parental self-efficacy has been linked to childhood behavioural problems (Sanders & Woolley, 2005), maternal fatigue and overactive discipline in the parenting role (Cooklin, Giallo & Rose, 2012; Bor & Sanders, 2004). Leahy-Warren et al. (2012) examined links between self-efficacy and postnatal depression in first time mothers. Participants completed five questionnaires including measures of parenting self-efficacy six weeks after giving birth. Results revealed significant correlations between postnatal depression, social support, and maternal self-efficacy. Further, Leigh and Milgrom (2008) reported low self-esteem as a predictor for antenatal depression. Similarly, Mohammed, Gamble and Creedy (2011) reported that low self-efficacy was associated with antenatal depression. Furthermore, Kohlhoff and Barnett (2013) found that parental self-efficacy was inversely correlated with both anxiety and depression in mothers, suggesting higher levels of self-efficacy would lead to lower levels of anxiety and depression. Leahy-Warren et al. (2012) suggest HCPs should be aware of the links

between social support and self-efficacy and aspire to enhance these to reduce negative consequences (e.g., low mood). For example, group antenatal education may provide a social environment in which self-efficacy can be enhanced.

Fear of Childbirth

Research has documented links between self-efficacy and Fear Of Childbirth (FOC). There is some debate in the literature as to the definition, features, and underlying causes of FOC (Klabbers, Bakel, Heuvel & Vingerhoets, 2016; Nieminen et al., 2017) however, some have outlined characteristics and psychological constructs thought to be related. FOC has been linked with a predisposition to anxiety (Ryding et al., 2007), low pain tolerance and fear of becoming a parent (Saisto & Halmesmäki, 2003). The likelihood of having FOC and pregnancy related anxieties are linked to levels of anxiety, depression, social support, and self-esteem. Estimates of FOC vary somewhat however, Saisto and Halmesmaki (2003) suggest it is generally accepted that in Western countries, clinical FOC can lead to complications in up to 20% of pregnancies. For example, FOC has been linked to a preference for caesarean sections (Nieminen, Stephansson & Ryding, 2009; Stoll, Edmonds & Hall, 2015) which can lead to infections including endometritis, and urinary tract infections (Silver, 2012). Fear of pain has been linked to FOC which may explain the increased request for caesarean sections among this population as a pain avoidance technique (Saisto & Halmesmaki, 2003). Severe FOC has been linked to issues during the antenatal period including increased sick leave from work and longer stays on the maternity ward post birth (Nieminen et al., 2017). Authors suggest this may be due to an overall decline in mental state however, no definitive cause and effect can be attributed. FOC has been linked to higher levels of anxiety sensitivity (Spice, Jones, Hadjistavropoulos, Kowalyk & Stewart, 2009) and research has found positive correlations between FOC, fatigue, and anxiety (Hall et al., 2009).

Wellbeing

Research has found that low levels of self-efficacy, in particular birth-related self-efficacy, are linked to an increased likelihood of FOC (Hall et al., 2009). For example, Lowe (2000) reported that a women's belief in herself and her body's ability to give birth can impact the likelihood of experiencing FOC. Research suggests that if a woman feels in control of her birth, levels of anxiety and FOC may be reduced (Green

et al., 2003, cited in Otley, 2011). Preparation for parenthood, achieved through antenatal education, can lead to an expectant parent feeling more secure in their role (Ahlden et al., 2012), increasing their self-efficacy. Low self-efficacy and high FOC have been linked to negative consequences for mother and child in both the antenatal and postnatal periods. Therefore, if self-efficacy and FOC are linked, antenatal education that aims to improves expectant parents' self-efficacy to improve well-being could also reduce FOC.

Aims

The PPP aims to better prepare expectant parents for pregnancy, birth, and parenthood through antenatal education with a positive outlook. As a programme promoting positivity and preparedness, it is possible that the PPP can reduce FOC and increase self-efficacy among expectant parents.

This review aimed to identify literature exploring mental health/wellbeing related service user outcomes of antenatal education programmes aiming to improve self-efficacy and/or reduce FOC. This review also aimed to explore whether there were specific components of antenatal education that were important in producing such outcomes. Exploring this could provide insight as to how a programme like the PPP may work and for whom, identifying important contextual factors and mechanisms of effective antenatal education programmes, contributing to developing initial PPP PT. Subsequently, it was important that the antenatal education interventions in the included studies have similar characteristics to the PPP. Lastly, the review would highlight potential quantitative measures to capture outcomes for PPP users.

6.1.1.2 Methodology: Antenatal Education Review

Scoping reviews

Scoping reviews are broader in nature than systematic reviews and consider relevant studies utilising a range of methodological designs. Scoping reviews do not seek to answer specific questions and tend not to formally review the quality of included studies (Dijkers, 2015). Scoping reviews are an established approach, and this review will follow Arksey and O'Malley's (2005) framework. The first step is to identify the (usually broad) research question considering what areas of the research topic need to be explored. Second is to find studies via database searches, and other methods

including manual journal searching and reference list searches. The next steps include selecting the relevant studies and collating the data of these studies, summarising, and further reporting the results. Arksey and O'Malley (2005) suggest that scoping reviews are iterative opposed to linear in nature, stating that as the review develops and new literature is highlighted changes may happen to the search and questions. As there were three key areas of interest for this review and not one specific, well-defined question to be answered, adopting a scoping methodology was appropriate.

Inclusion and Exclusion Criteria

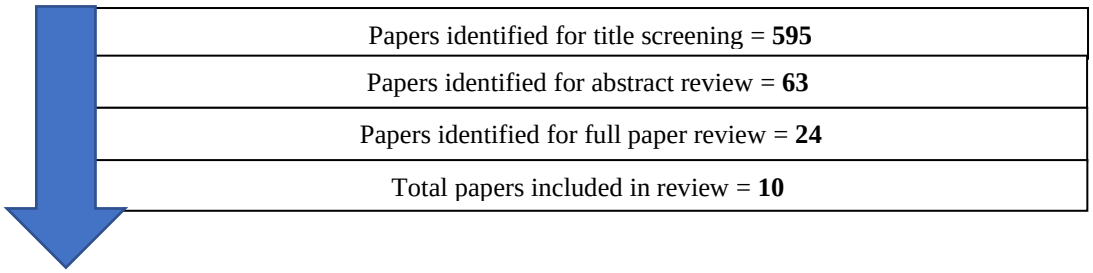
For this review 'expectant parents' included expectant mothers, fathers, first time parents and parents with multiple children. Antenatal education interventions could include several additional elements (e.g., mindfulness or exercise), as long as education was a considerable component of the intervention. Interventions needed to offer some form of 'enhanced' antenatal education, offering care that improves upon routine provision. Included studies were required to measure at least one pregnancy, birth, or parenting construct of self-efficacy or fear of childbirth, and at least one measure of mental health or wellbeing. Interventions needed to be delivered primarily during the antenatal period. Interventions had to be delivered face-to-face, to allow for comparison with the PPP. Systematic, literature and narrative reviews alongside meta-analyses (in their entirety) were excluded.

Database Searches and Process of Analysis

A phased search strategy was employed to identify relevant research. Electronic databases CINAHL, Psych Info, Psych Articles and Medline were searched using pre-selected keywords and BOOLEAN operators (appendix J) to identify titles/abstracts. The review was first conducted in 2017 and re-checked in 2019 to discover new literature. Results were filtered to include articles published between 2007-2017 (later 2019), written in English and published in academic journals. Following the initial search, titles and abstracts were reviewed to identify relevant papers. Following this, papers were read in full and were included or excluded using the inclusion and exclusion criteria. Reference lists of included articles were searched to identify additional papers. In total, 10 studies were included. These were read thoroughly, noting methodology, aims, intervention characteristics, outcome measures, key findings, and limitations, reported in the results section. The process of selecting

studies for a scoping review is not as rigorous as a systematic review and subsequently, the process was conducted by one primary researcher. However, a systematic approach was adopted, and the process was repeated (several times in 2017 and then again in 2019) to ensure relevant literature was captured. Furthermore, the process of selecting studies for inclusion was reviewed by two other researchers (the primary researcher's supervisory team) and key findings (table 6) were reviewed to ensure included studies met the inclusion and exclusion criteria.

Figure 15/. *Review Database Search Results*



6.1.1.3 Findings: Antenatal Education Review

Table 7 outlines characteristics and outcomes of the included studies. Tables outlining study interventions in-depth can been seen in appendix K.

Table 7/. *An Overview of Included Studies*

Study ID	Authors, year, and location	Participants	Design	Intervention and control conditions	Delivery techniques	Examples of constructs measured	Example outcomes
1	Byrne, Hauck, Fisher, Bayes and Schutze (2014) Australia	Expectant parents	Single arm, quantitative, pilot study	**Intervention (*n*= 12):** 8 x 2.5-hour, face to face, small-group, mindfulness-based antenatal education. Several topics were covered, and multiple teaching aids were used. **Control:** No control	• Discussion • Role play • Problem solving • Mindfulness • Meditation • CDs	• Fear of childbirth • Depression, postnatal depression, anxiety, and stress • Childbirth self-efficacy • Mindfulness	Significant differences were observed over time on scores of childbirth self-efficacy and fear of childbirth (large effect sizes were observed). Mindfulness and depression trended towards improvement however, results were not significant. At a follow-up (postnatally) significant improvement were observed for anxiety, mindfulness, stress, and fear of childbirth.
2	Duncan et al. (2017), USA	First time mothers	RCT	**Intervention (*n*= 15):** 18-hour (weekend based), face to face, small group, mindfulness course, targeting fear of childbirth. Included traditional antenatal education and taught mums how to uncouple fear with pain and be aware of their bodies. **Control (*n*= 15):** Treatment as Usual (standard childbirth education programme)	• Interactive activities • Mindfulness exercises	• Childbirth self-efficacy • Pain and perceived pain in labour • Labour medication use • Fear of childbirth • Mindfulness • Depression	Childbirth self-efficacy improved more over time in the experimental group than the control. Pain levels decreased in the experimental group, but not in the control. There were no significant differences between groups on use of labour meds, mindfulness, and fear of childbirth scores. There was a significant interaction between the groups and time on depression scores favourable to the intervention group.

Table 7/. *An Overview of Included Studies (continued)*

Study ID	Authors, year, and location	Participants	Design	Intervention and control conditions	Delivery techniques	Examples of constructs measured	Example outcomes
3	Gao, Chan, and Sun (2012), China	Expectant, first time mums	RCT	**Intervention (*n*= 96):** Routine, small group, face-to-face, interpersonal, psychotherapy childcare education (2 x 1.5-hour) with additional psychoeducation (2x 1.5-hour), and a telephone follow up **Control (*n*= 98):** Routine sessions focusing on labour and basic baby care	• Videos • Role play • Brain storming	• Perceived social support • Parenting sense of competence • Postnatal depression • Psychiatric disorders	Relative to the control group, intervention participants had significantly better changes over time in scores of perceived social support, postnatal depression, maternal role competence and psychological wellbeing. Significant findings were also replicated at a 3-month follow up on measures of maternal role competence, social support, and postnatal depression.
4	Ip, Tang and Goggins (2009), Hong Kong	First time mums	RCT	**Intervention (*n*= 60):** 2 x 1.5-hour, face to face, small group, efficacy-enhancing antenatal education, based on the work of Bandura. **Control (*n*= 73):** Routine care	• Interactive sessions • Demonstrations of coping behaviours • Observations of models	• Childbirth self-efficacy • Childbirth coping behaviour • Pain and anxiety during Labour	The intervention group demonstrated significantly higher levels of self-efficacy, lower perceived anxiety, and great coping in childbirth than the control group at post-test.

Table 7/. *An Overview of Included Studies (continued)*

Study ID	Authors, year, and location	Participants	Design	Intervention and control conditions	Delivery techniques	Examples of constructs measured	Example outcomes
5	Isbir, Inke, Onal and Yildiz, (2016), Turkey	Expectant mums	Quasi-experimental	**Intervention (*n*= 44):** 4 x 4-hour, face to face antenatal education sessions delivered in small groups. Several topics covered and the programme used multiple techniques including role play. **Control (*n*= 46):** Routine care	• Simulator mannequins • Videos • Role play • Slide shows • Relaxation	• Fear of childbirth • Childbirth self-efficacy • Maternal self-efficacy • PTSD after childbirth	In comparison to control group, those in intervention group had higher childbirth self-efficacy, less fear of childbirth, less PTSD symptoms following birth and more control during labour.
6	Ngai, Chan and Ip (2009), Hong Kong	Expectant mums	Quasi-Experimental	**Intervention (*n*= 92):** 6 x 2-hour, face to face session. 3 around psychoeducation focusing on learned resourcefulness (Rosenbaum, 1990) and 3 on routine childbirth. Skills sessions focused on parenting and restructuring thoughts to control emotions. **Control (*n*= 92):** Routine childbirth course	• Problem solving • Relaxation techniques • Role play • Discussion • Tasks	• Self-Control schedule • Parenting sense of competence • Postnatal depression • Social support	Significant improvements in learned resourcefulness and depression for the intervention group at 6 weeks post-partum compared to the controls. No significant differences between groups for maternal role competence.

Table 7/. *An Overview of Included Studies (continued)*

Study ID	Authors, year, and location	Participants	Design	Intervention and control conditions	Delivery techniques	Examples of constructs measured	Example outcomes
7	Pan et al., (2019) Taiwan	Expectant mums	RCT	**Intervention (*n*= 52):** 8 x 3-hour sessions, face to face plus, 6 x 30-minute home meditation. Based on Mindfulness principles. **Control (*n*= 52):** Conventional childbirth education	• Information giving • Mindfulness exercises • psychoeducation	• Perceived stress • Postnatal depression • Childbirth Self-efficacy	Both groups showed significant differences over time (compared to baseline) on measures of stress, childbirth self-efficacy, mindfulness, and depression. Scores were better among the intervention group for childbirth self-efficacy, mindfulness, and stress at 36 weeks gestation, but this was not significant.
8	Robertson, Aycock and Darnell (2008), USA	Hispanic, expectant mothers	Quasi experimental, prospective comparative design	**Intervention (*n*= 24):** 6-hour, face to face, small group antenatal education, considering all aspects of wellness/wellbeing during pregnancy. Topics include preparing for childbirth, stress management and breastfeeding **Control (*n*= 25):** Routine care	• Practical training • Relaxation • Massage	• Health behaviours • Prenatal/postnatal care knowledge • Self-esteem • Depression	Mothers in the control group had significantly higher self-esteem scores at post-test, compared to mothers in the intervention group. At post-test, depression scores were similar between the two groups.

Table 7/. *An Overview of Included Studies (continued)*

Study ID	Authors, year, and location	Participants	Design	Intervention and control conditions	Delivery techniques	Examples of constructs measured	Example outcomes
9	Rouhe et al., (2014) Finland	First time mums with severe fear of childbirth	RCT	**Intervention (*n*= 131):** Face to face antenatal (6 x 2-hour) and postnatal (1 x 2hour, small group) education based on attachment and social cognitive theories, among others (e.g., The Theory of Planned Behaviour, Ajzen, 1991) **Control (*n*= 240):** Conventional care	• Exercises • Mindfulness • Use of CDs • Guided discussions	• Maternal adjustment/attitudes • Fear of childbirth • Postnatal depression • Post-traumatic stress	Postnatal maternal adjustment and fear of childbirth were better among the intervention group, relative to the control. Levels of postnatal depression were significantly lower in the intervention, relative to the control. There was no difference between groups in post-traumatic stress.
10	Svensson, Barclay and Cooke (2009), Australia	First time mums and dads	RCT	**Intervention (*n*= 91):** 7 x 2-hour, face to face antenatal sessions with increased parenting information (plus a reunion session 6 weeks post-partum). **Control (*n*= 79):** Routine AE	• Problem solving • Discussion • Demonstrations	• Perceived maternal self-efficacy • Parenting expectations • Maternal Worry labour, baby care and parenting knowledge	There was a significant difference between groups on measures of parenting self-efficacy post birth, with higher scores observed in the intervention group. Parenting knowledge increased for all post intervention but was greater in the experimental group. Results revealed worry scores were lower however, there was no statistically significant difference.

Square brackets represent the study IDs allocated in table 7.

Characteristics

Most interventions were offered solely to expectant mums. A small selection were offered to expectant dads alongside mums [1 & 10]. Studies were conducted across several continents with four in Asia [3, 4, 6 & 7], two in Europe [5 & 9], two in North America [2, 8] and two in Australia [1 & 10]. Six out of ten studies were RCTs [2-4, 7 & 9-10], two were quasi experiments [5-6 & 8] and one was a pilot [1].

Intervention Impact for Programme Users

Wellbeing outcomes measured included depression, anxiety, and stress. Pregnancy, birth and parenting related measures included FOC and self-efficacy.

Self-efficacy and FOC

Most studies (9 of 10) measured self-efficacy, or a related construct (e.g., competence), with most (7 of 9) reporting positive effects of enhanced antenatal education on these. For example, a pilot study [1] reported significant increases in childbirth self-efficacy over time for attendees of enhanced antenatal education (no control group). Three studies [2, 4 & 5] reported significant improvements in childbirth self-efficacy over-time for participants in the enhanced antenatal education groups, relative to those in control groups. Another two [3 & 10] reported higher scores of maternal role competence at post-test for those in enhanced antenatal education groups over those in control groups; in study 3 this was also maintained at a three-month follow-up. A quasi-experimental study [6] reported no significant difference between groups in parenting sense of competence. An RCT [7] reported significantly higher childbirth self-efficacy over time for both groups, with better scores for the intervention (not statistically significant). Interestingly, one study [8] reported significantly higher levels of self-esteem mong control group participants (routine care) at post-test.

Three of the four studies measuring FOC [1, 5 & 9] reported decrease in FOC following attendance of enhanced antenatal education. For example, one study [1] reported significant decreases in FOC over time for participants attending enhanced antenatal education and reported large effect sizes (no control group). A further two studies [5 & 9] reported significant decreases in FOC for enhanced antenatal education attendees, relative to the control groups. One RCT [2] reported no significant

difference between groups on FOC scores over time. Overall, results support the idea that providing a level of antenatal education that is in some way enhanced, is effective at decreasing FOC, which has been previously linked to an improvement in mental health/wellbeing (see section 6.1.2.1).

Overall, providing a level of antenatal education that is in some way 'enhanced', appears effective at increasing self-efficacy, confidence, competence, or related constructs and reducing FOC among expectant parents.

Anxiety, Stress, or Related Constructs

Four of the five studies [1, 4, 5, 9 &10] that measured anxiety, stress, or a related construct, reported benefits for participants attending an enhanced antenatal education programme. For example, a pilot study [1] study reported significant improvements in anxiety and stress over time for participants on an enhanced antenatal education programme (no control group). An RCT [4] reported significantly lower perceived anxiety and another [5] reported significantly less PTSD symptoms following birth, for attendees of enhanced programmes relative to those in control conditions. Study 10 reported that maternal worry was lower among intervention participants at post-test, but that this was not at a level of statistical significance. An RCT [9] reported no significant between group difference in post-traumatic stress.

Depression

Studies measuring depression [1-3 & 6-9] reported mixed findings for participants attending enhanced antenatal education. For example, a pilot study [1] found no significant decrease in depression for participants following attendance of an enhanced antenatal education programme (no control group). Two studies [7 & 8] reported no difference between control and intervention groups over time on scores of depression. Four studies [2, 3 6 & 9] reported significantly better outcomes on measures of depression for attendees of enhanced antenatal education over time, relative to control participants.

Summary

Findings suggest that enhanced antenatal education can improve outcomes for participants relative to control groups and/or over time, on measures of anxiety, FOC

and self-efficacy, whereas findings relating to depression were mixed. Findings speak to the effectiveness of enhanced antenatal education in improving user outcomes, but not how or why these came about. Interventions in the included studies varied in terms of content, format, and theoretical foundations and therefore, it is hard to ascertain which elements of the interventions were associated with improved user outcomes. To understand if PPP users can expect similar benefits, specific components of the included interventions were explored.

Exploring the Components of Enhanced Antenatal Education

An aim of this review was to understand if certain elements of enhanced antenatal education are important in producing beneficial participant outcomes. This is explored in this section.

Format

Most included studies (seven) provided antenatal education in a hospital (or clinical) setting, with just two offering antenatal education in an alternative setting including a community setting [1] and a university [2]. Most interventions (seven) were delivered by midwifes or trained childbirth educators, with one provided by a psychologist [9], and two [4 & 10] by other HCPs (e.g., nurses). Therefore, most studies offered antenatal education delivered in similar settings and by similar facilitators to most routine antenatal education programmes (e.g., by midwives in hospital).

All studies offered antenatal education in a group format, with most limiting the number of attendees, purposely creating smaller groups (maximum group size reported of 11 couples). The DOH resource (2011) suggests that antenatal education delivered in groups which encourage participation and active learning are the most effective and popular among expectant parents. Naturally, achieving this is easier in smaller groups which are easier to facilitate and manage. The DOH resource (2011) suggests that small group programmes (up to 20 people) come with several benefits including: 1) Ease of getting to know each other, 2) Giving parents the chance to speak up if they want to, 3) More time per couple, 4) Opportunity to encourage participation, and 5) Opportunity to tailor care. However, the resource acknowledges that smaller groups need to be run more frequently to reach more people. On the surface, interventions in

the included studies appear well placed to offer an engaging, interactive, and satisfying experience, given their small group nature.

Included studies provided sample sizes for control groups however, none explicitly stated whether 'routine care' was provided in small groups, or in a lecture style format. While routine antenatal education is typically delivered in larger groups, it is unconfirmed whether this was the case for the included studies.

Teaching Mode

Included interventions aimed to enhance antenatal education in some way, typically by offering an extended programme (in terms of time and topics included) with interactive learning components based on an evidence-based technique or theory in addition to basic antenatal education. This section outlines the content, teaching mode/techniques and underlying theory of the included interventions.

Information was delivered in several different modes across the interventions including slideshows, videos, group discussions, handouts/leaflets, and practical activities including role play, problem solving, breathing exercises, observational learning (table 6, appendix K), with interventions utilising multiple modes. The DOH resource (2011) suggests that learning be participative, and methods include practical skills alongside knowledge. Utilising multimedia and several teaching modes should encourage participation and engagement among programme users. Control groups offering treatment as usual did not include any interactive components. Intervention groups typically fared better in terms of outcomes than control groups, suggesting such components may have had a positive impact. However, enhanced programmes differed to control conditions in terms of content, with enhanced interventions covering a wider range of topics, based on a wider range of evidence/theory than control groups. Therefore, it cannot be determined which had a greater impact, the teaching mode, or the content. Intervention content and theory is discussed below.

Mindfulness-Based Programmes

Three of the included interventions [1, 2. & 7] were based on the practice of mindfulness and aimed to prepare parents through techniques such as meditation and breathing. Mindfulness interventions were successful at reducing psychological

distress and increasing self-efficacy among users however, did not increase levels of mindfulness.

Psychology-Based Programmes

Interventions offering psychotherapy or psychoeducation-based antenatal education showed some promising results in relation to self-efficacy, FOC and wellbeing. However, it is unclear which elements of the antenatal education courses could be attributed to promoting these outcomes as the interventions varied in terms of content, structure, and delivery. For example, one study [3] used Interpersonal Therapy Techniques (e.g., role playing) to focus on the challenges that lay ahead, helping expectant parents adjust. Others [2 & 6] used cognitive restructuring techniques (e.g., identifying and reducing irrational thoughts and thought processes) to help expectant parents deal with things including labour pain. Another intervention [4] was based on theories including self-efficacy theory (Bandura, 1998), utilising techniques including role play and observation to help expectant parents visualise themselves in their new parenting roles, to increase their confidence and reduce feelings of psychological distress. Most programmes utilised observational methods, including videos and role play, to help parents visualise themselves in their new roles and upcoming challenges. Ultimately, psychoeducation programmes attempted to use varying methods to change the thought processes of expectant parents, to better prepare them for the challenges ahead, reducing negative thoughts and anxieties and improving their self-efficacy by enabling them to visualise themselves in their new roles. While it is hard to pinpoint specific programme components that users found effective and therefore, what 'worked' within those programmes, it is evident that a psychoeducation approach does work, just not why. This is further exacerbated by the lack of qualitative inquiry in the included studies.

Findings indicate a similar level of success (in terms of programme user outcomes) across studies, regardless of theoretical base. However, enhanced antenatal education programmes based on psychological theory (e.g., self-efficacy theory) appear to produce better outcomes relative to routine antenatal education.

6.1.1.4 Discussion: Antenatal Education Review

Enhanced, small group antenatal education appears to improve user outcomes, relative to routine care. There is no standardisation of enhanced antenatal education in terms of content, theory or techniques used, with included studies basing their interventions on multiple theories (e.g., mindfulness, self-efficacy theory) and using several teaching techniques (e.g., role play, observation). Interventions were similar in terms of offering more than basic education. Subsequently, it was hard to pinpoint what it was about these interventions that 'worked' and to identify common factors (other than group size) between the interventions. In particular, psychoeducation interventions appeared to be effective and offered suggestions as to how they worked for example, using role play to reduce maladaptive thoughts and increase self-efficacy. Qualitative insights would have been beneficial in unearthing important contextual factors and mechanisms of the interventions that contributed to the production of outcomes.

A common element among interventions was the use of multiple teaching techniques, with interventions offering more than one style of education. Interventions were able to engage their users and offer 'something for everyone', which the DOH (2011) suggest is an important consideration for antenatal education. Given that most interventions superseded their control groups in terms of user outcomes, it can be inferred that multi-modal antenatal education is more effective than basic antenatal education.

To design the most effective antenatal education programme, Programme Architects (PAs) need to understand exactly what it is about antenatal education that works, what is valued by users, what produces the best outcomes, and why. This may be particularly important for programmes delivered in atypical contexts. For example, by understanding exactly what it is about enhanced antenatal education that works, PAs can understand whether the intervention will work in a different context for example, within the setting of the HWA and not a traditional hospital setting.

There are several similarities between the included, successful antenatal education programmes and the PPP, for example the small group size, use of interactive activities and multiple teaching modes and, the inclusion of activities alongside basic information that aim to change the way expectant parents think to improve outcomes. There were some noticeable differences between the included interventions and the

PPP. Firstly, while most studies utilised midwives to deliver antenatal education, none of the included studies utilised student midwives whereas the PPP does. Secondly, only one of the studies delivered antenatal education in a university, with most delivering antenatal education in a hospital/clinical setting.

How Does this Review Inform the Development of the PPP Evaluation?

The review helped consolidate outcomes to be measured in the PPP evaluation and identified validated questionnaires for exploration. Additionally, findings suggest how antenatal education can increase self-efficacy and improve wellbeing outcomes for example, through use of activities and role play, to aid cognitive restructuring. Most interventions were delivered in similar settings, by similar people (e.g., midwives) and therefore, little inference could be made about the impact of these contextual factors on outcomes. The PPP evaluation will include a review of specific contextual factors unique to delivering antenatal education at the HWA. Lastly, the lack of qualitative inquiry highlighted the importance of this type of data to understand the mechanisms of change in enhanced antenatal education. Furthermore, the review highlighted the need for research to be more inclusive of expectant dads/partners, with most studies focusing on measurable outcomes for expectant mums, despite literature indicating that all expectant parents are vulnerable during the antenatal period. The PPP evaluation will include outcome measures considering the impact of the programme for expectant dads as well as mums. Further, qualitative data will be collected to ensure RE questions relating to context and mechanisms can be addressed.

6.1.2 Reviewing Psychological Theory

The second stage of phase one involved reviewing psychological theory to understand the mechanisms of change behind the PPP, supporting the development of initial PT.

6.1.2.1 How Reviewing Psychological Theory Informs the Development of CMOCs

It was evident from the antenatal education scoping review that increasing self-efficacy during the antenatal period can have a positive effect on wellbeing related outcomes for expectant mums. Furthermore, findings indicated that enhanced antenatal education programmes, many of which utilise interactive components, are beneficial. Psychological theory can provide insight into why targeting areas such as

self-efficacy produce beneficial outcomes for expectant parents, and why they may be motivated to engage with the PPP.

Reviewing psychological theory can offer insight into *why* the PPP may or may not work, identifying additional contextual factors and mechanisms to be included in the initial PT of the PPP. It is important for the HWA to understand not only what services work (i.e., are successful) but *why* they work, to inform the introduction of future HWA services.

6.1.2.2 Self-Efficacy Theory

Antenatal education aims to better prepare expectant parents for the journey that lies ahead (e.g., parenthood). One factor that may impact a person's ability to cope, feel better prepared and act is their perceived level of self-efficacy (Bandura, 1977; 1998), i.e., beliefs about their ability/skills to effectively deal/cope with a given situation. Literature highlights links between self-efficacy and various outcomes (e.g., wellbeing, parenting style) for expectant parents (Leahy-Warren et al., 2012; Bor & Sanders, 2004). To understand why self-efficacy can impact outcomes, an understanding of psychological theory is imperative. Bandura (1982) defines perceived self-efficacy as:

> *judgements of how well one can execute courses of action required to deal with prospective situations (p. 122)*

Bandura (1998) believes that '…*efficacy belief is a major basis of action*…' *(p.3)* and postulates that an individual's self-efficacy is developed through four main types of influence (table 8).

Table 8/. *Influences of Self-Efficacy Outlined by Bandura (1998)*

Influence	Description
Mastery	Bandura (1998) suggests that successes add to a belief in an individual's self-efficacy, whereas failures reduce it.
Social Models	Through observing the success of an individual like oneself, Bandura (1998) suggests that an observer's beliefs in their capabilities are increased.
Social Persuasion	Social persuasion refers to the suggestion that individuals who are persuaded by others that they have the skills necessary to complete a task, are more likely to put effort on said task (Bandura, 1998).
Reducing Stress Reactions	Bandura (1998) highlights how individuals use both their emotional and somatic states to judge their self-efficacy capabilities. Fundamentally, a positive mood can increase an individual's perceived levels of self-efficacy and a negative mood can decrease it. Bandura therefore suggests that by changing stress reactions and tendencies toward negative emotional responses, self-efficacy can be increased (Bandura, 1998).

There are several forms of self-efficacy beliefs including coping and social self-efficacy. Coping self-efficacy refers to an individual's beliefs in their ability to cope with a stressor, while social self-efficacy refers to and individuals' beliefs about their ability to develop satisfactory social relationships. In relation to healthcare programmes, Badura (1998) suggests that self-efficacy is a mechanism through which interventions can affect health outcomes.

Links Between Self-Efficacy and Wellbeing

Research has explored the relationship between self-efficacy and psychological wellbeing among several populations. For example, Leahy-Warren et al. (2009) explored associations between postnatal depression, social support, and self-efficacy among nulliparous women post-birth. Several significant relationships were reported, including a significant association between depression and maternal self-efficacy, and social support and maternal self-efficacy, inferring that social support and maternal self-efficacy are important predictors of wellbeing among new parents. Further support for the role of self-efficacy as a predictor of wellbeing among expectant parents can be found in chapter 6.1.1.

Self-Efficacy Theory and the PPP

The PPP aims to better prepare expectant parents for what lies ahead. If an increase in self-efficacy can lead to an increase in wellbeing, it could be inferred that including influences of self-efficacy within the PPP would be beneficial. Table 9 outlines how each influence of self-efficacy (Bandura, 1998) maps onto components of the PPP.

Table 9/. *Mapping Self-Efficacy Influences onto PPP Components*

Self-efficacy influences	**How the PPP may impact Self-Efficacy influences**
Mastery	Success in practical activities (e.g., nappy changing) could improve service users perceived levels of self-efficacy.
Social Models	Observing the success of expectant mums in the 'birth story' sessions, could improve expectant parents' self-efficacy, as expectant parents can relate to that person.
Social Persuasion	The PPP creates an intimate group environment, that could foster the formation of close social bonds. Receiving encouragement and support from close social relations in the PPP may improve service user self-efficacy.
Reducing Stress Reactions	The PPP aims to promote a positive outlook on pregnancy, birth, and parenthood. Therefore, the positive outlook and atmosphere created within the PPP, may increase service user's self-efficacy beliefs.

6.1.2.3 Self-Determination Theory

Self-Determination Theory (SDT, Ryan & Deci, 2000) is an approach to both human behaviour and personality that outlines:

> *three innate psychological needs - competence, autonomy, and relatedness - which when satisfied yield enhanced self-motivation and mental health and when thwarted lead to diminished motivation and wellbeing (p.68)*

SDT suggests human beings have a natural propensity towards growth and development and further suggests that conditions/behaviours which satisfy an individual's competence, autonomy and relatedness provide the best environments to foster motivation and engagement with behaviours at an individual level (Deci & Ryan, 2002; Ryan & Deci 2000; 2018). The theory outlines three fundamental, psychological needs (table 10).

Table 10/. *The Three Fundamental Psychological needs Outlined in SDT (Ryan & Deci, 2000; 2018)*

Psychological Need	Description
Competence	Refers to the feeling of effectiveness on one's own actions and the need to feel confident in one's capabilities. SDT suggests people are more willing to engage in activities that meet their skillset.
Autonomy	Refers to the feeling of being in control of your own behaviour and acting in-line with your own values and interests. Ultimately, people have a need to feel in control of their decisions and believe that the origin of their decisions is internal.
Relatedness	Refers to the desire for interpersonal links and the need to feel connected with others and belong to a wider community.

Research has explored the effectiveness of behavioural interventions based on the core assumptions of SDT and has shown promising results. For example, Ryan, Patrick, Deci, and Williams (2008) note the importance of autonomy in successful psychological therapy, reporting that therapy facilitating autonomy demonstrates more positive service user outcomes. A systematic review (Teixeira, Carraça, Markland, Silva & Ryan, 2012) found support for the positive relationship between autonomous motivation and levels of exercise. A literature review by Niemiec and Ryan (2009) provides an overview of the application of SDT within an educational context and suggests that evidence supports that intrinsic and extrinsic motivation (autonomous) are likely to promote optimal levels of engagement and learning within an educational setting.

SDT and the PPP

Components of the PPP foster the three psychological needs outlined in SDT. By offering education and better preparing expectant parents for pregnancy, birth and parenthood, the PPP aims to improve users' feelings of competence. The PPP promotes informed choice among service users and aims to equip expectant parents with the knowledge and skills they need to make their own decisions thus increasing their feelings of autonomy. Lastly, the PPP provides an environment that fosters the formation of social bonds among individuals with similar values and this may improve service users' feelings of relatedness.

6.1.2.4 Important Mechanisms and Contextual Factors

Possible contextual factors and mechanisms (and associated outcomes) identified in the psychological theory review that can explain how the PPP could work are presented in table 11.

Table 11/. *CMOCs Identified from the PPP Psychological Theory Review*

Context	Mechanisms	Outcomes	Derived from
If antenatal education includes practical activities	*Then* expectant parents can practice parenting tasks and get familiar with these	Which can improve confidence in their abilities to carry out parenting related tasks	Self-Efficacy Theory
If antenatal education includes 'birth story sessions'	*Then* parents can observe the success of an individual that they can relate to	Which can improve confidence in their abilities to cope with their journeys ahead	Self-Efficacy Theory
If antenatal education delivered in a small group format	*Then* there is the opportunity to form social bonds with people sharing similar experiences and the chance to share concerns and receive encouragement and support	Which can lead to the development of a support network for expectant parents may improve self-efficacy	Self-Efficacy Theory *and* SDT
If an antenatal education programme is extended	*Then* expectant parents are provided with enough information to prepare them for parenting, pregnancy, and birth	Which can lead to an improvement in feelings of self-competence among service users	SDT
If an antenatal education programme promotes informed choice and provides service users with the skills and knowledge, they need	*Then*, parents may feel more confident in their ability to make their own choices	Which can lead to an increased feeling of autonomy for service users.	SDT

6.1.3 Programme Architect Insights

6.1.3.1 Introduction and Aims

The final stage in phase one of the PPP RE was to interview the PA, and contributed to answering each aim outlined in chapter 5.3:

1. Does the PPP offer a service in line with HWA aims and values and if so, which ones and to what extent?
2. What is the 'value' of the PPP in the larger context of local healthcare provision?
3. To identify whether the PPP is 'reaching' its target audience and to what extent
4. To identify the outcomes of the PPP for its stakeholders
5. What are the important mechanisms of the PPP that interact to produce identified outcomes for all stakeholders?
6. What are the important contextual factors of the PPP that interact to produce identified outcomes for all stakeholders?

Objectives were explored by gaining insight into the theory behind the PPP including how and why the programme was developed, expected programme outcomes, factors the PA believed were important to its success, and the rationale and consequences of implementing the programme within the HWA context.

6.1.3.2 Methodology

Ethical Approval

Ethical approval to conduct this study was granted from SU CHHS REC in December 2017 (appendix L). The REC was notified of any amendments to the procedure for which approval was also granted.

Participants

Two midwives were responsible for developing the PPP, with one taking part in an interview for this evaluation.

Materials

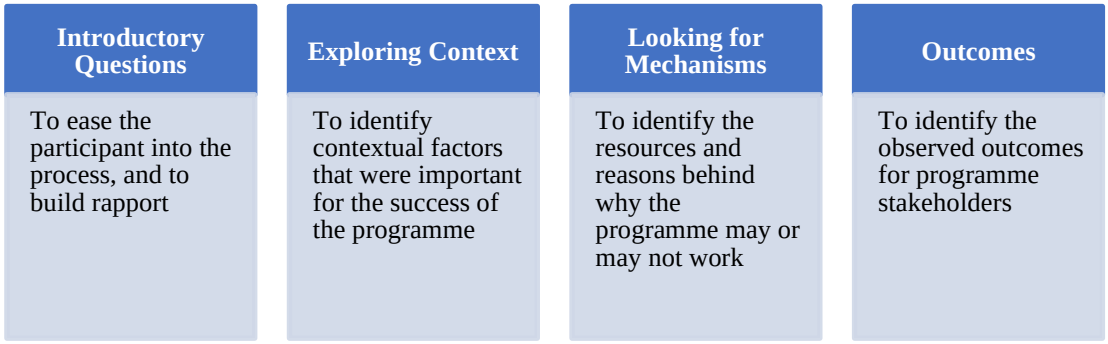
The interview was recorded on two electronic devices, ensuring the interview could be recovered if a device failed. The PA was provided with an information sheet (appendix M) and consent form (appendix N) via email prior to the interview. The information sheet outlined the purpose of the interview, ethical considerations, and contact details for the primary researcher. The PA was provided with a debrief sheet following the interview (appendix O), including information such as signposting to

mental health services. A semi-structured interview schedule devised by the primary researcher was used to guide the interview (appendix P).

Construction of the Interview Schedule

An interview schedule was constructed to aid in the interview process. The schedule contained questions alongside prompts and probes to elicit answers from participants if needed. Manzano (2016) suggests given the premise of RE, that research methods adopted should be theory driven and selected to illuminate patterns in the programme under evaluation. Manzano (2016) suggests that questions asked should highlight both the underlying processes and mechanisms of the programme, while considering the different contextual factors that may play a part, alongside potential outcomes. An example interview schedule in the Manzano (2016) paper was used to guide the construction of all interview schedules in this evaluation. The interview schedule was split into four parts outlined in figure 16.

Figure 16/. *Realist Interview Schedule Structure (adapted from Manzano, 2016)*



Design

A face-to-face, semi-structured interview was conducted.

Procedure

The primary researcher liaised with senior members of the SU Midwifery team prior to the PPP evaluation, in a face-to-face meeting between the evaluation and programme team. The PAs were identified in this meeting and subsequently emailed by the primary researcher inviting them to take part in the interviews. Emails included an information sheet and asked participants to contact the primary researcher if they wanted to take part. Those who expressed interest (*n*= 1) in participating were subsequently emailed to arrange a suitable date and time for the interview which took place in the HWA. Prior to interview commencement, the PA was asked to re-read the

information sheet and sign the consent form. The PA interview lasted for approximately 56 minutes. At the end of the interview, the PA was given a debrief sheet. Interview recordings were transcribed onto a word processor and saved to the primary researcher's university computer account, backed up onto the SU student P: Drive. Recordings were deleted following transcription.

Method of Analysis

Two methods were utilised to analyse the qualitative data set, these were: 1) Thematic Analysis (Braun and Clarke, 2006), and 2) RE analysis (see below).

Thematic analysis

Thematic Analysis (Braun & Clarke, 2006) was used to analyse the data. After transcription, the primary researcher read and re-read the transcripts to get familiar with the data. Transcripts were coded, noting points of interest within the data. After initial coding, codes were further examined, and related codes grouped into themes representative of the data. During this process, quotes that supported themes were identified and noted. The primary researcher then looked for links between the themes and re-examined and re-organised them to identify overarching themes and sub-themes. Transcripts were then re-read to ensure themes truly reflected the data. At this stage, any themes with insufficient support were disregarded and themes that overlapped were merged. Theme names were created reflecting the 'story' told by the data. A thematic report was produced, illustrating themes to the readers using quotes to support claims made. Figure 17 offers a worked example of the Thematic Analysis process within this data set.

Figure 17/. *A Worked Example of the Thematic Analysis Process Adopted*

Quote		
huge issues…not just locally but nationally…staffing issues…there may be a number of midwives off sick…there's maternity leave that isn't covered		
Codes	**Initial Theme**	**Final Theme**
Current flaws with antenatal education, under-resourced, a problem that needs addressing	Rationale for new programme: issues with current provisions	Complement and enhance [current provision]

Realist Analysis

In RE, analysis of qualitative data generates CMOC's that mould, support or refute PT (Manzano, 2016). Following a Thematic Analysis (Braun and Clarke, 2006) of the

data, the primary researcher explored each theme, looking for potential CMO factors that could be used to develop PPP PT. These factors were listed and formulated into CMOC's which were reviewed to ensure they accurately represented the data, and then collated with CMOC's identified in the psychological literature review (chapter 6.1.1) to develop an initial PT of the PPP (chapter 6.1.4).

6.1.3.3 Interview Findings: A Thematic Analysis of the Positive Parenting Programme Architect Interview

The PA worked as a lecturer on the Midwifery Course at SU and had a wealth of experience practicing in community and hospital settings. During the interview, the PA discussed a range of midwifery topics, the PPP and NHS programmes, referring to both literature and personal experiences to support their discussion. A description of themes identified from the interview are outlined in table 12, followed by the full thematic report.

Table 12/. *A Description of the Themes Identified in the PPP PA Interview*

Themes	Description
Theme 1: Complement and enhance	Provides the PA's views on antenatal education provision in the NHS sector including issues faced. Theme 1 also outlines how the programme was developed and how the programme can complement/enhance local antenatal education provision.
Theme 2: Format and Reach	Provides insight into the format and content of the PPP, considering what 'works well' and what can be improved. Theme 2 also provides some insight at how delivering the programme in the context of the HWA has had an impact.
Theme 3: Teachers as Teachers	Provides an in-depth look at how delivering an antenatal education programme in the context of a university-based HWA can benefit multiple stakeholders including programme users and facilitators.

Theme 1: Complement and enhance

The need for the PPP was influenced through direct experience of delivering antenatal education within the UK. Discussing local NHS antenatal education provision, the PA discussed how there are:

> *huge issues…not just locally but nationally…staffing issues…there may be a number of midwives off sick…there's maternity leave that isn't covered*

The PA outlined that outside of NHS programmes, the main local alternative for antenatal education are private NCT classes and suggested these cost £200 on average to attend (the PPP is free). Having identified drawbacks of the two main antenatal

education providers in the local area, there was a clear gap for the development of an alternative programme that could address these issues; hence, the PPP. The PA illustrated the importance of attending antenatal education with the below quote:

> *if you've been to all the classes…you can at least go into it feeling a little more prepared...mums that don't go to classes…didn't feel prepared for becoming a mother which…can be really overwhelming*

The PA highlighted further limitations of local antenatal education provision including issues with programme content:

> *labour and birth is what gets focused on…nobody really talks about…how do you feel about becoming a mum*

Local NHS webpages suggest that antenatal education classes cover a range of topics however, the PA (who has direct experience of these classes) suggests that in practice, the content of these classes is narrow, focusing largely on labour and less on other topics including psychological adjustment to parenthood. The PPP addresses this issue by providing a holistic view of pregnancy, birth, and parenthood via an array of topics (figure 14, chapter 5.2.1). However, the PA acknowledged that:

> *even though the whole concept is to become a positive parent…we do keep coming back to sort of labour and birth questions*

This suggests that regardless of the programme, there may be a natural gravitation towards certain topics at least for some programme users, which is important to note. Nevertheless, the programme attempts to offer holistic care to its programme users and discussing the importance of this, the PA outlined that knowledge:

> *takes away the fear which then leads to better outcomes…positive parenting would…not just stop at labour…we're trying to prepare women for the reality of the transition to motherhood*

The PA cited programme format as a difference between the PPP and local NHS antenatal education, with most NHS programmes delivered in a lecture-style format, with little to no HCP-patient interaction. With a small-group format (maximum 12 people per cycle) the PPP enable service user engagement, through the facilitation of open discussions:

> *one of the tasks that worked well…was to look at how your life will change as a couple…it made people have a discussion about how their life would change*

The PA outlined that within local NHS antenatal care provision, there is a general lack of time, and provided an example of the impact this can have for expectant parents:

> *when I think about clinical practice when you quite quickly say to a dad aww do you want to dress your baby and they've never handled a new-born and you can tell how scared they are but because you're in clinical practice you're so busy... maybe you don't have the time to help them*

Dedicated time is something that the PPP can guarantee to its users, offering a generous 14 hours per cycle.

The PA outlined how the initial idea for the PPP came from an evidence-based public resource developed by the DOH (2011):

> *[the] initial blueprint came from the pregnancy birth and beyond resource*

The PA discussed how as programme architects they were:

> *really inspired by that…that was our sort of seed of positive parenting*

The PA appreciated the malleability of the DOH (2011) resource and discussed how this gave PAs the flexibility required to create a programme that could address the needs they identified, while ensuring it was informed by the evidence-base:

> *they're not saying you have to deliver this…they're saying here is an open access resource…call it what you want do what you want*

The HWA provided further flexibility to PAs who were provided the resources and freedom to produce an enhanced programme (e.g., not constrained by NHS resources, provided a recurring timeslot). The PA reflected that during the early implementation of the programme, its content and structure were adapted to better suit the needs of programme users:

> *couples preparing to become parents…it was more difficult to run that class…people were less open and we wondered if it was too early in the group to start talking about…emotional things…so we thought right we tweaked it*

To summarise, PAs were able to design and deliver a programme that was both evidence-based, bespoke and that complements local NHS provision, due to the flexibility of the resource that was used to develop the programme and resources of the HWA.

Theme 2: Format and Reach

One difference between the PPP and local NHS antenatal education is programme format. PAs drew upon their experiences and observations, alongside the evidence-base to inform the format and structure of the PPP. Compared to local NHS antenatal education provision, the PPP group size is much smaller which was:

> *intentional…because of the outcomes we've read...reasons why women come to classes isn't just to learn but to try and meet other mums*

The PA described how the programmes' maximum group size of 12 participants felt like:

> *quite a safe number to sort of share experiences...it is a key part of it…that's a stark contrast to the what's offered locally by the NHS...hopefully we are setting up a peer support group for those women…I think in the huge classes it's less likely*

The PA believes the small group size of the programme enhances the quality of care provided, offering a safe environment for expectant parents to share experiences and bond with peers. In the below example, the PA reflects on the social interactions observed among PPP programme users, facilitated by the small group size:

> *I think it's more from a friendship perspective the benefits…it does seem that they tend to get to know each other…they form sort of friendships…they learn from any experiences in the pregnancy because they might be at a different period of gestation*

The PA believes that the small group size of the programme affords facilitators the opportunity to offer a more intimate form of antenatal education in which expectant parents feel comfortable to share and thus develop stronger relationships with their peers.

Another difference between the PPP and local NHS antenatal education is programme length. The PPP is delivered over seven weeks whereas according to the PA, local NHS antenatal education is typically shorter. The generous time scale allows PPP facilitators to cover a range of pregnancy, birth, and parenthood topics in-depth, with scope to facilitate discussions about topics that are pertinent for programme users, providing them with the knowledge they need to make informed choices throughout their pregnancies. The PA referred to research suggesting many women do not feel in control of decisions relating to their pregnancies and that women often feel their

midwives make assumptions about important decisions for them. The PA discussed that it is essential that midwives:

> *give ownership of all decisions back to the mums…to say like here is the evidence…here is what happens locally…it's really up to you…so that every decision is sort of owned by the mums*

> *feel passionate about informed choice and not owning the information for yourself but making sure you share it with mums*

To facilitate informed decision making, midwives should provide an unbiased account of the options available, giving ownership of decisions back to mums, something which the PA does not believe is happening elsewhere locally. For example, the PA relayed views that have been shared by expectant parents:

> *they say that typically other classes there's almost an agenda…and maybe the way you're made to feel…you will have this normal birth and you will…use these techniques and…if you don't...how you feel afterwards will be affected*

The PA recalled women feeding back that they feel more informed after attending the PPP and suggested that this may be due to how facilitators deliver information to women:

> *it's not about…right this is the right way to do things…it's more like here's all the info it's…going to be different for everyone…what's important is…you're happy with your choice*

The PPP benefits from a structure enabling facilitators to deliver care promoting informed choice. For example, the generous timescale of the PPP (14-hours over seven-weeks) provides ample time for facilitators to deliver in-depth information about a range of pregnancy, birth, and parenting topics, while the small intimate group nature facilitates discussions specific to the needs of expectant parents in attendance. While the HWA provides the resources necessary to offer a such programme (e.g., physical space, staff, the freedom to design a bespoke course) these might not be luxuries afforded to local NHS services, facing issues including under-resourcing.

The PPP utilises multiple activities and different types of sessions to deliver information to parents in various ways. For example, the PPP offers interactive activities (e.g., bathing the baby, changing nappies) which the PA suggested are valued by expectant dads as well as mums:

> *practical tasks…they love it and the dads particularly love that*
>
> *what can appear to be minor tasks but to them are huge so to even have a go at like practicing…they engage really well with those sorts of things*

RE is not only concerned with 'what works' but for whom and it is important to understand whom the PPP is reaching. The PA described programme users as typically falling into one of two categories, those recommended the programme by their midwives and those proactively seeking information. Discussing the latter, the PA stated that typically, programme users are:

> *already reading they're already interested…they want to be informed…finding out this information that's like their natural attributes*

The HWA aspires to offer accessible services for local people and therefore, it is important that the programme is advertised well enough that women not actively seeking information are aware of it. For example, the PA commented how:

> *there probably is a huge reach of people who could benefit from the classes…[but] maybe they haven't sought it out*

In summary, the format of the PPP was deeply considered during the design phase to ensure the programme could offer expectant parents a safe space to share thoughts, create bonds with peers and receive a holistic account of pregnancy, birth, and parenthood, fostering the formation of informed choices. The HWA has the resources, including physical space, time, and staff to facilitate a programme like the PPP, whereas local NHS services may not due to underfunding among other things. In this way, the HWA can offer a programme that complements and enhances local antenatal education provision.

However, there may be limitations to the reach of the PPP, with the PA identifying that awareness of the programme may be limited to those actively seeking antenatal education, suggesting that advertisement of the programme is limited. The small group size of the programme (maximum 12 expectant parents per cycle) was intentional, informed by the evidence that small group antenatal education works best. While the structure of the programme may be advantageous in relation to the quality of care provided, this may impact the reach of the programme, with a maximum of 72 attendees per year. Multiple cycles of the programme could be run simultaneously throughout the year to increase the programmes reach, drawing more patients to the

HWA. However, there would need to be a balance between patient need and the resources of the PPP/HWA.

Theme 3: Teachers as Teachers

This theme explores the role of SU midwifery lecturers in designing and delivering the PPP and how this has impacted user experiences and outcomes.

The PPP is an educational programme, and the PA discussed the benefits of having lecturers as facilitators. The PA described how facilitators draw upon their knowledge and experiences of teaching to enhance programme delivery:

> *we were in a bit of a unique position…we've all become teachers as well as midwives…[in the] local community…midwives that don't necessarily feel confident teaching are being asked to run educational programmes*

The PA suggests that having experience as both midwives and teachers gives PPP facilitators an advantage in delivering antenatal education compared to 'non-academic' midwives:

> *we like to think as a teaching team that we are…au fait with the sort of evidence…that might be different to just having a discussion…with a midwife…where she's maybe giving her clinical opinion…we actually talk about what is the evidence*

The PA suggested that PPP facilitators add value to antenatal education provision due to their proven abilities to teach and their familiarity with the current evidence base; an advantage of delivering care via a university-based HWA.

The PA stated that delivering the programme has had positive impacts for facilitators in terms of professional development and placement opportunities. Reflecting on their own experience of delivering the programme, the PA stated that it has:

> *been amazing to just have those relationships with women again*

As an academic midwife, the PA does not practice midwifery as much as they used to. One goal of the HWA is to provide learning and development opportunities, and this is something the PPP appears to contribute to.

The PPP also contributes to increasing student placement opportunities, enhancing student learning and development opportunities. Student involvement was a key consideration during PPP development. The PA highlighted some of the reasons why student involvement within the PPP was so important:

> *students go out into practice they...see different people deliver antenatal education…possibly not based on any evidence-based resource…eventually then they're in the same position as those midwives so they deliver something that's not evidence-based*

The PA shared some concerns about the quality of antenatal education delivered locally and how this can negatively impact on the quality of learning opportunities for students. The PA discussed how in their opinion, the PPP offers students an enhanced and unique experience relative to alternative placements:

> *you've got quite fragmented learning…you are caring mostly for women that you've never met before*

> *we think that the student can see hopefully a…unique way of delivering antenatal education [the PPP] …they're going to be the midwives of the future*

The PA reflected that while, *"student involvement with the PPP programme has been less enthusiastic"* than originally thought, those who have participated have benefitted from doing so:

> *[they] think more holistically and…women centred because they are actually a part of these women's journey...7 weeks is quite a chunk of your pregnancy so they get to see that women change and grow…the sorts of worries and questions that mums might ask…maybe they wouldn't have seen them ask in those antenatal short one to one appointments*

> *we've had second year and third year students because they've got a little bit more experience…and once we give them the confidence to get involved it's gone really well*

As discussed in theme 2, the PPP has the resources needed to provide an extended antenatal education (seven-weeks) programme in comparison to local NHS provision. The PA explored the benefits of this extended timescale for students, suggesting this enables them to:

> *develop those relationships with the mums...develop more confidence in their…own knowledge*

The PA outlined the benefits of the PPP in providing students the rare opportunity to experience/deliver continuity of care:

> *the student was really excited that she could deliver care to somebody that she could…make a difference…the benefits for the students is probably continuity of care and to recognise the value of continuity*

The PA also provided an example of how the HWA facilitates continuity of care:

> *a benefit…was that they would get to know the facility so that they were coming to the other groups that we run here…the postnatal group…that was established a couple of months after the positive parenting it's lovely for them to have that follow on group…the familiarity of coming here…there's that unexpected benefit of further continuity*

The PA also commented how student involvement has benefitted programme users:

> *one woman in particular fed back something that I hadn't anticipated…[she]trusted students more since coming to the group...she realised how much knowledge they've got…she said now I can see how amazingly passionate they are*

In summary, the involvement of academic midwives in facilitating the PPP appears to provide benefits to both programme users and the midwives themselves, offering increased opportunities to engage in clinical practice. Furthermore, the PPP provides a unique learning/development opportunity for student midwives, allowing them to develop strong HCP-patient relationships with programme users over an extended period of time, and the opportunity to observe and practice care in multiple contexts, exploring differences in provision.

6.1.4 Initial Programme Theory of the PPP

CMOCs were developed following the Thematic Analysis of the PA interview. These were then combined with CMOCs identified in the psychological theory review (chapter 6.1.2) to create an initial Programme Theory (PT) of the PPP (table 13).

Table 13/. *Initial PT of the PPP*

Contextual Factors	Mechanisms	Outcomes
If the NHS is under resourced and only able to provide antenatal education with a narrow focus, and expectant parents have a desire to acquire knowledge about pregnancy, birth, and the parenting journey	*Then*, users are provided with limited knowledge that does not meet their needs during what may be their only exposure to antenatal education	Which means users feel unprepared/less prepared for the challenges of pregnancy, birth, and parenthood, which can negatively impact their mental health and wellbeing
If the NHS is under resourced and only able to provide antenatal education in a lecture style format	*Then*, users do not have the ability to interact with the HCP, or ask questions that are causing them concern or worry	
If antenatal education is delivered by community or hospital midwives with limited teaching experience	*Then*, midwives who are not trained educators are delivering an educational programme, and may feel less confident and/or enthusiastic about running it	Which may lead users to have less confidence in the programme which may have a negative impact on the reception/impact of the programme
If antenatal education is delivered in a university-based HWA, and provided with sufficient resources (e.g., time, space, staff) to provide small group antenatal education	*Then*, this provides the opportunity for users to interact with HCPs and other users on a more intimate basis, which may help develop user's confidence to engage in group discussions, providing a safe space for them to share	Which means users get answers to their questions which can help improve their wellbeing/reduce worry etc.
	Then, expectant parents are provided with the opportunity to spend more time in close contact with other users who are going through the same life journey as them	Which may lead to the formation of friendships and a peer support group, some of which may last after the programme
	Then, only 12 expectant parents can attend at a time	Which limits the reach of the programme
If an antenatal programme is developed by academic midwives to be both evidence-based and multi-modal	*Then* users are provided with a range of information in several different ways, which means users with a range of learning styles/needs should be able to resonate with the information provided	Which can lead to the provision of better-quality care that can lead to beneficial outcomes for programme users

Table 13/. *Initial PT of the PPP (continued)*

Contextual Factors	Mechanisms	Outcomes
If antenatal education is delivered in a higher education institution, and co-facilitated by academic and student midwives	*Then*, academic midwives have the opportunity to provide regular patient care again	Which can lead to enhanced developmental opportunities for academic midwives at SU
	Then, additional placement opportunities are provided for SU students outside of the NHS, in a new environment which can provide new insights (e.g., business insights and the opportunity to learn from academic midwives)	Which can increase and enhance developmental opportunities for SU students
If an antenatal education programme is designed to cover a wide range of pregnancy, birth, and parenting topics	*Then*, expectant parents are provided with a holistic, comprehensive account of pregnancy, birth, and parenthood, which should provide them with the tools and knowledge they need to make informed choices that are guided by their preferences	Which should lead to better satisfaction with the process (e.g., pregnancy, birth, and parenting) for users
If an antenatal programme is developed that includes the use of practical activities, and interactive sessions such as birth story sessions	*Then*, expectant parents can practice parenting tasks, and become familiar with these	Which can improve confidence/self-efficacy in their abilities to carry out parenting related tasks
	Then parents can observe the success of an individual that they can relate to (e.g., a new parent) and picture themselves in the role of parent	Which can improve confidence/self-efficacy in their abilities to cope with their journeys ahead

A Summary of Initial Programme Theory

To recap, in RE the term 'context' refers to the situation or conditions that are necessary to induce mechanisms to produce outcomes and the term 'mechanism' refers to '*what it is about programmes'* that contribute to the development of outcomes for a programme delivered in each context (Pawson & Tilley, 2004, p. 6). Initial PPP PT suggests that structural (e.g., small groups), formatting (e.g., holistic, evidence-based, multi-modal care) and location-based (e.g., university setting) factors are important in triggering the necessary mechanisms to produce expected programme outcomes. Outcomes identified in initial PT are not restricted to programme users (e.g., increased confidence) but also senior (e.g., developmental opportunities) and student (e.g., enhance placements compared to NHS) facilitators of the programme. Mechanisms highlight the reasons why the resources provided during the PPP under certain conditions (e.g., facilitation of practical tasks) trigger specific outcomes (e.g., increased self-efficacy due to exposure and building of skills). The initial PT of the PPP outlined how the programme should work, for whom in what context and why. The initial PT will be refined following phase two of the PPP evaluation, following new insights from programme users and facilitators.

6.2 Phase Two: Testing Programme Theory

The aim of phase two was to test initial PT developed in phase one (chapter 6.1), exploring whether the PPP 'works' in the way it is meant to, for whom and why. Phase two of two main components, quantitative and qualitative data collection. Findings are presented in this chapter.

6.2.1 Quantitative Data Collection

The first component of phase two involved utilising validated questionnaires to measure outcomes for PPP users. Questionnaires chosen were informed by:

1) The literature review
2) A basic knowledge and understanding of the PPP and outcomes measured following participation in an antenatal education programme

6.2.1.1 Introduction and Aims

Programme evaluation objectives were outlined in chapter 5.3. The quantitative element of phase two contributed to answering the following aims:

1. Identifying whether the PPP is 'reaching' its target audience and to what extent

2. Identifying the outcomes of the PPP for its stakeholders including programme users
3. Whether the PPP offers a service in line with HWA aims and values and if so, which ones and to what extent?

Bullet points 1 and 2 were addressed by measuring the difference in outcomes for PPP users over time, before and after attending the PPP and identifying who the PPP was reaching through collecting demographic data. Bullet point 3 was addressed in part by understanding whether changes observed on outcome measures over time (if any), supported HWA aims.

6.2.1.2 Methodology

Ethical Approval

Ethical approval to conduct this study was granted from SU CHHS REC in December 2017 (appendix L). The REC was notified of any amendments to the procedure for which approval was also granted.

Participants

The target population were expectant mums and dads who attended the PPP. Participants were aged 18 or over. There were no other inclusion or exclusion criteria.

Participants were recruited face-to-face during the programme as part of a purposive sample, facilitating the exploration of set evaluation objectives. Data was collected for five consecutive cycles of the PPP during 2018. In total, (n= 40) expectant parents provided data at Time 1(T1) and (n= 25) at Time 2 (T2). Of the 25 participants who completed both T1 and T2 questionnaires, 20 were expectant mums and five expectant dads. No participants completed data collection at Time 3 (T3).

Materials

Information sheets (appendix Q) were provided to participants in session one (T1) outlining the purpose of data collection, what was being asked of participants, ethical considerations, and contact information for the primary researcher. Debrief sheets (appendix R) were provided in session seven (T2) outlining information including how to withdraw from data collection and details for local health and mental health services. T1 questionnaire booklets were provided in session one and T2 (appendix S) in session seven. Consent forms were embedded into questionnaire booklets. Consent forms informed participants that their data would be used (should they consent) for use in the

primary researchers' evaluation of the PPP and if they wanted to take part, to provide their initials, and the last three digits of their telephone numbers as consent on the space provided (this would allow T1, T2 and T3 questionnaires to be paired).

Tick box sheets (appendix T) were brought to session seven. The purpose of these was to ask participants to tick a box and provide an email address if they wanted to receive follow-up questionnaires, and/or wanted to receive information regarding interviews via email. Participants could tick either, both or none of the boxes. Follow-up data was to be collected electronically via survey software Qualtrics© (https://www.qualtrics.com), at one- or three-months post PPP completion. Information, consent and debrief sheets were integrated into the online questionnaires.

Questionnaire Booklets

Questionnaire booklets consisted of several validated questionnaires, original Likert scale, evaluation, and demographic questions. Participants were asked to complete paper-based questionnaire booklets at T1 and T2, and electronic questionnaires at T3. Questionnaires measured either parenting sense of competence, pregnancy related distress, mental health or FOC. Several versions of the questionnaire booklets were used during the evaluation (table 14) for two reasons: 1) Certain questionnaires were only to be completed by pregnant mums due to the constructs being measured, and 2) To allow the wording of questionnaires to reflect the correct parenting title.

Table 14/. *PPP Questionnaire Booklet Versions*

Time Point	Version
T1 & T2	1) Pregnant mums 2) Expectant dads 3) Birth partner mums
T3	1) Pregnant mums who had not yet had their baby 2) Mums who had given birth 3) Expectant dads whose partners had not yet had their baby 4) Dads whose partners had given birth 5) Birth partner mums whose partner had not yet had their baby 6) Birth partner mums whose partners had given birth

Detailed descriptions of the included validated questionnaires, Likert scale, demographic and evaluative questions are provided below.

The Parenting Sense of Competence Scale (Johnston & Mash, 1989)

The Parenting Sense of Competence scale (PSOC*;* Gibaud-Wallston & Wandersman, 1978, cited in Johnston & Mash, 1989) is a 17-item measure of self-perceived parenting competence, originally designed for use by mothers during the postpartum

period. Parenting competence in this instance refers to a self-perceived assessment of how well a person is performing as a parent compared to their initial expectations (Sabatelli & Waldron, 1995). The scale was revised by Johnston and Mash (1989) to a 16-item measure, and authors identified two subscales of the PSOC: 1) Satisfaction, that reflects parenting frustrations, motivations, and anxieties, and 2) Efficacy, reflecting a parent's ability to problem solve, and their capabilities and competencies in parenting (Johnston & Mash, 1989). The 17th item on the scale was removed as it did not load above .40 on either of the two factors identified. The 16-item PSOC has been validated for use across several populations, including Thai fathers (Suwansujarid, Vatanasomboon, Gaylord & Lapvongwatana, 2013) and Chinese mothers (Ngai, Chan & Holroyd, 2007). More broadly, research has assessed the factor structure of the PSOC among a large sample of normative participants and found acceptable results. For example, Ohan, Leung and Johnston (2000) replicated the original factor analysis carried out by Johnston and Mash (1989), with results supporting the earlier evidence that the two subscales assess different aspects of parenting self-esteem.

Each subscale has eight items and scores for the two subscales can be derived separately, and a total score for the scale derived by totalling scores from the two subscales. Answers to questions are measured on a 6-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (6). Items 2, 3, 4, 5, 8, 9, 12, 14, and 16 are reversed. Higher total scores on the scale are indicative of higher parenting sense of competence however, there are no set cut off scores for the PSOC. Johnston and Mash (1989) created two versions of the revised 16-item scale, one for mothers and one for fathers in the postnatal period. At current, the authors have not created a prenatal version however, research has used a modified version of the original scale during the antenatal period (Pedersen et al., 1989, cited in Porter and Hsu, 2003). In this project, the 16-item PSOC was used in its original form at T3 (during the postnatal period). At T1 and T2, questions were modified to reflect the prenatal period. An example of how the questions were modified can be seen in table 15. This was necessary as the measures used needed to be able to measure the same construct both antenatally and postnatally.

Table 15/. *Modification of PSOC Questions*

Original Question	Modified Question
If anyone can find the answer to what is troubling my child, I am the one	*I believe if anyone will be able to find the answer to what is troubling my child, I am the one*

The Wijma Delivery Expectancy/Experience Questionnaire (Wijma, Wijma & Zar, 1998)

The Wijma Delivery Expectancy/Experience Questionnaire (WDEQ versions A/B) is a 33-item questionnaire measuring Fear of Childbirth (FOC) on a 6-point Likert scale. There are two standardised versions of the questionnaire, version A and Version B. Version A is written for women in the antenatal period and is worded to reflect delivery expectancies. Version B is for women who have given birth and is worded to reflect a women's delivery experience.

Participants are asked to answer questions on a 6-point Likert scale from 0-5. Scores of 85–99 are indicative of severe FOC and scores of 100 or more of clinical FOC. To score the WDEQ, all items are totalled and several items need to be reversed to calculate the total score. The WDEQ is not in the public domain and explicit permission to use both scales for this evaluation was obtained from lead author (appendix U). Due to copyright stipulations, the WDEQ was not able to be embedded into the questionnaire booklet and so, was printed separately for T1 and T2 data collection and a separate Qualtrics© link was produced for T3 data collection.

The W-DEQ (versions A and B) is a widely used measure of FOC and its validity and reliability have been tested multiple times. In the original paper, Wijma et al. (1998) reported the internal consistency and split half reliability of the measure has been high in samples of nulliparous and multiparous women with Cronbach's Alpha scores of 0.94 (Version A) and 0.87 (Version B) (cited by Hall et al., 2009). Overall, the W-DEQ has demonstrated good reliability for both nulliparous and multiparous women (Wijma et al., 1998). Additionally, the validity and reliability of the W-DEQ has been tested for several groups across different cultures, including in Iran and Turkey (Mortazavi, 2017; Korukcu, Kukulu & Firat, 2012).

The Tilburg Pregnancy Distress Scale (Pop et al., 2011)

The Tilburg Pregnancy Distress Scale (TPDS) is a 16-item questionnaire measuring pregnancy distress. The scale consists of two subscales measuring negative affect and partner involvement. The scale was developed following an identifiable lack of pregnancy specific instruments measuring psychological functioning (Pop et al., 2011). The scale asks women to indicate on a 4-point Likert scale (0=very often to 3=rarely or never), how they felt during the last 7 days. Scores range from 0-48, with higher scores indicating higher levels of distress. Score can be calculated for each subscale and for the whole scale. Cut off scores for the scale are defined by calculating the 90th percentile of the total scores in the sample, with those scoring above that cut off point being identified as at risk. Cut off scores in the original paper (Pop et al. 2011) suggest that overall scores greater than 17 are indicative of distress. In relation to the specific subscales, scores greater than 12 (negative affect) and greater than 7 (partner involvement) indicate construct specific distress. To calculate scores, items 3, 5, 6, 7, 9, 10, 11, 12, 13, 14 and 16 are reversed.

According to a 2015 systematic review by Evans, Spiby, and Morrell. reliability and validity of the TPDS has only been tested once. Pop et al. (2011) reported good internal consistency for the scale (Cronbach's Alpha = 0.78) and for each of the two separate subscales (Cronbach's Alpha = 0.80 for both subscales). Authors highlighted that due to there being no '*psychiatric interviews to diagnose pregnancy specific distress*' (Pop et al., 2001, p. 4), construct validity for the TPDS was measured by comparing scores on the Edinburgh Postnatal Depression Scale (EPDS, Cox et al., 1987) and the Generalised Anxiety Disorder Questionnaire 7-item (GAD7, Spitzer, Kroenke, Williams & Lowe, 2006), between women with and without depression and/or anxiety. Pop et al. (2011) only found a moderate correlation between the TPDS Negative affect subscale and the EPDS and GAD-7. However, they suggest that this may be due to the negative affect subscale measuring other dimensions than just depression and anxiety. They also note that the partner involvement subscale of the TPDS was only marginally correlated with the negative affect subscale and that high scores on the partner involvement subscale did not relate to previous occurrences of depression or anxiety. The authors conclude that partner involvement was an important theme in the interviews that led to the construction of the TPDS and stand by the fact that the sub-scale is a relevant construct to pregnant women (Pop et al. 2011).

While the TPDS is relatively new and not as well validated as other measures of distress, it is to the researcher's knowledge, the only pregnancy specific distress scale, and for that reason was used in the current study.

Depression, Anxiety and Stress Scales 21-item (Henry & Crawford, 2005)

The 21-item Depression Anxiety and Stress Scale (DASS-21) measures depression, anxiety, and stress on a 4-point Likert scale from 0 (did not apply to me at all) to 4 (applied to me very much or most of the time), asking participants how they have felt over the past week. The DASS-21 is a shortened version of Lovibond and Lovibond's (1995) original DASS scale. Used in a variety of populations, the DASS-21 consists of three separate scales measuring depression, anxiety, and stress. To score the DASS-21, individual scores for each of three scales are calculated; there is no combined score. Total scores on the DASS-21 are doubled. Cut off scores for each scale can be seen below:

- Depression: 0-9 normal, 10-13 mild, 14-20 moderate, 21-27 severe, 28+ extremely severe
- Anxiety: 0-7 normal, 8-9 mild, 10-14 moderate, 15-19 severe, 20+ extremely severe
- Stress: 0-14 normal, 15-18 mild, 19-25 moderate, 26-33 severe, 37+ extremely severe

Reliability testing for all three subscales in the original works by Henry and Crawford (2005) is impressive. The Depression, Anxiety, and Stress subscales showed Cronbach's Alpha of 0.88, 0.82 and 0.90 respectively, while the overall scale had a score of 0.93. The authors also commented that the DASS-21 shows good convergent and discriminant validity against other measures such as the Hospital Anxiety and Depression Scale (HADS, Zigmond & Snaith, 1983). The reliability, validity, and suitability of the DASS-21 for use in numerous clinical and non-clinical populations has been considered. For example, Fox, Lillis, Gerhart, Hoerger and Duberstein (2018) evaluated the use of the DASS-21 in a sample of cancer patients and found acceptable internal consistency as demonstrated by Cronbach's Alpha. Additionally, Le et al. (2017) explored the validity and reliability of the DASS-21 for use among a Vietnamese adolescent population and found it was reliable and suitable to assess mental health issues among their sample.

Likert, Demographic and Evaluation Questions

Demographic questions were asked to ascertain: 1) Gender, 2) Age, 3) Ethnicity, 4) Job status and field, 5) Number of children, and 6) Relationship status. Additionally, two Likert scale questions and six evaluation questions were developed (table 16).

Table 16/. *Likert and Evaluation Questions*

Question Type	Time	Question
Likert Question 1: Parenting knowledge	T1 & T2	On a scale of 1 to 7, please indicate how much you agree with the following statement: *"I feel I have enough knowledge to carry out my role as a parent effectively"*
Likert Question 2: Birthing knowledge		On a scale of 1 to 7, please indicate how much you agree with the following statement: *"I feel I have enough knowledge regarding labour and the birthing process as possible"*
Open-ended Question	T1	How did you hear about the Positive Parenting Programme?
Open-ended Question		What are you hoping to gain from attending the programme?
Yes or No Question	T2	Would you recommend this programme to other expectant parents?
Open-ended Question		Please explain your reasons why (for your answer to the above question)
Open-ended Question		What have been your favourite elements of the programme?
Open-ended Question		What have the least enjoyable elements of the programme been?

Design

A repeated measures design was adopted, with the same group completing questionnaire booklets at two time points. Initially, data was to be collected at three time points however, no participants completed data at T3. Initially, T3 data was to be collected 1-month post-completion of the PPP. However, following the first two cycles of data collection in which no participants completed T3 questionnaires, an amendment to the ethics application was made for data to be collected at three-months post programme completion. It was thought that at one-month, expectant parents may not be checking their emails due to arrival of their child, and it was hoped that extending the follow-up period would increase completion rates; this was not the case.

Method of Analysis

T-tests were used to analyse normally distributed data, and Wilcoxon signed ranks tests if a normal distribution could not be assumed. Mean case imputation was used to deal with missing data.

Procedure: T1 Data Collection

The primary researcher attended the first session of five consecutive cycles of the programme to recruit participants. During session one, an ice-breaker activity is conducted, and the primary researcher used this opportunity to introduce the evaluation. Potential participants were provided with information sheets and questionnaire booklets and were asked to complete these at the end of the session, should they wish to take part. Questionnaires were collected at the end of the session.

Procedure: T2 Data Collection

The primary researcher attended the last session of five consecutive PPP cycles to recruit participants (please note that two cycles only ran for six sessions opposed to seven). During these sessions, the primary researcher reintroduced the evaluation and handed out questionnaire booklets, tick-box sheets and debrief sheets. Participants were asked to complete the booklets and tick-box sheets at the end of the session. These were then collected by the primary researcher. Table 17 outlines which questionnaires were completed by which participants at T1 and T2, due to the constructs measured.

Table 17/. *Questionnaires Completed by Participant Groups*

Questionnaire	Participants
16-item PSOC scale	Mums and dads
W-DEQ Version A (birth/labour expectancies)	Pregnant Mums
DASS-21 item	Mums and Dads
TPDS	Pregnant Mums

6.2.1.3 Quantitative Findings: PPP Evaluation

Matched data sets (i.e., T1 and T2) were collected for 25 participants and analysed using SPSS. An alpha level of < or equal to 0.05 was used for statistical significance.

Descriptive Statistics

Participants provided demographic data at T1. Descriptive statistics are outlined in table 18. The table provides a data breakdown for the whole sample at T1 (n= 40) and for those who provided matched datasets (i.e., T1 and T2, n= 25). The purpose of this was to provide insight into the type of people the PPP was reaching (i.e., all attendees) and the specific characteristics of those providing complete matched data sets.

Table 18/. *Descriptive Statistics of PPP User Demographics*

Variable	Level of Variable	Total sample (*n*= 40)		Matched sample (*n*= 25)	
		Frequency	Percentage	Frequency	Percentage
Gender	Male Female	10 30*	25% 75%	5 20*	20% 80%
Age	20-29 30-39 40-49	13 25* 2	33% 63% 5%	7 18* 0	28% 72% 0%
Ethnicity	White-British White-Other White & Asian	34* 5 1	85% 13% 3%	20* 5	80% 20%
Working	Yes No	38* 2	95% 5%	24* 1	96% 4%
Relationship status	Single Relationship/ co-habiting Married/ Civil Partnership	1 16 23*	3% 40% 58%	1 9 15*	4% 36% 60%
Number of children	None One Missing data	37* 2 1	93% 5% 3%	24* 0 1	96% 0% 4%

Note. *an asterisk denotes variables with the mode frequency*

Of those who provided complete matched datasets (*n*= 25), statistics revealed that more expectant mums (80%) than dads (20%) attended the programme, that participants were predominantly between the ages of 20-39, White-British (80%), in full-time employment with a wide range of job roles (96%), either married/in a civil partnership or common-law partnered/cohabiting (96%) and first-time parents (96%)**.** 80% attended all sessions.

Reliability Testing

All questionnaires are validated and widely used within mental health or pregnancy-related research, and each has reported an acceptable level of alpha (α > 0.7). For use in this study, PSOC (Johnston & Mash, 1989) questions were worded to reflect the antenatal period. Therefore, a Cronbach's Alpha analysis (Cronbach, 1951) was run to report the internal validity of the PSOC as used in this study (table 19).

Table 19/. *Cronbach's Alpha Analysis of the PSOC*

Questionnaire	Pre-test α Value	Post-test α Value
PSOC Full	.691**	.812
PSOC Satisfaction subscale	.501*	.737
PSOC Efficacy subscale	.762	.741

Note. *A single asterisk indicates alpha values below an acceptable level (α> .7), a double asterisk indicates alpha approaching an acceptable level*

Reliability analysis showed a level of alpha below the acceptable threshold (α > 0.07) for the PSOC satisfaction subscale at pre-test. As the subscale showed an acceptable

level of alpha at post-test and the full scale overall (PSOC full at pre just approaching acceptable at .691), no further investigation was warranted however, results from tests of significance should be considered with caution.

Normality Testing

Paired Samples t-tests were used to analyse normally distributed data. A Shapiro Wilk test was performed to test questionnaires for normality. If *p* values were lower than .05, Wilcoxon Signed Rank tests were run. Questionnaires where data was *not* normally distributed are outlined in table 20.

Table 20/. *Shapiro Wilk Test Results where data was not Normally Distributed*

Scale	*p* Value
TPDS NA Subscale	.049
TPDS PI Subscale	.013
Dass-21 Depression	.008

Tests of Significance: Primary Outcomes Measures

Data was collected at T1 and T2 on two measures of psychological wellbeing, the DASS-21 (all expectant parents) and the TPDS (pregnant mums only). Tests of significance were conducted to explore changes over time (T1 to T2). Table 21 outlines the analysis of each primary measure for mums providing matched pairs data sets. Mean pre and post scores for the whole sample (non-matched pairs data) can be seen in appendix H2. Significant or interesting findings are then discussed.

Table 21/. *Significance Test Finding: Primary Outcome Measures*

Scale	Mean (M)		Standard Deviation (SD)		t or Z Value	df	*p* Value
	T1	T2	T1	T2			
DASS-21 Depression	3.36	3.84	2.69	3.91	-.69 (Z)	24	.490
DASS-21 Anxiety	5.56	6.24	5.21	6.20	-.87(t)	24	.392
DASS-21 Stress	10.72	9.36	7.41	5.41	.14 (t)	24	.171
TPDS Full Scale	14.3	13.15	5.44	7.07	1.04 (t)	19	.312
TPDS NA Subscale	11.75	10.45	3.67	5.71	1.68(Z)	19	.093
TPDS PI Subscale	2.55	2.70	2.78	3.23	-.48 (Z)	19	.631

No statistically significant differences were observed overtime on either measure however, there were some interesting findings. While not significant, scores on the TPDS (full scale) improved over time, with mums reported less pregnancy related

distress after attending the PPP. Similarly, while not significant, stress as measured by the DASS-21 decreased for participants from T1 to T2, meaning that expectant parents reported less stress after attending the PPP. Interestingly while not significant, levels of anxiety and depression increased for expectant parents from T1 to T2, suggesting that they felt more anxious and depressed at the end of the PPP. Literature suggests (chapter 6.1.1) that wellbeing generally improves following antenatal education and therefore, these results were somewhat unexpected. It is possible that the impending thought of giving birth and becoming a parent impacted findings, as parents were closer to these at the end of the programme. Some research has supported the idea that levels of anxiety can be higher in the third trimester (Parcells, 2010).

Tests of Significance: Secondary Outcomes Measures

Data was collected at T1 and T2 on measures of FOC (pregnant mums only) and parenting sense of competence (expectant parents). Tests of significance were conducted to explore changes over time (T1 to T2). Table 22 outlines results from the tests of significance for each secondary outcome measure for participants providing matched data. Mean pre and post scores for the whole sample (non-matched pairs data) can be seen in appendix H2. Significant or interesting findings are then discussed.

Table 22/. *Significance Test Findings: Secondary Outcome Measures*

Scale	Mean (M)		Standard Deviation (SD)		t or Z Value	df	*p* Value
	T1	T2	T1	T2			
PSOC Full Scale	66.54	68.30	6.88	8.14	-1.02(t)	23	.317
PSOC Efficacy Subscale	29.25	30.54	4.36	4	-1.34(t)	23	.193
PSOC Satisfaction Subscale	37.29	37.75	4.26	5.50	-.39(t)	23	.697
WDEQ Version A	55.95	51.10	23.98	23.61	1.59(t)	19	0.129

No statistically significant differences were observed over time on either measure however, there were some promising findings, with scores on the PSOC increasing, and scores on the WDEQ decreasing from T1 to T2. This suggests that expectant parents' sense of competence increased overtime and expectant mums fear of childbirth decreased over time, but not at a level of significance.

Tests of Significance: Other Measures

A Wilcoxon Signed Ranks Test was conducted to explore the differences over time (from T1 to T2) on participants scores on the two Likert scale questions measuring parenting and birth related knowledge. Non-parametric tests were run as there was only one question per Likert scale and therefore, parametric tests were not appropriate. Results are outlined in table 23 and significant or interesting findings discussed.

Table 23/. *Likert Scale Analysis Findings*

Scale	Mean (M)		Standard Deviation (SD)		Z	df	*p* Value
	T1	T2	T1	T2			
Likert Scale Parenting Knowledge	4.36	5.60	1.35	1.53	-2.71	24	.007*
Likert Scale Birth Knowledge	3.96	5.56	1.43	1.64	-3.83	24	.001*

Note/. *An asterisk denotes a level of statistical significance*

Analysis revealed that self-reported parenting knowledge was significantly better (Z=-2.71, p = .007) for expectant parents after they completed the PPP (M = 5.6, SD = 1.53) compared to before (M = 4.36, SD = 1.35). Similarly, self-reported birthing knowledge was significantly better (Z=-3.83, p= .001) for expectant parents after they completed the PPP (M = 5.56, SD = 1.64) compared to before (M = 3.96, SD = 1.43).

Programme Evaluation Questions

Participants were asked qualitative questions within the questionnaire booklets at pre- and post-test. Insights from these are outlined below. For open ended questions, the top three cited answers are provided. The reason for this, is that participants could write as many answers as they liked and therefore, there were more responses than there were respondents.

How did you hear about the programme?

Respondents to this question gave multiple answers. The top three commonly cited were:

1) Through a midwife, 2) Through the Swansea University, and 3) Through a friend

What were you hoping to gain from the programme?

Respondents to this question gave multiple answers. The top three commonly cited were:

1) Knowledge/information/support, 2) Confidence/reassurance, and 3) Meeting others

Would you recommend the programme?

100% of respondents said yes, they would recommend the programme (*n*= 25). When asked why, the most cited reasons included:

1) The information/content of the programme, 2) The relaxing/comforting/less daunting nature of the programme and, 3) The insightfulness/usefulness of the programme

How would you rate the programme on a scale of 1-10 (ten being excellent)?

Overall, the programme was rated as a 9.2 out of 10 (*n*= 24). Most people (50%) rated the programme a 10/10, 33.3% rated the programme an 8/10 and 16.7% rated the programme a 9/10.

What were your favourite/least favourite elements of the programme?

Respondents to this question gave multiple answers. For favourite elements, the top three commonly cited were:

1) Practical elements, particularly the caring for your baby session, 2) The content/information provided and, 3) Meeting and talking with others

Not many gave 'least favourite' elements but among those who did, four things were discussed: 1) The what ifs session, 2) Not having the hospital tour, 3) Inconsistencies in the facilitators (i.e., not having the same facilitator for the duration of the programme) and, 4) The chairs.

6.2.1.4 A Brief Discussion of Quantitative Findings

Analysis of quantitative data did not reveal any statistically significant changes over time on any validated measure for PPP users. However, analysis did reveal trends towards improvement in scores on the PSOC, DASS-21 stress scale, WDEQ and TPDS for expectant parents at T2. Interestingly, scores on the DASS-21 depression and anxiety scales increased for expectant parents from T1 to T2, which could be explained

by the timing of course. The PPP is delivered over seven weeks, meaning that expectant parents are closer to the birth of their child and new roles as parents at the end of the programme. Therefore, while it is possible that parents feel more confident and prepared, they may naturally feel more anxious the closer they get to becoming parents. Research supports the idea that levels of anxiety can be higher in the third trimester (Parcells, 2010). Wilcoxon Tests did reveal a significant difference in self-report birthing (p= .001) and parenting knowledge (p=.007) at the end of the PPP compared to the start (table 23, chapter 6.2.1).

Limitations

Quantitative data was collected during five cycles of the programme. Recruitment went well, with most programme users providing data at T1 (n= 40). Data collection was lower at T2 (n= 25) were lower, with an attrition rate of 38%, meaning that around a 3rd of participants were lost at T2. However, this was expected as by this time, some programme users had either had or were about to have their baby and therefore were not present at the PPP. No participants completed follow-up questionnaires. Initially, service users were contacted one-month after programme completion via email to take part in a follow-up. After two cycles of data collection, the primary researcher postulated whether a one-month follow-up was too soon, due to the likelihood that expectant parents would be at home caring for their new-borns. Therefore, an amendment was made to the ethics application to change the follow-up period to three-months; this still did not improve response rates. It is possible that participants did not read the email or if they did receive the email, did not have time to engage.

How did the Quantitative Findings Contribute the Programme Evaluation?

The quantitative element of phase two aimed to contribute to answering the following objectives:

1. To identify whether the PPP is 'reaching' its target audience and to what extent.
2. To identify the outcomes of the PPP for its stakeholders including programme users.
3. Does the PPP offer a service in line with HWA aims and values and if so, which ones and to what extent?

Findings demonstrated that largely the PPP was 'reaching' employed white women in their 20s or 30s, who were predominantly first-time mums and either in a relationship or married. The HWA aims to offer accessible programmes however, those currently

'reached' by the PPP are homogenous and therefore, not representative of the wider community. As primary and secondary outcome findings were not statistically significant, no inferences can be made about the impact of the PPP on user wellbeing, FOC or competence and further investigation is needed.

6.2.2 PPP Facilitator and Service User Insights

The second component of phase two involved interviewing PPP users and facilitators.

6.2.2.1 Introduction and Aims

Programme evaluation objectives were outlined in chapter 5.3. The qualitative element of phase two contributed to answering each aim:

1. Does the PPP offer a service in line with HWA aims and values and if so, which ones and to what extent?
2. What is the 'value' of the PPP in the larger context of local healthcare provision?
3. To identify whether the PPP is 'reaching' its target audience and to what extent
4. To identify the outcomes of the PPP for its stakeholders
5. What are the important mechanisms of the PPP that interact to produce identified outcomes for all stakeholders?
6. What are the important contextual factors of the PPP that interact to produce identified outcomes for all stakeholders?

Objective two was explored by understanding whether there was a need for the PPP and how the programme fits in within the context of current local antenatal education. Objectives three and four were explored by identifying who was using and facilitating the PPP and furthermore, identifying the impacts of the PPP for those stakeholders. Objectives five and six were explored by identifying factors about the programme that users and facilitators viewed as important and why, in addition to highlighting outcomes for both in attending/facilitating the programme. Objective one was answered by considering the findings from all other objectives, gaining a better insight of the PPP in the context of the HWA.

6.2.2.2 Methodology

Ethical Approval

Ethical approval to conduct this study was granted from SU CHHS REC in December 2017 (appendix L). The REC was notified of any amendments to the procedure for which approval was also granted.

Participants

Senior (qualified) and student midwives facilitating the PPP were invited to take part in interviews. All participants were over the age of 18. Three programme facilitators were interviewed (two senior and one student midwife). Participants were part of a purposive sample and there was no other inclusion or exclusion criteria.

Expectant parents who attended the PPP were eligible to take part in interviews about their experience. Participants (*n*= 2) were aged 18 or above and there were no inclusion or exclusion criteria.

Materials

Interviews were recorded on two electronic recording devices, ensuring recordings could be recovered if a device failed. Participants were provided with an information sheet (appendix M) via email outlining information including the study rationale, ethical rights, and contact details for the primary researcher. Participants were provided with consent forms (appendix N) during the interview outlining how their data would be used. Participants were provided with debrief sheets (appendix O) after the interviews, which included information such as withdrawal procedures and information for mental health services. Semi-structured interview schedules (appendix P) were used to guide the interviews.

Construction of the Interview Schedule

Please refer to section 6.1.3.2. Please see appendix P for the interview schedules.

Design

Face to face, semi-structured interviews were conducted.

Recruitment

Participants for facilitator interviews were approached in person by the primary researcher, asking if they would be interested in receiving information via email about taking part in an interview. Those who consented to be contacted were emailed to outline the purpose of the interviews and were provided with information sheets. Those who consented to taking part were emailed to arrange a time and date for their interview, which took place in the HWA.

The primary researcher attended the last session of the PPP for five consecutive cycles. During these sessions, programme users were provided with tick-box sheets (appendix T) and asked to indicate whether they would like to receive information via email about taking part in an interview. Those who expressed interest were emailed by the primary researcher who outlined the purpose of the interviews and provided them with information sheets. Potential participants were asked to respond via email if they wanted to take part. Those who expressed interest were further emailed to arrange a time and date for their interview, which took place in the HWA.

Procedure

Just before the interviews, participants were asked to re-read the information sheet and sign the consent form if they were happy to proceed. Interviews lasted between 30 and 60 minutes and were recorded on two devices. At the end of the interviews, participants were given a debrief sheet. Interview recordings were transcribed onto a word processor and saved to the primary researcher's university computer account, backed up onto the SU student P: Drive. Recordings were deleted following transcription.

Method of Analysis

Please refer to section 6.1.3.2

6.2.2.3 Interview Findings: A Thematic Analysis of PPP Facilitator Interviews

Interviews were conducted with three PPP facilitators, two SU midwifery lecturers and one second year midwifery student. Both senior facilitators had led multiple PPP sessions and the student was involved in co-facilitating one cycle. Both senior midwives had prior experience of running antenatal education classes outside of the PPP and the student facilitator had prior experience with a range of midwifery-based care through student placement.

During the interviews, programme facilitators discussed a range of midwifery topics including local antenatal education provision, challenges to NHS and the PPP itself including its content, reception, and associated outcomes, referring to both literature and prior experiences to support their discussions. Table 24 describes the themes developed during the thematic analysis which are expanded on in this section. Codes SF1 and SF2 refer to senior facilitators and STF refer to the student facilitator.

Table 24/. *A Description of Themes Identified in the PPP Facilitator Interview Analysis*

Theme	Description
Theme 1: Enhancing local antenatal education provision	Facilitators discuss issues with current local antenatal education provision and suggest how the PPP can address these.
Theme 2: PPP characteristics: Unique attributes and impact for programme users	This theme provides examples of how the PPP can benefit its services users. Facilitators discuss the importance of providing woman-led care and promoting informed choice.
Theme 3: Benefits of multi-modal antenatal education	This theme highlights discussions of the range of techniques and learning styles used within the PPP to improve learning.
Theme 4: Antenatal education in a complementary setting: Facilitator outcomes/impact	This theme highlights the benefits of the PPP for SU staff and students.
Theme 5: University based antenatal education: Programme User Impacts	This theme highlights facilitator views on the benefits of providing antenatal education in a university, including the provision of evidence-based care and consistent information.
Theme 6: Small group antenatal education: Impact and implications for programme users and facilitators	This theme discusses the benefits of providing small group antenatal education for programme users.

Theme 1: Enhancing Local Antenatal Education Provision

This theme provides insight from PPP facilitators as to the PPPs contribution to improving local antenatal education provision.

Facilitators suggested there is a discrepancy between the quality and availability of antenatal education that *should* and *is* being provided locally:

> *whether or not or not it is provided accurately…is…another story (SF1)*

> *I know that local health boards are struggling with providing antenatal education (SF1)*

Facilitators highlighted barriers to providing ample, quality antenatal education within the context of the local NHS:

> *the amount of classes that they can offer in the NHS are…limited because of…staffing…the volume of information they're getting is probably not quite what it could be (SF2)*

> *it's quite difficult with community midwives…because what tends to happen is the community midwives run the antenatal education classes…often they're pulled into the hospitals…an antenatal education class may have been set up and then last minute…it may be cancelled (SF1)*

Facilitators suggested the topics covered within local NHS antenatal education are limited and narrow in focus:

> *I don't think there's much emphasis on like mental health throughout pregnancy…or postnatal mental health…the emphasis definitely tends to be like on the biology of the pregnancy and the birth and the breastfeeding rather than the emotional impact (STF)*

The PPP may address some of the issues observed in local NHS provision, largely due to the resources afforded to it. For example, the programme can offer an extended (seven-week) programme and consequently, a more holistic account of pregnancy, birth, and parenthood, covering topics including wellbeing.

STF discussed the role of the facilitator in providing effective antenatal education:

> *in my first year…myself and the students in my cohort we did a breastfeeding class…in the hospital…we'd watched other midwives do the class…and we did feel like…not all midwives wanted to take part in that…part of the…the role (STF)*

STF supported the idea that PPP facilitators enhance the provision of local antenatal education, by utilising their skills as academics as well as midwives (see themes 3 & 5).

One way the PPP differs to local NHS classes is its format. Typically, local NHS antenatal education is delivered in:

> *a lecture style…someone stood at the front…teaching to many people…large numbers…potentially 40 couples maybe more sometimes (SF1)*

In contrast, the PPP accommodates a maximum of 12 individuals per cycle, offering a more intimate group environment, which SF2 suggests is desirable:

> *women want antenatal education ideally by someone they know and in smaller numbers (SF2)*

Facilitators suggest one of the biggest issues with local antenatal education provision is the traditional way it is delivered. Specifically, facilitators expressed concerns about lecture style delivery and how this can negatively impact expectant mums:

> *I didn't…particularly enjoy the classes that we offer locally because it can be quite an intimidating environment, women are less likely to ask questions (SF2)*

> *it can be anything like 30 couples…so it's not very personal it's quite difficult to ask questions (STF)*

> *in the NHS classes…they sit there they don't want to engage…I think people are frightened within the NHS…that they can't express themselves and ask these questions (SF1)*

> *the old school way of teaching antenatal education has a massive impact…on the women...I think a lot of women also feel quite frightened (SF1)*

Facilitators utilised their experience and knowledge to reflect on local antenatal education provision and agreed that the 'traditional' delivery style of antenatal education is ineffective. Facilitators postulated that an impersonal delivery style and the inability for programme users to engage with facilitators, can lead to feelings of fear among users. SF1 discussed how ideally antenatal education should:

> *not just seen as being boring…that you're just put into a room…I think people should be involved…in the classes and that…partners can be involved as well (SF1)*

Facilitators believe antenatal education provision can be enhanced by creating an environment in which expectant parents feel engaged and comfortable to ask questions. Facilitators advocated antenatal education provision that is both accessible and high quality and ideally, offers small, intimate groups that promote engagement and reduce fear; something they suggest is not offered elsewhere locally.

Faciliators discussed the importance of setting and how the physical location in which care is delivered can impact its reception. A key theme that emerged was the idea that the HWA had a less clinical atmosphere compared to other venues:

> *I personally think it's ideal it's away from the…traditional clinical hospital environment …which can be quite…intimidating frightening for some women…I think it's really nice it's not clinical at all it's…very relaxed (SF2)*

> *[the HWA is] not clinical in any way shape or form…we've got the lovely big room which is so inviting (SF1)*

> *[the HWA is] very like welcoming it doesn't look so much…[like] it's attached to like a hospital…so I don't think it's like daunting atmosphere that you don't feel like you're sitting in a hospital waiting room…it's like a good perfect learning centre I think it's like the perfect environment (STF)*

The HWA offers a unique venue for healthcare provision, providing services on a university campus opposed to a traditional healthcare setting, something facilitators appeared to value. SF1 illustrated how environment can impact the reception of a programme for its users:

> *if you go into a cold environment…you don't really feel...that the person is welcoming you into that space…I think people don't want to open up whereas here it's a lovely environment it's a warm…friendly environment (SF1)*

The above example illustrates how the HWA environment could positively impact the experience of PPP users, enhancing the provision of local antenatal education. Generally, facilitators held positive views of the HWA as a healthcare venue and discussed other attributes making its location beneficial to service users, including its proximity to the local hospital.

Previous commentary illustrates ways in which the PPP and HWA can enhance local antenatal education provision however, facilitators highlighted limitations of providing care in a university-based setting, including difficulties with programme user reach. For example, early in the programme, facilitators suggested:

> *there was a lot more people who just worked in the university (SF1)*

> *a lot of them tend to work at the university because that's where it's (delivered)…it's really easy for them and to get it off work (STF)*

Initial issues reaching users outside of the SU community could be attributed to several factors including poor programme advertisement and a subsequent lack of programme awareness in the local community. Furthermore, limited available programme spaces may be booked by SU staff first, due to their proximity to the HWA and awareness of the programme. SF1 suggested this is no longer a problem and that people from "*the area are hearing about it and are coming".* The HWA aspires to be accessible for those living locally and ultimately, programmes need to ensure they are accessible to those outside of the SU community. For example, facilitators raised the issue of programme timing (2-4pm) suggesting this might limit the reach of the programme for those employed outside of SU.

In summary, facilitators believe the PPP enhances local antenatal education provision, addressing limitations (e.g., clinical settings, narrow focus) of alternative services. Facilitators illustrated how the HWA enables the PPP to address some of these issues

for example, providing the necessary resources (e.g., a physical space and a protected timetable slot) to deliver an extended programme in a non-clinical setting. Facilitators provided an unbiased account of providing antenatal education in the HWA, noting limitations in doing so including issues with reaching programme users outside of the SU community.

Theme 2: PPP Characteristics: Unique Attributes and Impact for Programme Users

This theme provides a 'deep-dive' into the differences between the PPP and local NHS antenatal education in relation to programme content, duration, and delivery style and the impact this can have on programme user outcomes.

One of the biggest differences between the PPP and local NHS antenatal education is the extended duration of the programme:

> *in the NHS...[they] ram in as much information as they can...in a two-hour session whereas here it's a two-hour session…where we try to...cover a small...amount of information so at least then that information is absorbed by the women and their partners (SF1)*

The PPP runs over 7, two-hours sessions, affording facilitators time to explore different pregnancy, birth, and parenthood topics in-depth. Discussing this in relation to programme users, SF1 commented that expectant parents:

> *don't feel bombarded...I think the way that the course here is delivered is very clever…it builds up the women's confidence so that women are able to ask questions (SF1)*

SF1 suggested that the generous PPP timescale facilitates an effective pace of learning, increasing programme user confidence to ask the questions they want to over time. Furthermore, the generous timescale allows facilitators to spend time creating an environment which can help programme users feel more relaxed:

> *we always set up with refreshments at the back and…just help themselves throughout the session…there's nothing too official about it, it was very relaxed (SF2)*

> *we set up the room…a circle of chairs…we always have like tea and coffee and drinks and biscuits so it's just trying to create like a really informal environment (STF)*

> *as the women come in we invite them in…I think it's really important as well to welcome the partners…make the session quite light-hearted make them feel at ease because sometimes the topics that we do discuss...can have an effect on people (SF1)*

Facilitators suggest local NHS antenatal education is limited in its ability to provide intimate care due to a lack of available resources, whereas the PPP has the resources (e.g., time) to pay attention to the small details that can make service users feel more relaxed (e.g., welcoming service users personally). STF discussed how the first session of the programme is designed to foster relationships between programme users and facilitators:

> *the first session they just like you to explore...everyone's background...building a relationship with all the women…hearing about their pregnancy…it's not really an educational session the first session but it's...building like a relationship with the women so that they…trust you and they're receptive to information that you're giving them and that they can build a relationship with other members (STF)*

Facilitators highlighted characteristics of the programme including group size and the positive effects these had for them as facilitators for example, the ability to form personal relationships with programme users:

> *you get to know them on a more personal basis when it's larger groups it's more...difficult to kind of keep track of them…where they are now what…what stage is everybody at…with the smaller groups I do feel that you...get to know the individuals better (SF1)*

Facilitators implied that the PPPs small group format gives its users the confidence and comfort they need to be able to ask the questions they want:

> *women feel safe and the partners feel safe…to ask the questions as well I think it's the smaller groups…they understand each other (SF1)*

> *it doesn't matter how big how small the question is how stupid that they think that the question is…we're always there to answer and we always provide…an open room (SF1)*

> *we always...practice on a confidential basis…so we always say this room is a safe room for today you can answer any questions (SF2)*

> *they can ask us anything…I don't think that you would necessarily in a big group (SF2)*

> *it's just the right amount of people…the bigger groups it means that people…don't want to ask a question they don't talk to each other because it's very much like a lecture and you don't talk it's not like a conversation…I think in a group that size (the PPP) you'll always find someone…you sort of relate to…maybe if there were less people you might not find somebody that you relate to (STF)*

The above commentary illustrates how the PPP and its facilitators can offer a relaxed, comforting, and safe environment which can have a positive impact on programme users, providing them with the confidence they need to ask questions; something facilitators suggest is not the case in larger groups.

Facilitators discussed how sometimes, there is a culture of fear around labour, exacerbated by a fear of the unknown and the sharing of scare stories:

> *labour has such a stigma about it that it's…dangerous…a frightening time for people it's the unknown…you can't determine what is going to happen at that time and I think women at that…point in their life feel out of control of their bodies (SF1)*

> *traditionally women are very happy to share…scare stories about birth (SF2)*

The PPP promotes positivity around pregnancy and parenthood, not just labour, aiming to alleviate negative feelings by better preparing expectant parents through education:

> *not all births are scary…they can be positive and if you're prepared hopefully, you will have a positive experience even if it doesn't go to the plan (SF2)*

To increase preparedness and knowledge among expectant parents, facilitators use multiple techniques including interactive tasks. One session that was discussed several times was the 'what if' session:

> *we get them to write things down on post-it notes…then we can stick them all down so we don't know who's written what…so that people feel...happy to share (SF2)*

> *[we get] women and their partners to write down their what ifs, what are their concerns…rather than prescribing what we think their concerns should be we alleviate their actual concern so it's very real very woman led (SF1)*

> *we did like handing out…post-it notes…like writing things down and then sticking them up so they were sort of like anonymous…I think that's really good because you might have a ...question that you think it's silly and you don't want to say it but you want the answer to it…and they were discussed but you didn't know whose was whose…there wasn't a sense of you know you were feeling silly or anything…I think people engage with things like that (STF)*

Facilitators rated the 'what if' task as a highly effective element of the programme, contributing to the alleviation of fears for expectant parents in an anonymous manner by reducing aspects of 'feeling silly' or being embarrassed to ask questions. The format of the programme makes it possible to run those types of sessions, whereas the lecture style format of local NHS antenatal education does not. In this way the PPP can enhance local antenatal education provision.

Becoming a parent is a major life transition and during this time, expectant parents can experience problems with their mental health (chapter 6.1.1). Despite this, facilitators suggested that mental health is typically not discussed in NHS antenatal education. Conversely, mental health and wellbeing are an important focus of the PPP:

> *your health and well-being so we look at mums...and dads and you know trying to…get them some realistic expectations…what it's going to be like with a new-born baby and how they might feel and…ways to cope ...it's just about…them being prepared realistically (SF2)*

SF2 noted the importance of setting realistic expectations among expectant parents to better prepare them for parenthood. STF also discussed the importance of being realistic, preparing parents for every eventuality, highlighting how preparing for and coping with labour should be an important component of antenatal education, to ensure expectant parents have the skills necessary to cope:

> *as an expectant parent I think it's important to know what's normal…even if you don't you know any complications you know when it deviates from that (STF)*

Facilitators considered how expectant parents, both those with lived experience of mental health problems and those without, could benefit from these discussions:

> *I would hope that it would help if you were suffering because we never approach it in like a judgemental way…I would hope that it would help even if maybe you weren't suffering at the time you could then recognise the signs if you were suffering…you know if you discuss it antenatally you would notice the signs postnatally (STF)*

> *if the partners are there…if the mum was suffering with postnatal depression and the dads…have been given all that information in the class they can recognise it themselves then if mum wasn't able to recognise it (STF)*

These examples illustrate the importance of preparing for all eventualities, and how preparedness can lead to positive outcomes further down the road. By dedicating time to discuss mental health and wellbeing, the PPP can enhance the local provision of antenatal education, providing expectant parents with a level of care that equips them with the 'tools' they need (e.g., knowledge) to prepare for the journey ahead and prevent or help them to cope with issues of poor mental health.

A key theme that emerged during interviews was the importance of equipping expectant parents with the tools they need to make their own informed choices throughout pregnancy, birth, and parenthood. While this should be a priority of every midwife, SF2 commented that:

> *sometimes women feel negative because they feel that…maybe we act for them without including them in their decisions (SF2)*

Patients have the right to make decisions based on what is best for them for example, whether to use medication during labour and where to give birth. SF2 discussed the importance that women feel in control and play a part in making decisions. SF1 stated that if women:

> *have all of the information...to back up their decisions…it gives them a bit of empowerment (SF1)*

Discussing the PPP, SF2 relayed how facilitators:

> *try and empower them to know that they…are allowed to do what they want...that's part of the group that we give them that confidence…to make positive good choices for them (SF2)*

Providing a holistic account of pregnancy, birth and parenthood can equip expectant parents with the tools they need to make choices that are best for them, giving them control over and confidence in the choices they make. The structure of the PPP (e.g., extended length, use of group discussion) gives facilitators the time to lead women led discussions that can support informed decision making, something facilitators suggest is not on offer elsewhere.

Measurable outcomes for programme users are an important component of all health programmes. Facilitators discussed outcomes they observed among PPP users:

> *I've seen that quite a lot...people being very anxious to start with and then being …a lot more relaxed (SF2)*

> *a particular couple that spring to mind…the woman in particular had a lot of anxiety…very anxious and I really felt…a change in her and her partner by the end…they felt a lot more...confident, relaxed (SF2)*

Reductions in anxiety, increases in confidence and feelings of safety and security were among the outcomes discussed. SF1 provided a specific example of a situation in which a programme user benefitted from the knowledge they acquired through the programme:

> *(he) came back in...and he said even though we had...an emergency caesarean section…mum and baby are absolutely fine...we're so thankful for what we knew…so that they could prepare themselves and make those decisions at those times (SF1)*

The dad also commented that he and his partner:

> *remained calm we knew what was going to happen (SF1)*

While the information and advice provided by the PPP is designed to increase confidence and improve care outcomes for its users, the programme may not be the sole provider of information its users receive:

> *it definitely has...its challenges...there are obviously other…sources of information from like their midwives their families there's lots of other factors that like effect it it's not like the sole provider (STF)*

The above insight stresses the importance of providing care that is consistent across organisational boundaries within Wales. Facilitator observations suggest that the PPP is having a positive effect for programme users in the way they would expect (e.g., an increase in preparedness) which suggests the approach to education that is utilised within the PPP (e.g., promoting informed choice, providing PCC, and offering a safe space for parents to share their concerns) is effective.

Theme 3: Benefits of Multi-Modal Antenatal Education

The PPP uses of multiple techniques or ‘modes’ to deliver education, including:

1) Group discussions

2) Tasks (e.g., the what if task)
3) Practical activities (e.g., bathing the baby)
4) Tours of the local hospital
5) Observational birth story sessions (where new mums come in and share their stories)

Discussing these, SF1 reflected:

> *we need to…pick out elements of different…teaching aspects to put in so that everybody feels…we can provide different ways of learning…so people pick up different things (SF1)*

The above example highlights an awareness among academic midwives that people learn in different ways and that by embedding multiple methods within programme delivery, there should be something that meets the individual needs of most. Understanding this, PPP facilitators as educators may be better equipped to deliver antenatal education than non-academic midwives.

Facilitators explored the reception of the different PPP sessions on offer. Speaking about the birth stories session, SF1 suggested that:

> *[expectant parents] engage really well with that because it's…somebody who has actually been there and done that recently (SF1)*

Birth story sessions provide expectant parents with the opportunity to learn from someone they can relate to (i.e., someone who has recently been through the same journey they currently are). Facilitators suggest these sessions are valued by expectant parents for that reason:

> *they've had a positive outcome from their birth experience or possibly they've had ...negative outcomes…[it shows]the real side of…pregnancy birth and beyond...a real person and then it's not…us as midwives telling them a story…they see that person there...they take ...that information in then and they do really like to engage with other(SF1)*

> *having birth stories come in…they might share their story or knowledge with other members of the class who haven't had a baby before…and that might really...benefit…them because it's all well and good standing there going well labour should go like this and this is normal but…if someone comes in and explains...like aw that is actually how my labour went or it was a little bit different but I could take this from the class or something then they can really see how…the class is like benefiting them (STF)*

Facilitators believe the birth stories help to normalise labour, demonstrating the multiple realities of giving birth and reinforcing that these are normal. Furthermore,

facilitators suggest the relatability of the mums providing the birth stories adds credibility to the information they receive and believe this is something expectant parents value. This supports self-efficacy Theory (Bandura, 1998) which implies that observing an individual relatable to oneself (e.g., observing a new mum in the role you are soon to be in) can have a positive impact on the observer's self-efficacy in that role. SF2 outlined how expectant mums benefit from observing interactions between birth story mums and their babies:

> *the women end up breastfeeding…that's also a nice little touch because that's getting people used to seeing feeding…that builds their confidence (SF2)*

According to facilitators, practical activities are not offered in local NHS antenatal education and are unique to the PPP.

One PPP session that includes a practical activity is the 'caring for your baby' session. SF2 provided insight into why practical sessions are so well received, stating that:

> *they all love [the session] ...it's very practical…we have nappies filled with different…food items that…replicate…bowel movements…we discuss what's normal ...we do the nappy station, and we have a bath station" (SF2)*

> *[otherwise] it's really hard for parents to see...they see birth...then it's hard for them to imagine the rest...so they love engaging with that one we always make the dad's do the nappies (SF2)*

The above examples suggest being able to visualise and practice baby care tasks allow parents to insert themselves into 'real-life' situations for the first time, with facilitators suggesting this is not an experience they get elsewhere. For example, STF explained that:

> *things like bathing the baby things that they should obviously be taught about in hospital…we know with like staffing issues and stuff not all women come home with that…if you haven't had a baby before...there's no shame in saying you don't know how to bathe a baby…you might not have ever done it before (STF)*

Facilitators explored this from an expectant dads' point of view, observing that they appear to benefit from the practical sessions:

> *I think for the dads particularly the practical the bathing and the nappies they always seem to get a lot out of that one (SF2)*

> *the dads...or partners...seem to really respond well to practical tasks…maybe didn't feel...so eager to get involved with open discussions all the time…maybe some of it was geared around the mum…the sort of pregnancy development so they maybe felt a bit disengaged with that…but the practical tasks I think they really enjoyed (STF)*

Naturally, much of the content explored in antenatal education focuses on topics pertinent to expectant mums including labour and breastfeeding. However, it is important that expectant dads feel supported and confident in their abilities in their upcoming roles as new parents, and PPP practical activities provide the potential to do that.

To summarise, the PPP delivers antenatal education in a 'multi-modal' manner, offering a range of interactive and alternative sessions that cater to the learning styles of a range of people. Facilitators suggest that programme users appear to value the integration of these sessions within the programme, particularly the birth story and practical activity sessions.

Theme 4: Antenatal Education in a University Setting: Facilitator Outcomes and Impact

The primary focus of the PPP is to deliver antenatal education however, the programme also provides SU staff and students developmental opportunities. This theme explores the impact of the PPP for its facilitators, comparing this opportunity to experiences they have outside of the HWA.

4a: The Impact of Delivering the PPP for Senior Facilitators

Senior facilitators have experience of providing midwifery services (including antenatal education) in several different settings including the community, hospitals and more recently, the HWA. SF1 highlighted differences she noted between working within the NHS and the HWA:

> *when you qualify…you develop yourself within a hospital environment…you become very…enclosed within that environment...you don't really look out of the box (SF1)*

> *my eyes were really really opened...to see that there was so much available...about what is actually needed and what women need...not what is needed within...local health boards...not necessarily following policy...but making things tailored for women (SF1)*

SF1 suggested PPP facilitators offer women-centred care and acknowledged that they are "*very lucky*" that they have the time to offer this. The resources and time dedicated to antenatal education varies between the PPP and local NHS programmes.

Additionally, facilitators noted a difference in attitudes towards providing antenatal education between the NHS and the HWA:

> *[PPP facilitators] have a really positive outlook and I think that's really changed the way I think about things when I…speak to women…birthing is normal and being pregnant...that's the most important thing...the normality of it (SF1)*

SF1 reported development in her skills since delivering the PPP, feeling that she now provides more engaging and informative antenatal education than she had previously. SF1 illustrated how the skills she learnt by delivering the PPP have filtered out into her clinical practice:

> *when I was a community midwife I did run…the classes…I will confess in a very boring way…from running this [the PPP] …I now look at ways in which…I can change the way I deliver the programme…what can I bring into that session to make it…informative…how can I get those people to really engage in that subject themselves (SF1)*

> *if I'm caring for somebody…I always bring now what I've learnt from participating with the women and partners in the positive parenting groups (SF1)*

For SF2, the biggest benefit the PPP has afforded them is regular contact with expectant parents:

> *I'm doing a lot less clinical shifts than I did before…so having the patient contact is lovely (SF2)*

> *it's quite intense…so it can be quite exhausting but always very… I feel like buzzing after it (SF2)*

The HWA aims to improve learning and developmental opportunities and it appears the PPP is achieving this. SF2 discussed how PPP involvement has benefitted their professional development as an educator as well as an HCP:

> *[I'm] becoming a confident teacher…confident in…supporting students…and raising them up…you know they look to me when they're going to say something, and I like I feel like I can give them…confidence that they're doing well and that and that's great (SF2)*

Typically, academic midwives do not get the opportunity to witness students during clinical placement. Therefore, having the opportunity to work alongside them while

delivering the PPP has afforded senior facilitators the opportunity to mentor their students in a professional setting, with the above quote providing an example of the benefits this has had.

4b: The Impact of Delivering the PPP for Student Facilitators

STF discussed how senior facilitators actively promote student inclusion with the programme by advertising it during lectures, bringing past student facilitators in to share their experiences. Typically, one or two students in their 2nd or 3rd year of the SU midwifery course take part in facilitating the PPP per cycle. Midwifery students partake in clinical placements throughout the academic year and typically have prior experience of delivering antenatal education before taking part. Senior facilitators highlighted how providing care in the HWA, alongside the NHS, has its benefits for students:

> *it's also really important for the students to be able to see...that we're able to facilitate these kinds of...classes (SF1)*

> *[community/hospital midwives] are very very busy, they might miss a few things, but I think the students...are gaining that, that some things are quite essential (SF2)*

Senior facilitators believe the PPP offers students an opportunity to witness the quality of care that can be provided when resources are not an issue. SF2 commented how:

> *the main ethos of the group is to instil confidence in our students (SF2)*

SF1 and SF2 provided some context as to why this is so important:

> *I can't tell you how…amazing the opportunity is for their confidence because the alternative [local NHS AE] is standing up in front of...lots of…people which is...quite intimidating (SF2)*

> *we're shaping them to be...empowering midwives even if they don't run classes just in their caseload in the community...they've had all this experience of the types of information that are so important to give women (SF2)*

> *[students] need that confidence to be able to provide antenatal education for women...they are...the new wave of midwives that are coming through...if we can get the health and promotion...aspects of our role…up and running...so then at least they don't become fearful of providing antenatal education...so that they were already set up to provide that I think that's important (SF1)*

STF revealed her personal motivation for getting involved with the PPP:

> *I'm not the most...confident person with sort of speaking in like a group…I'm probably not the most confident person with thinking that I'm like saying the right information I need like a bit of reassurance so I thought it would be a good thing for me to do…for myself (STF)*

Senior and student facilitators shared the view that the PPP provides students with an opportunity to build their confidence. The PPP may be at an advantage to facilitate confidence building among students, by offering them the chance to deliver care alongside familiar mentors:

> *the provider I worked with...was very...kind and caring and giving lots of open question type things and just made me feel quite relaxed…it's probably given me a bit more confidence (STF)*

> *it has probably given me a bit more confidence in providing antenatal education…I sort of learnt a lot from the way that...the lecturer delivered the classes…it's something that I will probably take with me…if I was to have to...do antenatal education classes again (STF)*

The above examples illustrate the benefits of co-facilitating antenatal education alongside academic mentors for students. Additionally, this dynamic may have two-way benefits:

> *I think the students do bring another dynamic...they're in practice and they pick up with so much of the new up-to-date information and we learn from them and they learn from us (SF1)*

> *students are a little bit like in the middle...lecturers...you know some of them aren't still in clinical practice…whereas they're like extremely like knowledgeable with all the evidence-based information…we maybe...are like less knowledgeable about that but we see what happens in clinical practice as well…so you can sort of bring that to the table because we know what's happening like currently right now…in like the local hospitals and we can like have that input as well…so it gives you like a real sense of like value to why you're there (STF)*

Taking part in the PPP may have several developmental benefits for students including building their confidence, learning from academic mentors, and witnessing how care is delivered in different settings. SF1 discussed the development she witnessed in one student:

> *it's actually been really really nice to see...one of the students journey she's a very very quiet girl really quiet when she started and now she'll just take a session she'll run with a session and she's very very happy doing that (SF1)*

STF provided insight into here personal development through delivering the PPP:

> *I've definitely gained like confidence in my ability…the last session unfortunately the like lead lecturer she couldn't attend…neither could the other student, so I was on my own...if someone had told me it had to do that at the first session…I would have felt really really nervous and I probably wouldn't have done it…but I did (STF)*

STF provided insight about how delivering the PPP has positively impacted their delivery of care in other settings:

> *when you are just in clinical practice…things start to get…a bit down and negative and you focus on like really negative things...coming back every week (to the PPP) and just sort of like keeping on talking about like normal and like what should…happen...things being OK as long as everyone has a positive experience...you sort of get that in your head as well you know as everyone else's…and you just go away and…practice that (STF)*

Overall, the PPP has benefits for student midwives that are unique to that specific opportunity. For example, allowing student midwives to facilitate antenatal education alongside familiar academic mentors who can offer students a sense of security, which in turn can lead to an increase in their confidence and ability to provide care.

Theme 5: University Based Antenatal Education: Programme User Impacts

The biggest difference between NHS antenatal education and the PPP is that the latter is provided via an academic institution. Due to this, a few differences can be observed. The first relates to the facilitators delivering antenatal education. Within the NHS, facilitators are typically community or hospital-based midwives and within the HWA, facilitators are 'academic' midwives. Secondly, there appears to be a discrepancy between the quality and quantity of information delivered during antenatal education via the NHS and the HWA. Both differences are explored in this theme, considering the impact these may have for programme users.

STF shared their observations of antenatal education delivery within an NHS context and the context of the HWA, outlining differences in the perception of facilitators and how these can impact programme users:

> *midwives in the community are really amazing...when they come across quite nervous...I don't know if that changes the way that the parents...are like feeling about the information…maybe not so confident that that's the correct information or not so confident to...ask questions…it's sort of a more like...awkward environment then…there's no flow to the conversation because there is no conversation it's very like one-sided then in NHS…whereas here there's always sort of like...a flow I think even the parents confidence builds (STF)*

> *not all midwives want to be educators…part of the role of being a midwife is educating women but on a one-to-one basis that's very different than obviously standing up in front of the group...some midwives don't have the confidence to do that and I think...the lecturers they've obviously...specialised in a role where you doing that on a regular basis…so for them then that's something that comes quite naturally (STF)*

Above commentary provides insight into the different delivery styles among NHS and HWA antenatal education facilitators, and how this can impact programme users. For example, STF suggests that as educators, PPP facilitators have an aura about them that instils confidence about the accuracy of the information programmes users receive. Conversely, STF suggests that non-academic midwives can come across as nervous and are at a disadvantage in delivering antenatal education as they are not educators, meaning programme users may have less confidence in the information they are receiving. STF also suggested that NHS midwives are at a disadvantage due to the fact they do not have as much time as PPP facilitators to build confidence among women.

It is important to consider what impact the inclusion of student facilitators has had for programme users. Senior facilitators suggest that generally, student inclusion has been received well:

> *I think that the women…like the students there as well (SF1)*

> *the students are always well received…the parents…feel like they're nurturing them as well...and their development...also I think it's you see this in practice you know people…get a lot from students because they've just got they always seem to have that bit more time to give…for individual chats and needs...the last group in particular I definitely saw them…they were quite protective of the students they wanted them to do well which was lovely (SF2)*

Discussing other differences, facilitators suggested there was a discrepancy between the quality and consistency of care delivered within local antenatal education provision:

> *the information they're giving…is evidence-based and that's changing all the time…the information you'll often find out in practice it's often something someone may have been told when they had a baby 2 years ago that information is not what we would now...suggest or advise…so it's...important to like be keeping up to date with the information (STF)*

> *women need to have trust in you as a professional in order for you to...portray yourself in a positive way...and for you to provide the information that…the women need (SF2)*

> *if you portray yourself as...a very shy quiet...frightened person…and not necessarily know about that subject...people do pick up on that…and they may not necessarily feel...empowered and…have trust in you (SF1)*

Discussing the PPP, STF stated that:

> *making sure all the information is like evidence-based it's really important as well…some people go to like NCT…and I'm not aware of what is covered in that...I don't know if they have to follow like a certain guideline…but I can imagine it probably is a bit different to...NHS run or like university run…classes so I mean that can be confusing because one group of women are receiving...different information…to others (STF)*

Facilitators believe there is a lack in consistency across NHS, NCT and university-based antenatal education which is problematic as women who attend different classes are receiving different information. Key Welsh healthcare policy outlines the importance of a whole school approach ensuring that care is delivered consistently across organisational boundaries (chapter 1.2)

Providing antenatal education through a university may prove beneficial, as academic and student midwives might be more au fait with the current evidence base. STF relayed benefits of providing a university-based antenatal education programme:

> *when it's connected to the university...people have like a strong association with it being like really evidence-based…really like well-researched...that someone is like putting a lot of...time…[a facilitator] definitely...shows that she puts like a lot of effort into the classes…and that she really like cares about the...outcome…of them and I think like...that's what is different with the NHS classes (STF)*

STF noted that the idea of a university run programme can positively impact the perception of said programme by its users. STF also commented that the effort put into the programme by senior facilitators is positively received by programme users. Senior

facilitators might be able to put more time and effort into delivering the programme due to their workload, which is arguably lower comparative to NHS midwives.

Each PPP session has a topic of focus that guides the session:

> *we do have like a basis of things to work through for that session…it doesn't matter if it deviates from that you know as long as...the couples feel like they've got something out of it…if they have any questions or anything sort of like giving them a chance...to ask…it's good to obviously have...sort of like a list of things to talk about so that you keep…on track with what you want couples to take away from the experience but it's not…like a PowerPoint you're going through you know (STF)*

Locally, university-based antenatal education is unique to the PPP and facilitators believe that programme users benefit from receiving both the evidence-based and consistent care available on offer through the HWA. Considering the unique, contextual factors that the HWA/PPP bring to local antenatal education provision, it can be inferred the PPP offers an enhanced service.

Theme 6: Small Group Antenatal Education: Impact and Implications for Programme Users and Facilitators

This theme considers the impact of format on PPP user outcomes and for facilitators in terms of delivery.

STF highlighted the facilitation of discussions as a major benefit of providing antenatal education in a small group format:

> *I think small group sizes…is really important...it's really good to…talk like among peers like it's great for…smaller groups to sort of be talking to each other (STF)*

Facilitators suggested the small group size of the programme enables the ability to talk 'at ease' but also, the development of close friendships for programme users:

> *a lot of the women do actually stay in touch after...it's a nice support group (SF1)*

> *one group that are still friends and they go to for coffee together and they go for breastfeeding...group together...and that's really nice to see the friendships develop (SF2)*

Providing an environment that can facilitate the formation of long-lasting social bonds is a huge benefit for programme users and facilitators provided some insight as to why:

> *a lot of people don't realise that sometimes women can feel alienated in pregnancy...especially in the postnatal period I think that women... need other women for support… for one woman to say I haven't slept all night my baby's been feeding all night and for someone else to turn around and go…so have I that's normal…I think women feel reassured as well (SF1)*

> *I just think we lack in society now for...childbearing women that…close contact that they used to have when they'd meet women in the wards...that just doesn't happen anymore so I think forming friendships or a support network would be brilliant…if they could have that antenatally (SF2)*

Facilitators recognised the importance of developing and maintaining social bonds during the antenatal and postnatal periods, enabling support and reassurance for new mums. The safe and personal nature of the PPP, alongside its generous timescale, may be the perfect environment to foster the formation of social bonds. On the contrary, the impersonal, clinical, and large-group environment of local NHS antenatal education may not accommodate this.

Senior facilitators offered examples of the difficulties in managing small group antenatal education:

> *I think different personalities bring different...themes into the groups...and how the groups gel and how the groups work together...it's a little bit more difficult when somebody is quite quiet ...and you try and bring them in and they don't necessarily want to engage (SF1)*

> *there have been some groups where they've been perhaps the odd overpowering couple…it can be quite challenging then…you want them to have a good experience...but you want to make sure other people are having a voice so that has been quite challenging but…nothing we couldn't handle (SF2)*

STF also acknowledged challenges with providing care in an intimate group setting:

> *one thing I encountered in our programme was...listening to like everything well before I said anything I was thinking about like every sentence trying to make it a positive trying to like reflect really reflect like normality and things like that...but there were members of the group that maybe haven't had a very positive experience…and...just how we're reflecting that...because that has happened to them so I can't like dismiss that…and that was kind of really hard…if you were saying something and someone said well actually no…that's not what was offered to me so...it's really hard (STF)*

> *only being able to provide that level of care to 6 women every...8 weeks...is like a really small portion of women…to then be able to go on and…spread that information to other...women you know…like really normalise pregnancy (STF)*

While this may present a challenge, SF2 suggested facilitators are aware of individual differences and aim to be inclusive of individual needs:

> *depending on the types of...birth choices that they're making or if we have any women that are high-risk we try and be very inclusive of their...information as well (SF2)*

> *it's not…specified to one…socio-demographic group that its open to everybody doesn't matter who you are where you from…what you do it's available for everybody and I think it needs to be…tailored to a standard where everybody will understand (SF1)*

> *the people that do come to the groups want to be here...I think that has a really positive effect...on the sessions and how they're run because the women want to be here...and the partners...also feel that it's really important as well (SF1)*

Facilitators suggest that within local NHS antenatal education, midwives spend less time with programme users and the facilitation of open-discussions, practical activities and tailored care is less prevalent (compared to the PPP). While facilitating small group education has its challenges, senior facilitators suggest these are minor and manageable. It is possible that the academic background of senior facilitators and the experience they have managing and educating several different groups of people, provides them with the skills necessary to overcome difficulties running a group of this kind.

The PPP is open to all expectant parents, including expectant dads and partners. Facilitators discussed the benefits this brings, highlighting the contribution from expectant dads and the change in dynamics this can have for the group:

> *[dad's] fears are very different to women's…it's great to get men talking (SF1)*

> *sometimes it can change the...dynamics of the group...it can also strengthen the dynamics of the group (SF1)*

> *they've all been fully engaging with…the group work you know...when you sit in the group and we talk and they'll write down things...they're all very keen and interested and they are fully engaged (SF2)*

Much of the information provided in NHS antenatal education is geared towards mums and may unintentionally neglect to address the fears and concerns that dads or partners have. While the PPP openly encourages dads and birth partners to attend, this may not always be possible. However, SF2 suggested that:

> *even for the women who don't bring their partners...it's quite good for them to see what the men are saying...and what their fears are so that they can…feed that back (SF2)*

Facilitators perceive the PPP as beneficial for expectant dads as well as mums, with open discussions allowing expectant parents to hear concerns from the perspectives of all parents. Facilitators discussed how the PPP can enhance local antenatal education provision, by focusing on topics that are pertinent to both expectant mums and dads/partners:

> *[there is a] bit out there at the moment about...partners' mental health as well...becoming a new parent…I think it adds a great dimension...we have had...female partners as well…we're very inclusive, we want…everyone to feel welcome (SF2)*

> *if there is emotional impact talked about it's more geared around the mums…when we know that like maternal mental health is really connected to like dad's…mental health as well so in this class they definitely touch on both of those things and make it more not like a taboo subject to talk about like male mental health (STF)*

The inclusivity of all parents and the conscious effort to provide materials relevant for expectant dads/partners as well as mums, is one way the PPP can enhance the provision of local antenatal education. However, practical limitations such as the timing of the PPP need to be considered to ensure the PPP can 'reach' its target audience and is truly inclusive.

6.2.2.4 Interview Findings: A Realist Analysis of Findings from the PPP Facilitator Interviews

CMOC's from the PPP PA interview and the psychological theory review were combined to create initial PPP PT (chapter 6.1.4) as there were only a few CMOCs from the psychological theory review, and only one PA was interviewed. More insights were gathered in phase two, and separate CMOCs are presented for the facilitator and user interviews. These are then combined to form the final PT of the PPP along with insights drawn from quantitative data (chapter 6.3.1).

Table 25/. *CMOCs Identified in the PPP Facilitator Interviews*

Contextual Factors	Mechanisms	Outcomes
If antenatal education is provided within an under-resourced NHS (e.g., time, money, and staff), narrow in focus, and delivered in a large group format	*Then* users are provided with limited knowledge during what may be their only exposure to antenatal education	Which can negatively impact levels of preparedness/confidence/self-efficacy, mental health, and wellbeing
	Then, open discussions are not facilitated, leaving users unable to ask the questions they want to, meaning their fears and anxieties are not alleviated	
If antenatal education is delivered in a traditional, clinical, hospital setting	*Then*, this might instil feelings of fear, intimidation, discomfort, and unease among users, and leave users feeling less engaged with the programme	
If antenatal education is delivered in an NHS setting by community/hospital midwives who are not trained educators	*Then*, facilitators may lack the confidence and skillset needed to deliver an educational programme to the same standard as academic midwives (e.g., confident, engaging delivery), which might negatively impact on the perception and reception of the programme by users (e.g., less confidence in the programme)	
	Then, programmes may lack considerations about learning style (and may not cater for these through multi-modal delivery) and programmes may not meet the learning needs of a range of programme users	
If antenatal education is delivered in a non-clinical, university-based HWA, that is perceived as warm and comforting, more so than traditional clinical settings (e.g., a hospital)	*Then*, programme users feel more relaxed and at ease, and able to interact with the midwives, building relationships/trust	Which can lead to improved engagement with the programme, and users feeling better prepared for the challenges of pregnancy, birth, and parenthood, which can positively impact their mental health and wellbeing
If antenatal education is delivered within a university-based HWA, with sufficient resources allocated to the programme (e.g., time, staff, space) to allow for an extended, holistic, evidence-based programme	*Then*, users have ample time to digest the information provided to them, and for it to be understood as opposed to just remembered	Which can lead to users feeling better prepared, having more confidence/self-efficacy in their abilities, which can positively impact their mental health and wellbeing
	Then, users receive up to-date and accurate knowledge and information on a wide range of pregnancy, birth, and parenting related topics, receiving a more comprehensive and holistic overview than they would in a smaller class with less time	
If an antenatal education programme is not restricted by the resources and scope of the NHS	*Then*, students are provided with the opportunity to deliver care in a new environment, and gain a new perspective, including seeing a different way to deliver healthcare and providing healthcare in a ‘business setting’	Which can lead to the development of new skills among students and improved employability, knowledge, and skillset

Table 25/. *CMOCs Identified in the PPP Facilitator Interviews (continued)*

Contextual Factors	Mechanisms	Outcomes
If antenatal education is designed to be delivered over an extended period, in a small group format	*Then*, users are offered a comfortable, intimate environment, in which they become familiar with the facilitators and build bonds with one another, and feel safer to share concerns and fears, and have these answered	Which can lead to an alleviation of concerns, a reduction in worry and anxiety for users and an increase in confidence
	Then, users have the opportunity to mingle with other expectant parents, and form bonds with peers who are going through the same life journey as them, whom they can relate too	Which can lead to the development of a peer support network for programme users
If antenatal education is designed and delivered by academic midwives, using multiple modes of information delivery (inc. practical activities, group discussions, birth story sessions, anonymised tasks [e.g., what ifs])	*Then*, through observational/interactive learning experiences, users can learn from others who are going through/have recently gone through the same journey as them	Which can lead to users feeling reassured in their own abilities, and feel less alone, and more like a collective
	Then, users can share their fears and concerns in an anonymous manner, which encourages participants to feel safe to share and have their questions answered	Which can lead to users feeling reassured and less anxious about their concerns, which can positively impact their mental health and wellbeing
	Then, users with a range of learning styles and requirements feel engaged with the programme and its content	Which can lead to users feeling better prepared, having more confidence/self-efficacy in their abilities, which can positively impact their mental health and wellbeing
If antenatal education is accessible and appropriate for expectant dads, with tailored information for their needs as well as mums	*Then*, the worries, fears and concerns of expectant dads are raised, listened to, and addressed	Which can lead to reduced fears/concerns for expectant dads, and an increased awareness among expectant mums or dads' feelings
If antenatal education is designed and delivered within the context of a university-based HWA, facilitated by student and senior midwives	*Then*, academic midwives have more opportunities to interact and coach student midwives outside of the classroom *and* are given the opportunity to interact with and provide care for women on a more regular basis	Which can boost senior midwives' confidence as academic tutors and lead to an increase in different skills among both student and academic midwives
	Then, students are given the opportunity to learn from familiar academic mentors whom they trust and look up to, in a familiar environment, which may help them better engage and provide a better learning environment	Leading to enhanced development opportunities for students which can have a beneficial impact on their skillset
	Then, antenatal education co-facilitated by academic and student midwives, both clinically trained and able to offer up to date evidence-based care can be provided, with a level of credibility	Which can lead to an increased confidence in the accuracy of information gained during antenatal education for programme users

6.2.2.5 Interview Findings: A Thematic Analysis of the PPP User Interviews

Expectant mums who attended the PPP were interviewed (*n*= 2). During the interviews, several topics were explored including their motivations for attending, opinions and experiences of attending, and their outcomes associated with attending the programme. Both were first time mums and neither worked at the university. Both heard about the programme through friends, and both wanted to attend for two main reasons: 1) To meet other expectant mums, and 2) Learn what to expect during their pregnancies and labour.

A description of the themes identified from the interviews can be viewed in table 26, followed by the full thematic report, using the codes PU1 and PU2 to represent participants.

Table 26/. *A Description of Themes Identified in the PPP user Interview Analysis*

Themes	Description
Theme 1: The impact of context on antenatal education outcomes for programme users	Programme users discuss how the setting (HWA), and facilitators of the PPP impacted their experience of antenatal education. For example, users discuss how the non-clinical atmosphere of the HWA, and the reassuring nature of the PPP facilitators made their experience more positive.
Theme 2: The facilitation of social bonds through antenatal education format	Programme users give their perceptions of how the programmes' format facilitated the formation of social bonds with other users. Furthermore, this theme highlights how the HWA contributed to the development of a sense of community among programme users.
Theme 3: Multimodal antenatal education: Techniques and reception	Theme 3 highlights how the multiple teaching techniques adopted by PPP facilitators helped to produce positive user outcomes including a reduction in fear and an increase in preparedness.

Theme 1: The Impact of Context on Outcomes for Programme Users

This theme provides programme user insights about the delivery of antenatal education in an alternative setting to the NHS, exploring HWA attributes and benefits of being delivered on a university campus.

PU2 discussed how traditional, clinical antenatal education settings including hospitals can cause fear and intimidation for programme users:

> *I don't like hospital environments...maybe I feel more relaxed coming here because...it wasn't in that environment (PU2)*

Programme users gave their opinions of the HWA as a venue to deliver antenatal education, describing the HWA as:

> *a lovely venue...it's really new and clean and sleek (PU1)*

> *a nice venue...a nice…new building so the environment was nice (PU2)*

Both users held positive opinions of the HWA, with PU1 adding that the aesthetic of the HWA gave credibility to the PPP:

> *it just gives you more confidence in a programme when it's in a nice…facility (PU1)*

In addition to the 'nice environment', programme users appreciated the accessibility of the HWA as a venue, commenting on attributes including parking:

> *the parking was good outside...because I was really heavily pregnant...it was quite a bit of a struggle sometimes to walk long distances...so I would say...parking...is kind of a big deal when you're...not feeling very well...you're not quite as mobile as you used to be (PU1)*

PU1 highlighted the importance of providing antenatal education in a venue that is easy to access, especially when women are further along in their pregnancy. As a ground floor venue with parking, the HWA provides an accessible venue for providing antenatal education. Overall, PPP users endorsed the location of the HWA as a venue for antenatal education, highlighting beneficial attributes including ease of access and a clean, comfortable environment.

One difference between the PPP and local NHS antenatal education are the programme facilitators. Typically, midwives delivering NHS antenatal education are community or hospital-based midwives. Midwives delivering the PPP are 'academic' or student midwives. Programme users gave their opinions of PPP facilitators. Overall, programme users found PPP facilitators to be knowledgeable and reassuring:

> *the ladies who ran it were really informal...they were friendly and they chatted to you it wasn't like the course is starting now you can't ask any questions...it was a really friendly atmosphere (PU1)*

Programme users valued the honesty of PPP facilitators and praised their ability to answer a range of questions from members of the group:

> *[facilitators were] quite honest as well…I think it was good they didn't like paint a picture that everything is going to happen as a perfect birth (PU2)*

The PPP promotes positivity around pregnancy, birth, and parenthood. Facilitators believe the key to a positive experience is being prepared for all eventualities, so parents feel in control and confident throughout the process. It appears this was also valued by programme users.

Programme users provided specific feedback about the involvement of student midwives within the PPP:

> *I think it's really good to have students involved…it's one way of them learning isn't it (PU1)*

> *[it was] nice to have someone...actually working as a midwife as well (PU2)*

> *[I] thought it was good because...I think sometimes students...they're more up to date with the new guidelines (PU2)*

> *it's just nice to have another person to ask questions...I know that the student midwife used to chip in…I really liked the student midwife...she obviously had a lot of experience and…knowledge" (PU2)*

Student midwives spend at least a third of their time practicing as part of their course requirements and are au fait with the current evidence-base due to their academic studies. For these reasons, students appear to be a valued addition to the PPP facilitation team. However, PU2 provided an example of when student involvement is not beneficial, suggesting some caveats to involving students within care delivery:

> *there's this breastfeeding support group that I've been to I think two weeks ago that's run by lecturers...loads of students came…now these were like first year students...who actually hadn't started...I felt like I was teaching them...and the idea of the group was to get support (PU2)*

> *I think...as long as they're quite experienced students...I thought it…just added another angle on it...the student she'd give her input and then…the more experienced midwife who was taking it would just…revamp the answer if you like...or add more experience (PU2)*

While programme users generally held positive views of both senior and student facilitators, programme users did discuss one issue with service delivery, relating to continuity of care:

> *[sometimes]there's different people running different sessions... sometimes it's good if there's one person who's consistent...throughout because then because sometimes we'd run over the same stuff that maybe we'd done with...somebody else (PU1)*

> *it is good just to have that one person and I suppose you get to know that person and then feel more...comfortable but I know that might not be possible with the kind of schedules and things...if there was just that one person there each week that would be really helpful (PU1)*

While it is not always possible for the same facilitator to facilitate every session (e.g., due to annual leave), this is something that appears important for programme users and therefore, something which should be considered going forward to improve the service.

Two main differences between NHS and HWA antenatal education are: 1) The setting, and 2) The facilitators. Overall, programme users endorse the HWA as a venue for delivering antenatal education, stating that it offers a clean, nice, and accessible environment. PPP users also held programme facilitators in high regard, finding them knowledgeable, reassuring, and honest. Programme users valued the inclusion of student midwives as co-facilitators, but suggested caveats to this, including experience levels.

Theme 2: Format and Friendship: The Facilitation of Social Bonds Through Group Format

This theme presents PPP user insights relating to the format of the programme, including what they thought worked well and how it could foster the development of social bonds with other group members.

Programme users gave their broad opinions on the delivery style and format of the PPP:

> *it was quite like a laid-back approach it wasn't like standing up in front...and demonstrating it was all sort of like how do you feel it was very like...emotion...oriented…which I think worked (PU2)*

> *there was always tea and coffee and that was nice because I suppose you come straight from work because it was in the middle of the day...it's nice to just have a bit of a breather and have a cup of tea and a sit down and chill out (PU1)*

Both users held positive views of the laid-back approach of the PPP service delivery, with PU2 suggesting the approach was favourable over a lecture style format. Discussing the small group size of the PPP, programme users concluded that:

> *I thought it worked really well (PU2)*

> *it was perfect…it was big enough that…you got to meet a range of people but not too big that you kind of felt intimidated (PU1)*

Small group size appears important for programme users with PU1 suggesting larger groups can be intimidating. Directly comparing the PPP and local NHS antenatal education, PU1 stated:

> *I know one of my friends did one of the NHS…courses...and she said ...there was just loads of people there...she actually didn't talk to anybody...I suppose it's a bit intimidating isn't it (PU1)*

Similarly, PU2 described a friend's experience of attending alternative antenatal education:

> *antenatal classes I don't know who they would have been run by...it wasn't university [run] and they said theirs was like in almost like a lecture theatre and it was someone standing at the front that's talking you through...so you just sit by your husband…whereas it was definitely like you make friends here (PU2)*

Both discussed being able to form social bonds with other women during their time at the PPP:

> *I made really good friends from…this group and we still hang on together now and our babies know each other (PU2)*

> *you get...support…I met another girl…I actually became really good friends with her...just having that support of someone who's going through the same situation (PU1)*

Being able to form social bonds with other mums was important for programme users and PU2 discussed how this was facilitated by the format of the PPP:

> *I think it sort of works in terms of...getting to know other mums and everything…I think it's nice in a smaller group you can…actually talk and hear other people's experiences they're going through (PU2)*

PU2 reflected why creating social bonds during pregnancy is so important:

> *I know being lonely often people say that when you become a new mum...I suppose...the friends that I've…still want to go out and…go on nights out and things like that…so having...people who are in the same situation and want to do fun baby things (PU2)*

Antenatal education can provide expectant parents with the opportunity to meet people who are going through the same life experiences as them, providing a space in which to develop new and lasting friendships. Commentary suggests the likelihood of

forming such bonds can be impacted by the opportunity to interact with one another on a more intimate, 1-2-1 basis, something that is better facilitated during small group antenatal education.

The HWA might influence the longevity of friendships formed within the PPP, offering a range of programmes that women can attend together both antenatally and postnatally. For example, programme users discussed how many of the women in their PPP group attended other courses at the HWA/SU together:

> *like today I've been with…five of the girls who are actually in the group and there's another baby group and it turns out everyone from our class is in the same group (PU1)*

> *[it was] nice cos you get to see them all and it's like you've been through the whole...journey together (PU1)*

Expectant dads are welcome to attend the PPP, and some do. PU1 felt that despite her husband not being able to attend, hearing the views of other expectant dads was beneficial:

> *[you]are full of these concerns and everything but the dads are obviously also feeling them but maybe you don't listen to them...you do get a bit more like empathy for dads got these worries...and concerns as well as just the mum (PU1)*

PU1 raised an interesting point about how the voices and concerns of expectant dads are not often heard. This may be due in part to the focus of antenatal education topics being geared towards mums (e.g., labour). The PPP is designed to facilitate open discussions among expectant parents including expectant dads, which can afford them the opportunity to discuss the issues that matter to them, something less facilitated in lecture-style antenatal education.

Both programme users noted accessibility issues of the PPP for expectant dads due to the afternoon timing of the programme:

> *I think the difficulty is the time of it so I was allowed to take time off work...because I was the one who was pregnant (PU1)*

> *because of work my husband does shifts so…I think he might of came to one or maybe two of them I think yeah given the time of day a lot of people...who worked…wouldn't be able to do it (PU2)*

The attendance of expectant dads appears to add a unique dynamic to the PPP. The programme should consider how to improve accessibility, ensuring the programme is equally accessible to all expectant parents.

Overall, the format and delivery style of the PPP appear to facilitate the formation of much valued social bonds among programme users. Also, the provision of a several antenatal and postnatal programmes in one location (i.e., the HWA) facilitates a sense of 'community' for women using the programmes. Further, there was a sense of learning through shared experiences (e.g., an element of psychosocial learning). The intimate nature of the PPP may offer a platform for expectant dads to express their concerns however, this needs more exploration.

Theme 3: Multimodal Antenatal Education: The Use and Reception of Multiple Teaching Techniques

The generous timescale of the PPP allows facilitators to discuss many topics and utilise multiple educational techniques (e.g., practical activities, discussions, handouts, birth stories) to deliver information. Programme users gave their opinions on the educational techniques utilised within the PPP and the content provided.

Discussing the use of handouts, PU1 commented that these were beneficial for her and her partner, especially when he was unable to attend:

> *when you are really heavily pregnant...your brain isn't firing on all cylinders...so you're probably not able to recall all the stuff you talked about it was good having the handouts (PU1)*

Both programme users highly valued the practical activities provided during the PPP:

> *one of the things that I'm really I'm glad attended and learnt about was the nappies...I know that I would have freaked out completely...but they actually had...nappies to show us with...pesto and things like that cos actually I didn't know what to expect at all so...that really really assured [me] (PU2)*

> *[the] informal way of getting the information…the practical bits then so I suppose it's nice having a bit of range I think…if I was just sitting down the whole time and they were just talking at us...I wouldn't find that particularly enjoyable (PU1)*

> *the other thing I found really helpful was just how to bathe the baby...those sort of practical things…they showed us using a doll...how to bathe the baby and things like that (PU1)*

PU2 felt that practical activities were memorable and enabled her to remember information post-birth:

> *[I] could still remember...the student who...knitted...boobs...and she like did demonstrations...of different latches and…I think I learnt a lot from that (PU2)*

PU1 suggested the practical activities were useful in highlighting aspects of baby care that would not have occurred to her otherwise:

> *little things...that you'd never never know unless you came on one of these classes...going through the nappies and different coloured poos... like their first poo was black ...which would have alarmed me I think...but I definitely felt in the hospital when I'd had her...nothing came as a huge surprise to me...because felt I'd learnt...quite a lot in all these...little sessions (PU1)*

Both programme users indicated the information obtained during practical sessions helped them during and/or after birth, by better preparing them for it.

A large proportion of the PPP involved group discussions. While each PPP session has a topic guide, facilitators promote woman-led discussions, focusing on aspects raised by expectant parents. The ability to have discussions with the midwives is a key difference between local NHS antenatal education and the PPP. PU1 discussed the benefits of this for her:

> *they were they were able to kind of answer any anxieties that I was having (PU1)*

> *it's helped me to...see what's normal...that there's lots of variations of normal and what's normal for your baby might not be normal for...another (PU1)*

> *it was good to have a forum that I could go to ask questions so ...even if I didn't have any questions...just knowing that if something did come up I could...ask at the course…that made me feel...maybe a bit safer (PU1)*

By engaging in open discussions, programme users hear the answers to questions they may not have personally considered. PPP facilitators use open discussions to promote positivity, illustrating multiple variations on 'normal', which PU1 appeared to value.

PU2 considered the impact that attending the PPP had for her in relation to preparing her for the challenges that lay ahead:

> *going into labour after I'd been on these courses I wasn't scared of it whereas growing up…I've probably been petrified I did really find like…I wasn't actually terrified of giving birth...one of the sessions was sort of about...the...actual physical...giving birth...I didn't really know the ins and out of it so again I think that gave me confidence in that (PU2)*

The PPP aims to educate expectant parents about parenthood in addition to labour and both programme users considered the benefits of covering this during the course:

> *I remember we learnt a bit about is it the…baby blues...that was really good to know and hear about and be aware of...even though I'd heard people like mention that...you don't really...know too much about it (PU2)*

> *is it normal to feel like to break down in tears for absolutely no reason...it's a bit of reassurance but it was also like quite good how... [the facilitator] focused in on like…there's some…things which could be more serious and little signs to look out for (PU1)*

Programme users felt reassured and better prepared after discussing post-birth topics including the 'baby blues', a topic not typically discussed during antenatal education.

The PPP 'what ifs' task also appeared to benefit service users in terms of providing reassurance:

> *knowing what I was going into and what could happen...I think the what if one really helped me (PU2)*

> *I could think…I'm going to worry about everyone's that I hadn't thought…but…actually...I think hearing the Midwives experiences I think that helped a lot (PU2)*

Both programme users held favourable views of the what ifs task but acknowledged that the task may not be for everyone, and some may come away from it feeling anxious. PU1 acknowledged that:

> *it's hard to balance that because…some people find it really reassuring...to talk about the things they're worried about (PU1)*

While the what ifs session could cause anxiety for some women, open discussions within the PPP allow facilitators to alleviate these fears, something which may not be achievable within lecture style antenatal education.

The PPP aims to provide a positive outlook on pregnancy, birth and parenthood and it appears as though the PPP is achieving this:

> *[I] looked at the birth more positively...there are ways to deal with it and I think the course...promoted that as well...don't be afraid to ask for help…you need to look after your own health I think that's...one thing that came out of this is like happy mum is a happy baby (PU2)*

> *they didn't just give positive experiences…you were sort of prepared for the worst-case scenarios...it was like a positive thing because they'd say...you know whatever birth...you could see it in a positive way (PU2)*

Both programme users discussed how the PPP made them feel comforted, and comfortable to share what they wanted to:

> *taking time out for me…taking 2 hours out of...an otherwise busy working day...kind of shows you that you matter as well in that you need to look after yourself (PU1)*

> *it was just nice to have some time to think about...pregnancy because...just day-to-day you just kinda getting on with going to work and doing all that kind of thing so they were just really nice and friendly and…knowledgeable…made you feel...safe being there I suppose (PU2)*

In summary, facilitators utilise a range of educational techniques, including handouts, practical activities, and discussions to facilitate the PPP which programme users appeared to value and benefit from. Programme users highlighted how the techniques used were appropriate, and how the 'what ifs' and practical baby care tasks helped to alleviate fears, increase positivity, and left them feeling better prepared. Programme users discussed how facilitators enhanced the programme, offering their experience and knowledge to provide support. Towards the end of the interviews, it became apparent that programme users viewed the PPP as more than just an educational programme, but a place to relax and take care of themselves. Components offered by the PPP that go above and beyond traditional lecture education were highly valued by programme users.

6.2.2.6 Interview Findings: A Realist Analysis of the PPP User Interviews

Table 27/. *CMOCs Identified in the PPP User Interviews*

Contextual Factors	Mechanisms	Outcomes
If antenatal education is delivered in a traditional, clinical, hospital setting	*Then*, users with a fear of these types of settings might be less focused on the programme, distracted and not fully engage due to intimidation, fear, or feelings of unease	Which can lead to lower retention of information/ less knowledge gained by users but also, exacerbate feelings of fear, which can negatively impact mental health and wellbeing
If antenatal education is delivered by an under-resourced NHS and thus, in a lecture style format	*Then*, users have little to no interaction with HCPs or other users, and can leave with many questions unanswered	Which can mean users are less likely to form peer support networks/develop supportive social bonds *and* users are less likely to have their fears alleviated, which can have a negative impact on their mental health and wellbeing
If antenatal education is delivered in a non-clinical, warm, comforting and physically accessible HWA environment	*Then*, users might feel more at ease, relaxed, and comforted, and better able to engage with the programme	Which can lead to users feeling better prepared and more knowledgeable, which can have a positive impact on their mental health
	Then, this might result in a reduction in pressures on users in the build-up to attending the programme (e.g., not having to look for parking)	Which can lead to an accessible and positive experience for users
If antenatal education is delivered in a university-based HWA setting, with sufficient resources to be able to provide an extended programme, delivering content at a good pace	*Then*, users have more time to build confidence over the weeks and feel comfortable to engage in such activities	Which can lead to users feeling better prepared and more knowledgeable, which can have a positive impact on their mental health
If antenatal education is delivered in a university-based HWA setting, and utilises multiple-modes to deliver information including practical activities and handouts	*Then*, users can revisit information at their own leisure (utilising the handouts), which allows for better retention of information	Which can lead to users feeling better prepared and more knowledgeable, which can have a positive impact on their mental health
	Then, users are given the opportunity to practice tasks that lay ahead, and actively envisage themselves in the role of parent for potentially the first time. Users also gain different insights and experiences, and have a more holistic account - one of which may resonate with individual users and their specific circumstances	Which can lead to an increase in confidence and self-efficacy in their abilities to carry out tasks, which can have a positive impact on their mental health

Table 27/. *CMOCs Identified in the PPP User Interviews (continued)*

Contextual Factors	Mechanisms (reasoning)	Outcomes
If antenatal education is delivered in a university-based HWA setting, with sufficient resources to be able to provide the programme in an extended, small group format	*Then*, this can facilitate a feeling of comfort, security, and safety among users, allowing them to feel comfortable in expressing their concerns and worries, and subsequently receive answers and reassurances to these	Which can lead to a reduction in worry, concern, and fear, and an increase in preparedness
	Then, users are provided with the opportunity to bond with others who are going through the same life experiences as them, and support and learn from one another	Which can lead to the development of supportive friendships/peer support networks among users
If antenatal education is delivered with a positive outlook (regardless of circumstance), providing users with a holistic view of pregnancy, birth, and parenting	*Then*, users think about 'scary' situations in a different way, and understand that there are no 'normal' circumstances when it comes to pregnancy and birth	Which can lead to users feeling better prepared for the challenges that lay ahead, which can have a positive impact on mental health and wellbeing
If antenatal education is delivered in a university setting, by senior and student midwives	*Then*, users are provided with a range of experiences, knowledge, and views	Which can lead users to feel better prepared and more knowledgeable of a range of different outcomes during pregnancy, birth, and parenthood *(N.B. Outcomes will be more beneficial if the student is more experienced)*

6.2.2.7 Researcher Observations

I attended the 1st and last sessions of the PPP over five cycles to disseminate questionnaires, witnessing several interactions between facilitators and service users including open discussions, activities, hospital tours, and 'birth story' sessions.

One observation I made was the change in student facilitators from the 1st to the last sessions, with their confidence increasing over time. At the beginning of each cycle, student facilitators tended to offer information and support to service users when prompted to contribute by senior facilitators. Towards the end, student facilitators were often leading conversations and overall, appeared to contribute substantially more to the sessions with a sense of confidence about them.

Another observation related to the atmosphere of the sessions and how the facilitators thought about the smaller details to ensure service users felt comfortable. For example, in each session a table with refreshments was set up, adding to the feeling of relaxation/comfort. Additionally, chairs were set up in a circle to ensure that service users and facilitators could see everyone during the session Again, this created a relaxed and informal environment and the arrangement appeared thoughtful. The room itself was large, bright, and airy, with large windows letting plenty of light into the room, creating a fresh vibrancy.

Having attended 10 sessions of the PPP and often arriving early to set up evaluation materials, I observed expectant parents as they arrived. Upon arrival at the HWA, parents were greeted by a receptionist and shown to a seating area if the room was not ready. Parents were able to grab a drink from the reception and take a seat with their partners to relax beforehand. There are several stands of leaflets in the HWA reception, outlining the antenatal and postnatal programmes on offer at the HWA, which parents could browse through at their leisure. Midwives would invite parents to the room when it was ready.

The PPP was delivered on a Thursday afternoon between 2-4pm. While I only observed the 1st and last session of each cycle, more dads were present during the first session than the last and often, would arrive to the sessions later. From my observation, the timing of the programme was not ideal, as the women often cited that their husbands could not make it due to work. While most of the women themselves

worked, they suggested it was easier for them to get the time off work than it was for their partners.

Programme users appeared to be engaged with the programme, participating in activities and discussions both in the 1st and last sessions however, discussions appeared to flow more naturally in later sessions. From my observations, service users valued the interactive elements of the course including the hospital tour and 'birth story' session. They took this time to ask questions and seemed to enjoy the experience. Overall, facilitators came across as warm, knowledgeable, and mindful of the preferences and circumstances of the individuals attending the sessions.

6.3 Phase Three: Refining Programme Theory

6.3.1 Programme Theory Refinement

Initial PPP PT (chapter 6.1.4.) was developed following phase one of the programme evaluation. Following phase two, PT was refined, to reflect findings from quantitative and qualitative data collection, alongside researcher observations. Final PT of the PPP is outlined in table 28.

Table 28/. *Final Positive Parenting Programme Theory*

Contextual Factors	Mechanisms	Outcomes
If antenatal education is provided within the context of an under-resourced NHS (e.g., time, money, and staff) and subsequently narrow in focus and delivered in a large group format	*Then* users are provided with limited knowledge during what may be their only exposure to antenatal education, which can lead to users feeling unprepared/less prepared for the challenges of pregnancy, birth, and parenthood	Which can negatively impact levels of preparedness/confidence/self-efficacy, mental health, and wellbeing
	Then, open discussions are not facilitated, leaving users unable to ask the questions they need answering	
If antenatal education is delivered in a traditional, clinical, hospital setting	*Then*, this might instil feelings of fear, intimidation, discomfort, and unease among users, and leave users feeling less engaged with the programme	
If antenatal education is delivered in an NHS setting by community/hospital midwives who are not trained educators	*Then*, some facilitators may lack the confidence and skillset needed to deliver an educational programme to the same standard as academic midwives (e.g., confident, engaging delivery), which might negatively impact on the perception and reception of the programme by users (e.g., less confidence in the programme)	
	Then, the programme may not meet the needs of a range of programme users (as considerations such as learning style are not considered/catered for through multi-modal delivery)	
If antenatal education is delivered in a non-clinical, university-based HWA, that is perceived as warm and comforting, more so than traditional clinical settings (e.g., a hospital)	*Then*, programme users feel more relaxed and at ease, and able to interact with the midwives, building relationships/trust	Which can lead to improved engagement with the programme, and users feeling better prepared for the challenges of pregnancy, birth, and parenthood, which can positively impact their mental health and wellbeing
If antenatal education is delivered within a university-based HWA, with sufficient resources allocated to the programme (e.g., time, staff, space) to allow for an extended, holistic, evidenced-based programme	*Then*, users have ample time to digest the information provided to them, and for it to be understood as opposed to just 'remembered'	Which can lead to users feeling better prepared, having more confidence/self-efficacy in their abilities, which can positively impact their mental health and wellbeing

Table 28/. *Final Positive Parenting Programme Theory (continued)*

Contextual Factors	Mechanisms	Outcomes
If antenatal education is designed to be delivered over an extended period in a small group format	*Then*, users are offered a comfortable, intimate environment, in which they become familiar with the facilitators and build bonds with one another, and feel safer to share concerns and fears, and have these answered	Which can lead to an alleviation of concerns, a reduction in worry and anxiety for users, and an increase in confidence
	Then, users have the opportunity to mingle with other expectant parents, and form bonds with peers who are going through the same life journey as them, whom they can relate too	Which can lead to the development of a peer network for programme users
If antenatal education is designed and delivered by academic midwives, using multiple modes of information delivery (inc. practical activities, group discussion, birth story sessions, anonymised tasks [e.g., what ifs])	*Then*, through observational/interactive learning experiences (e.g., birth story sessions), users can learn from others who are going through the same journey as them (a social model) and feel reassured in their own abilities	Which can lead to users feeling reassured/confident in their own abilities, and feeling less alone, and more like a collective
	Then, users can share their fears and concerns in an anonymous manner (e.g., what ifs), which encourages participants to feel safe to share and have their questions answered	Which can lead to users feeling reassured and less anxious about their concerns, which can positively impact their mental health and wellbeing
	Then, users with a range of learning styles and requirements feel engaged with the programme and its content	Which can lead to users feeling better prepared, and having more confidence/self-efficacy in their abilities, which can positively impact their mental health and wellbeing
If antenatal education is accessible and appropriate for expectant dads, with tailored information for their needs as well as mums	*Then*, the worries, fears and concerns of expectant dads are raised, listened to, and alleviated *(N.B. this will only be achievable if dads are able to attend; there are some issues with accessibility)*	Which can lead to reduced fears/concerns for expectant dads, and an increased awareness among expectant mums of dads' feelings
If antenatal education is designed and delivered within the context of a university-based HWA, facilitated by student and senior midwives	*Then*, academic midwives have more opportunities to interact and coach student midwives outside of the classroom *and* are given the opportunity to interact with and provide care for women on a regular basis	Which can boost senior midwives' confidence as academic tutors and lead to an increase in different skills among both student and academic midwives
	Then, students are given the opportunity to learn from familiar academic mentors whom they trust and look up to in a familiar environment, which may help them better engage and provide a better learning environment	Leading to enhanced development opportunities for students, which can have a beneficial impact on their skillset
	Then, antenatal education is co-facilitated by academic and student midwives, both clinically trained and able to offer up to date evidence-based care to programme users, with a level of credibility	Which can lead to an increased confidence in the accuracy of information gained during antenatal education for programme users

Table 28/. *Final Positive Parenting Programme Theory (continued)*

Contextual Factors	Mechanisms	Outcomes
If antenatal education is delivered in a non-clinical, warm, comforting and physically accessible HWA environment	*Then*, users might feel more at ease, relaxed, and comforted, and better able to engage with the programme	Which can lead to users feeling better prepared and more knowledgeable, which can have a positive impact on their mental health
	Then, there is a reduction in pressures on users in the build-up to attending the programme (e.g., not having to look for parking)	Which can lead to an accessible and positive experience for users
If antenatal education is delivered in a university-based HWA setting, with sufficient resources to provide an extended programme, delivering content at a good pace	*Then*, users have more time to build confidence over the weeks and feel comfortable to engage in such activities	Which can lead to users feeling better prepared and more knowledgeable, which can have a positive impact on their mental health
If antenatal education is delivered in a university-based HWA setting, and utilises multiple-modes to deliver information including practical activities and handouts	*Then*, users can revisit information at their own leisure (utilising the handouts), which allows for better retention of information	Which can lead to users feeling better prepared and more knowledgeable, which can have a positive impact on their mental health
	Then, users are given the opportunity to practice tasks that lay ahead, and actively envisage themselves in the role of a parent for potentially the first time. Users also gain different insights and have a more holistic experience, which may resonate with individual users and their specific circumstances	Which can lead to an increase in confidence and self-efficacy in their abilities to carry out tasks, which can have a positive impact on their mental health
If an antenatal education programme is not restricted by the resources and scope of its organisation (e.g., an underfunded NHS)	*Then*, students are provided with the opportunity to deliver care in a new environment, and gain a new perspective, including seeing a different way to deliver healthcare and providing healthcare in a 'business setting'	Which can lead to the development of new skills among students and improved employability, knowledge, and skillset
If antenatal education is delivered with a positive outlook (regardless of circumstance), providing users with a holistic view of pregnancy, birth, and parenting	*Then*, users think about 'scary' situations in a different way, and understand that there are no 'normal' circumstances when it comes to pregnancy and birth	Which can lead to users feeling better prepared for the challenges that lay ahead, which can have a positive impact on mental health
If, antenatal education is delivered in a university setting, by senior and student midwives	*Then*, users are provided with a range of experiences, knowledge, and views, as opposed to a singular perspective, which may be the case in alternative classes	Which can lead users to feel better prepared and more knowledgeable of a range of different outcomes during pregnancy, birth, and parenthood *(N.B. Outcomes will be more beneficial if the student is more experienced)*

Table 28/. *Final Positive Parenting Programme Theory (continued)*

Contextual Factors	Mechanisms	Outcomes
If academic midwives are afforded flexibility when designing/delivering the programme, and are able to provide extended, holistic, and women-led care	*Then*, this can equip expectant parents with the information they need to make their own decisions, and allows expectant parents to discuss and get advice on issues that are personal to them	Expectant parents can make their own informed choices throughout pregnancy, birth, and parenthood, offering a personalised level of antenatal education

A Summary of the Final Programme Theory

Findings from phase two of the PPP evaluation were mixed in terms of supporting the initial PT (chapter 6.1.4.). For example, quantitative findings (chapter 6.2.1) were not statistically significant for measures of FOC, self-efficacy or wellbeing. However, qualitative findings from phase two supported the CMOC's outlined in the initial PT, with participants providing further insight and examples of contextual factors and mechanisms that interact to produce outcomes for multiple stakeholders. For example, participants detailed how the university setting of the PPP gave programme users added confidence in the programme, and provided a less daunting, non-clinical alternative to a hospital environment that can often induce fear. All CMOC's developed in the initial PT of the PPP were supported by the qualitative data. Furthermore, several new CMOC's were identified that provide a detailed account of how different components of the PPP can impact outcomes for its users. For example, providing an educational programme facilitated by academic midwives that utilises multiple methods to deliver information, such as the 'birth story' session (C), that facilitates learning by offering programme users a social model they can relate to (M), can lead to an increase in confidence for programme users (O). The final PT of the PPP provides insight into how, why and for whom the PPP may work and furthermore, contributes to answering the objectives outlined in chapter 5.3.

Findings from the ACT psychoeducation programme evaluation are presented in chapter 7, cumulating in a final PT of that programme. Following that, chapter 8 provides a discussion of the main findings from the two programme evaluations, comparing findings and exploring them in relation to the key contextual and mechanism factors identified, considering findings in relation to the HWA LM outlined in chapter 4.

Chapter 7: The ACT based Psychoeducation Programme Evaluation

This chapter outlines finding from the three-phase RE of the ACT Psychoeducation programme.

7.1 Phase One: Development of Initial Programme Theory

Phase one involved developing an initial PT of the ACT psychoeducation programme via three iterative stages:

1) A psychological theory review
2) A literature review
3) An interview with the ACT psychoeducation PA

Findings from each stage informed the development of CMOC's forming the basis of the initial PT (chapter 7.1.4) to be tested in phase two of this programme evaluation. Phase one contributed to addressing each aim outlined in chapter 5.3. Unlike the PPP evaluation, the psychological theory review was conducted prior to the literature review, as the programme is heavily based in psychological theory.

7.1.1 Reviewing Psychological Theory

The first stage of phase one involved reviewing psychological theory to contribute to developing initial PT, by understanding the important mechanisms of change behind the programme.

7.1.1.1 How Reviewing Psychological Theory Informed the Development of CMOCs

The programme is an evidence-based psychoeducation programme, based on Acceptance and Commitment Therapy (Hayes, Stosahl & Wilson, 1999) which is based on Relational Frame Theory (RFT; Hayes, Barnes-Homes & Roche, 2001). Reviewing both theories may provide insight into *why* the ACT psychoeducation programme may or may not work, identifying mechanisms of change. Mapping elements of existing psychological theory onto the ACT psychoeducation programme may also identify additional contextual and mechanism factors that are important to include in the PT.

7.1.1.2 Relational Frame Theory and Acceptance and Commitment Therapy

Relational Frame Theory (RFT) refers to:

> *a functional contextual theory of human language and cognition…(that) aspires to provide a comprehensive psychological account of language and higher cognition by undertaking to explain some of our species evolutionary success (Hayes, Strosahl & Wilson, 2016, p.39).*

RFT (Hayes et al., 2001) posits that human beings' abilities to *'relate events under arbitrary contextual control'* (Hayes, 2004, p. 14) is key to both human cognition and language. RFT explores how people learn and develop language and cognitions through relating (i.e., creating bi-directional associations between objects) and suggests this ability is unique to human beings (Hayes, 2004). There are three main elements of learning outlined by RFT. Firstly, relations illustrate bidirectionality, a two-way relationship between items/objects/things. Secondly, RFT outlines the notion of combinatorial entailment, the idea that if A is related to B, and B is related to C, that there is some relationship between A and C. For example, if there are three boxes and a person is told that box A weighs more than box B, and box B weighs more than box C, they will deduce that box A weighs more than box C. Lastly, relations facilitate the *"transformation of stimulus functions among related stimuli"* (Hayes, 2004, p.15) thus, informing the creation of relational frames. For example, if in the previous example box C was considered as dangerous, a person might consider box A as even more dangerous, due to the previous association of box A being 'more' than box C.

Hayes, Luoma, Bond, Masuda, and Lillis (2006) define ACT as:

> *a psychological intervention based on modern behavioural psychology, including relational frame theory, that applies mindfulness and acceptance processes, to the creation of psychological flexibility (p. 9).*

ACT has philosophical roots in functional contextualism and theoretical roots in RFT (Hayes et al., 2006; Hayes et al., 2001). ACT views the cause of psychological issues as an absence of the relational abilities outlined in RFT. ACT posits that psychological inflexibility arises from the poor contextual control an individual has over language processes. Furthermore, ACT attributes the formation of psychopathology to cognitive fusion and experiential avoidance (Hayes et al., 2006). Cognitive fusion refers to the idea of being caught up in one's thoughts, focusing on what our mind thinks rather than what we experience, while experiential avoidance refers to the attempt to avoid

internal (or private) events, even when this avoidance can cause psychological harm (Hayes et al., 2006).

ACT aims to increase an individual's psychological flexibility, by targeting the following six core processes: Acceptance, Being Present, Cognitive Defusion, Committed Action, Self as Context, and Values (Hayes, 2004). Acceptance refers to the process of acknowledging private events, without attempting to change them (opposite to experiential avoidance) and is utilised within ACT to help increase value-based actions. Cognitive defusion refers to an attempt to alter the way individuals interact with their thoughts, creating contexts that diminish their negative functions decreasing the believability of negative thoughts. Being present refers to the promotion of engaging with the present time, experiencing the world in a more direct manner, promoting flexible behaviour in line with their values, and involves using language to describe events as opposed to predicting and judging them. Self as context is promoted in ACT using metaphors and mindfulness exercises and refers to the recognition that we are separate from our thoughts. Values refer to underlying qualities that give our lives direction and represent what is important to us across several domains including family and work. Within ACT, the core processes contribute to living a values-based life. Committed action refers to actions that are in line with values, which are promoted through ACT in several ways (Hayes, 2004).

ACT uses mindfulness, acceptance, commitment, and behaviour change strategies to increase an individual's psychological flexibility (Hayes, 2004; Hayes et al., 2006). ACT differs from more traditional therapies in that it does not try to eliminate negative/anxious feelings but instead, aims to teach an individual how to be in the present moment, accepting their thoughts, and not avoiding situations because of unwanted thoughts. ACT utilises a range of exercises including metaphors in the delivery of the intervention (Luoma, Hayes & Walser, 2007) and has been adapted for treating an array of mental and physical health conditions (Dindo, Liew & Arch, 2017)

The effectiveness of ACT in treating mental health issues has been well documented. Livheim et al. (2014) conducted two pilot studies exploring the effectiveness of brief ACT based interventions for depression in an Australian (*n*= 66) and stress in a Swedish sample (*n*= 32). Participants were adolescents, screened in school environments for psychosocial issues. Participants in both studies were assigned to

either the intervention or a control group. The intervention was an eight-session, manualised, ACT programme. Results from the Australian study highlighted a significant reduction in symptoms of depression (large effect size), and a significant decrease in psychological inflexibility (medium effect size) among participants in the intervention group, compared to those in the control. Results from the Swedish study showed a significant decrease in stress levels (large effect size), a significant decrease in anxiety, and increase in mindfulness in the intervention group compared to the control. A recent meta-analysis (A-Tjak et al., 2015) of 39 RCTs explored the effectiveness of ACT among patients with mental illness or somatic health issues. Findings revealed that ACT performed better than controls for primary outcome measures at both post-test and follow up assessments. ACT outperformed waitlist, placebo, and TAU control conditions however, results revealed no significant differences between ACT and psychological therapies including Cognitive Behavioural Therapy. For studies considering the effectiveness of ACT based interventions for student-specific populations, refer to chapter 7.1.2.

7.1.1.3 Important Mechanisms and Contextual Factors

Insights from the psychological theory review were analysed to identify potential contextual factors and mechanisms that might be important in producing outcomes for ACT psychoeducation programme users (table 29).

Table 29/. *CMOCs Identified from the ACT Psychological Theory Review*

Context	Mechanisms	Outcomes
If a person is introduced to the ACT construct of acceptance	*Then,* they might learn techniques to live with a mental health problem and accept it over trying to 'cure it'	Which can lead to an increase in psychological flexibility and the ability to cope with mental health problems
If a person is introduced to an ACT based programme	*Then,* a person can use ACT techniques such as practical activities to form new relational frames	Which can lead to better self-management of mental health problems

7.1.2 The Literature Review

To understand whether an ACT based programme may work, for whom and why in a Higher Education (HE) context, it was essential to review literature evaluating the outcomes of ACT offered in HE institutions. This review was not concerned with how ACT programmes work as such (this has been well documented) but to gain insight as to how a programme such as the ACT psychoeducation programme may work and why in the specific context of a HE institution (i.e., are there specific features of ACT

programmes that work particularly well in a HE context for example, specific formats, or content). Subsequently, the structure and content of ACT interventions delivered in HE institutions were the focus of this review. Conducting this review allowed the researcher to identify potential questionnaires to be used to capture ACT psychoeducation programme user outcomes in phase two.

7.1.2.1 Introduction: ACT Psychoeducation Programme Review

Mental Health and Wellbeing Among HE Students

There is an increased concern about the mental health and wellbeing of HE students worldwide (Macaskill, 2013). A systematic review identified that rates of depression among HE students were substantially greater than the general population (Ibrahim, Kelly, Adams & Glazebrook, 2013). Similarly, a systematic review by Storrie, Ahern and Tuckett (2010) identified that students face several issues, including anxiety, depression, and a range of psychotic disorders. Evidence indicates that high prevalence disorders, including mood disorders and anxiety, are more likely to develop during adolescence and young adulthood (McGorry, Purcell, Goldstone & Amminger, 2011) and research has identified several factors that contribute to the onset of mood disorders in HE students. In one study, (Stallman, 2010) a sample of 6, 479 students from two large Australian universities completed online surveys measuring several constructs including financial and psychological distress, disability, and attribution of distress. Mental health issues were prevalent among 19.2% of the sample and results indicated that low academic achievement was associated with psychological distress. Further predictors of distress included financial stress, being a full-time student and being 18-34 years of age (Stallman, 2010). Mahmoud, Staten, Hall, and Lennie (2012) conducted a study considering the importance of coping style among other things, in predicting levels of stress, anxiety, and depression among undergraduates (n= 508). Results indicated that maladaptive coping styles were the greatest predictors of stress, anxiety and depression and authors suggest targeting a reduction in maladaptive coping styles to reduce these. Byrd and McKinney (2012) conducted a cross-sectional study exploring individual, institutional and interpersonal determinants of mental health among HE students (n= 2203) completing an online survey. Results identified that individual and institutional determinants combined had an impact on student mental health, with coping abilities (individual determinants) having the largest influence.

The Impact of Poor Mental Health and Wellbeing Among HE Students

Research has considered the impact of poor mental health among HE students. A longitudinal study (Eisenberg, Golberstein & Hunt, 2009) explored links between mental health and academic achievements among a sample of HE students. Dependent variables measured included students Grade Point Average (GPA) and whether they dropped out of college. Results indicated that depression was a significant predictor of both an increased likelihood of dropping out, and a lower GPA; this was particularly true for students screening positive for an anxiety disorder (Eisenberg et al., 2009). A systematic review (Storrie et al., 2010) highlighted that emotional distress among HE students contributes to poor grade attainment, a decrease in behavioural and emotional skills, issues coping with academic workload and social isolation. Further research has considered the impact of poor mental health in HE students in relation to longevity. Bewick, Koutsopoulou, Miles, Slaa and Barkham, (2010) examined the psychological wellbeing of HE students from a UK university across the span of their undergraduate degrees. Longitudinal data was collected from participants (n=16, 640 complete data sets) at various time points assessing psychological wellbeing. Results indicated that changes in wellbeing were greatest at two time points: 1) Between pre-registration and year one, and 2) Between year two and three. Additionally, results indicated that levels of psychological distress did not fall below/were on-par with those of pre-registration levels for the duration of the study.

Research supports concerns that HE students are vulnerable to the development of psychological issues including stress and depression (Storrie et al., 2010; Ibrahim et al., 2013) and that poor mental health can lead to poorer academic performance (Eisenberg et al., 2009) and social isolation (Storrie et al., 2010). Research has identified factors contributing to the onset of poor psychological wellbeing, including maladaptive coping styles (Mahmoud et al., 2012). Therefore, it is imperative that research explore the care options available to HE students.

Mental Health Care Provision for HE Students

Thorley (2017) suggests that while many UK universities respond to student wellbeing with a range of prevention and promotion activities, there are limitations with care options provided. Thorley (2017) states that less than 30% of UK universities have a clear health and wellbeing strategy and less than 50% design course content to improve

health and wellbeing. Thorley (2017) comments that since 2012, UK universities have witnessed a drastic increase in the demand for counselling services, with 25% of students in some universities utilising counselling services. While the prevalence of mental health issues is high among HE students (Ibrahim et al., 2013), rates of help-seeking behaviours are low. Eisenberg, Hunt, Speer and Zivin (2011) conducted a study exploring the utilisation of mental health services and help seeking behaviour among US college students with mental health issues. Over two years, students from 26 college campuses completed online surveys. Results revealed that of students with mental health issues, only 36% received treatment in the year prior, with medication use and psychotherapy attendance equally split. Perceived barriers to seeking help included doubts about the effectiveness of treatments available and a perceived lack of importance in seeking help (Eisenberg et al., 2011).

Barriers to Seeking Mental Health and Wellbeing Support Among HE Students

Research has identified barriers to seeking help among HE students including stigma, defined by Goffman (2009) as "*an attribute that is deeply discrediting*" and transforms the recipient "*from a whole and usual person to a tainted, discounted one*" (p.3). D'Amico, Mechling, Kemppainen, Ahern and Lee (2016) explored the relationship between mental health literacy, associated stigma of both depression and its treatment, knowledge relating to treatment pros and cons, alternative therapy perceptions and social influences on the utilisation of HE based counselling. US undergraduate students (*n*= 107) completed surveys measuring their understanding of depression and views of college counselling services. Results suggested that a perception of discrimination among friends and family, along with a preference for and likelihood of utilising alternative therapies, impacted the uptake of university-based counselling for depression.

Czyz, Horwitz, Eisenberg, Kramer, and King (2013) aimed to identify self-reported barriers to seeking help in HE students (*n*= 165) who were at an increased risk of suicide. Participants completed an online questionnaire exploring barriers to seeking help. Commonly cited barriers included the perception that treatment was not necessary, a preference to self-manage and insufficient time (Czyz et al., 2013); 12% of the sample mentioned stigma. El-Ghoroury, Galper, Sawaqdeh and Bufka (2012) explored stressors, adopted coping strategies and barriers to wellness among

psychology graduate students (*n*= 387). Anxiety, financial issues, and academic pressures were among the commonly cited stressors, and support from friends and exercise were among the more commonly cited coping strategies. Barriers to engaging in 'wellness activities' included cost and an absence of time. Chew-Graham, Rogers, and Yassin (2003) examined attitudes about causes of stress and opinions of help seeking behaviour among medical students in a UK university through interviews. Students recognised there was a stigma attached to mental illness throughout the duration of their studies and highlighted several barriers to seeking help including: 1) Feeling embarrassed and ashamed, 2) Fear of confiding in their teachers, 3) Fear that their issues would not be treated as confidential, and 4) Worries about how their issues would affect their future careers. Authors concluded that early intervention may be needed so that issues can be identified and dealt with as quickly and appropriately (Chew-Graham et al., 2003).

To summarise, HE students face a range of mental health issues including depression, stress, and anxiety (Storrie et al., 2010; Ibrahim et al., 2013) and often, do not seek help for several reasons including stigma (D'Amico et al. 2016), a preference for self-management (Czyz et al., 2013;) and fear that attending formal intervention could impact future careers (Chew-Graham et al., 2003). Furthermore, students often do not have the time to participate in lengthy, time-consuming interventions (El-Ghoroury et al., 2012; Czyz et al., 2013).

Aims of the Scoping Review

The aim of phase one of the ACT psychoeducation programme evaluation was to develop an initial PT. The programme evaluated in this study is an ACT based programme aiming to reduce psychological suffering by increasing an individual's psychological flexibility. Past literature consolidates ACT as an effective intervention at improving mental health/wellbeing of the general population by targeting core ACT processes. The purpose of this review was to explore the impact of ACT based interventions delivered specifically in HE institutions for HE students, to understand the appropriateness of ACT interventions in this context (i.e., are ACT interventions effective for students in the same way they are for the general population). Students face different stressors to the general population and therefore, what works in the general population may not work for students. Additionally, the review enabled the

primary researcher to explore whether ACT interventions delivered in this context differed in terms of content or structure, due to the specific target population (i.e., are interventions bespoke for the student population). The ACT psychoeducation PA adapted the programme for delivery in the HWA (chapter 7.1.3) and therefore, it was of interest to explore whether offering bespoke ACT programmes was: 1) Commonplace, and 2) Effective in terms of improved user outcomes.

7.1.2.2 Methodology: ACT Psychoeducation Programme Review

Scoping Reviews

See chapter 6.1.1.2.

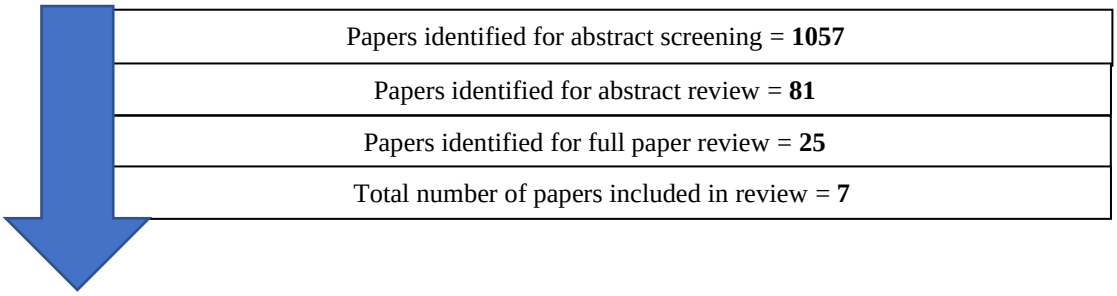
Inclusion and Exclusion Criteria

To be included, intervention participants needed to be HE students (university or college). Study interventions needed to be based on ACT or the core principles used within ACT (e.g., cognitive defusion). An aim of this review was to explore which components of ACT interventions are important in producing desired outcomes, gaining an understanding of how the ACT psychoeducation programme may work. Therefore, it was important that the ACT interventions in the included studies have similar characteristics to the ACT psychoeducation programme. Consequently, ACT interventions provided face-to-face were included; those that did not were excluded. ACT interventions were also required to be delivered in a group format however, there were no specific size limitations. Interventions that were purely mindfulness-based (i.e., mindful meditation interventions) were excluded however, those with elements of mindfulness could be included. Studies included had to measure at least one mental health/wellbeing related outcome.

Database Search Procedure

A phased search strategy was employed to identify relevant research. For details on the search strategy, parameters and the selection process refer to chapter 6.1.1.2. Search terms can be seen in appendix V. In total, seven studies were included in the review.

Figure 18/. *Review Database Search Process*



7.1.2.3 Findings: ACT Psychoeducation Programme Review

Table 30 outlines example characteristics and outcomes of each study included in the review. Tables outlining the study interventions in-depth can been seen in appendix W.

Table 30/. *An Overview of Included Studies*

Study ID	Authors, year, and location	Research participants	Research Design	Intervention and Control Conditions	Examples of constructs measured	Example Outcomes
1	Brown et al., (2011), USA	Psychology students with high scores on test anxiety	Pilot study	**Intervention 1 (*n*= 8):** Face to face, 2-hour, small group, Acceptance and Behavioural Based Therapy (ABBT) **Intervention 2 (*n*= 8):** Face to face Cognitive Therapy (CT)	• Test anxiety • State and trait anxiety • Mindfulness • Acceptance and action • Cognitive Defusion	No significant differences between groups on any measures. Both groups demonstrated large reductions in test anxiety and worry, and emotionality from pre to post-test. No significant reductions in state anxiety.
2	Canby, Cameron, Calhoun, and Buchanan (2014), USA	Students and 1 faculty member	Non-RCT, 2x3 quasi experimental	**Intervention *(n*= 20):** 6-week mindfulness class, based on MBSR, Components of acceptance included **Control (*n*= 28):** No intervention	• Psychological symptoms of distress (e.g., depression, anxiety) • Mindful attention • Self-control • Emotional Intelligence • Subjective vitality (general wellbeing)	Psychological distress significantly reduced in the intervention group over time, it did not for the control group. There was also a significant increase over time in self-reported control, subjective vitality, and mindful awareness for the intervention group, but not the control.

Table 30/. *An Overview of Included Studies (continued)*

Study ID	Authors, year, and location	Research participants	Research Design	Intervention and Control Conditions	Examples of constructs measured	Example Outcomes
3	Danitz and Orsillo, (2014), USA	Undergraduates	RCT	**Intervention (*n*= 21):** Face to face, 90-minute, small group Acceptance and Behavioural Based Therapy (ABBT) **Control (*n*= 30):** WLC	• Depression • Anxiety • Stress • Mindfulness (awareness) • Mindfulness (acceptance) • Valued Living	There were significantly lower levels of depression and higher levels of acceptance at follow up among the intervention group. There were no significant differences between groups for anxiety, stress, awareness, or valued living. Increases in acceptance were significantly associated with decreases in depression. For intervention participants with higher depression at baseline, reductions in depression were associated with mindfulness and values practice.
4	Danitz, Suvak, and Orsillo (2016), USA	First year undergraduates	RCT	**Intervention (*n*= 119):** Face to face, 75-minute, Acceptance and Behavioural Based Therapy (ABBT) workshop **Control (*n*= 94):** Curricula as usual/no workshop	• Depression • Valued Living • Mindfulness • Acceptance and awareness	Only valued living scores showed significant changes from pre to post-test in the ABBT group (baseline levels were moderators of change). Among those with higher baseline depression scores, those in the intervention group showed greater decreases in depression over the course of the study, relative to the control. For intervention participants, there was a negative association between changes in depression and acceptance; this was not significant in the control group. For intervention participants with higher depression at baseline, larger decreases in depression were associated with values and mindfulness practice.

Table 30/. *An Overview of Included Studies (continued)*

Study ID	Authors, year, and location	Research participants	Research Design	Intervention and Control Conditions	Examples of constructs measured	Example Outcomes
5	Eustis et al., (2017), USA	Undergraduate and graduate students	Pilot/ acceptability study	**Intervention (*n*= 75):** Face-to-face, 90-minute, Acceptance and Commitment Therapy (ACT) based stress and anxiety control programme, with 3 main components of mindfulness, valued action, and psychoeducation **Control:** No control	• Depression • Anxiety • Stress • Social anxiety • Functional impairment associated with anxiety	There was a significant effect of time for anxious arousal, general and social anxiety. There was no significant effect of time for impairment due to anxiety or depression.
6	Grégoire, Lachance, Bouffard, and Dionne (2018), Canada	University students from Canadian Universities	Multi-site RCT	**Intervention (*n*= 72):** Face to face, small group, 4 x 2.5-hour, Acceptance and Commitment Therapy (ACT) based workshops **Control (*n*= 72):** WLC	• Mindfulness • Experiential avoidance (psychological flexibility) • Values • Stress • Depression • Anxiety • Wellbeing	Intervention group participants had greater psychological flexibility post-test relative to those in the WLC. Scores in mindfulness, experiential avoidance and values were significantly better among intervention participants than those in the control. Intervention participants also had better scores of psychological wellbeing, anxiety, stress, and depression at post intervention than those in the control group.
7	Toghiani, Ghasemi, and Samouei (2019), Iran	Female dorm residents of an Iranian university	Semi-empirical	**Intervention (*n*= 31):** Face to face, 5 x 2-hour, larger group, Acceptance and Commitment Therapy, targeting social anxiety **Control (*n*= 40):** Informative, non-psychological, scientific brochure	• Social anxiety • Acceptance and action	A significant reduction in social anxiety was observed over time, relative to the control.

Characteristics

Three interventions were offered to undergraduate students [1, 3 & 4] and two inclusive of graduate students [5 & 6.]; one study did not specify the education level of the students involved [7]. One study had a member of staff participate as well as students [2]. Five studies took place in the USA [1-5], 1 in Canada [6] and 1 in Iran [7]. All studies bar one was available to male and female students, with one offering the intervention exclusively to female students [7]. All interventions were delivered face-to-face.

Impact of ACT for HE students: Wellbeing and Mental Health

Wellbeing outcomes included depression and anxiety.

Depression

Of the six studies measuring depression (or related constructs), three found depression scores to decrease more so following the ACT interventions [2, 3 & 6] compared to controls. An RCT [3] reported a significant association between decreases in depression and increases in acceptance, highlighting acceptance as an important component of the intervention in reducing psychological distress. The same study reported an association between mindfulness and values-based practice, and reductions in depression for intervention participants with higher baseline scores of depression, suggesting that engaging with these practices had beneficial mental health outcomes. Another RCT [4] reported that among those with higher baseline depression scores, intervention participants had greater decreases in depression over time compared to those in the control. Further, among intervention participants, there was a negative association between depression and acceptance, which was not significant in the control group. One study reported no significant intervention effects on depression [5].

Anxiety

Of the six studies that measured anxiety (or related constructs), four reported decreases in anxiety following the ACT interventions. For example, a pilot study [5] reported a significant improvement over time in anxious arousal, general and social anxiety. A quasi-experimental study [2] reported a significant decrease over time in psychological distress (including anxiety) for intervention participants but not control participants. A

multi-site RCT [6] reported better psychological wellbeing, anxiety, and stress at post-test for intervention participants relative to those in a WLC group. Findings from a semi-empirical study [7] showed a significant reduction over time in social anxiety for intervention participants relative to the control group. A pilot study [1] study reported no significant differences between groups in anxiety over time however, large reductions were observed for both groups in test anxiety over time. Lastly, an RCT [3] reported no effect of intervention on anxiety.

Impact of ACT for HE students: ACT processes and Related Constructs

Studies reported findings on several measures of ACT processes including acceptance, mindfulness, and psychological flexibility.

Mindfulness, Acceptance, Awareness and Action

Findings for measures of mindfulness, awareness, acceptance, and action were mixed. For example, a pilot study [1] reported no significant increase in mindfulness, awareness, action, or acceptance for those attending an ABBT intervention. A quasi-experimental study [2] reported a significant increase in mindful awareness over time for those in the intervention group but not the control. An RCT [3] reported significantly higher acceptance at follow-up for intervention participants however, there was no significant increase in awareness. The same study reported a significant association between depression and acceptance. Another RCT [4] reported a significant negative association between depression and acceptance for intervention participants and an association between decreased depression, and engagement with values and mindfulness practices for intervention participants with higher depression scores at baseline. Lastly, a multi-site RCT [6] reported significantly better scores of mindfulness for those in the intervention group at post-test relative to the WLC.

Values

Three studies measured values or values-based-living, and results were mixed. For example, an RCT [3] reported no significant difference between the intervention and control groups on values-based living but did report an association between decreased depression and values-based practice among those in the intervention group with higher depression scores at baseline. Another RCT [4] found a significant change in valued living scores for those in the ABBT intervention group from pre to post

intervention. Lastly, a multi-site RCT [6] reported significantly better scores on a measure of values for those in the intervention group at post-test relative to the WLC.

Psychological flexibility

One study [6] directly reported on 'psychological flexibility' and found that intervention participants has significantly higher psychological flexibility, including better scores on a measure of avoidance at post-test, relative to those in a WLC condition.

Summary

Findings suggest that ACT interventions produced favourable mental health and/or wellbeing outcomes for HE students relative to control groups. However, findings were mixed in relation to the effectiveness of the interventions at improving ACT based constructs for students including acceptance, values, and components of mindfulness. Findings suggest there is some discrepancy in the way the included ACT interventions 'worked' for HE students. For example, it could be expected that there would be an improvement in ACT process measures in tandem with an improvement in wellbeing, demonstrating cause and effect. It could be that the components of the ACT interventions targeting these processes (e.g., metaphors or exercises) did not resonate with the programme users and thus, did not lead to an improvement in ACT processes.

What Components of the included ACT Interventions were Beneficial HE Students?

This review aimed to ascertain whether ACT interventions have been adapted for delivery in HE settings, in what ways and whether this has impacted user outcomes. Exploring this would allow for comparisons to be made between the interventions in this review and the ACT psychoeducation programme, offering insight as to how the programme may work.

Format

Four interventions [1, 2, 3 & 6] offered ACT in group sessions to relatively small groups of students (2-20 students per intervention). One intervention [7] was delivered to a slightly larger (31 students), and two studies did not state group size [4 & 5]. All interventions were delivered on university/college campuses and were either delivered by the primary researchers from a range of academic backgrounds, or psychology

students (undergraduates and doctoral candidates). It is not clear from whether any students delivering the interventions were doing so as part of their degrees (i.e., the study contributed to part of their grade) or whether as a development opportunity. Four of the included interventions were 'brief' lasting between 1.25-2 hours [1, 3, 4 & 5]. Interventions in three studies were longer [2, 6 & 7], lasting 10-12 hours each. Four interventions were delivered in single sessions [1, 3, 4 & 5], and the other three delivered in multiple sessions (between 4-6 sessions). Findings revealed no difference across interventions of group size, length, or structure on ACT or mental health/wellbeing related outcomes.

Content

All interventions made use of multiple 'teaching modes' including basic information giving, the use of metaphors, homework and experiential learning exercises and mindfulness techniques (e.g., breathing exercises). Of the included studies, four branded themselves as primarily Acceptance and Behaviour Based Therapy (ABBT), two as ACT and one as a mindfulness intervention however, all contained one or more core principles of ACT (chapter 7.1.1) and were similar in terms of content (e.g., teaching students how to separate their thoughts from their identity). Due to similarities in the basic content and techniques used across the interventions, it is unlikely that differences observed across the studies were due to content, and more likely that observed differences were due to individual differences among users or other programme differences (e.g., facilitator delivery style).

Elements Adapted for Delivery in a Higher Education Context

Most interventions [bar 2 & 7] adapted their materials to be more relevant for the student population, delivering interventions that were somewhat bespoke for the target population however, the extent to which the interventions were adapted differed. For example, one study [6] changed the wording of metaphors to reflect student life (e.g., metaphors around completing degrees). One study [1] went a little further, personalising metaphors and examples to be specific for their participants, who all suffered from test-anxiety. For example, they incorporated an 'and/but' exercise that was personalised for test anxiety for example, 'I want to study but I feel anxious' was changed to 'I want to study, and I feel anxious'. Similarly, two studies [3 &4] which offered the same intervention (one was a pilot study, another a later RCT), included

specific discussions around 1st year stressors and coping strategies, getting students to partake in values articulation exercises about their academic achievements. The same intervention went further, tailoring text message advice post intervention, encouraging participants to engage in mindfulness and values practice during the semester. One study [5] tailored a significant amount of the intervention for students. They tailored the intervention content providing examples that would be representative for the diverse students that they served at their establishment, including those who often worked alongside their studies or had significant child-caring responsibilities. This was done to consciously highlight how students could apply the skills they learnt within their own individual contexts. Findings for study 5 were positive, with ACT participants showing significant improvements in anxiety and stress (no control group was used in this study). However, no ACT processes were measured in this study and therefore, little inference can be made as to whether the personalisation of some of the metaphors and exercises made the intervention more relatable and whether this impacted the student's ability to engage with the programme.

Summary

Just over half of the interventions contained content tailored for students however, this varied in extent with just one study actively seeking to tailor the intervention to be representative for their diverse student pool. While it is beneficial to tailor content so that most students can relate (e.g., metaphors around exams), ACT intervention developers need to ensure they strike a balance and consider the specific needs of students in their sample. For example, an ACT intervention that works for students in a private university in the USA, might not be appropriate for use with students in a public college in a socially deprived area of the UK, as stressors for these students may differ substantially. Considering findings from the included studies, it is not clear whether ACT interventions with more student focused content were more effective than those with less. However, one thing that became apparent was the malleability that ACT interventions have allowing for intervention personalisation with minimal effort. For example, the underlying theory/approaches used within ACT interventions do not need to be altered dependant on target population rather, the wording of metaphors for example can be changed easily to resonate with the target audience. In this way, ACT interventions can be tweaked slightly to be appropriate for most target audiences.

7.1.2.4 Discussion: The ACT Psychoeducation Programme Review

ACT based interventions produced some positive wellbeing and/or mental health related outcomes for students when delivered in a HE setting however, improvements in ACT based processes (e.g., acceptance) were mixed suggesting that the interventions were not as effective as could be expected at improving psychological flexibility among students. While interventions had slight differences in their content approach (e.g., some focused more on acceptance than mindfulness and vice versa), most included typical ACT information, exercises, and techniques to engage programme users with the learnt content. Therefore, it is unlikely that differences in outcomes were due to programme content. Similarly, there were little differences between settings, with most interventions offered in US universities. However, there were several structural and delivery-based differences between the interventions (e.g., group size, course length) that might explain some of the differences in results between otherwise similar interventions. Interventions differed in another way, with just over half of the studies tailoring some content for students while others did not. However, there was no clear indication from the findings whether those providing student specific content were more 'effective' than those that did not. Mixed results made it difficult to draw conclusions about what works for students in terms of ACT interventions however, the review highlighted a few areas for the ACT psychoeducation programme evaluation to focus on.

How Does this Review Inform the Development of the ACT Programme Evaluation?

This review informed the development of this evaluation in a few ways. Firstly, the review consolidated that ACT based interventions are appropriate for use in a HE context, demonstrating effectiveness in producing beneficial mental health and/or wellbeing related outcomes for students, lending support for the implementation of the ACT psychoeducation programme within the HWA. Secondly, the review highlighted differences between HE based ACT interventions in terms of structure and format (e.g., group size and length). Given the mixed findings in relation to ACT process outcomes amongst the interventions, it is possible that structural differences accounted for the variability in results, as the programmes were otherwise similar in terms of content (e.g., ACT based), approach (e.g., use of exercises) and location (e.g., US based). Interestingly, not all the interventions tailored content to make it more relevant for students.

There were several limitations of the included interventions which provided some direction for the evaluation of the ACT psychoeducation programme. Firstly, the lack of qualitative or mixed-methods research made it difficult to identify important contextual factors and mechanisms of change within ACT based interventions that are particularly important for HE students. Furthermore, none of the included studies were set in the UK, consolidating the need for research to consider whether ACT interventions are appropriate for use in a UK HE context. Caution is needed in assuming that ACT based interventions will have the same impact for students in different locations, as cultural and contextual factors may influence the type of issues faced by students in different countries, which could impact intervention effectiveness, Research should consider the effects of ACT on HE students in different countries, with fundamentally different HE systems.

7.1.3 Programme Architect Insights

7.1.3.1 Introduction and Aims

The final stage in phase one of the ACT psychoeducation programme evaluation was to interview the PA. Programme evaluation objectives were outlined in chapter 5.3. This element of phase one contributed to answering all aims:

1. Does the ACT psychoeducation programme offer a service in line with HWA aims and values and if so, which ones and to what extent?
2. What is the 'value' of delivering the ACT psychoeducation programme at the HWA and SU?
3. To identify whether the ACT psychoeducation programme is 'reaching' its target audience and to what extent
4. To identify the outcomes of the ACT psychoeducation programme for its stakeholders including service users
5. What are the important mechanisms of the ACT psychoeducation programme that interact to produce identified outcomes for all stakeholders?
6. What are the important contextual factors of the ACT psychoeducation programme that interact to produce identified outcomes for all stakeholders?

Objectives were explored by gaining insight into the theory behind the programme, how it was developed, what the PA thought the programme could achieve, which programme factors the PA believed were important to its success, and to explore the rationale of implementing the programme within the HWA context.

7.1.3.2 Methodology

Ethical Approval

Ethical approval to conduct this study was granted from SU CHHS REC in November 2017 (appendix X). The REC was notified of any amendments to the procedure for which approval was also granted.

Participants

The ACT psychoeducation PA (*n*= 1) was invited to take part in an interview. The participant was over the 18 and part of a purposive sample.

Materials

The interview was recorded on two electronic recording devices. The PA was provided with an information sheet (appendix Y) and consent form (appendix Z) via email prior to the interview. The information sheet included information including the purpose of the interview, ethical rights, and contact details for the primary researcher. The PA was provided with a debrief sheet following the interview (appendix A2), including information about how to withdraw data and details of mental health services. A semi-structured interview schedule was to guide the interview (appendix B2).

Construction of the Interview Schedule

A semi-structured interview schedule was devised to aid in the interview process (refer to chapter 6.1.3.2).

Design

A face to face, semi-structured interview was conducted.

Procedure

The HWA Director made first contact with the PA via email, informing the PA that the primary researcher would contact them with information about an interview. The PA was asked to email the HWA Director if they *did not* want to be contacted by the primary researcher. The primary researcher emailed the PA an information sheet and asked if they would like to take part. After agreeing to interview, the primary researcher contacted the PA to arrange a place, and time for the interview. On the request of the PA, the interview took place at a location external to SU. To ensure the safety of the primary researcher, the research team adhered to the SU lone worker policy. Prior to the interview, the PA read the information sheet and signed the consent

form. The interview lasted 72 minutes and a debrief sheet was provided to the PA at the end of the interview. Interview recordings were transcribed onto a word processor and saved to the primary researcher's university computer account, backed up onto the SU student: P:\ Drive. Recordings were deleted following transcription.

Method of Analysis

Please see chapter 6.1.3.2

7.1.3.3 Findings: A Thematic Analysis of the ACT Psychoeducation Programme Architect Interview

The ACT psychoeducation PA has a wealth of experience in clinical psychology. During the interview the PA discussed a range of topics, referring to both literature and their personal experiences to support their discussion. A description of themes identified from the interview are outlined in table 31, followed by the full thematic report.

Table 31*/. A Description of Themes Identified in the ACT Psychoeducation PA Interview*

Theme	Description
Theme 1: A Time to ACT: The rationale for and development of the ACT psychoeducation programme.	Theme 1 highlights the rationale behind the development of the programme, including issues with access to psychological therapies in Wales. This theme also demonstrates how the PA developed the programme, highlighting key considerations.
Theme 2: Expected Programme User Outcomes: Does the ACT psychoeducation programme offer a programme in line with HWA aims?	In theme 2, the PA discusses the outcomes programme users could experience by attending the ACT psychoeducation programme. These are then considered in relation to HWA aims, to determine whether the ACT psychoeducation programme is a good 'fit' for the HWA.

Theme 1: A Time to ACT: The Rationale for and Development of the ACT psychoeducation programme

This theme provides insight into how and why the ACT psychoeducation programme was developed.

During the interview, the PA provided several reasons for the development of the programme, including the high prevalence of mental health problems among adults in Wales and the lack of care available to them:

> *Welsh government had refused to go along the iAPT road…they did say right we need something which is going to increase…the availability…of what's called...low intensity interventions*

The PA felt there was a need for the development of a low-intensity, psychological therapy that could provide increased mental health support for an underserved population in Wales:

> *all these people who could benefit I mean the 2000 people in the community mental health team that I was working in…how many of them could have benefitted from psychological intervention...imagine you know 90% of them could have benefited in some way…and for many of them it would have been the answer*

A Cognitive Behavioural Therapy (CBT) based psychoeducation programme influenced and informed the development of the ACT psychoeducation programme. The PA drew upon his experience with this programme to inform decisions about programme length and how to design a presenter-friendly course. For example, the PA felt that the CBT course was too long for participants (six-weeks) and designed the ACT psychoeducation programme to be shorter (four-weeks). Furthermore, the PA was conscious of designing a programme that was:

> *presenter friendly by having it you know ideally three presenters for each session so…it's not too boring in terms of for the audience but also so it's not too onerous for the presenter*

The PA used his experiences to design a programme that was presenter friendly. For example, the PA described how presenters of another programme had to learn a manual of information and metaphors to present the programme, which he considered to be intensive for the presenters. When designing the ACT psychoeducation programme, the PA used this knowledge to decide that:

> *what we really need is the whole thing on...PowerPoint...then when you know it not to look at it…things like that so I tried to make it presenter friendly*

The PA was vocal about designing a presenter-friendly programme, ensuring presenters would enjoy delivering it and feel comfortable in making it their own:

> *people are encouraged to add their own anecdotes and…jokes*

ACT psychoeducation programme presenters do not need to be clinically trained and anyone who attends the training course can deliver the sessions. The PA was mindful of the professional backgrounds of presenters when developing the programme:

> *I've made the rule...which is no questions during sessions…it would be destructive if people started getting into discussion in terms of time but it's mostly that if I'm a presenter I know that you're not allowed to ask me difficult questions*

When developing the programme, a key aim for the PA was to design a programme that could be delivered to as many people as possible, in the most efficient way possible:

> *the main thing…is reach the main thing is that you are getting more people*

> *I mean it's all about impact...it was later that I came out with this particular formula about impact...it was all about numbers...you know how many of these people are suffering*

> *the formula…is that impact…is effectiveness times reach…reach is what it's all about here because we want to do the best we can to get it to be as effective as possible but reach is…so important*

The PA was extremely aware of the resources that would be involved with providing 1-2-1 care to those in need via trained HCPs such as Psychiatrists:

> *we have got one in four of our population with a mental health problem we haven't got enough psychiatrists we haven't got enough psychologists we haven't got enough counsellors…part of reach is how many times can you put this on and…if it's got to be…a psychiatric nurse or an assistant psychologist then [its less likely]*

The PA purposely designed a programme that could be delivered to many people by presenters without a clinical background, to provide a programme that required minimal resources to increase access to psychological therapies for as many people as possible. While the ACT psychoeducation programme was not designed specifically for delivery in a HE context, programme elements make it an appropriate option for delivery in that context. For example, the prevalence of mental health issues within a HE context is high (chapter 7.1.2) and a low-cost intervention that can be delivered to large numbers of people could be a valuable addition to the provision of mental health support within a university.

The PA discussed how the format of the programme makes it particularly suited for delivery in a HE context:

> *students are more use to than other people to sitting and hearing a lecture…I've had different ideas from different student wellbeing services about whether that's a good…or a bad thing and I've heard people say well they're used to lectures and this is another lecture and it normalises it*

The PA acknowledges that university affiliates have had differing views about the effectiveness of the programmes format however, the PA ultimately feels that the lecture-style format of the programme can 'normalise' the idea of attending psychological therapy among the student population.

Literature suggests that stigma can act a barrier to accessing psychological therapies among HE students (chapter 7.1.2) and therefore, providing the ACT psychoeducation programme in a more familiar, informal format could reduce potential stigma and make it suitable intervention for delivery in a HE context.

The programme is an ACT based programme delivered in a lecture-style format and therefore, can be accessed by individuals experiencing a range of mental health problems (e.g., anxiety and depression) at any one time. The PA suggested that:

> *there are so many other people there you know and they will look normal...it's a normalising and de-stigmatising effect and so that's part of it that's an advantage*

> *ACT is by its nature transdiagnostic, and you might also say non-diagnostic in the sense [of]…the underlying messages...which everyone could benefit from knowing*

While the ACT psychoeducation programme is thought to be transdiagnostic, the PA recognised that the programme may not be suitable for everyone, suggesting that some may prefer more formal care (e.g., 1-2-1 counselling). While the PA does not suggest:

> *that [the programme] given in that format is better than 1-2-1 therapy what I'm saying is…we haven't got the resources to give 1-2-1 therapy*

The PA believes that the ACT psychoeducation programme offers care that is effective, harmless, and given the context of mental health care provision within Wales, a viable option:

> *if you've got a lecture theatre literally of 500 seats you can fill those 500 seats and you can be giving a treatment to 500 people…the whole thing about psychoeducation…you are providing…a form of therapy which is being delivered…by people who are not therapists…I mean that's like magic*

The PA endorses the ACT psychoeducation programme as one that can have a big impact in terms of mental health care provision, providing evidence-based care to large numbers of people, in a non-resource intensive manner.

While developing the programme, getting the core content 'right' was of utmost importance to the PA. The core version of the ACT psychoeducation programme is delivered in several health boards in Wales to the public. Additionally, several bespoke versions of the programme have been developed for delivery in specific populations including a university version, specifically created for use at SU. The PA discussed general challenges of designing an ACT based programme that is both accessible and engaging for programme users:

> *[ACT is] very demanding intellectually it's a tough core…reading some of it in the beginning I was like…I'm not sure I can get my mind around this…I wanna be able to teach this…so accessibility [is] really important…so it's absolutely clear and people get it…and to be engaging*

While the ACT psychoeducation programme is largely PowerPoint based, the programme makes use of metaphors, videos, audio, practical activities, and homework to illustrate the core concepts of ACT including mindfulness and cognitive defusion, in an accessible manner. The PA discussed the process of tailoring the programme content for use in the bespoke versions of the course:

> *every time I do a new bespoke one...it's partly that it is bespoke so it's student relative but also, I improve it a bit anyway...so I use it as an opportunity…I'll refresh the programme*

> *all of the bespoke versions are...jointly developed with service users or experts*

Bespoke versions of the ACT psychoeducation programme contain much of the same information as the core version but are tailored for specific populations for example, the metaphors included may be more relevant to the target population. Discussing the development of the university version, the PA commented that they:

> *sent [it] out to people what sort of issues are there and looked at some of the evidence of what issues are for students...I did a bit of background looking at the evidence for student mental health ...so I knew what the figures were…I sent [a student] ...the list of the things that might affect students and [they]...shared this with their friends and they fed back to me*

The PA undertook several processes to ensure that course content was suitable for the target audience and context (i.e., the HE context), to make the course more relatable. While the ACT psychoeducation programme might 'not be for everyone', the PA suggested there are no risks involved with attending the programme:

> *I don't think is going to do anybody any harm…even the neutral people it will sort of...start them thinking and they will learn some things and hopefully they laugh at some of the jokes or they'll be amused or they quite like doing something the same day every week with a bunch of people…there will be some people who really really benefit from it…we don't encourage particular people to come and we certainly don't exclude anybody*

The PA believes the programme is an accessible programme that can benefit a wide range of people. Universities have a duty of care to their staff and students and providing a course like the ACT psychoeducation programme, in an environment with a diverse range of people, may be a suitable care option.

To summarise, the PA identified a need for a low-intensity, resource light programme that could increase access to psychological therapy in Wales. The PA was able to draw upon his knowledge and experience with other psychoeducation programmes to develop a programme that was presenter friendly and could be delivered by non-clinical presenters. Attributes of the programme including its lecture style format and transdiagnostic nature make it a viable option for delivery within the context of a HE institution, where students face several stressors and experience a range of mental health problems. Further, the PA took the time to develop a bespoke version of the programme for use at SU, making the programme content more relatable and appropriate for delivery in a HE context.

Theme 2: Expected Programme User Outcomes: Does the Programme Offer a Programme in line with HWA aims?

This theme explores expected programme user outcomes and how these relate to the overall aims of the HWA, providing insight into whether the ACT psychoeducation programme is a 'good fit' for the HWA.

Discussing ACT in general, the PA highlighted how:

> *it's about giving people more psychological flexibility and…encouraging them to pause and think and then choose…it's about working out what's best so that there's a distinction between what you fancy doing and what you've worked out the best to do*

If the ACT psychoeducation programme can improve psychological flexibility among its users, the programme should in theory increase self-management of mental health problems, by providing users with the tools they need to stop, think, and assess their mental health and wellbeing. In this way, the ACT psychoeducation programme can

contribute to the HWA aim of improve self-management of health and wellbeing among its users.

The PA outlined how ACT based interventions can promote the adoption of adaptive coping strategies:

> *there's this distinction which is made in mindfulness and ACT as well between reacting and responding…so basically you want people to shift so that they respond more and react less…you want to be more thoughtful and so on*

The PA discussed how, when developing the ACT psychoeducation programme, they were mindful that they wanted to create:

> *a mental health programme...and so therefore what I wanted was the relief of symptoms…there's an odd thing about ACT which is that ACT says this is not about getting rid of your depression or anxiety it's about living with [it]*

ACT based programmes do not aim to 'rid' programme users of their problems but teach them how to *accept* and thus cope/live with their problems e.g., anxiety and depression. By teaching users' different ways to cope, the ACT psychoeducation programme provides users with skills that they can use for life, affording them the opportunity to manage their mental health problems time and time again. This skill may be particularly useful for HE staff and students who have certain times throughout the year when they experience recurrent stressors (e.g., exam time).

The PA suggested that ACT psychoeducation programme users value the practical aspects of the programme, including the light touch exercises they can do at home in their own time:

> *people will often…talk about the values stuff they often talk about the mindfulness…the mindfulness exercises being very doable you know because they're not sort of you know half hour meditations, they are very lightweight*

The PA discussed research that has documented measurable, positive outcomes of attending the ACT psychoeducation programme, including improvements in psychological wellbeing (i.e., reductions in depression), suggesting there is an empirical evidence base for the ACT psychoeducation programme as an effective mental health intervention.

The reception of the programme was discussed during the interview and generally, the PA believes the programme is popular among its users, suggesting that this is evident from the programmes low attrition rate:

> *one of the great things…is that…you tend to get people coming back…there is...relatively low attrition*

The PA felt that the programmes low attrition rate speaks to the popularity programme (please note no specific statistics were discussed).

The PA discussed the impact the ACT psychoeducation programme has had for them on a personal and professional level:

> *its had some impact on the way I think and change my clinical practice with 1-2-1 work…I've got loads of examples of…things that have come up in my clinical practice have fed into the course…and things from the course fed into my clinical practice…so that's one reason why I keep on doing clinical work*

To summarise, the PA believes the ACT psychoeducation programme is well-received and that it is effective in producing beneficial, psychological outcomes for its users. The PA provided examples of expected outcomes for users of the programme, including an increase in psychological flexibility and the use of adaptive coping skills, providing insight into the types of expected outcomes for users of the programme delivered in the HWA.

7.1.4 Initial Programme Theory of the ACT Psychoeducation Programme.

CMOCs were developed following the Thematic Analysis of the ACT psychoeducation PA interview. These were then combined with CMOCs identified in the psychological theory review (chapter 7.1.1) to create an initial PT of the ACT psychoeducation programme (table 32).

Table 32/. *Initial PT of the ACT Psychoeducation Programme*

Context	Mechanisms	Outcome
If there are a high number of people needing mental health support within the Welsh context and poor accessibility to services and thus, a demand for a cost-effective, resource-light interventions	*Then,* offering a presenter friendly mental health programme, that can be delivered by non-clinically trained presenters	Can increase the availability and accessibility of mental health support
	Then, offering a lecture-style psychoeducation programme, that can be delivered to many people at once	Can increase the availability and accessibility of mental health support
If there is poor access to psychological therapy/mental health support in a higher education context	*Then,* introducing a transdiagnostic psychoeducation programme that can be delivered to many people at once	Can increase the availability and accessibility of mental health support among HE students
	Then, offering a course rather than a therapy, which might have less stigma attached (see chapter 6.1.2).	Might increase uptake in the student population and thus, improve care outcomes for users
If an evidence-based, ACT-based programme is introduced within the context of a university for those who need mental health support	*Then,* users are provided with tools (inc. ACT/mindfulness activities), and users can use these and learn to 'accept' their mental health problems and increase psychological flexibility	Which can lead to better coping with psychological distress and better self-management of mental health problems among programme users
If there is a need for mental health interventions that are tailored to the needs of a specific group (e.g., students)	*Then,* offering a personalised, accessible, evidence-based intervention, developed with input from the target audience (and thus should be relatable)	Might increase uptake among the student population and thus, improve care outcomes for users
If there is an increase in recurrent psychological issues (i.e., stress, anxiety, depression)	*Then,* offering a psychoeducation programme that teaches usable activities and exercises that can be practised outside of the intervention, time and time again	Might increase self-management of mental health issues and psychological distress, and improve care outcomes that might have a longer lasting impact
If a presenter friendly, lecture style programme is introduced in a higher education setting where there is a high demand for access to mental health/wellbeing support	*Then,* care is not provided at an individual level, and there is no opportunity to ask questions or to offer a level of PCC	Which might mean that programme users do not have their queries/concerns/questions answered, and might not benefit from the programme as much as they could do

A Summary of the Initial Programme Theory

To recap PT, please refer to chapter 2.2.2. Initial PT suggests that issues including an increased prevalence of mental health issues in a HE context and the lack of accessible psychological therapies through the NHS, as important contextual factors leading to the demand for a programme such as the ACT psychoeducation programme. Initial PT theory highlighted the resources provided by the ACT psychoeducation programme and the reasons why (e.g., ACT tools that users can utilise to 'accept' their mental health problems, increasing psychological flexibility) these may produce specific outcomes (e.g., reduced mental health issues). The initial PT of the ACT psychoeducation programme outlined how the programme could work, for whom in what context and why. The initial PT was refined after phase two of the ACT psychoeducation programme evaluation, following new insights from programme users and facilitators. The final PT of the ACT psychoeducation programme is then discussed in relation to how it fits within the aims, values, and mission statements of the HWA, comparing findings to those from the PPP evaluation (chapter 8).

7.2 Phase Two: Testing Programme Theory

The aim of phase two was to test initial PT developed in phase one (chapter 7.1), exploring whether the programme 'works' in the way it is meant to, for whom and why. Phase two of two main components, quantitative and qualitative data collection. Findings are presented in this chapter.

7.2.1 Quantitative Data Collection

The first component of phase two involved utilising validated questionnaires to measure outcomes for programme users. Questionnaires chosen were informed by:

1. Findings from the literature review
2. A basic knowledge and understanding of ACT programmes and the outcomes measured following participation in an ACT programme

7.2.1.1 Introduction and Aims

Programme evaluation objectives were outlined in chapter 5.3. The quantitative element of phase two contributed to answering the following aims:

1. To identify whether the ACT psychoeducation programme is 'reaching' its target audience and to what extent
2. To identify the outcomes of the ACT psychoeducation programme for its stakeholders

3. Does the ACT psychoeducation programme offer a service in line with HWA aims and values and if so, which ones and to what extent?

Bullet points one and two were addressed by measuring the difference in outcomes for ACT psychoeducation programme users over time, before and after attending the programme and identifying who the programme was reaching through collecting demographic data. Bullet point three was addressed in part by understanding whether changes observed on outcome measures over time (if any), supported HWA aims.

7.2.1.2 Methodology

The data presented in this chapter comes from two different sources: 1) A pilot of the programme run in 2017 in collaboration with ABMU health board, delivered to SU staff, and 3) The HWA run of the programme delivered in 2018 to SU staff and students.

Ethical Approval

Ethical approval to collect data for the HWA run of the ACT psychoeducation programme was granted from the CHHS REC in November 2017 (appendix X), The primary researcher collected HWA run data. The REC was notified of any amendments to the procedure for which approval was also granted. Pilot run data was collected by AMBU health board (now SBUHB) as part of their routine data collection and shared anonymously with the primary researcher with permission (appendix C2) for use in this evaluation.

Participant: HWA Run

The HWA run of the programme was available to SU staff and students, and sessions were offered on SUs Singleton Park and Swansea Bay campuses. Participants were aged 18 or above and no other inclusion or exclusion criteria were specified. Participants were part of a purposive sample, facilitating the exploration of set evaluation objectives. Data was collected in 2018. The programme was dropped from the HWA after one cycle. Fifteen participants provided data at T1 (session one), nine at T2 (session four) and none at T3. Seven participants provided matched pairs data (i.e., completed questionnaires at T1 and T2).

Participants: Pilot

The pilot took place on Singleton Park campus in 2017 and was available to SU staff. Presenters (ABMU staff) collected data from programme attendees at T1 (session one)

and T2 (session four). Anonymised data was shared with the primary researcher to aid in this evaluation. In total, 30 participants provided matched data. Participants were over the age of 18 and to the researcher's knowledge, no other inclusion or exclusion criteria were specified.

Materials: HWA Run

Information sheets (appendix D2) were provided to participants in session one (T1), outlining information including the purpose of data collection, ethical considerations, and contact information for the primary researcher. Debrief sheets (appendix E2) were provided to participants during session four (T2) and included information such as how to withdraw from data collection and details for local mental health services. T1 questionnaire booklets were provided in session one and T2 questionnaire booklets (appendix F2) in session four. Consent forms were embedded in the questionnaire booklets, and informed participants that their data would be used (should they consent) for use in the primary researchers' evaluation of the programme and if they wanted to take part, to provide their initials, and the last three digits of their telephone numbers as consent (this would allow T1, T2 and T3 questionnaires to be paired).

Tick box sheets (appendix G2) were brought to session four, on which participants could indicate if they wanted to receive follow-up questionnaires and/or information via email regarding prospective interviews. Participants could tick either, both or none of the boxes and were asked to provide email address if they would like to be contacted. Follow-up data was to be collected electronically via survey software Qualtrics© (https://www.qualtrics.com) one-month after completing the ACT psychoeducation programme. Information, consent and debrief sheets were embedded into the online questionnaires.

Materials: Pilot

Materials for data collected during the ACT psychoeducation programme pilot were compiled by the local health board but included an information sheet, consent form and T1 and T2 questionnaire booklets.

Questionnaire Booklets

Questionnaire booklets for the HWA run of the ACT psychoeducation programme consisted of several validated questionnaires, original Likert scale, evaluation, and

demographic questions. Participants completed paper-based questionnaire booklets at T1 and T2 and electronic questionnaires at T3. Questionnaires measured either a construct of mental health, wellbeing, or ACT. Seven validated questionnaires were included in the questionnaire booklets and reasons for this were two-fold. Firstly, five questionnaires were included as they were used to collect data in the ACT psychoeducation programme pilot run. This meant that data collected during the HWA run could be compared to data from the pilot. Two additional questionnaires were added measuring wellbeing and ACT constructs following a review of the literature. A detailed description of the validated questionnaires, Likert scale, demographic and evaluative questions included in data collection during the HWA run are provided below.

The 9-Item Patient Health Questionnaire (Spitzer, Kroenke, Williams, & Patient Health Questionnaire Primary Care Study Group, 1999)

The 9-itme Patient Health Questionnaire (PHQ-9) was developed as a multipurpose tool for diagnosing and screening depression. Questions were developed in part by using the DSM-IV criteria for depression (Diagnostic and Statistical Manual of Mental Disorders version 5, American Psychological Association, 2013). The ninth question on the questionnaire screens for suicidal ideation. Answers are given on a 4-point Likert scale ranging from 0 (Not at all) to 3 (Nearly every day). The questionnaire asks participants to answer questions referring to how often they have been bothered by certain scenarios over the past two weeks. A total score is calculated by adding up the scores for each question. Scores range from minimal (0-4) to mild (509), to moderate (10-14), to moderately severe (15-19), to severe (20-27) depression.

The PHQ-9 was validated for use in primary care in the original paper by Spitzer et al. (1999). The questionnaire was administered to 3000 patients and its validity tested against a range of measures including independent diagnoses by HCPs and functional status measures. The authors concluded that the PHQ-9 was comparable in diagnostic validity to the PRIME-MD measure, which is the Primary Care Evaluation of Mental Disorders tool (Spitzer et al., 1994) which was the original measure created to diagnose mental disorders using DSM-IV criteria (Spitzer et al., 1999). Kroenke, Spitzer & Williams (2001) considered the validity and reliability of the PHQ-9 in a sample of 6000 patients from primary care and obstetrics clinics. Kroenke et al. (2001) found that the PHQ-9 was both a valid and reliable tool for measuring the severity of

depression. The test-retest reliability of the PHQ-9 was excellent, and the questionnaire showed internal reliability in both the primary care and obstetrics settings with Cronbach's alpha scores of 0.89 and 0.86 respectively (Kroenke et al., 2001).

The PHQ-9 (Spitzer et al., 1999) has been used in numerous studies exploring the effectiveness of ACT based interventions. For example, the PHQ-9 was used to measure depression in a trial of a group-based ACT interventions for individuals with chronic pain (McCracken, Sata & Taylor, 2013). In addition, Ivanova et al. (2016) used the PHQ-9 in a study looking at the use of ACT for panic disorder over the internet and via a smartphone application. The PHQ-8 is also used to measure depression by the local health board in their routine evaluation of the ACT psychoeducation programme (the suicidal ideation question is removed in the PHQ-8).

The 7-Item Generalised Anxiety Disorder Scale (Spitzer, Kroenke, Williams & Lowe, 2006)

The Generalised Anxiety Disorder Scale-7 (GAD-7) is a measure of generalised anxiety disorder. Developed by the same authors as the PHQ-9, the measure asks participants to indicate how much they have been bothered by certain issues over the past two weeks. The scale is measured on a 4-point Likert scale ranging from 0 (Not at all) to 3 (Nearly every day). A total score on the GAD-7 is calculated by adding up the scores for each question. Scores range from minimal (0-5), to mild (6-10), to moderate (11-15), to severe (16-21) anxiety.

In the original paper, Spitzer et al. (2006) tested the validity of the GAD-7 as a tool for assessing Generalized Anxiety Disorder. Over 2000 participants from Primary care centres in the USA took part in the study and completed the GAD-7. Just under 1000 participants also partook in telephone interviews with an HCP within one week of completing the questionnaire. To test the validity of the scale, scores were compared between the GAD-7 and independent diagnoses by HCPs. The study found that the GAD-7 had good validity (criterion, construct and procedural) as well as good reliability (internal consistency Cronbach Alpha score = 0.92).

The GAD-7 has been used previously in research considering the effectiveness of ACT based interventions. For example, Lin, Klatt, McCracken and Baumeister (2015) used

the GAD-7 to measure Anxiety in their study, looking at the effectiveness of an internet ACT based intervention for Chronic Pain. Additionally, the GAD-7 was used in study concerning the effectiveness of a mindfulness-based therapy for perinatal anxiety (Goodman et al., 2014). The GAD-7 is also used to measure anxiety by the local health board in their routine evaluation of the ACT psychoeducation programme.

The Depression Anxiety and Stress Scales (Lovibond & Lovibond 1995; Henry & Crawford, 2005)

Refer to section 6.2.1.2 for general outline of the DASS-21. A discussion of the use of the DASS-21 in ACT research is provided below.

The DASS-21 (Henry & Crawford, 2005) and the original DASS (Lovibond et al., 1995) have been used widely in research considering the efficacy of ACT based interventions for HE students. For example, the DASS was used as an outcome measure by Rasanen, Lappalainen, Muotka, Tolvanen, and Lappalainen (2016) to explore the effectiveness of an internet-based ACT intervention for HE students. Additionally, Levin, Pistorello, Seeley and Hayes (2014) used the DASS-21 as a measure of mental health in their study considering the feasibility of a web-based ACT intervention for college students in the USA.

Acceptance and Action Questionnaire (Version 2; Bond et al., 2011)

The 7-item Acceptance and Action Questionnaire (AAQ-2) is a measure of acceptance, experiential avoidance, and psychological flexibility. Question responses are measured on a 7-point Likert scale ranging from 1 (never true) to 7 (always true). A total score for the AAQ-2 is calculated by summing the answers for each question. Scores greater than 24 suggest distress is present (Bond et al., 2011).

The reliability and validity of the AAQ-2 was tested by Bond et al. (2011) in a sample of 2816 participants. They found satisfactory scores for the structure, validity, and reliability of the measure. With regards to reliability, they found Cronbach's alpha coefficients of 0.84, ,0.81 and 0.79 at 3 and 12-month test-retests respectively (Bond et al., 2011). The authors also suggest that the scale predicts a range of outcomes and that the measure has good discriminant validity (Bond et al., 2011).

The AAQ-2 has been used in several studies measuring the effectiveness of ACT based interventions for HE students. For example, Levin, Pistorello, Seeley and Hayes

(2014) used the AAQ-2 as a measure of psychological flexibility and experiential avoidance in their study considering the feasibility of an ACT web-based intervention for college students in the USA. In an additional piece of research, Brown et al. (2011) used the AAQ-2 to measure psychological flexibility in their RCT, comparing the effectiveness of ACT versus cognitive therapy for test anxiety among students in the USA. The AAQ-2 is also used by the local health board in their routine evaluation of the ACT psychoeducation programme.

The Rosenberg Self-Esteem Scale (Rosenberg, 1965)

The Rosenberg Self-Esteem Scale (RSES) is a measure of global self-worth or self-esteem. The scale consists of 10 items measured on a 4-point Likert scale ranging from Strongly Agree (3) to Strongly Disagree (0). The scale asks participants to indicate how they feel generally about themselves in response to ten statements. To score the RSES, scores for all items are summed, with values for questions 2, 5, 6, 8 and 9 reversed. Scores between 15-25 are within the 'normal range', while scores lower than 15 suggest low self-esteem.

The RSES demonstrates good reliability with internal consistency scores of 0.77 Cronbach's Alpha coefficient and reproducibility coefficient of 0.92 (Rosenberg, 1965). With regards to validity testing, the Rosenberg self-esteem scale has good predictive, construct and concurrent validity and correlates well with other measures of self-esteem, and in the predicted direction with both anxiety and depression (Rosenberg, 1965).

The RSES scale is the most widely used measure of global self-esteem and has been used in a wide variety of topic areas including research evaluating ACT based interventions. For example, Luoma, Kohlenberg, Hayes, Bunting, and Rye (2008) used the RSES to measure global self-esteem in their study looking at the reduction of stigma in substance abuse users, using an ACT based intervention. A further study investigated the mediating role of self-esteem on mindfulness, depression, and anxiety, and used the RSES as the measure of global self-esteem (Bajaj, Robins & Pande, 2016). The RSES is also used by the local health board in their routine evaluation of the ACT psychoeducation programme.

The Mindfulness Based Self-Efficacy Scale-Revised (Cayoun, Francis, Kasselis & Skillbeck, 2012)

The Mindfulness Based Self-Efficacy Scale-Revised (MSES-R) is a 22-item measure of perceived SE taken before and after participation in a mindfulness-based programme (e.g., the ACT psychoeducation programme). The scale asks participants to indicate how much they agree with a statement by circling a number on a 5-point Likert scale ranging from 0 (Not at all) to 4 (Completely). The scale consists of six subscales which are: 1) Emotion regulation, 2) Equanimity, 3) Social Skills, 4) Distress Tolerance, 5) Taking Responsibility, and 6) Interpersonal effectiveness. Scores can be calculated for each of the subscales and for the overall scale however, 16 items must be reversed (1, 2, 3, 4, 6, 7, 8, 11, 12, 14, 15, 16, 17, 18, 21 and 22). The lower the score, the lower the individuals perceived SE for the mindfulness related skills (e.g., Distress Tolerance).

The MSES-R shows good test-retest reliability and internal consistency with Cronbach's alpha coefficients of 0.88 and 0.86, respectively. The scale also has good construct validity and good discriminant validity, scoring inversely with the DASS-21 (Cayoun et al., 2012), which is also utilised in this evaluation.

The MSES-R has been utilised in several studies looking at the effectiveness of ACT based interventions and mindfulness-based interventions. For example, the MSES-R has been used in research looking at the use of mindfulness-based interventions in Acquired Brain Injury patients (Canade, 2014). The MSES-R has also been used as a measure of mindfulness SE in research examining the use of ACT based interventions for chronic pain patients (Allred, 2016). The MSES-R is also used by the local health board in their routine evaluation of the ACT psychoeducation programme.

The Warwick-Edinburgh Mental Well-Being Scale (Tennant et al., 2007)

The Warwick-Edinburgh Mental Well-being Scale was funded by the Scottish Executive National Programme for improving mental health and well-being, commissioned by NHS Health Scotland, developed by the University of Warwick and the University of Edinburgh, and is jointly owned by NHS Health Scotland, the University of Warwick and the University of Edinburgh (*required text for reports using the questionnaire*). The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) is a 14-item measure of general wellbeing. The scale asks participants to

tick boxes that best describe their feelings/experiences over the past two weeks. Answers are scored on a 5-point Likert scale from 1 (none of the time) to 5 (all of the time). To calculate the WEMWBS score, you simply sum the scores from all questions to get a score between 14 and 70. There are no cut off scores for the WEMWBS, instead mean scores are compared with population norms. The population norm for the WEMWBS is 51, suggesting that those scoring under 51 are below the norm and those over are above the norm. The authors suggest that a rise of 3-8 points between pre and post-test data collection using the WEMWBS is significant (Stewart-Brown & Janmohamed, 2008). While the scale is free to use for research purposes, the primary researcher had to complete an online application to use the scale before data collection could commence. Confirmation of this application can be found in the appendices (appendix G2).

The validity and reliability of the WEMWBS for use specifically in a student population has been considered. Construct validity for the WEMWBS has shown some excellent correlations for the scale against other validated measures such as the World Health Organisation-Five Well-Being Index (WHO, 1998) and the Satisfaction with Life Scale (Diener, Emmons, Larsen & Griffin, 1985) showing Pearson's correlation coefficients of 0.77 and 0.72, respectively. The internal consistency of the scale on a student population is excellent with a Cronbach's Alpha coefficient of 0.89 and in addition the test-retest reliability shows an excellent Cronbach's Alpha coefficient of 0.83.

The WEMWBS has been used in research considering the effects of ACT on wellbeing. For example, McConachie, McKenzie, Morris and Walley (2014) used the WEMWBS scale as a measure of well-being in their study considering the effectiveness of an Acceptance and mindfulness-based intervention for stress management in staff caring for those with intellectual disabilities. In addition, the WEMWBS has been used a measure of well-being in several studies such as those investigating ACT interventions for cancer patients (Datta et al., 2016).

Likert Questions

Participants were to answer the following Likert scale question at both T1 and T2, which was replicated from the ABMU evaluation questionnaire booklets:

How satisfied are you with life as a whole?

Participants were asked to answer the question on scale of 1-10, with higher scores representing higher levels of satisfaction. In addition, participants were asked to answer the following Likert scale question at T2:

How helpful would you rate the programme overall?

Participants were asked to answer the question on a scale of 1-10, with higher scores representative of a more helpful programme.

Design and Method of Analysis

See chapter 6.2.1.2.

Procedure: T1 Data Collection

The primary researcher attended the first session of the ACT psychoeducation programme on both campuses during the HWA run for recruitment. At the beginning of the session, the primary researcher addressed attendees, explaining the purpose of the programme evaluation. The primary researcher provided attendees with a copy of the questionnaire booklet and information sheets, and participants were asked to complete these at the end of the session should they consent to take part. Questionnaires were collected at the end of the session. During the pilot, presenters handed out questionnaires in a similar manner.

Procedure: T2 Data Collection

The primary researcher attended session four of the ACT psychoeducation programme on both campuses during the HWA run for recruitment. During these sessions, the primary researcher reintroduced the research and handed out questionnaire booklets, tick-box and debrief sheets. Participants were asked to complete the booklets and tick-box sheets at the end of the session, should they consent. These were then collected by the primary researcher. During the pilot, presenters handed out questionnaires in a similar manner.

Procedure: T3 Data Collection

During session four, the primary researcher gave participants tick-box sheets, asking them to indicate if they wanted to complete follow-up questionnaires online one-month after programme completion. Those who expressed interest in participating were emailed approximately one-month after attending the programme asking if they wanted to take part. They were emailed a second time with a link to the questionnaire

if they consented. Information, consent and debrief sheets were embedded into the online questionnaires.

7.2.1.3 Quantitative Findings: ACT psychoeducation Programme Evaluation

Quantitative data presented in this chapter was collected from two sources. The first was a pilot of the ACT psychoeducation programme offered exclusively to SU Staff in 2017. The pilot was delivered by Local Health Board (LHB) staff as a collaboration between SU and the LHB. Data was collected by the LHB, who agreed to share anonymised data with the primary researcher of this evaluation. This data will be referred to as pilot data in this chapter. The second source of data collection was conducted by the primary researcher during the HWA run of the programme in 2018. This data will be referred to as HWA run data in this chapter.

Data collected during the pilot and HWA run differed slightly. Pilot data was collected using booklets devised by the LHB for routine data collection, and booklets used in the HWA run were modified versions of these booklets. Key differences between questionnaire booklets were: 1) Those used in the HWA run included two additional validated questionnaires, and 2) Those used in the HWA run contained fewer demographic and evaluation questions (to reduce the burden on participants due to the added validated measures).

Participants in both the HWA run and pilot completed questionnaires at T1 (session 1) and T2 (session 4). Overall, 30 participants provided complete matched pairs data at T1 and T2 for the pilot run. For the HWA run, 17 participants provided demographic data, 15 completed the questionnaire booklets at T1, nine completed the questionnaire booklets at T2 (two participants provided post-data but not pre), and seven participants provided complete matched data (i.e., data at both T1 and T2). Matched pairs data was analysed using SPSS. An alpha level of < or equal to 0.05 will be used for statistical significance.

Frequency Statistics

Several demographic questions were asked at T1 during for both the pilot and HWA run. Findings are outlined in tables 33 and 34.

Table 33/. *Descriptive Statistics: Pilot Demographic Questions*

Categorical variable	Level of categorical variable	Frequency	Percentage
Gender	Male	11	37%
	Female	18*	60%
	Missing data	1	3%
Age	20-29	7*	23%
	30-39	7*	23%
	40-49	5	17%
	50-59	3	10%
	60-69	7*	23%
	Missing data	1	3%
Ethnicity	White-British	22*	73%
	White-Other	6	20%
	Chinese	1	3%
	Missing data	1	3%
Primary Language	English	21*	70%
	Welsh	1	3%
	Other	6	20%
	Missing data	2	7%
Sexual orientation	Heterosexual	28	93%
	Not stated	1	3%
	Missing	1	3%
Relationship Status	Single	6	20%
	In a relationship/ cohabiting	9	30%
	Married/ civil partnership	13*	43%
	Missing data	1	3%
	Divorced/separated	1	3%
Employment Status	Full-time	18*	60%
	Part-time	6	20%
	Student	4	13%
	Retired	1	3%
	Missing data	1	3%
Religion	None	19*	63%
	Christianity	10	33%
	Missing data	1	3%
Disability Status	Yes	2	7%
	No	27*	90%
	Missing data	1	3%
Children under 18	None	19*	63%
	2	4	13%
	Missing data	7	23%

Note. *An asterisk denotes the category with the mode frequency*

During the pilot, the sample largely consisted of White-British (73%), English speaking (70%) adults in either full or part-time employment (80% combined). Most participants were female (60%). Participants ages were split somewhat evenly across age groups.

Table 34/. *Descriptive Statistics: HWA Run Demographic Questions*

Characteristic	**Level of categoric variable**	**Whole data set (*n*= 17)**		**Matched data set (*n*= 7)**	
		Frequency	Percentage	Frequency	Percentage
Gender	Male	3	18%	1	14%
	Female	14*	82%	6*	86%
Age	20-29	6	35%	3	43%
	30-39	4	24%	1	14%
	40-49	2	12%	1	14%
	50-59	5	30%	2	29%
Ethnicity	White-British	13*	76%	7*	100%
	White-Other	1	6%	0	0%
	Asian-Other	1	6%	0	0%
	Not specified	2	12%	0	0%
University status	Undergraduate student	3	18%	1	14%
	Master Student	2	12%	0	0%
	Full time staff	10*	59%	4*	57%
	Part time staff	2	12%	2	29%
University college	Medicine	2	12%	2*	29%
	CHHS	5	30%	2*	29%
	Engineering	2	12%	0	0%
	Other	6*	35%	2*	29%
	Missing data	2	12%	1	14%
Local Postal Area	Swansea post code	13*	76%	7	0%
	Missing	4	24%	0	0%
Number of sessions attended	All	5	30%	4*	57%
	75%	3	18%	2	29%
	Missing Data	9*	53%	1	14%

Note. *An asterisk denotes the category with the mode frequency*

During the HWA run, participants provided matched pairs data were predominantly female (86%), White-British (100%), aged between 20-29 (43% and the majority were SU staff (86%). Of those providing matched pairs data, 50% of those who answered the question (n= 6) attend at least 100% attended at least 3/4 sessions and 50% all 4 sessions.

Reliability Testing

All questionnaires used were validated and widely used within mental health and/or ACT based research, and each have reported an acceptable ($\alpha > .7$) level of alpha. The MSES-R (Francais & Cayoun, 2011) is a 22-item measure of mindfulness-based self-efficacy with six subscales. While the MSES-R was administered in its entirety for data collection during the HWA run, modifications were made to the scale administered during the pilot cycle. Pilot data was collected by a local health board using questionnaire booklets developed by them for use in their routine evaluation of the programme. In these, only three MSES-R subscales were included: 1) The Emotional Regulation, 2) The Equanimity, and 3) The Distress Tolerance subscales.

To the primary researcher's knowledge, this is not a validated version of the scale and therefore, a Cronbach's Alpha analysis (Cronbach, 1951) was run on the version of MSES-R used in the pilot (table 35).

Table 35/. *Cronbach's Alpha Analysis of the MSES-R*

Questionnaire	**T1 α Value**	**T2 α Value**
MSES-R Full	.666**	.711
MSES-R Emotional Regulation Subscale	.735	.764
MSES-R Equanimity Subscale	.396*	.602*
MSES-R Distress Tolerance Subscale	.419*	.404*

Note. *A single asterisk indicates alpha values below an acceptable level (α> .7), a double asterisk indicates alpha approaching an acceptable level*

Analysis revealed an α level of .666 at T1 and .711 at T2 for the MSES-R full scale (three subscales combined). This suggests that overall, the MSES-R full scale (as used in this study) approached an acceptable level of alpha ay T1 and was at an acceptable level of alpha at T2. Analysis revealed an acceptable level of alpha (α > .7) for the Emotional Regulation subscale at both T1 and T2 however, analysis revealed a less than acceptable level of alpha (α < .7) for both the Equanimity and Distress Tolerance subscales at both T1 and T2. This suggests neither of these subscales were reliable in the format used in this study. Due to this, further investigation was conducted to explore the impact of deleting questions from both subscales on the overall reliability of the scale (table 36).

Table 36/. *Additional Cronbach's Alpha Analysis*

Subscale	**Question Number**	**Cronbach's α if question deleted**		**Corrected item total correlations**	
		T1	**T2**	**T1**	**T2**
Equanimity	3	.452*	.682*	.116**	.195**
	7	.117	.373	.419	.620
	9	.223	.492	.308**	.435
	13	.466*	.554	.068**	.355**
Distress Tolerance	6	.285	-.042	.275**	.402
	10	.339	.208	.243**	.295**
	11	.353	.619*	.241**	.059**

Note/. *A single asterisk indicates an increase in alpha if that question were deleted. A double asterisk indicates questions with a corrected item total lower than .40*

In relation to the equanimity subscale, deleting questions 3 and 13 at T1 and 3 at T2 would increase alpha. The corrected item total for questions 3 and 13 were below .40 at T1 and T2 and for question 9 at T1. In relation to the Distress Tolerance subscale, deleting question 11 at T2 would increase alpha. Corrected item totals for questions 6,

10 and 11 were below. 40 at T1 and for questions 10 and 11 below .40 at T2. Ladhari (2010) suggests questions with a corrected item total lower than .40 should be disregarded from analysis. Subsequently, scores on the full MSES-R and on the Equanimity and Distress Tolerance subscales were removed from the analysis of data from the Pilot. Only scores for the Emotional Regulation subscale were explored.

Normality Testing

Paired sample t-tests were used to analyse the data where normal distribution could be assumed. A Shapiro Wilk test was performed for all scales and subscales to test normality. If *p* values were lower than .05 non-parametric Wilcoxon Signed-Rank Tests were run for the main analyses. Scales for which analysis revealed data was not normally distributed are outlined in table 37.

Table 37/. *Shapiro Wilk Test Results where data was not Normally Distributed*

	Scale	***p* Value**	**Test to be Used for Main Analysis**
Pilot	MSES-R Emotional Regulation Subscale	.043	Wilcoxon Signed Rank Test
HWA	GAD7	.012	Wilcoxon Signed Rank Test
	MSES-R Emotional Regulation subscale	.020	Wilcoxon Signed Rank Test
	MSES-R Social Skills subscale	.029	Wilcoxon Signed Rank Test
	MSES-R Interpersonal Effectiveness subscale	.012	Wilcoxon Signed Rank Test

Tests of Significance: Primary Outcome Measures

Data was collected during session one and four on several measures of wellbeing, including depression, anxiety, and stress during both the pilot and HWA runs. Tests of significance were conducted to explore changes over time (T1 to T2) for participants who attended the ACT psychoeducation programme during both the pilot and HWA runs. Table 38 outlines results from the tests of significance for each primary measure used to collect data during the pilot and HWA runs. Mean pre and post scores for the whole sample (non-matched pairs data) can be seen in appendix H2. Significant or interesting findings are then discussed.

Table 38/. *Significance Testing Findings: Primary Outcome Measures*

Scale	Mean		Standard Deviation		t or Z Value	df	*p* Value
	T1	T2	T1	T2			
PHQ8 (Pilot)	10.07	8.7	5.33	4.56	1.99 (t)	29	.056**
PHQ9 (HWA)	9	8.43	5.6	4.61	.347 (t)	6	.740
GAD-7 (Pilot)	10.23	7.3	4.83	4.96	4.54 (t)	29	.001*
GAD-7 (HWA)	9.71	6.57	3.99	6.35	-1.19 (Z)	6	.235
WEMWBS (HWA)	45.43	48.57	11.80	13.30	-1.04 (t)	6	.337
DASS-21 depression (HWA)	15.14	10.86	10.12	9.92	1.4 (t)	6	.212
DASS-21 anxiety (HWA)	8.57	10.29	5.97	8.83	-.51(t)	6	.629
DASS-21 stress (HWA)	17.14	14.57	8.4	8.92	.609 (t)	6	.565
Likert (pilot)	5.31	5.93	2.21	1.93	-3(Z)	29	.003*
Likert (HWA)	6.17	5.83	.98	2.14	.00(Z)	5	1

Note/. *An asterisk denotes a p value at a level of statistical significance, a double asterisk denotes a p value approaching a level of statistical significance*

T-tests revealed a statistically significant difference [t (29) = 4.54, p = .001] on the GAD-7 from T1 (M= 10.23, SD= 4.83) to T2 (M= 7.3, SD= 4.96), suggesting that levels of anxiety decreased among ACT Psychoeducation Programme pilot users over time. Lastly, Wilcoxon analysis revealed that self-reported satisfaction with life (the Likert scale question) was significantly better (Z=-3, p = .003) for pilot participants after they completed the programme (M = 5.93, SD = 1.93) compared to before (M = 5.3, SD = 2.17). No significant differences were observed over time for users of the HWA run however interestingly, scores on the DASS-21 anxiety scale increased over time, suggesting a slight, non-significant increase in depression for HWA run users after programme completion. Mean WEMBWS scores for the sample were below the population norm (51) at T1 and T2.

Tests of Significance: Secondary Outcome Measures

Data was collected during session one and four from users attending the ACT psychoeducation programme on three secondary outcomes measures which were, the RSES, MSES-R and AAQ2 and tests of significance were conducted to explore changes over time (T1 to T2). Table 39 outlines results from the tests of significance for each secondary measure used to collect data during the pilot and HWA runs of the ACT psychoeducation programme. Mean pre and post scores for the whole sample (non-matched pairs data) can be seen in appendix H2. Significant or interesting findings are then discussed.

Table 39/. *Significance Testing Findings: Secondary Outcome Measures*

Scale	Mean		Standard Deviation		t or Z Value	df	*p* Value
	T1	T2	T1	T2			
RSES (Pilot)	16.33	16.67	5.35	6.08	-.57 (t)	29	.571
RSES (HWA)	16.71	19.43	5.28	5.38	-2.67(t)	6	.037*
MSES-R ER sub (pilot)	10.2	11.97	4.05	4.4	-3.21 (Z)	29	.001*
MSES-R full (HWA)	50.43	55.86	9.22	15.77	-1.43(t)	6	.203
MSES-R ER sub (HWA)	10.14	13.29	4.22	5.65	-1.71 (Z)	6	.088
MSES-R SS sub (HWA)	8	7.86	2.16	2.27	-.41 (Z)	6	.68
MSES-R IE sub (HWA)	8.57	9	1.90	2.58	-.97 (Z)	6	.335
MSES-R DT sub (HWA)	8	7.71	2.77	3.04	.240 (t)	6	.818
MSES-R EQ sub (HWA)	9.71	9.71	2.5	3.4	.0 (t)	6	1
MSES-R TR sub (HWA)	6	8.29	2.16	2.36	-2.56(t)	6	.043*
AAQ2 (pilot)	27.23	25.3	7.27	7.35	2 (t)	29	.056**
AAQ2 (HWA)	27.57	24.43	5.8	7.76	.92(t)	6	.393

Note/. *An asterisk denotes a p value at a level of statistical significance, a double asterisk denotes a p value approaching a level of statistical significance*

A paired samples t-test revealed a statistically significant difference [t (6) = -2.67, *p* = .037] in scores on the RSES from T1 (M= 16.71, SD= 5.28) to T2 (M= 19.43, SD= 5.38) during the HWA run, showing that levels of self-esteem increased among users after attending the programme at a level of statistical significance. Additionally, Wilcoxon analysis revealed a statistically significant difference (Z=-3.21, *p* = .001) on the Emotional Regulation subscale of the MSES-R from T1 (M= 10.2, SD= 4.05) to T2 (M= 11.97, SD= 4.4) during the pilot, suggesting that self-efficacy in relation to emotional regulation significantly increased from T1 to T2. T-tests revealed a statistically significant difference on the MSES-R TR subscale [t (6) = -2.56, *p* = .043] from T1 (M= 6, SD= 2.16) to T2 (M= 8.29, SD= 2.36) for users attending the HWA run, suggesting that their locus of control, and clarity on interpersonal boundaries improved from the beginning to the end of the ACT psychoeducation programme.

Qualitative and Programme Evaluation questions

Participants in the ACT psychoeducation pilot were asked some short qualitative questions within the questionnaire booklets. Participants were not asked these questions during the HWA run, to not over burden participants due to the inclusion of additional questionnaires (chapter 7.2.1.2). Participants in the HWA run were simply asked to rate the programme out of 10 and leave any additional comments about the programme if they wished.

How did you hear about the programme? (pilot)

All participants who provided a response to this question heard about the programme through SU in some way. The most cited method was via email, mentioned 23 times

What are you hoping to gain from the programme? (pilot)

Respondents to this question gave multiple answers, with the top three cited including:

1) *To improve/look after/manage their wellbeing/mental health, 2) To acquire self-improvement/self-management tools, and 3) To increase the ability to control/manage their own thoughts/feelings/emotions*

What were the most and least helpful aspects of the programme? (pilot)

The top three most helpful aspects of the programme were cited as:

1) *'other' practical activities/exercises, 2) Mindfulness information and activities, and 3) Metaphors/analogies*

The top three responses to least favourite aspects of the programme were:

1) *The mode of presentation/reading from the slide, 2) Repetition of information, and 3) Lack of interaction*

Are there any changes to the course that you would recommend? (pilot)

The top three cited responses to recommendations to change the programme were:

1) *Do not read slides verbatim, 2) More interaction, and 3) Changes to the content including. less repetition, more engaging for academic*

Would you recommend the programme?

Of those who answered the question (*n*= 30) 97% of pilot users said yes, they would recommend the programme, and 100% of pilot users (*n*= 30) said they found the programme fairly, or very useful. HWA run users rated the programme and 8.7/10 (*n*= 6) on average.

7.2.1.4 A Brief Discussion of Quantitative Findings

Two statistically significant differences were observed over time for participants of the HWA run (see tables 38 & 39) showing that levels of self-esteem increased for participants over time and that among HWA run users, their locus of control and clarity

on interpersonal boundaries improved from the beginning to the end of the ACT psychoeducation programme. Further, data analysis revealed significant improvements over time for pilot service users on measures including anxiety and emotional regulation, suggesting that the programme was effective at reducing anxiety and improving a person's emotional response. However, results did reveal some unexpected results for example, increases over time for HWA run participants on scores of depression (as measured by the DASS-21), suggesting their levels of depression were worse after attending the programme; please note this was not significant. While there were some positive findings, it was expected that there would be better results in relation to the ACT constructs measured, which warrant further exploration.

Limitations

The sample providing matched datasets (T1 and T2) during the HWA run was small (*n*= 7), impacting the reliability of the reported findings. Initially, the plan was to collect data from programme users over several cycles of the programme (similar to the process adopted in the PPP evaluation) however, the ACT psychoeducation programme was terminated at SU after one run and participant numbers could not be improved (see chapter 9). Consequently, follow-up data completion was non-existent, despite most participants consenting to receive follow-up questionnaires via email. Reasons for this are unknown however, one explanation could be that follow-up emails were lost among other research emails. To expand, SU staff and students receive emails weekly from individuals recruiting participants for research and therefore, it is possible that participants mistook the emails for this evaluation as general research recruitment.

How did the Quantitative Findings Contribute the Programme Evaluation?

The quantitative element of phase two aimed to contribute to answering the below objectives:

1. To identify whether the ACT psychoeducation programme is 'reaching' its target audience and to what extent
2. To identify the outcomes of the ACT psychoeducation programme for its stakeholders including service users
3. Does the ACT psychoeducation programme offer a service in line with HWA aims and values and if so, which ones and to what extent?

Findings demonstrated who the programme 'reached' during both the pilot and HWA run. Across both, participants were largely White-British, female, SU staff members. While the pilot was exclusively accessible to staff, the HWA run was open to students. Of those providing matched datasets, just one was a student. The HWA aims to offer accessible services however, those 'reached' by the ACT psychoeducation programme were homogenous. The ACT psychoeducation programme was an anomaly for the HWA, as the only programme on offer that was exclusive to SU staff and students. While the HWA implemented the ACT psychoeducation programme to address an identified need with the university (i.e., to increase access to psychological therapies), this automatically reduced the reach of the programme. Findings demonstrated some statistically significant, positive outcomes for programme users, including an increase in self-esteem for participants of the HWA run and a reduction in feelings of anxiety for those who attended the pilot. However, due to the small sample size and lack of follow-up data (specifically in the HWA run), further investigation is needed to consolidate the outcomes associated with attending the ACT psychoeducation programme over a longer period (increasing sample size). It can be argued that the ACT psychoeducation programme offered a programme in line with HWA aims, offering a programme with beneficial programme user outcomes

7.2.2 ACT Psychoeducation Programme Presenter and User Insights

The second component of phase two involved interviewing ACT psychoeducation programme users and presenters.

7.2.2.1 Introduction and Aims

Programme evaluation questions and objectives were outlined in chapter 5.3. The qualitative element of phase two contributed to answering all aims:

1. Does the ACT psychoeducation programme offer a service in line with HWA aims and values and if so, which ones and to what extent?
2. What is the 'value' of delivering the ACT psychoeducation programme at the HWA and SU?
3. To identify whether the ACT psychoeducation programme is 'reaching' its target audience and to what extent
4. To identify the outcomes of the ACT psychoeducation programme for its stakeholders including service users
5. What are the important mechanisms of the ACT psychoeducation programme that interact to produce identified outcomes for all stakeholders?
6. What are the important contextual factors of the ACT psychoeducation programme that interact to produce identified outcomes for all stakeholders?

Objective two was explored by understanding whether there is a need for the ACT psychoeducation programme and how the programme fits in within the context of SU wellbeing provision. Objectives three and four were explored by identifying who were using and presenting the ACT psychoeducation programme and furthermore, identifying the impacts of the programme for those stakeholders. Objectives five and six were explored by discussing the ACT psychoeducation programme and identifying factors about the programme that both the programme users and presenters viewed as important and why, in addition to highlighting outcomes for both in attending/presenting the programme. Objective one was answered by considering the findings from all other objectives, gaining a better insight of the ACT psychoeducation programme in the context of the HWA.

7.2.2.2 Methodology

Ethical Approval

Ethical approval was granted from SU CHHS REC in November 2017 (appendix X) for this part of the evaluation.

Participants

The target sample for programme user interviews were SU staff and students who attended the HWA run of the programme. Participants (*n*= 1) were part of a purposive sample, aged 18 or over and no other inclusion or exclusion criteria applied.

SU staff who presented the ACT psychoeducation programme, were invited to take part in presenter interviews. Participants (*n*= 3) were part of a purposive sample, aged 18 or over and no other inclusion or exclusion criteria applied.

Materials and Construction of the Interview Schedule

Please refer to chapter 6.1.3.2.

Design

Face to face, semi-structured interviews were conducted.

Recruitment: Programme Presenter Interviews

Programme presenters were approached by the primary researcher during the programme sessions asking if they would like to receive information via email about partaking in an interview. Those who were happy to receive further information were

emailed with an information sheet (appendix D2) and asked to respond to the email if they would like to take part.

Recruitment: Programme User Interviews

During session four, the primary researcher provided programme users with tick-box sheets (appendix G2). Those who indicated (via tick-box sheet) that they would like to receive information about interviews were emailed; information sheets were included within the initial contact emails. Participants were asked to contact the primary researcher via email if they were happy to take part in an interview.

Procedure

Those who expressed interest in participating were further emailed by the primary researcher, arranging a suitable date and time for the interview. All interviews took place at SU. Prior to commencing the interviews, participants were asked to read the information sheet and sign the consent form (appendices Y and Z respectively). Interviews lasted between 39 and 50 minutes and were recorded on two devices. Participants were given a debrief sheet (appendix A2) following the interviews. Interview recordings were transcribed onto a word processor, and saved to the primary researcher's university computer account, backed up onto the SU student: P:\ Drive. Recordings were deleted following transcription.

Method of Analysis

Please refer to section 6.1.3.2.

7.2.2.3 Interview Findings: A Thematic Analysis of the ACT Psychoeducation Programme Presenter and User Interviews

This section reports findings from four semi-structured interviews with the ACT psychoeducation programme presenters (*n*= 3) and a programme user (*n*= 1). Programme presenters worked within several departments of SU, including wellbeing services and the programme user was a SU undergraduate student.

Topics discussed included experiences of delivering and attending the ACT psychoeducation programme within the context of the HWA and views on the appropriateness of the programme for university delivery. Table 40 provides a short description of the themes included in this analysis. The analysis of programme presenter and user interviews are presented in the same section for two reasons: 1) Due

to the small sample size of programme user interviews, and 2) Due to the fact that some programme presenters were also programme users, having attended the staff pilot. The codes PP1, PP2 and PP3 represent the programme presenters and PU the programme user.

Table 40/. *A Description of the Themes Included in ACT Psychoeducation Programme Presenter and user Interview Analysis*

Themes	Description
Theme 1: Mental health and wellbeing in the higher education context	This theme presents programme presenters observations of mental health issues within SU. Presenters discuss a discrepancy between the availability of services provided and needed at SU.
Theme 2: Mental health and wellbeing support provision within the higher education context	This theme highlights some of the biggest issues with current SU mental health care provision, including a lack of accessible, low-intensity psychological interventions
Theme 3: Psychoeducation in a higher education context: Content, delivery, and reception of the ACT psychoeducation programme	Presenters provide commentary on their experiences of delivering the ACT psychoeducation programme, commenting on the presenter friendly nature of the programme. The programme user also gave their opinion of the programme presenters.
Theme 4: Barriers to attending the ACT psychoeducation programme	This theme presents potential barriers to the ACT psychoeducation programme that may have contributed to the low attendance during the HWA run including: 1) Programme length, 2) Programme format, and 3) Programme advertisement.

Theme 1: Mental Health and Wellbeing in the Higher Education Context

This theme presents programme presenter and user views of the current state of wellbeing among SU staff and students, and the subsequent impact this has had for university support services, providing a rationale for the introduction of the ACT psychoeducation programme within SU.

Presenters observed a rise in the number of SU students experiencing mental health problems in recent years, sharing that they have witnessed:

> *an increase in the number of students with…well-being difficulties (PP1)*

> *an increase in the number of…students…struggling with their...well-being (PP3)*

> *an onwards and upwards trend basically…and the dropouts each year get worse because of anxiety (PP1)*

Presenters considered why students are vulnerable to experiencing mental health problems:

> *there's a lot of pressure on young people these days to…succeed (PP3)*

> *there's this…social media pressure out there and young people are really struggling at the moment (PP1)*

The PU provided some insight into the type of issues faced by them and their peers during the transition to university:

> *a lot of people on my course…struggled we have like a massive group chat with the majority of us in and in first year everyone was like how do you reference how do you do this and it was just like really stressful*

> *in the first few weeks I think balancing your social life with your studies is quite hard*

> *there were a few issues in my house which…like for a while I didn't want to be in the house...so that was quite anxiety provoking*

PU insights supported the idea that students face several stressors from several sources which can contribute to the development of mental health problems.

Presenters discussed how poor coping skills can exacerbate the impact that stressors have on student wellbeing:

> *a lot of students aren't as prepared as they should be coming to university…a lot of students come to university you know may not necessarily with the grades…so they come and they struggle which can lead to sort of mental health difficulties (PP3)*

> *you've got…satellite parenting…you're being supported until you're early mid-twenties…there's more of a culture now isn't there people aren't thinking by the time I'm 18 I need to be independent (PP3)*

> *they're just not resilient enough…they're not taught how to be resilient (PP1)*

The PU commented that for them, the multiple stressors of HE contributed to the adoption of an avoidance style of coping:

> *I end up just working under pressure like at the last minute...and I never used to be like that I was always doing my work weeks before putting loads of effort into it but now I like I avoid…it's just avoidance I avoid things*

Presenters described how a lot of students are entering the HE context with pre-existing mental health problems:

> *it's affecting them from the pre-entry stage let alone when they get here…they're coming in quite anxious…coming in…just completely terrified (PP1)*

> *students coming in with a mental health difficulty (PP3)*

The above examples suggest that a mixture of new stressors at university, poor coping skills and pre-existing experiences of mental health problems contribute to poor levels of mental health among students. Presenters noted that mental health problems are commonplace among SU staff:

> *I think…similar to students there's a lot of pressures on staff…I think it's the work life balance and sort of…being able to get everything done…there are a lot of pressures on staff (PP3)*

Presenters considered the impact that the increased prevalence of mental health problems has had on support services offered by SU:

> *we've seen a 70% increase in the number of students we are currently working with (PP3)*

> *the demand is huge I think last year we had a very high year on demand…about …seventy per cent increase on last years (PP2)*

Presenters noted a discrepancy in the 'supply and demand' of SU wellbeing services:

> *there's a lot of…issues…there being an increase in the number of students coming through…and you know the resources available to be able to meet that demand as well (PP3)*

> *its hundreds of people coming through isn't it and or wanting to access the services…I genuinely believe that your current problem is that too many students want to use it (PP1)*

Presenters outlined the direct implications this has for students:

> *demand on the service means that students…maybe can't access the counselling when they need to (PP3)*

> *in the world that we live in you know the demands on the counselling service…means that they are not able to see everyone…and sometimes maybe it's not appropriate either…it's about getting it right really (PP3)*

PP2 stated these challenges are not unique to SU, but something that is happening nationally:

> *you read in the press…about many universities out there that are really struggling even though they've invested in significant amounts of money in staff and…mental health support programmes that the demand is…outstripping the supply and it's a big, big problem (PP2)*

In summary, presenters have witnessed an increase in mental health problems experienced by SU staff and students and were able to identify the knock-on effect this has had for SU wellbeing services (e.g., a discrepancy between the demand for and availability of SU support services). This theme provides the context in which the ACT psychoeducation programme was embedded and provides a rationale for the implementation of a new wellbeing service at SU.

Theme 2: Mental Health and Wellbeing Support Provision within the Higher Education Context

This theme explores wellbeing service provision at SU, highlighting issues with current provision, exploring how the ACT psychoeducation programme can 'fill a gap'.

Presenters suggested that the demand for wellbeing services at SU outweighs the available resources. Presenters identified several limitations of SU wellbeing service provision for example, presenters explained that students need a GP referral or pre-existing mental health problem to access certain 1-2-1 counselling services at SU:

> *the well-being service…they offer things like counselling…but really you need a mental health diagnosis to access that… to register they'd have a diagnosis from a GP or…mental health…practitioner (PP3)*

Presenters outlined further accessibility issues with SU services including long waiting lists:

> *more people want to access it but I just think it's the waiting lists…they're being told…you know you might have to wait a couple of weeks for an appointment …everyone just expects to be able to sort of say right I'm struggling now I want this appointment and they're going to get one within a week (PP1)*

The PU held similar views, discussing long waiting lists and the need for a GP referral:

> *I think it's a good place to start…but I've heard from friends there's quite a long waiting list for the service…if you are feeling stressed and anxious and you need somewhere to go...how would you feel in 6-10 weeks' time or whatever the time period you are going to feel completely different*

> *if I understand correctly like the student would have to go to the doctor and be referred and then wait for a while to be seen by someone*

PU also discussed a lack of awareness of available services and poor communication:

> *in first year they were doing…some kind of psychology mindfulness…CBT classes like they were running stuff like that and it would just be nice if they worked with the well-being…service so that information could just be distributed to all students…because obviously people from wellbeing only tend to get emailed about wellbeing if you're registered with them*

> *I just think maybe there should be like…kind of induction day where you're told about all the services on campus because there are so many...it's like word of mouth really how I hear about stuff*

Overall, programme presenters and the PU were able to identify several flaws with current services, and recognised the need for change. PP2 commented that:

> *we recognise as a team how are we gunna meet that demand can we do it in a more…efficient way or that's going to get more results...you have to look at where, where things are working well and review where things aren't (PP2)*

PP3 discussed how the ACT psychoeducation programme could address some of the barriers to care at SU:

> *with mental health on the rise I think...the course you know you don't have to have a mental health difficulty or well-being difficulty to access the programme and I think that's what's good about it (PP3)*

The ACT psychoeducation programme offers an accessible programme, as students do not require a GP referral to access it. Furthermore, the programme has the capacity to 'reach' many students at once, potentially reducing waiting lists for other SU wellbeing services.

Presenters discussed the importance of providing care that meets the specific needs of students, including care that caters to those who require both high and low-intensity interventions. PP3 suggested that currently, there are issues with students trying to access services inappropriate for their needs:

> *at the moment I think you've got a lot of students trying to access ...the service who may not…need that one-to-one intervention (PP3)*

> *students may not necessarily need…long term interventions or counselling but before [the programme] there wasn't anything (PP3)*

The PU recognised issues with trying to provide 1-2-1 support for everyone, commenting that while 1-2-1 support is appreciated:

> *in reality you can't have someone sit in a room and wait for students to turn up and have a rant*

PP3 discussed how some students need less-intensive interventions and felt the ACT psychoeducation programme could provide this, freeing-up higher intensity services for those who need them most:

> *if students don't need one to one support…this could be enough for them…and I think that's key I think offering them something like this I think the university has a responsibility (PP3)*

> *leaving the services then like the well-being services for the students who really need…support (PP3)*

It appears there was a 'gap' at SU for a programme like the ACT psychoeducation programme which can provide a low-intensity, accessible intervention for students:

> *[there was a] clear demand for it…the fact that the university can offer such a programme…is really beneficial for staff and students (PP3)*

> *it's more prevention…more accessible…I think…the university...need to look at prevention (PP3)*

Programme presenters considered the programme to be appropriate for people with a range of mental health problems:

> *the good thing about a course like this is you can target everyone (PP1)*

PP1 outlined the value of attending the ACT psychoeducation programme for individuals not experiencing a mental health problem:

> *even if you aren't in need, attending [the programme] should be seen as something…to develop you (PP1)*

Overall, presenters suggested that wellbeing services at SU are under-resourced, over-used and not accessible. Furthermore, a lack of low-intensity interventions means that students requiring high-intensity care including 1-2-1 counselling may wait longer than necessary for care. Presenters believe that the ACT psychoeducation programme offers an appropriate solution, offering care targeting those with low-intensity needs, freeing high-intensity interventions for those most in need. Presenters valued the ACT

psychoeducation programme as an addition to SU services, believing that there was a clear need for it. The PU identified several limitations of SU wellbeing services and suggested that the addition of well-advertised programmes is warranted.

Theme 3: Psychoeducation in a Higher Education Context: Content, Delivery and Reception of the ACT Psychoeducation Programme

This theme explores the suitability of the ACT psychoeducation programme for delivery in a HE context, the experiences of delivering the programme from a presenter viewpoint and the reception of the programme from the views of the presenters and PU.

Sub-Theme 3a: Delivering the ACT Psychoeducation Programme

PP3 acknowledged the benefits of a presenting a PowerPoint based programme including ease of delivery for programme presenters and reception for users:

> *presenting it…in a way that…comes across well to students…it was nice to be able to go through the slides…go through the activities as well it was useful (PP3)*

PP3 discussed the dynamics of presenting the ACT psychoeducation programme as part of team, and felt this was beneficial in terms of delivery and the reception of the programme:

> *the other facilitator…it really helped…break it up and having the sort of different accents and things…heaving different people speaking…definitely helps (PP3)*

> *I think you've got to be engaging…with the audience I think…having three different people deliver it…is helpful (PP3)*

Presenters gave the impression they enjoyed delivering the programme however, they did express some difficulties in delivering the programme, largely because they were not trained teachers or clinicians:

> *you have to stick to the script [PowerPoint] because obviously I'm not a clinical psychologist you know…it's not my area of expertise (PP3)*

PP1 reminisced how delivering the programme:

> *was an odd experience to have because you think...I'm just reading the slide…but it is helping somebody and that was strange for me it was great…for them…but made me feel like I don't know if I'm worthy of being able to do that (PP1)*

Both presenters felt some unease delivering the programme due to their lack of clinical qualifications however, PP1 mentioned feeling good after presenting the programme, and truly believed that programme users benefitted from attending. In a HE context where wellbeing services are in high demand, providing a programme that does not require 'professionals' to deliver it has its benefits. However, the university has a duty of care towards its staff and should be mindful of the pressures that delivering a psychological intervention could have for presenters, especially those who are not trained professionals.

However, PP3 felt the ACT psychoeducation programme was well designed to be facilitated by non-professional presenters:

> *I can understand why it's delivered in such a way…I don't have a wellbeing background or a mental health background so I was a bit nervous…but actually you know I found it went well…as long as you sort of familiarise yourself with the slides…and the activities it was…easy to present really (PP3)*

> *the way it's sort of presented…you don't need to have that background…the way it's sort of designed …so that anyone can deliver it really…you don't have to be a clinical psychologist or something to deliver it (PP3)*

Presenters suggested the format of the ACT psychoeducation programme enabled them to put their own stamp on delivering the programme:

> *[in] the training…people did put a little bit of a personal stamp on it you could see…it did help…re-engage you a little bit if you sort of brought in a more personal experience (PP1)*

PP1 suggested that the ability to personalise delivery of the ACT psychoeducation programme benefitted programme users, helping them engage more with the materials. Presenters suggested the malleability of the programme and the freedom to personalise delivery was beneficial, allowing presenters to bring their charism to the forefront of delivery:

> *I think obviously [another presenter] is very much a personality…you know she's very engaging…I do think they need to be somebody who's…you know is able to be a little bit personable (PP1)*

Some presenters attended the staff pilot prior to their roles delivering the HWA run of the programme. PP2 reflected on their experience as a programme user, discussing

presenter characteristics and the role this played for them in relation to programme reception:

> *there was one lot I didn't rate at all although just didn't have any sort of charisma…it's important who tries to deliver it I think (PP2)*

P1 suggested having a basic understanding of wellbeing and mental health could positively impact the effectiveness of programme delivery:

> *I do think it is helpful if you can sort of appreciate what the people might be going through maybe if you've been there yourself or if you are used to standing up in front of a group of people…I don't think it's a major barrier I think it's something you can learn (PP1)*

The PU attended the HWA run of the ACT psychoeducation programme on the Bay campus. Due to staffing issues, the programme run on the Bay campus was delivered by LHB staff trained in delivering the ACT psychoeducation programme. The PU provided useful insight into how the presenters impacted their experience of attending:

> *it was delivered quite well like it was informal which was quite nice…quite a relaxing environment just things like having tea and coffee there…just makes it more relaxed…the people delivering it were great they seemed like they knew what they were[doing]*

> *[the presenters] seemed to know what they were talking about as there was very minimal stuff…on the slides like there wasn't much writing which was nice because you can just sit and listen to them then as they were obviously talking away and they seemed quite to know what they what they had discussed... it's nice that they can just talk about it freely and recall everything as opposed to reading from a piece of paper so they obviously know what they are talking about*

PU rated programme delivery highly, valuing the informal and comforting environment created during the programme. Furthermore, the PU appreciated the ability of presenters to elaborate on topics and speak freely, opposed to reading form a script for the entirety of the programme.

To summarise, presenters felt comfortable delivering the ACT psychoeducation programme and felt the content of the programme was easy to deliver even though they were not clinicians. Presenters appreciated the flexibility of the programme, and the ability to present the course in a personalised manner, improving programme user engagement with the materials. The PU valued the personal stamp that presenters put on the programme and felt that they came across as knowledgeable.

Sub-Them 3b: Programme content and Format

Programme presenters felt the content of the programme was easy to grasp and deliver, which was supported by the PU:

> *the content of the sessions it's quite easy material to grasp the concept of it's not like in a psychology lecture and you're learning about neurons and all this other stuff like it's not anything like that it's real simple…things you can do in your everyday life so it shouldn't be an issue for someone to just teach themselves*

Presenters spoke favourably of the programmes content and felt the programme could benefit users by teaching them the skills/techniques necessary to self-manage their wellbeing:

> *having a group like [this]…can support students…manage their own wellbeing (PP3)*

> *it's all about making them…feel better about themselves… giving them independence really (PP2)*

> *exercises…practical ways you can…manage your anxiety or your thoughts…how you feel about yourself (PP1)*

PP3 recalled their experience as an ACT psychoeducation programme user. PP3 found the programme to be easy going and remembered thinking that others could benefit from attending. As an ACT psychoeducation programme user, PP3 found the interactive activities particularly useful and reflected how they could be used 'outside of the programme' to self-manage wellbeing:

> *I found it quite useful…being able to learn about the different activities that you can do on your own…in your own time as well I think that was quite helpful (PP3)*

> *it's all about…self-management as well isn't it… if they do feel anxious or stressed or…worried…you know if those mindful activities can help them…then that's great (PP3)*

The usefulness of the activities was also discussed by the PU, who described how they could be used outside of the programme to self-mange wellbeing:

> *it was nice to have the worksheets as well to go home with…just so you could look over it because it was quite a lot to take in in a short amount of time…we were given like a mindfulness cd…I haven't actually listened to it yet I might use it like before exam time…that was quite nice just to get something back from it you've got all your weeks you know of documentation there in a folder so you can go back to it any time*

The PU discussed that on occasions, practicing the activities at home was easier said than done:

> *the homework…I don't think I did it but like...you could do them on the spot like the sort of changing your thoughts when something bad happens I can do those but it was sort of good to put it into practice because it's very easy to sit there and say…try and do this when you are feeling negative or you are feeling down but when you are in that situation actually doing it is a different thing*

> *the course was such a long time ago I think I've just kind of reverted back to my old ways I know that's really bad...it's really hard to put stuff into practice*

The above examples raise questions about how long programme users can realistically keep up with activities 'outside of the programme', given the number of commitments students have.

Presenters and the PU relayed how the extent of user benefits from the programme can be heavily dependent on programme users themselves:

> *It's giving people the information…and the exercise that can be done as well…you know the information to support…the exercises…how individuals whether they use that in their daily lives or not*

> *someone…who's good on their time management and who is you know willing to apply it somehow in their lives (PP2)*

> *I've kind of come away and been like oh yeah I've done that now, filed the worksheets away somewhere safe not thought anything else about it...but actually when I've been like in tricky situations myself when I've been stressed about university if I'd probably done some of the stuff they'd spoken about at the time it might have helped me (PU)*

Presenters and the PU suggested that the ACT psychoeducation programme can have beneficial outcomes for programme users, by teaching them techniques to self-manage their wellbeing. However, some level of commitment is needed to practice these techniques after the programme has ended which implies that outcomes may be dependent on the programme user's capacity/motivation to engage with materials on their own.

Presenters valued the messages relayed within the programme content, suggesting core messages of the programme were extremely relatable:

> *a lot of the things that were sort of being talked about resonated with me (PP3)*

> *how you feel about yourself…how you cope and the type of person you are…so I think many people would relate (PP1)*

The PU agreed that messages relayed during the programme were relatable and 'made sense' and that the analogies used within the programme were something they would use again:

> *I liked all the little analogies they used and I did sort of come out and think like oh yeah that makes sense I'll try that*

The PU also discussed how the content of the ACT psychoeducation programme, including the analogies, made them think about things in a different way:

> *it was just sort of saying how powerful the mind is and we don't realise…like some of the negative thoughts and stuff that pop up although we find it hard to control we can actually do stuff about them and try to push them out of our mind*

> *the thing that did stick out for me was about your mind like how powerful it really is and you don't realise…that example again of don't think of a pineapple even now like I've said it…that image is in your head and you sort of can't get rid of it…it's just so hard to control your mind basically and it's just all these horrible negative thoughts people get you can see how it's so hard for them to…control them and to deal with them as well*

The ability to relate to the content of the ACT psychoeducation programme could impact programme user engagement with the programme:

> *you would be able to relate so much to some of the content that you would almost…back down a little bit because I think some of the stuff about…it mentions things like social media and um fear of missing out doesn't it (PP1)*

PP1 suggested the relatable nature of the programmes' content facilitates better engagement with the course, contributing to a reduction in potential barriers. The 'fear of missing out' example that PP1 referred to was an addition for the bespoke student version of the programme, designed for use at SU. Presenters gave their views on the bespoke version of the ACT psychoeducation programme:

> *it was adapted slightly for students which obviously was good…I do think it's appropriate" (PP3)*

> *you're trying to put yourself into the mind-set of a student…and make it applicable that's why I think all those tweaking things was important really (PP2)*

Programme presenters and the PU felt that the content delivered within the ACT psychoeducation programme was easy to grasp, powerful and relatable, and that the programme overall could provide its users with the tools (e.g., techniques) they needed

to self-manage their wellbeing 'outside of the programme'. However, programme presenters and the PU identified this would require further commitment from the programme user to actively engage with the programme materials in their own time.

Presenters and the PU highlighted some issues with the content of the ACT psychoeducation programme, providing examples of how the programme may not be appropriate for all users. The programme is an ACT-based programme that utilises mindfulness techniques and exercises to reduce psychological suffering. While presenters relayed predominantly positive views of programme content and activities, presenters acknowledged that mindfulness may not be suitable for everyone:

> *there was something about fear…I know for a fact I've met people that…there is no amount of mindfulness in the world…some people no matter how you channel the message through your brain…it's too big of a barrier it's just too scary…and I thought no I'm not convinced that that would work for everybody (PP1)*

PP2 explored the appropriateness of the acceptance-based material:

> *this accept your life and move on…it's kind of easy to say that…if you've got all these…things going on especially going through a difficult time and you just say look draw a line and accept it and move on…how are you going to get there…what's the process (PP2)*

The PU expressed similar views to PP2:

> *they were saying accept the pain and that it's there but I do accept that the pain is there but it's still painful…it doesn't matter sort of what you take for it, it doesn't go away…it is going to make you feel down it doesn't matter what you do about it...I get what they are trying to say...but sometimes the pain it is so bad you can't and then you are sort of led in bed thinking you can't think of anything else other than the pain because you can't do anything about it*

PP2 suggested that for some, accepting distress may be easier said than done:

> *it seems too easy to say oh right ok accept that…and you'll move away from that your pain…I can understand that concept but…when you're with somebody and…there's these kinds of really pressing things that are all…causing all sorts of emotions...I dunno it must be quite hard to (PP2)*

While presenters' overall views of the ACT psychoeducation programme were favourable, presenters highlighted some activities/content which they felt were less effective:

> *I can't do the leaves thing…when I tried to deliver I sort of said you know some bits work better for other people than other bits (PP1)*

> *if they could relate to some of it…like that tomato sketch…that was a bit too absurd for me…a bit unrealistic (PP2)*

Programme presenters and the PU identified programme content that may be less appropriate for some audiences for example, the PU suggested that the idea of acceptance may not be appropriate for people with chronic physical pain.

Presenters and the PU spoke about the format of the ACT psychoeducation programme. Programme presenters discussed how some students may prefer 1-2-1 support in the form of counselling and be discouraged to attend the ACT psychoeducation programme due to its group format. The PU discussed both the lecture delivery style of the programme and its group format:

> *I quite liked it…there weren't that many of us anyway but I think…some people aren't going to like to communicate with other people…although like I'm quite confident in talking to people you might get someone who's really anxious so if we had to do sort of seminar based group work some people may be put off by that and…not wanna come and it was just quite easy to turn up after being in uni all day and just sit and listen for a couple of hours*

> *normally I wouldn't condone that kind of learning because I don't really like just being talked at but I think in this case it worked because you're...going to have all different types of people going you might have people that suffer from like depression or anxiety and they might just want to sit at the back and listen*

The PU commented that the lecture style format of the ACT psychoeducation programme was appropriate given the target audience and did not have a problem with its group style format, as there was no group work involved. Presenters suggested that students may prefer 1-2-1 sessions and be 'put off' by the group nature of the programme but for the PU, this was not the case:

> *I think it's…a good idea because in the past I have had a few CBT sessions and I just found them a bit…like 1-2-1 like the formality was just you couldn't relax…to be honest although it's called like acceptance and commitment therapy…I didn't see it as aww I'm going to therapy…I just saw it as something extracurricular...to help myself and to help me with my degree as well*

The PU and programme presenters offered differing opinions on the preference of group versus individual care among the student population, which should be further explored.

Sub-Them 3c: Programme Reception

Programme presenters and the PU discussed outcomes associated with attending the ACT psychoeducation programme. Presenters relayed feedback they received about the programme:

> *feedback's been pretty good about it (PP2)*

> *I definitely think it was a powerful…four sessions…the feedback we got from...people who attended was very positive (PP3)*

PP3 recalled a conversation they had with a programme user after a session they delivered:

> *one lady…said how she benefited from the course…found it quite useful coming to the sessions…her own well-being gained a lot from it (PP3)*

Given feedback, it appears that the programme was well-received by those who attended and for some, attendance positively impacted their perceived wellbeing. Presenters felt that the return of programme users' week on week also spoke to the programme's popularity:

> *I think the fact that if you get individuals keep coming as well that's a sign (PP2)*

> *I noticed over the four sessions…people coming back…which I think is you know quite powerful…the fact they did come back to every session's means that they were engaged (PP3)*

PP1 discussed benefits associated with presenting the programme:

> *it was…overwhelming when people would say to you at the end and would really thank you…it definitely does…definitely did work because of the sincerity of people who would say to you at the end (PP1)*

The PU provided insight into the immediate benefits they gained from attending the ACT psychoeducation programme, but commented how these have since diminished:

> *I think I felt quite good like quite positive…I just felt relaxed…able to like combat anything that life can throw at me…but then after then I haven't really felt like that...I think it's just I have a lot going on just with my health and university and we've got exams coming up and thinking about packing up my stuff and moving home for the summer*

The PU felt relaxed, positive, and able to tackle issues following completion of the ACT psychoeducation programme however, described this as short-lived.

In summary, presenters suggest that attending the programme can have beneficial outcomes for programme users, including positive impacts on psychological wellbeing. Presenters received positive feedback from people attending the programme and felt that overall, people valued the programme and demonstrated this by coming back week after week. The PU also felt they benefitted from the programme, but discussed that these benefits were short-lived, which could be due to a lack of time to commit to practicing the skills learnt during the programme.

Theme 4: Barriers to Attending the ACT Psychoeducation Programme

Student uptake of the ACT psychoeducation programme was low, despite programme presenters suggesting there was a demand for additional mental health support at SU. Therefore, it was essential to explore, from both a presenter and user point of view, why attendance was low, identifying barriers to accessing the programme.

Barrier 1: Committing to the ACT Psychoeducation Programme: Issues with Programme Length

The ACT psychoeducation programme is delivered in four, two-hour sessions over four weeks. PP3 suggested this commitment may be too much for SU students/staff:

> *I think students these days want quick fixes…maybe the length of time and the maybe the way it was delivered…I'm not sure whether some students would struggle with that…you know having to focus for that length of time (PP3)*

> *they got a lot of other pressures and obviously lectures…whether students would have the time or…commitment to attend (PP3)*

> *staff as well as students…it's working around their timetable as they have…different pressure points as well…its targeting…it at the right time really (PP3)*

The PU outlined the amount of commitment needed 'outside of the programme' to engage with the materials properly as a drawback of the ACT psychoeducation programme:

> *as a service user you need to really put what you've learnt into practice and try really hard with it*

It is possible that attending a four-week programme is something that SU students do not have the time to do, considering the other time sensitive tasks they face at university (e.g., coursework and lectures). The PU identified an issue with the ACT psychoeducation programme for those students who were able to attend programme, suggesting that a certain level of commitment is needed 'outside of the programme' to engage with the materials provided. Therefore, among students who *do* attend the programme, benefits may be short lived if they do not have the time needed to practice techniques at home.

Barrier 2: Promotion and Subsequent Perceptions of the ACT Psychoeducation Programme

Presenters noted issues with the promotion of the programme at SU and suggested these issues may have negatively impacted student engagement with the programme:

> *maybe better promotion of… [the programme] hopefully will increase demand for it…I wish there had been more students there really…but whether that's the way we promote it (PP3)*

> *the whole brand sort of thing…the issue it all looked a bit…yoga-ry meditation…more appealing to 30 plus (PP1)*

PP3 suggested that promotion of the programme could have been better, while PP1 suggested that the branding of the programme may have appealed more to a mature (e.g., staff) audience over a student audience.

Presenters discussed how stigma and negative perceptions of mindfulness in general could have deterred students from attending the ACT psychoeducation programme:

> *I'm not aware if they think it's some kind of floaty…it depends on what their perception is and whether…they will engage with it or not or at least try it (PP2)*

> *I think [in] 10 years' time…we might be in the different cultural awareness where you'd see a poster like [the programmes] and you wouldn't sort of go mm I wouldn't…go to something like that (PP1)*

The PU interviewed in this evaluation was an undergraduate student based on SUs Singleton Park campus however, due to poor programme advertisement, they attended the Swansea Bay sessions of the programme:

> *I didn't realise they were on Singleton as well so I ended up going to the Bay ones and it was a pain like to get down there it was a nuisance…I wouldn't go there again*

The ACT psychoeducation programme sessions run on both campuses were advertised prior to their delivery however, the above example suggests that issues advertisement may have impacted student attendance.

Barrier 3: The Format of the ACT Psychoeducation Programme: Group Therapy Versus 1-2-1 Counselling

Presenters believe that some students may prefer 1-2-1 counselling sessions over a 'group therapy' and felt that this may have contributed to less-than-optimal student attendance of the ACT psychoeducation programme:

> *I think students tend to…some would engage and attend…but there's a lot out there who just said look 1-2-1 I want (PP2)*

> *some students feel that they would need a 1-2-1 counselling session (PP3)*

> *it's a mixed bag to be honest…you get some students say oh yeah, but I'd rather see someone on a 1-2-1 (PP2)*

Presenters considered whether misconceptions about the format of the programme acted as a barrier in student attendance:

> *what if they make me do this what if they make me talk what if they make me say why I'm there (PP1)*

> *I don't know if that's because of how they are feeling or what they are experiencing in terms of panic or anxiety…maybe a consciousness that there are other students there (PP2)*

PP1 suggested that students might feel intimidated by the prospect of attending a 'group' programme, due to misconceptions about the level of engagement that would be required. Presenters also felt that individuals with specific requirements may not view the programme as appropriate for their needs, discouraging them from attending:

> *I think somebody who experiences panic attacks doesn't always experience them all the time…but they might find a situation on a classroom a bit more anxiety provoking, but it doesn't mean to say exactly that they can't stay there sort of thing (PP2)*

PP1 suggested that in future SU could improve programme attendance by targeting pre-existing social groups to make students feel more at ease:

> *how the groups are…formed…I think that would be sort of how to bring people together in groups because they think well we all play sport or whatever it is...and then they'd all come together rather more (PP1)*

The PU was able to provide insight about the needs and expectations that students have for wellbeing services:

> *sometimes it's just good to talk I found from experience it's good to talk problems through...they make more sense in your head after you have said them out loud...when you've got a lot going on things just tend to get a little muddled in your head and you can't sift through the information but once you talk and it explain it to someone else it clarifies it with you more*

The above example suggests that students may value support that facilitate interactions with the person delivering care; something which the ACT psychoeducation programme does not offer. Therefore, it is possible that the format of the ACT psychoeducation programme may act as a barrier to attending the programme.

Barrier 4: Timing of Programme Implementation

The HWA run of the ACT psychoeducation programme was delivered during the second academic term of the year (February-March). Presenters felt that programme attendance among students could be improved by offering the programme at a different time of the academic year when there may be more demand for it:

> *when they start university...that's when students you know they're away from home for the first time…or coming back to the university…whether or not they would find it more useful…at sort of different points along the year when they're faced with more pressures maybe (PP3)*

> *I think during induction week you know when students arrive, I think that would be quite a key time as well…it could be advertised during induction lectures…just to get the message out (PP3)*

PP3 suggested that implementing the programme within induction week (term 1) would provide the perfect opportunity to advertise the programme (e.g., during lectures). Presenters also hypothesised the benefits of offering the programme at several key time points throughout the academic year, when students are under the most pressure:

> *coming to university…from my experience they have a bit of a shock…it's a different learning environment really it's more independent…some really struggle…getting to know how university life works…so having the course at sort of you know…different times…would really be…useful (PP3)*

Interestingly, all three presenters suggested timetabling the ACT psychoeducation programme into student timetables as an option:

> *I think it's got real legs…they need it they definitely do if it can be incorporated in some way into fresher's… how you make it more accessible I don't know…all the evidence suggests this is needed but I don't know how well it would be received if it was…almost like a forced compulsory element…but I do think it needs to be given…a time slot somewhere (PP1)*

> *I think on the whole it will have some effect on students as long as they can engage with it…it's a shame…more students couldn't attend…I think it's got to be embedded somehow in the system (PP2)*

> *maybe they can factor it in to their…timetable (PP3)*

While all three presenters suggested timetabling the ACT psychoeducation programme as an option, PP1 discussed the challenges of this which were supported by the PU. When asked their opinion of implementing the programme during 'freshers' week, the PU simply replied that people "*have got too much on*" and would not have the time to engage with the programme at that time. Providing further insight, the PU stated:

> *like if I saw it on a…schedule and I had loads of other stuff to do...that would be the last thing on my mind because you just…started your term regardless of what year you're in ...you're excited to come back see your friends...people have stuff to sort out like especially if you've just moved here banking and loads of stuff...that would be the last thing on my mind*

Fundamentally, the PU proposed that a student's spare time is limited and ultimately believes that the ACT psychoeducation programme should be an optional programme, run at multiple time-points throughout the year that students can utilise as and when they need it.

Facilitator: Location

Presenters felt the location of the ACT psychoeducation programme (i.e., on campus) should have had a positive impact on student engagement with the programme. Asked to provide their opinions of delivering the programme on campus, presenters noted that:

> *I think students are more likely to access it…on campus…as opposed to having to go somewhere um to access it…I think definitely…if it's on campus...students are more likely to want to…attend (PP3)*

> *come along if you want to sort of thing works best...I just think it works better sort of like…midterm when you're kind of realising ok I've got a lot coming up and I've got a lot on, and you might feel more sort of stressed out*

> *there's always going to be barriers for it being as close as on campus…I think taking it any further away is probably going to only make the problems bigger (PP1)*

In summary, presenters and the PU highlighted several barriers to attending the ACT psychoeducation programme. Practical and physical barriers included programme length, the large-group format and programme branding however, presenters suggested ways these issues could be overcome. Psychological barriers to attendance included misconceptions about the programme, negative connotations of mindfulness and the appropriateness of the programme for those with severe problems. Misconceptions about mindfulness could be tackled by improving the branding and advertisement of the ACT psychoeducation programme. In relation to the suitability of mindfulness for those with more intense psychological issues, the ACT psychoeducation programme does brand itself as a low-intensity intervention. Implementing the ACT psychoeducation programme in a HE context may indirectly help those with more severe issues, freeing up wellbeing services by offering an appropriate intervention for those with mild to moderate issues.

7.2.2.4 Findings: A Realist Analysis of the ACT Psychoeducation Programme

Table 41 outlines the CMOCs developed from the Thematic Analysis of the ACT psychoeducation programme user and presenter interviews.

Table 41/. *CMOCs Identified from the ACT Psychoeducation Programme Presenter and User Interviews*

Context	Mechanism	Outcomes
If there is an increased demand for mental health and wellbeing support at SU, but accessibility issues with current services (e.g., long waiting lists and the need for a GP referral)	*Then,* students with lower intensity needs (e.g., do not have a diagnosed mental health problem), but need access to support	Are going without timely support which can negatively impact their mental health and wellbeing
If there is an increased demand for low-intensity, mental health and wellbeing interventions in a higher education setting, and a non-resource intensive, lecture-style, ACT-based, transdiagnostic, programme is introduced	*Then,* the programme can be rolled out quickly as an option for care that should be suitable for most students, and able to 'treat' multiple students at a time	Leading to an increase in accessibility to mental health and wellbeing support for students at SU which could improve the mental health and wellbeing of those accessing the programme
	Then, potential users may misinterpret what their participation looks like (e.g., they may think may have to disclose personal wellbeing information in a group setting), which may act as a barrier to attending; people may also prefer 1-2-1 care	Which could mean uptake of the programme is low, and students go without mental health and wellbeing support
	Then, for those with high intensity needs, the programme may be inappropriate/ineffective, as they require individual, higher intensity, PCC	Which could mean uptake of the programme is low, and students go without mental health and wellbeing support, or students may receive inappropriate (but unlikely harmful) care
If there is an increased demand for low-intensity, mental health, and wellbeing interventions in a higher education setting, and a 'presenter friendly' programme is introduced that non-HCPs can deliver (following attendance at a short training course**)**	*Then,* non-HCP staff at SU can train to deliver the programme and feel confident in their abilities to deliver the programme, and make a difference to the mental health and wellbeing of programme users	Which provides a developmental opportunity for SU staff but also, potentially reduces the cost of mental health provision at SU (i.e., trained HCPs are not required to deliver it), which could also increase accessibility to mental health and wellbeing support for students at SU

Table 41/. *CMOCs Identified from the ACT Psychoeducation Programme Presenter and User Interviews (continued)*

Context	Mechanism	Outcomes
If an ACT and Mindfulness based (evidence-based) programme is delivered withing a higher education setting, that utilises activities to improve mental health and wellbeing (e.g., defusion exercises)	*Then,* service users are provided with tools to self-manage their mental health problems (e.g., reductions in anxiety due to practice of acceptance), which can be used outside of the programme, time and time again	Which could lead to better mental health outcomes for users in the long run, and increase self-management of mental health problems
	Then, service users are provided with tools to self-manage their mental health problems (e.g., reductions in anxiety due to practice of acceptance) however, this requires a time commitment that may be dependent on persons' availability/personal circumstances	Which could lead to no improvement in mental health and wellbeing among those not able to commit/engage
	Then, users have access to techniques and information provided within the programme that are evidence-based, and proven to increase psychological flexibility and reduce psychological suffering	Which should lead to improved mental health and wellbeing outcomes for programme users
If a programme is introduced into a higher education setting, that is bespoke, and has been modified for delivery in a higher education setting	*Then,* the programme could resonate more with the target audience (e.g., students), providing examples of situations they can relate to and thus, apply to their own situation and learn from	This could lead to improved mental health and wellbeing outcomes for programme users *(if there is student uptake)*
If a new, unfamiliar programme is introduced and advertised via email, flyer, and electronic screen advertisement	*and* some of the concepts, and visuals used to advertise the programme do not resonate with a younger target audience *then,* the audience may not understand what the programme is about or be less au fait with the idea of ACT based interventions	Which could result in low student uptake, and greater uptake from SU staff who may be more au fait with ACT based interventions

7.2.2.5 Researcher Observations

I was present for the 1st and last sessions of the HWA run of the programme and was present for several of the pilot sessions and programme presenter training. I also attended several meetings during the early stages of bringing the programme to the HWA, including meetings with the PA, HWA represenatives, programme presenters, SU academics and representatives from student wellbeing services. Observations made during these are presented below.

Pilot and HWA Run Observations

Attendees of the pilot and HWA run cycles appeared engaged, taking notes, and fully participating in exercises. In relation to the pilot, attendance was steady throughout, with similar numbers returning for most sessions. In contrast, attendance for the HWA cycle differed from the 1st session to the last particularly on the Bay campus, with only a handful of service users attending the last session. The HWA is based on Singleton Park campus as are most of the health-related colleges (e.g., CHHS). It may be that the concept of ACT was more familiar to staff and students from health-related disciplines and more attractive for them to attend. As the HWA is on the Singleton campus, there might have been more of a buzz around HWA activity on that campus, with awareness of the programme spreading by 'word of mouth', which could have impacted variance in attendance across campuses. The programme was advertised via poster and email and targeted both staff and students however, student uptake of the programme was low. It is possible that programme advertisement was more appealing to staff than students, something that was discussed during both presenter and user interviews.

Presenter Training Observations

Engagement with the presenter training course was good among both SU staff and students. Participants appeared to fully engage with the materials and seemed excited to be part of the training course. However, while SU staff embraced the opportunity to present the programme after the training, SU students did not partake in delivering the programme. From my observations, it appeared as though students had less motivation to follow up with presenting the programme, which could be due to the fact that delivering the programme would not impact their programme of study (i.e., was not a placement opportunity as such).

Implementation: HWA run

I attended several meetings with key stakeholders involved in implementing the programme within the HWA, including the PA, HWA representatives, representatives from student wellbeing services and SU academics. I attended these meetings to observe and become familiar with developments in the implementation of the programme as an HWA run service. A conflict of agendas among different stakeholders became apparent during these meetings. For example, some stakeholders appeared more concerned with discussing implementation/delivery, addressing the issue of poor accessibility to mental health support on campus, while other less focused on service delivery and more focussed on service evaluation. While both service delivery and evaluation are important, this caused difficulties in managing meeting agendas.

One of the biggest differences I observed between the ACT psychoeducation programme and the PPP, was a lack of ownership of the ACT psychoeducation programme within SU. The ACT psychoeducation programme was an external programme brought into the HWA, and from my observations it felt as though there was not a designated person to really drive the programme forward. There were differences among stakeholders which created conflict in terms of the direction and provision of the programme within the HWA. For example, differences in how to implement the programme, how often the programme should run and how it should be evaluated. These differences were often unresolved, which made it difficult to ascertain who was in control of the programme with regards to its HWA implementation. A lack of ownership of the programme within SU might have played a part in it not becoming a regular offering at the HWA, despite its apparent success in LHBs, who may be more used to facilitating external programmes.

7.3 Phase Three: Refining Programme Theory

Initial PT of the ACT psychoeducation programme was outlined in chapter 7.1.4, following phase one of the programme evaluation. Following phase two, PT was refined, reflecting findings from quantitative and qualitative data collection, alongside researcher observations. Final PT of the ACT psychoeducation programme is outlined in table 42.

Table 42/. *Final PT of the ACT Psychoeducation Programme*

Context	Mechanism	Outcomes
If there is an increased demand for low-intensity, mental health, and wellbeing interventions in a higher education setting, and a non-resource intensive, lecture-style, ACT-based, transdiagnostic programme is introduced	*Then*, the programme can be rolled out quickly as an option for care that should be suitable for most staff/students in a higher education setting, and able to 'treat' multiple people at a time	Leading to an increase in accessibility to mental health and wellbeing support for SU staff, which could improve the mental health and wellbeing of those accessing the programme *(some evidence of improved wellbeing in chapter 6.2.1.3 for SU staff; only one user was a student)*
If there is an increased demand for mental health and wellbeing interventions in a higher education setting, and a lecture-style, ACT-based programme is introduced, but the programme is unfamiliar to the target audience (e.g., students)	*Then*, potential users may misinterpret what their participation looks like (e.g., they may think may have to disclose personal wellbeing information in a group setting), which may act as a barrier to attending	Which could result in low student uptake and students going without mental health and wellbeing support
If there is an increased demand for low-intensity, mental health, and wellbeing interventions in a higher education setting, and a transdiagnostic, ACT-based psychoeducation programme is introduced that does not require a GP referral or prior diagnosis to attend	*Then*, students in need of support who may otherwise may not be able to access help (due to waiting lists or not having a formal mental health diagnosis), have better access to support	Which could lead to an improvement in mental health and wellbeing outcomes for those attending
	Then, the intervention may not be suitable for those with higher intensity needs who may require individual, higher intensity, PCC or, the programme may not appeal to students if they require/desire 1-2-1 care over group care	Which could mean uptake of the programme is low, and students go without mental health and wellbeing support
If an ACT-based psychoeducation programme that utilises mindfulness and ACT techniques, activities and exercises that can be practised outside of the intervention is introduced in a higher education setting, where there is an increase prevalence of mental health issues	*Then*, service users are provided with tools to self-manage their mental health problems (e.g., reductions in anxiety due to practice of acceptance), which can be used outside of the programme, time and time again	Which could lead to better mental health and wellbeing outcomes for users in the long run, and increase self-management of mental health
	Then, service users are provided with tools to self-manage their mental health problems (e.g., reductions in anxiety due to practice of acceptance) however, this requires a time commitment that may be dependent on persons' availability/personal circumstances	Which could lead to no improvement in mental health and wellbeing among those not able to commit/engage

Table 42/. *Final PT of the ACT Psychoeducation Programme (continued)*

Context	Mechanism	Outcomes
If there is an increased demand for psychological intervention in a higher education context, and a programme that can address that need is introduced (e.g., non-resource intensive, lecture-style programme that can be delivered to many people at once)	But there is no clear management for the programme and there are conflicting priorities at play when the programme is being introduced *then*, the longevity of the programme is questionable, as there is no clear advocate to drive the success of the programme	Which means that a programme which produced beneficial user outcomes (see 7.2.1.3) is cancelled, reducing available access to effective care
If there is an increased demand for low-intensity, mental health, and wellbeing interventions in a higher education setting, and a 'presenter friendly' programme is introduced, that non-HCPs can deliver (following attendance at a short training course**)**	*Then*, non-HCP staff at SU can train to deliver the programme and feel confident in their abilities to deliver the programme, and make a difference to the mental health and wellbeing of programme users	Which provides a developmental opportunity for SU staff but also, potentially reduces cost of mental health provision at SU (i.e., trained HCPs are not required to deliver it), which could also increase accessibility to mental health and wellbeing support for students at SU
If a programme is introduced into a higher education setting that is bespoke, and has been modified for delivery in a higher education setting	*Then*, the programme could resonate more with the target audience (e.g., students), providing examples of situations they can relate to and thus, apply to their own situation/circumstances and learn from	This could lead to improved mental health and wellbeing outcomes for programme users *(if there is student uptake)*
If a new, unfamiliar programme is introduced and advertised via email, flyer, and electronic screen advertisement	And some of the concepts and visuals used to advertise the programme do not resonate with a younger target audience *then*, the audience may not understand what the programme is about or be less au fait with the idea of ACT-based interventions	Which could result in low student uptake, and greater uptake from academics/SU staff more au fait with ACT-based interventions
If a presenter friendly, lecture-style programme is introduced in a higher education setting where there is a high demand for access to mental health/wellbeing support	*Then*, care is not provided at an individual level, and there is no opportunity to ask questions or to offer a level of PCC.	Which could mean that programme users do not have their queries/concerns/questions asked, and they might not benefit from the programme as much as they could do
	Then, offering a presenter friendly mental health programme, that can be delivered by non-clinically trained presenters	Can increase the availability and accessibility of mental health support

A Summary of the Final Programme Theory

Findings from phase two of the ACT psychoeducation programme evaluation largely supported the initial PT (chapter 7.1.4). Quantitative findings supported that the ACT psychoeducation programme can produce beneficial outcomes for users including a reduction in anxiety and an increase in self-esteem. Phase two qualitative findings supported some of the CMOC's outlined in the initial PT, providing further examples of outcomes for ACT psychoeducation programme users, and why these may be achieved. For example, participants detailed how the relatability of the content provided during the ACT psychoeducation programme, made the content more believable, and how the 'easy to use' techniques taught within the programme could enable programme users to manage their wellbeing after completion of the programme. However, participants did suggest that the programme user outcomes could be heavily dependent on the effort put in by programme users themselves, as a lot of the self-management techniques taught within the programme required a level of commitment from programme users that some may be unable to give.

While commentary from participants supported the rationale for implementing the programme with the HWA (e.g., a need for low-intensity psychological interventions for students) and that the ACT psychoeducation programme could contribute to the attainment of HWA aims (e.g., promoting self-management of wellbeing), little commentary was provided to understand how delivering the course in the context of the HWA specifically had an impact.

While it could be argued that the ACT psychoeducation programme provided developmental opportunities for staff (i.e., programme presenters), they only delivered the programme once. Furthermore, the programme did not provide them with a chance to develop their skillsets in their professional field, and so did not afford career development opportunities, unlike the PPP. The final PT of the ACT psychoeducation programme provides insight into how, why and for whom the programme may work and furthermore, contributed to answering the objectives outlined in section 5.3. A full discussion of the findings is presented in chapter 8.

Chapter 8: A Synthesis and Discussion of the Programme Evaluation Findings

Findings from each phase of the PPP and ACT psychoeducation programme evaluations can be found in chapters 6 & 7 respectively. This chapter synthesises and discusses the core findings from both programme evaluations, exploring important contextual factors and mechanisms identified, how each programme fits in with the HWA, and how findings from the two programme evaluations compared, in what ways and why. Findings from the whole thesis are then explored in relation to HWA aims, values and mission statements, and in relation to the wider impact of the HWA on the transformation of the Welsh healthcare service in chapter 9.

8.1 Important Contextual Factors and Mechanisms

Key contextual factors identified as important during the programme evaluations are outlined in table 43.

Table 43: *Key Contextual Factors Identified as Important During the Programme Evaluations*

Programme	**Key Contextual Factors**
PPP	• Providing antenatal education in a university setting. • Providing antenatal education in a non-clinical setting
Commentary	
HWA characteristics provided a great context for the provision of antenatal education in an alternative setting. Facilitators and programme users discussed how the HWA provided a modern, relaxing, and calming environment, far removed from the more clinical, traditional setting of hospitals. This was supported by findings from the HWA stakeholder survey (chapter 3). Providing antenatal education in a university setting (opposed to an NHS setting) provided PAs with the freedom to produce a programme based on the evidence that was less restricted by the constraints of the health board. The use of academic midwives in delivering the programme was a huge benefit of providing antenatal education in a university setting.	
Programme	**Key Contextual Factors**
ACT psychoeducation programme	• An increased prevalence of psychological distress at SU • An increased demand for wellbeing/mental health support
Commentary	
At the time of implementing the ACT psychoeducation programme, the context of mental health issues and service provision at SU meant that the programme was an appropriate addition to the services on offer by SU.	

Paired alongside these contextual factors, the following Mechanisms (M), were identified as pivotal in producing beneficial outcomes for programme stakeholders. For ease of reading, resources, provided within a context that elicit reasoning to trigger mechanisms are also presented here.

Table 44/. *Important Mechanisms and Resources in Producing Programme Outcomes*

Programme	Key resources	Key Mechanisms
PPP	• Offering an extended antenatal education programme providing a holistic account of pregnancy, birth, and parenthood • Being able to provide an evidence-based programme • A programme co-facilitated by qualified and student midwives • Utilising teachers as teachers • A programme delivered using multiple teaching techniques including education, practical activities, and birth stories	• Expectant parents receive a comprehensive programme, more likely to provide information that is relevant for them • Allowing programme facilitators to spend more time with the same group of expectant parents than they would in clinical practice • Women had the opportunity to build relationships with other expectant parents that they would not have the opportunity to do in shorter, lecture style classes • Providing care tailored to individual needs, which is less realistic in a large, lecture style programme • Expectant parents receive antenatal education from educators with varying levels of knowledge and experience • Expectant parents can practice their skills and learn from a social model they can relate to
Commentary		
Offering an extended programme providing a holistic account of pregnancy, birth and parenthood provided expectant parents with a comprehensive account of different scenarios, which they might not get in shorter, lecture style antenatal education offered elsewhere locally. Subsequently, expectant parents were more likely to hear information relevant to their specific needs which was further facilitated using open discussions, allowing parents to ask questions that were important to them. This was further accommodated by tasks including the 'what ifs' task, which allowed parents to ask questions anonymously if needed. PPP facilitators and the PA suggested that in clinical practice, midwives do not spend as much quality time with women as they do during the PPP. This allowed senior and student facilitators the opportunity to develop both relationships with the women and their professional skillsets. The extended nature of the PPP facilitated the formation of close social bonds among expectant parents, as they were able to spend quality time getting to know people in similar life situations to them, bonding over similar interests; something suggested as less facilitated in the lecture-style format of local NHS provision. Providing a programme based on evidence of what expectant parents value within antenatal education meant the PPP was able to offer a level of care suitable for a range of user needs. Providing the programme in a university setting had benefits for its provision, the biggest being the inclusion of academic and student midwives in facilitating the programme. Receiving education from students who were currently practicing, up to date with the evidence base and enthusiastic about care delivery, alongside senior midwives with a wealth of experience not only in practicing midwifery but as educators, meant expectant parents benefitted from a range of knowledge, experience, and expertise. For example, the use of multi-modal teaching techniques (e.g., practical activities and birth story sessions) afforded programme users the opportunity to practice various parenting tasks in preparation for their new roles and meant they were able to learn from a social model that they could relate to (chapter 6.1.3). The above were largely achievable due to the context that the PPP was delivered in. i.e., the HWA. Overall, findings suggest that the PPP is a valuable addition to local antenatal education provision offering a service that can complement and enhance the NHS, providing high quality care in a setting away from traditional care settings, while offering professional learning and development opportunities for staff and students, contributing to innovation within the local healthcare talent pool.		

Table 44/. *Important Mechanisms and Resources in Producing Programme Outcomes (continued)*

Programme	Key resources	Key mechanisms
ACT Psychoeducation programme	• Low-intensity psychological intervention that can be delivered to large numbers • A course rather than a therapy, with less stigma attached • An educational course that teaches usable (evidence-based) activities and exercises that can be practised outside of the intervention • Personalised, accessible psychological intervention, developed with input from target population	• Quick access to psychological intervention • Poor communication about the expectations of the course • Offering skills that can be practiced by service users after intervention • Busy students may not have time to practice skills at home • Offering psychological intervention that is relatable and relevant • Lack of clear management and conflicting priorities when implementing the programme at the HWA, meant there was not clear advocate to champion the success of the programme
Commentary		
The ACT psychoeducation programme offered SU and the HWA a viable solution to its mental health and wellbeing problem (i.e., high demand for services), offering a programme that could be delivered to large numbers, providing easy access to care for those in need. However, uptake of the service was low. One reason (or mechanism) behind this could have been poor communication regarding the expectations of the programme. A benefit of a programme like the ACT psychoeducation programme is its potential to offer *long-lasting* beneficial user outcomes, due to the usable techniques, tools and activities that can be used by programme users in their own time after the programme. While some programme users may commit to practicing these newly learnt techniques, this may be easier said than done among the student population who lead busy lives with several commitments (e.g., lectures, coursework, work, placement). The PA was aware of the bespoke needs of the student population and took the time to modify the programme to be more suitable and relevant, by reviewing the literature and consulting with HE students about the programme modifications. Interviewees commented that the programme's adaptations made it more suitable and relevant for the target population and in their opinion, improved the effectiveness of the programme. Another issue impacting the success the programme at the HWA was the lack of management of the programme, which may have played a part in its early termination despite some promising user outcomes (chapter 7.2.1.3) and a clear demand for the programme; discussed in-depth in chapter 9. Overall, the programme offered a viable solution to a current problem within SU (i.e., poor access to in-demand mental health care) however, execution of the programme (including advertisement and management) meant that uptake of the programme was low, and the programme was terminated at SU. Findings from this programme evaluation highlight how the context and circumstances in which a programme is delivered can impact upon its success.		

8.4.2 How the PPP and ACT psychoeducation programmes 'fit in' to the HWA

This section explores how the CMOCs developed during the programme evaluations demonstrate how each programme contributes to the outcomes outlined in the HWA evaluation Logic Model (LM, figure 13, chapter 4.3), comparing and contrasting findings between the two programmes.

LM Outcome: *Development of a sustainable, skilled workforce, fit for the future, increasing student employability prospects, and an academic workforce with a refreshed clinical skillset*

The HWA LM outlines the relationship between understanding student placement needs, integrating these within HWA services, and enhancing employability prospects and learning by offering regular student placements; in-line with the vision for the Welsh healthcare system as outlined in chapter 1.2. While both programmes offered developmental opportunities, the PPP was able to contribute to the outlined LM outcome more so than the ACT psychoeducation programme.

PPP evaluation findings showed that the PA and senior facilitators demonstrated an in-depth understanding of the needs of their students in relation to clinical placements, highlighting issues within NHS placements including a lack of evidence-based care and opportunities to provide continuity of care. Qualitative findings and researcher observations demonstrate how the PPP addressed these issues, providing students with the opportunity to deliver an evidence-based programme over the course of seven weeks. In terms of developing a skilled workforce fit for the future, the PPP offers students an extended opportunity to learn and develop by observing familiar and respected mentors (facilitators) in the role of HCPs and not their usual role of teacher. Learning from a familiar role model and observing a different way of delivering care (relative to typical placements) appears to be valued by students, providing a new, developmental advantage. These findings suggest that learning from familiar role models, providing continuity of care, delivering an evidence-based programme, and delivering care in an alternative setting to the NHS can all contribute to delivering a skilled workforce 'fit for the future'. The PPP contributes to workforce re-design offering student placements outside of the NHS, which can reduce pressures on NHS services. Qualitative findings outline that student facilitators benefit from providing care in a business context (opposed to a health board), supporting findings from chapter 1.3 (e.g., Meah et al., (2009)) that student placements within alternative settings can develop student's business skillset.

Conversely, while some students attended the ACT psychoeducation programme presenter training, the programme did not intend to act as a developmental opportunity for students. Students attended the training to fill up spaces that were not taken by SU staff. The idea was to train staff who were likely to stay at SU longer than students and

thus, able to provide the programme over a longer period, providing a sustainable service. Unlike the PPP, the ACT psychoeducation programme was not affiliated with an academic course and the focus of the programme was to provide a psychological intervention, and not to offer regular developmental or learning opportunities for students. Therefore, it is unsurprising that PPP contributed more to this outlined LM outcome.

LM Outcome: *Improving health outcomes*

The HWA LM outlines that by understanding what constitutes best practice and implementing this across HWA programmes, the HWA can increase access to evidence-based care, which in turn can improve care outcomes and ultimately, may reduce pressures on local NHS services, in-line with the vision for the Welsh healthcare system as outlined in chapter 1.2. Findings from the programme evaluations demonstrated that both programmes contributed to achieving this LM outcome.

For example, the PPP was developed utilising an evidence-based resource (DOH, 2011) and is underpinned by psychological theory (chapter 6.1.2) which can explain some of the causal mechanisms that produce positive care outcomes for patients (e.g., increasing self-efficacy). Therefore, offering the PPP increased access to evidence-based services for community members. While no statistically significant improvements in wellbeing outcomes were reported, interviews supported that programme users benefitted from attending the programme, reporting outcomes including increased confidence and reduced anxiety. Attendees of other programmes (e.g., NCT classes) are likely to report similar benefits however, NCT classes are less accessible to people from lower socio-economic backgrounds as they cost around £200 to attend, while the PPP is free. Further, according to PPP facilitators and the PA, NHS classes are often shorter in length, delivered to larger groups in an impersonal lecture style format, and are less likely to integrate multi-modal teaching techniques (e.g., group discussion and exercises). These components are outlined by the DOH (2011) as important in producing the best outcomes for programme users. Psychological theory (e.g., SDT, Deci & Ryan, 2000) also evidence that these activities can be effective. For these reasons, the PPP has demonstrated that by understanding best practice, and providing evidence-based services, effective and valued care can be delivered in an alternative setting to the NHS.

Similarly, the ACT psychoeducation programme is evidence-based, rooted in RFT and ACT (Hayes et al., 1991; Hayes et al., 1999). Quantitative findings from the programme evaluation demonstrated that programme user scores on some wellbeing improved overtime (chapter 7.2.2). The ACT psychoeducation programme was introduced to the HWA by SU academics aware of the literature surrounding the efficacy of ACT-based interventions in improving wellbeing. Further, the programme itself was designed by a PA with a wealth of psychological experiences and expertise. For these reasons, the ACT psychoeducation programme has demonstrated that by understanding best practice, and providing evidence-based services, effective and valued care can be delivered in an alternative setting to the NHS.

LM Outcome (medium-term): *Increased provision of/engagement with student placements/ SU staff engagement across service areas*

The HWA LM outlines that offering programmes appealing to and meeting the developmental needs of SU staff and students will encourage participation with delivering those services and subsequently, offer additional developmental opportunities outside of NHS based placements. This is in line with core policy documents (chapter 1.2) that outline the importance of cross-sector working to develop the skills of HCPs within Wales, ensuring they have the skillset necessary to deliver the desired changes within healthcare provision. Evaluation findings demonstrate that while both programmes offered student/staff placements, the PPP was more effective at contributing to this aim compared to the ACT psychoeducation programme.

Findings support that the PPP offered development opportunities for student and senior midwives. Senior midwives discussed how the programme afforded them the opportunity to refresh their skills, and practice care that they felt was 'best practice' and more effective than care offered in alternative settings. Having academic midwives deliver the service was also beneficial for programme users (chapter 6.2.2.5), who benefitted from the knowledge and teaching abilities of senior midwives, who due to their natural abilities as teachers complemented the delivery of what is fundamentally an educational programme. Student benefits were outlined previously in this chapter. PPP facilitators promote student engagement with the programme during lectures, and multiple students have engaged with delivering programme. For these reasons, the PPP has demonstrated that it has not only increased the provision of placement opportunities for SU staff and students, but it has been able to engage staff and students

with the programme, suggesting that the opportunity appeals to the needs of both staff and students' developmental needs.

The ACT psychoeducation programme was delivered by SU staff however, these were not psychologists or HCPs by trade. While the programme afforded SU staff the opportunity to develop a new skill set (e.g., presenting), it did not provide them with professional learning or developmental opportunities per se. Unlike the PPP, the ACT psychoeducation programme was not 'home grown' (i.e., not developed within SU) and not affiliated with an academic programme. While offering developmental opportunities to SU staff and students was not an explicit aim of the programme itself, providing such opportunities is a core aim of the HWA (and important to offer a service in line with core Welsh healthcare policy). When introducing external programmes, the HWA should consider whether the programmes offer professional developmental opportunities for students and staff of specific courses, creating cohesion between the programme on offer at the HWA and development of SU staff and students.

LM Outcome: *Offer valued and sustainable programmes, close to where people live, reducing pressure on the local NHS*

The HWA LM outlines processes in which the HWA can offer a sustainable and valued service within the context of local healthcare provision, including understanding what service users want and value within a service and implementing this within services, focusing on what works and what does not. Shifting care away from traditional NHS settings (e.g., hospitals) and towards the community, and providing prudent healthcare that focuses on the needs of people are important driving factors for change within the Welsh healthcare system (chapter 1.2). Findings reveal that both programmes offered services that were viewed as valuable in an alternative setting to the NHS but further, that both PA's took steps to provide services that would be relevant for and valued by the target audiences.

PPP PAs and facilitators took several steps to develop/deliver a programme focusing on what works identified by the evidence base and by offering care tailored to attendees needs. For example, the PPP was developed using a DOH (2011) resource, which was developed using data from several sources, including a scoping exercise to find out what expectant parents' value from antenatal education. Additionally, PAs used their experiences of delivering care within the community to inform the

development of a programme that caters to the needs of the target population. PPP sessions are woman-led, meaning that while each cycle of the PPP is identical in terms of structure and core content, specific elements including group discussions are tailored to focus on the concerns and questions of the specific women (and men) attending that cycle, offering PCC. This is something that was discussed across interviews and valued by attendees. PHPs (chapter 1) advocate the use of PCC (Aylward et al., 2013). The PPP appears to be valued by all stakeholders and in that respect 'works', offering a programme still up and running within the HWA (at the time of this evaluation).

Additionally, PPP PA's and facilitators demonstrated a clear understanding of issues within local antenatal education provision and demonstrated a comprehensive understanding of how to address these through the PPP, evident from its design. The PAs were aware of issues with format (e.g., lecture style delivery), group size (e.g., large groups of up to 100 people) and content (e.g., a narrow focus on labour) within alternative local antenatal education and addressed these within the structural elements of the PPP. In this way, the PPP offers care that enhances local NHS provision however, it is too early to address the impact the PPP may have at a community level due to the infancy of the programme and the fact that it reaches just 72 people per year running at its current frequency.

With regards to the ACT psychoeducation programme, presenters valued the addition of the programme at the time of its implementation, believing it could ease the pressures faced by student services. To the primary researcher's knowledge, no academic, HWA or wellbeing service member involved with implementing the programme conducted any scoping exercise to understand what it was that students wanted from a psychological intervention prior to the programme's implementation. HWA stakeholders identified 'scoping exercises' as an important component of programme development within the HWA LM (chapter 4). Conversely, the PA went to a lot of effort to adapt the programme and ensure it was suitable for the needs of the target population prior to its HWA implementation (chapter 71.3). This highlights a discrepancy between SU stakeholders of the programme and the PA in terms of investing in its future success.

The PA had a clear understanding of the issues within local healthcare provision when designing the programme, reflected in the programme itself. For example, the PA was aware of a discrepancy between the demand for psychological interventions and the resources available within the NHS, alongside the expense of hiring HCPs (e.g., psychologists) to meet this demand. This was addressed by designing a programme that could be delivered to large numbers of people, by non-clinical presenters. Similar concerns were held by the programme presenters, who reported similar issues within the context of SU. Therefore, in theory the ACT psychoeducation programme was a good fit for the HWA and offered a viable solution to a current problem.

The ACT psychoeducation programme is on offer locally through the NHS and therefore, offering the programme at SU increased accessibility for staff and students (e.g., providing care that is more accessible, being offered on campus) however, it did not 'complement or enhance' the level of local care offered more widely. The ACT psychoeducation programme was cancelled at SU after the HWA run and therefore, was unable to contribute to delivering a sustainable service in the context of the HWA.

LM outcome (medium-term): *Programme mindful of accessibility and other issues*

The importance of providing accessible, mindful services, addressing current issues in healthcare provision was outlined within the HWA LM, and offering care that is needed and therefore prudent was outlined as important in core Welsh healthcare policy (chapter 1.2). Both the PPP and ACT psychoeducation programme were mindful of accessibility and other issues and delivered programmes addressing current issues within healthcare provision however, both had some shortcomings.

PPP facilitators and the PA were aware of issues within local provision that could act as a barrier to using those services. For example, the lecture style format of local NHS antenatal education could create feelings of fear/intimidation for expectant parents and may not be useful to parents with specific needs, as the information provided tends to be narrow in focus and impersonal. The PA and facilitators discussed how often, NHS classes are unreliable and cancelled due to resourcing issues. PPP PAs purposely identified ways to address such issues when designing the programme for example, offering small group classes over several weeks, ensuring that expectant parents felt more comfortable and could benefit from a wider range of topic knowledge; characteristics outlined as valued/effective in the literature (e.g., DOH, 2011).

The HWA was able to offer programme facilitators a dedicated space and protected timetable to provide the programme, and SU staff provided resources for cover to be available should one of the regular facilitators need it. In this way, the PPP offers a programme that is mindful of addressing issues within current provision. However, facilitators and programme users raised the issue of programme timing. The programme was delivered at 2-4pm on a Thursday (i.e., during working hours) which meant there were some issues with attending all sessions, particularly for dads who as mums reported, found it harder to get time off work. Therefore, there is still work to do to improve the accessibility of the programme.

In relation to the ACT psychoeducation programme, presenters identified several barriers to accessing existing wellbeing services at SU including long waiting lists and the need for a medical referral. Given its characteristics (e.g., lecture style, ability to be delivered to large numbers) the ACT psychoeducation programme should have been a valuable and accessible addition to the services already on offer. If uptake was higher, this would have been true for the SU community however, offering the programme exclusively to SU members would have limited the impact the programme could have had for local people outside of the SU community who may have preferred to access it at the university opposed to other community settings.

The PA spent time creating a bespoke version of the programme to be delivered at SU, exploring how the make the programme more suitable for the target audience; qualitative findings suggest the PA was successful in achieving this (chapter 7.2.2). The ACT psychoeducation programme (purposefully) does not facilitate interaction between presenters and programme users, as the programme was designed to offer evidence-based, proven care with a large reach, and was less focused on offering PCC (which is less typical in group psychoeducation programmes). Therefore, while the programme was relatable was a student audience, there was no opportunity for programme users to ask questions and receive answers to address specific needs and offer the same level of PCC that the PPP offered.

8.4.3 Concluding comments

Findings suggest that overall, both programmes contributed to the outcomes outlined in the HWA LM, providing evidence that the pathways can produce the desired outcomes. Findings suggest that the PPP was able to contribute more so than the ACT

psychoeducation programme to achieving these outcomes. The main difference in terms of contribution related to developmental opportunities for staff and students. Developmental opportunities were not a priority for the ACT psychoeducation programme, which was brought into the HWA as an external programme however, developmental opportunities are highlighted as important within HWA aims, core Welsh healthcare policy (chapter 1.2) and will be important for SU itself. While all programmes will not be able to contribute equally to all HWA aims, it is essential that the HWA ensure its programmes proportionately target its aims. An in-depth discussion of the findings from the overall evaluation, and how this thesis contributes to the wider evidence base is provided in chapter 9.

Chapter 9: Discussion

This Realist Evaluation (RE, Pawson & Tilley, 1999) aimed to evaluate Swansea University's (SUs) Health and Wellbeing Academy (HWA), assessing progress towards its aims, values, and mission statements (table 1, chapter 1), by answering the RE question of, ***'does the HWA work, for whom, in what ways and why?'***. By addressing this question, findings presented across several chapters in this thesis speak to the HWAs contribution to transforming Welsh healthcare provision. Chapter 1 provided the rationale for implementing the HWA and introduced the vision for the Welsh healthcare system. Chapter 3 presented survey findings exploring the HWAs progression towards its aims, values, and mission statements from a wider HWA stakeholder perspective. Chapter 4 outlined the development of a HWA Logic Model (LM), used to understand how HWA programmes intend to produce change. Chapters 6-7 presented findings from the two programme evaluations, outlining whether they worked, for whom, and why within the context of the HWA. Chapter 8 compared findings from the two programme evaluations in relation to the HWA LM, outlining how both programmes contributed to the outcomes outlined in the LM.

9.1 Key findings

Section 9.1 collates and discusses findings from the overall evaluation in relation to the HWA in terms of what works, for whom, in what circumstances and why, addressing the main RE question. Further, this section considers the contribution that the HWA can/is making towards the transformation of the Welsh healthcare system, relating findings back to figure 1, chapter 1.2.4 that mapped out the vision for the NHS in Wales and the conditions needed to achieve that vision, following a review of Welsh healthcare policy/strategy.

9.1.1 HWA Aims

HWA aims (table 1, chapter 1) were explored in chapters 3-4, and 6-7; discussed below.

Aim 1 & 2

Findings from chapters 3 and 6-7 evidence the HWA meeting its aim of, *'offering support, advice and information that helps people improve their own health and wellbeing' (A2, table 1, chapter 1)* within some services. For example, the stakeholder

survey (chapter 3) identified several HWA programmes offering support, and information to improve user wellbeing (e.g., osteopathy) and findings from chapter 7 show the ACT psychoeducation programme offers service users tools (e.g., mindfulness exercises), evidenced as effective in managing wellbeing (e.g., Danitz & Orsillio). Findings from chapter 6 evidence the HWA meeting its aim of *'Providing holistic, Person-Centred Care (PCC)' (A1, table 1, chapter 1)*, with qualitative findings demonstrating that the PPP was purposively designed to facilitate this (e.g., small groups to facilitate meaningful women-led discussions). Conversely, findings suggest that while the ACT psychoeducation programme content was modified to make it relevant for the student population (chapter 7), it did not offer PCC (e.g., did not facilitate questions and answer sessions), with the programme designed to facilitate reach. Offering care that is person centred, focusing on the needs of the individuals receiving that care, and helping people make better informed choices in relation to their health and wellbeing were outlined as important within the core Welsh healthcare policies reviewed in chapter 1.2. Considering the aforementioned findings, it appears the HWA is contributing to this vision, but it is essential to understand *how* this is being achieved to inform the implementation of future programmes into the HWA that can also contribute to this important aim for both the HWA and the Welsh healthcare sector.

Findings from the PPP evaluation (chapter 6) highlighted how designing and delivering programmes within the context of a university enabled the facilitation of holistic, PCC. For example, findings from the literature review (chapter 6.1) suggest considerable resources are required to provide holistic antenatal education covering several topics. The HWA provided the PPP with a generous, dedicated timeslot and the physical space necessary to provide an extended programme (*context*). Qualitative findings from the PPP evaluation highlighted how the unique skillset of SU staff (e.g., being teachers as well as HCPs) facilitated the design of a holistic programme, as PAs were au fait with the evidence base about what works (e.g., small group antenatal education) and what is valued by expectant parents (*mechanism*). The ability to provide small group antenatal education facilitated group discussions, enabling women-led discussions that could focus on the specific needs of those attending (*mechanism*).

Does the HWA work at providing holistic, PCC to people of all ages and, in offering support, advice and information that helps people improve their own health and wellbeing?

This evaluation provides evidence that HWA aspirations to provide support, advice and information that help people improve their health and wellbeing, and the aim of providing holistic, PCC are being achieved in at least one programme area (e.g., the ACT psychoeducation programme and the PPP respectively). Important contextual factors and mechanisms interacting to produce these outcomes are outlined in table 45.

Table 45/. *Identified CMOCs for Providing Holistic PCC*

Context	Mechanism	Outcome
If a HWA programme (e.g., the PPP) is designed and delivered by SU academics	*Then* PAs and facilitators can use their up-to-date knowledge of the evidence-base alongside their skills as teachers, to design and deliver an engaging programme, covering several important and valued topics for programme users	Leading to the provision of holistic, PCC.
If a HWA programme (e.g., the PPP) has the resources necessary to offer 'small group care'	*Then* facilitators can engage users in meaningful user-led discussions pertinent to their individual needs	
If a HWA programme (e.g., the ACT psychoeducation programme) is designed for the purposes of 'reach' and delivered in a lecture style format	*Then* presenters are unable to interact with users or answer questions that are pertinent to their individual needs	And thus, unable to offer PCC.

Implications of these Findings for Healthcare Provision in Wales

Core Welsh healthcare policy (chapter 1.2) outlines offering PCC and promoting informed decision making as part of the vision for the Welsh healthcare system tackling issues including an ageing population with multiple chronic conditions. Drawn from a review of such policies, conditions outlined as necessary to achieve this vision include encouraging people to be accountable for their own health and providing care tailored to the needs of the individual. Findings suggest that due to resources associated with its wider university-based context (e.g., staff skillset, physical location, and time), the HWA is well placed to deliver effective PCC (e.g., the PPP) and in this way, can contribute to the transformation of healthcare provision in Wales, in-line with identified visions. However, evaluation findings demonstrate that not all HWA programmes offer PCC (e.g., the ACT psychoeducation programme). While it is not realistic to expect every programme to contribute to every aim, evaluation findings suggest that offering PCC might be a particular strength for the HWA due to its unique resources, and this is something the HWA should take advantage of to make it 'stand

out from the crowd' and ensure it can add value to the healthcare system, offering new innovative services and not simply duplicating care that is on offer elsewhere locally. The NHS is a well-established organisation, and for service users to choose to attend the HWA over an NHS run service (thus driving people away from an over 'burdened' NHS), the HWA needs to offer attractive services.

Aim 4

Findings from chapters 6-7 suggest the HWA is meeting its aim of, *'Improving care outcomes for patients' (A4, table 1, chapter 1)* across several services. For example, qualitative findings from the PPP evaluation (chapter 6) report an increase in confidence and knowledge, and a reduction in fear and anxiety as the most observed and self-reported outcomes for programme users, supporting previous literature that antenatal education improves user outcomes (e.g., Gagnon & Sandall, 2007). Quantitative findings from the ACT psychoeducation programme evaluation (chapter 7) support existing evidence that ACT based interventions are effective at improving outcomes for users, including increasing self-esteem and reducing anxiety (e.g., Gregoire et al., 2018). Core Welsh health policy (chapter 1.2) identifies a vision of a healthcare system that delivers high-quality, evidence-based care, to improve population health and reduce the 'burden' on an under-resourced and over-used NHS. Using RE methods facilitated the closer exploration of two HWA programmes to unpick how delivering programmes within the context of a university-based HWA could positively impact care outcomes for whom, how, and why, contributing to the delivery of high-quality effective care in a setting outside of the NHS; discussed below.

The PPP

Physical resources provided by the HWA (e.g., 14-hour timeslot) enabled delivery of an extended antenatal education programme, which qualitative findings (chapter 6) suggest benefitted programme users by providing ample time to learn about pregnancy, birth, and parenting, and to alleviate concerns supporting previous research (chapter 6.1.1). Evidence presented in chapter 6 suggests this level of care provision is not available locally on the NHS due to resourcing issues. The relaxing and comforting atmosphere of the HWA was credited by PPP users as positively impacting the reception of the programme (*context*), making them feel at home and better able to engage with the programme (*mechanism*). This was also supported by stakeholder

survey findings (chapter 4). Core Welsh healthcare policy (chapter 1.2) identifies the need for a shift of care away from hospital and towards community-based settings, reducing pressure on the NHS. Findings suggest that the atmosphere of the HWA was positively received by service users and thus, could contribute to this aim, offering locals an attractive alternative venue for healthcare provision.

Qualitative PPP evaluation findings highlighted that having facilitators who were HCPs *and* teachers (*context*) and therefore confident in their programme delivery, alongside an affiliation with the university and the credibility that brings, resulted in greater service user confidence in the programme (*mechanisms*). Findings also highlighted having HCPs who were educators design/deliver the programme (*context*), resulted in a programme utilising multiple styles of information giving, appealing to the needs of different programme users. PAs used their knowledge of the evidence base and practice experience to develop a programme inclusive of the characteristics linked to improved user outcomes. For example, the programme offered interactive, small group sessions that foster the formation of social bonds and facilitates PCC care (e.g., DOH, 2011), characteristics which were valued by PPP users (chapter 6). Users found the 'birth story sessions' particularly useful as these allowed them to observe women who had gone through similar journeys, which reassured them that everything would be ok (*mechanism*); supporting psychological theories outlined in chapter 6 (e.g., SDT, Ryan & Deci, 2000).

In terms of whom the PPP reached and 'improved outcomes' for, qualitative findings (chapter 6) suggest that the timing of the programme was not optimal for expectant dads, who were often unable to attend. Demographic data (chapter 6.2) also suggest that the group of women reached by the PPP is homogenous, mainly White, middle-aged, first-time mums.

ACT Psychoeducation Programme

Qualitative findings (chapter 7) revealed a demand for an accessible psychological intervention within SU due to the demands placed on an under-resourced wellbeing service. Findings showed the programme 'worked' in terms of improving outcomes for users (e.g., reducing anxiety) however, the programme did not reach the intended audience with few students attending. This does not support previous literature (chapter 7.1.2) which has evidenced that ACT based programmes are well received

within university settings. As just one student was interviewed, findings from this evaluation cannot determine definitively why the programme did not resonate with students however, suggestions included the length and time commitment of the programme, the advertisement of the programme, and a preference for 1-2-1 services as potential barriers to access (*mechanisms*). Findings suggest the structure and format of the programme (*context*) was not what students were looking for (*mechanism*), despite offering a practical solution to a problem. This emphasises the importance of ensuring programmes implemented within the HWA meet the specific needs of target audience, to ensure valued care is offered.

While the programme produced some beneficial outcomes for attendees, the programme was terminated after one run. Researcher observations (chapter 7) identified a lack of internal (e.g., HWA/SU) ownership of the programme as a reason (*mechanism*) for its termination. To expand, while the PPP was developed, delivered, and championed by SU stakeholders, the (externally developed) ACT psychoeducation programme was introduced to SU by college academics, and subsequently 'passed over' to the HWA (*context*). It was evident there were competing priorities between departments, including research and providing a relief for wellbeing services. There was no clear 'ambassador' to champion the programme and latterly, there was a sense that implementing the programme was less of a priority (*mechanism*). This evaluation not calling into question the effectiveness of the programme itself, but suggesting that clear management, accountability, and belief in a programme are key factors in the longevity of HWA programmes. This may be particularly important to consider when introducing external programmes to the HWA. Core Welsh healthcare policy (chapter 1.2) outlines cross-organisation collaboration as important in achieving the desired transformation to the healthcare system. The HWA has evidenced its willingness to engage in collaboration, providing external (e.g., the ACT psychoeducation programme) as well as internal programmes. However, programme evaluation findings identify the importance of effectively managing collaborative projects to ensure a programmes longevity for example, through the introduction of working together agreements.

Does the HWA work at improving care outcomes, for whom, in what ways and why?

This evaluation provides evidence that HWA aspirations to improve outcomes for users is being achieved in at least two programme areas (e.g., the PPP and ACT psychoeducation programmes). PPP findings outline *how* and *why* developing a programme within the context of a university-based HWA *works* in producing beneficial outcomes for programme users. Findings from both programme evaluations highlight important considerations for reaching target audiences and therefore *whom* programmes work for alongside key factors to ensuring a programme has longevity when delivered in the HWA context (table 46).

Table 46/. *Identified CMOCs for Improving Patient Outcomes*

Context	Mechanism	Outcome
If a HWA programme (e.g., the PPP) is given sufficient resources (e.g., time) to provide evidence-based care (e.g., an extended, small group antenatal education programme)	*Then* facilitators have the time to cover several topics in depth, and the time to answer queries from users, alleviating their fears, concerns, or anxieties	Thus, improving user outcomes including, increases in confidence/preparedness and knowledge, and reductions in fear, and psychological distress
If a HWA programme (e.g., the PPP) is provided with sufficient resources (e.g., time) to provide evidence-based care, including interactive sessions (e.g., birth story sessions) which facilitate learning through observation	*Then* users benefit from observing a 'model' who they can relate to (e.g., who has gone through the journey they are), and feel reassured that everything is going to be ok	
If a health care programme is delivered within a university by HCPs who are also trained educators	*Then*, a programme is delivered in a confident manner and credible setting, increasing a user's belief in the programme and the information they are receiving	
If a HWA programme is designed utilising an evidence-based resource, and by PAs with a wealth of knowledge about what works	*Then* a programme is designed and delivered that should meet the needs of its programme's users	
If a programme is introduced to the HWA (e.g., the ACT psychoeducation programme) as a solution to a current problem (e.g., increased demand for wellbeing support)	*Then* it needs to resonate with the target audience and meet their needs in terms of appeal. If the programme is not accessed, it will not be able to	Improve user outcomes, such as a decrease in psychological distress or an increase in mindfulness, acceptance, or self-management strategies
If a programme is introduced to the HWA (e.g., the ACT psychoeducation programme) that involves multiple stakeholders	*Then* the programme needs a management and accountability structure in place, ensuring the programme has a clear direction and advocate for its success, to ensure its longevity at the HWA, and chance to	

Implications of these Findings for Healthcare Provision in Wales

Findings suggest that the HWA offers evidence-based care (e.g., the PPP and ACT psychoeducation programme), with findings linking this to improved outcomes for users (chapters 6 & 7). In this way, the HWA shows promise of contributing to the transformation of healthcare provision in Wales, offering care in line with PHPs (Aylward et al., 2013). However, programme evaluation findings stress the importance of ensuring that the care offered also needs to resonate with the target audience to ensure uptake of the services, and that simply offering high-quality care is not enough. Findings also stress the importance of ensuring that collaborative ventures (e.g., the ACT psychoeducation programme) are managed effectively to ensure their longevity; it is not enough to simply collaborate if each party is not invested in the success of a programme equally. Stakeholder survey findings (chapter 3) suggest that some HWA collaborations with external organisations have been successful, demonstrating the HWAs potential in contributing to this vision. The HWA could undertake process learning evaluations with successful collaborations to better understand the key to successful collaborative working.

Aim 5

Findings from chapters 3-4 suggest that the HWA is yet to meet its aim of *'Engaging in cutting edge research that will drive innovation and excellence in all that we do' (A5, table 1, chapter 1)* and its linked mission of *'undertaking excellent research and using this to inform the way we work and the services we provide' (M2, table 1, chapter 1)*. While findings from the stakeholder survey (chapter 3) indicate the HWA provides increased research opportunities, the quality of this activity was questioned. There was limited mention of services conducting 'quality' research (e.g., cardiology), and some discussion around lighter touch evaluations. At the time of this evaluation, it was unlikely the HWA would have a portfolio of high impact research due to its infancy, however, during the LM workshop (chapter 4) it became evident there was no set framework/guidance in place for research activities (or that this was not well known). The HWA, set within a university (*context*), is well equipped to facilitate high-quality research, with an academic staff with the necessary research skillset (*mechanism*). Findings from the PPP evaluation (chapter 6) highlighted how 'tapping into' the existing expertise of SU was beneficial in implementing PCC.

SU has thousands of students enrolled. While stakeholders considered clinical placement opportunities for students within the HWA, they did not consider research opportunities. The HWA could develop research opportunities and collaborate with students to produce timely research and provide non-clinical students with developmental opportunities. This identifies a 'gap' that the HWA is well placed to fill, which would contribute towards two HWA aims: 1) Conducting research, and 2) Enhancing student opportunities.

Does the HWA work at 'undertaking excellent research and using this to inform the way we work and the services we provide' in what ways and why?

This evaluation provides evidence that the HWA aspiration to *'undertake excellent research and use this to inform the way we work and the services we provide'* has yet to be met in full. Findings suggest that *if* the HWA makes better use of its resources (e.g., staff skillset) and provides the context for research activity within the HWA (e.g., devising research frameworks) the HWA could better progress towards this aim. If the purpose of conducting research is to 'drive innovation and excellence' the HWA should have a plan in place to ensure the necessary and appropriate research activities are conducted.

Table 47/. *Identified CMOCs for Undertaking Excellent research and Using this to Inform the way the HWA works, and the services it provides*

Context	Mechanism	Outcome
If the HWA uses the SU resources on offer to it for example, academic staff	*Then* the HWA will be well placed to develop effective research activity procedures and frameworks, as SU academics have experience designing, conducting, and publishing research, which can guide the HWA in	Undertaking excellent research and using this to inform the way they work and the services they provide
If the HWA were to offer research placements/ opportunities to students	*Then* the HWA could develop research projects and collaborate with students on these to produce timely research, providing non-clinical students (e.g., psychology students) with opportunities to develop their research skillsets and contribute to two HWA aims/missions of	Undertaking excellent research and using this to inform the way they work and the services they provide and enhancing the learning opportunities of students

Implications of these Findings for Healthcare Provision in Wales

Research and evaluation of HWA services will be a key component in assessing whether the HWA offers a meaningful contribution to the wider provision of Welsh healthcare. Findings from chapter 1.2 reviewing Welsh health care policy identify research and evaluation, alongside the sharing of learning/evidence as conditions

necessary to ensure high-quality, evidence-based care is provided in a transparent and accountable manner. Core documents also highlight the importance of working collaboratively with other sectors including academia to make the best use of the skills and resources available to achieve this. Findings from this evaluation suggest the HWA is well placed to conduct research due to resources (e.g., staff expertise) associated with its university-based context however currently, it is not making optimum use of these. SU employs a wide range of academics across several health and research related disciplines, and the range of expertise available at SU and how closely these relate to the identified conditions for change in the Welsh healthcare system should not be underestimated/undervalued.

Aims 3, 6 and 7

The HWA aspires towards achievement of these additional aims:

- Offering services that support early identification, diagnosis and treatment of health and social care conditions *(A3)*
- Contributing to delivering a sustainable skilled workforce fit for the future *(A6)*
- Supporting economic regenerations by contributing to workforce redesign *(A7)*

Findings from the stakeholder survey (chapter 3) suggest some HWA programmes (e.g., cardiology) are contributing towards A3. Findings from the programme evaluations (chapters 6-7) were not able to add insight regarding A3, as this aim was not a priority focus for those programmes. Therefore, this evaluation cannot suggest this aim is not being met, just that it was not evidenced within the scope of this evaluation. Aims 6 are 7 are linked to mission 3 and addressed in chapter 9.1.3.

9.1.2 HWA values

HWA values (table 1, chapter 1) were explored in chapters 3-4, and 6-7; discussed below.

Value 2

While not explicitly outlined in HWA values, 'complementing the NHS' is referenced within HWA documentation and can speak to value 2 of *'focusing on the needs of our population'*, discussed below.

Findings from chapters 3 and 6-7 suggest that the HWA is meeting its value of *'focusing on the needs of our population' (V2, table 1, chapter 1)* by offering services

that '*complement local NHS provisions'*. For example, findings from the stakeholder survey (chapter 3) and PPP evaluation (chapter 6) evidence the HWA in offering services not available in the local NHS, providing access to otherwise inaccessible services (e.g., bereavement care), adding to local care provision. Furthermore, most HWA services are free and offer accessible, alternative healthcare. Findings from chapter 3 and 6 also suggest the non-clinical setting of the HWA is valued by programme users, adding to the HWAs ability to contribute to the aim of shifting healthcare away from hospital towards community-based settings (chapter 1.2).

Chapter 6 findings highlight that resources available within the HWA context allowed the PPP to offer a service that 'added to' local NHS provision, including time, space, and the expertise/knowledge of the SU midwives, which enabled the provision of an extended, evidence-based, interactive programme (*mechanisms*); characteristics valued by expectant parents (e.g., DOH, 2011). These findings are important because they suggest that the HWA has resources putting it in an advantageous position to offer programmes that can add NHS provisions, offering a viable local, community-based alternative for quality care, reducing NHS pressures.

Does the HWA work at providing programmes that complement the NHS, for whom in what circumstances and why?

This evaluation provides evidence that the HWA aspiration to *'focus on the needs of the population'*, is being achieved in a few programme areas (e.g., bereavement care, the PPP) by offering services complementing local NHS provision. Chapter 6 findings suggest that *resources* available when delivering care in the *context* of a university-based HWA (e.g., academic skillset) facilitated progress towards this aim.

Table 48/. *Identified CMOCs for Focussing on the needs of the Population, Offering care Complementing the NHS*

Context	Mechanism	Outcome
If the HWA utilises its resources (e.g., staff skillset) to design and deliver programmes (e.g., the PPP) that offer a level of care that 'adds to' current local provision	*Then,* by focusing on the needs of the population, and offering programmes that are otherwise inaccessible or unavailable	The HWA can support/reduce pressure on the NHS

Implications of these Findings for Healthcare Provision in Wales

Offering accessible care in the local area, the HWA shows promise of contributing to the transformation of healthcare provision in Wales, by reducing pressures faced by

local NHS services. However, while qualitative findings from the stakeholder survey (chapter 3) and PPP evaluation (chapter 6) suggest the HWA is having a positive impact on local services, these claims have not been substantiated. Recommendations and further discussion on this can be found in chapter 9.5. Chapter 1.2. outlined several driving factors for change in healthcare provision in Wales including funding issues and a population with multiple chronic conditions. Core Welsh healthcare policies (chapter 1.2) outlined shifting care away from traditional, hospital-based care towards community-based care as a key aspiration in transforming healthcare provision in Wales. To provide effective community-based care, physical resources (e.g., buildings) and partnership working are necessary to ensure care can be provided in multiple settings but also, to identify the needs of local communities to provide care relevant to that community. The HWA offers a viable alternative setting for local healthcare provision, with findings suggesting the non-clinical setting of the HWA is valued (chapters 3 & 6); future research should seek to replicate these findings to consolidate this notion. Stakeholder survey and ACT psychoeducation programme (chapter 3 and 7) findings evidence that the HWA works collaboratively with external stakeholders to provide access to healthcare services, albeit to varying degrees of success. Findings from the ACT psychoeducation programme evaluation (chapter 7) draw attention to some of the complexities involved with successfully implementing/ managing an external programme within the content of the HWA, including the involvement of multiple stakeholders with conflicting priorities, and the importance of ensuring clear programme ownership and management. Overall, findings suggest that while the HWA is well placed to complement the NHS and focus on the needs of the population (providing alternative access to care), there are areas where the HWA can improve, including better integration and management of external services.

Values 1 and 3

The HWA aspires towards achievement of the following additional values:

- Providing excellent services *(V1)*
- Working together to enrich lives *(V3)*

Evidence the HWA is contributing towards values 1 and 3 is provided within commentary discussing HWA aims 1, 2 & 4.

9.1.3 HWA Missions

HWA missions (table 1, chapter 1) were explored in chapters 3 and 6-7; discussed below.

Mission 3

HWA missions were explored in chapters 3 and 6-7. Findings from chapters 3 and 6 suggest that the HWA is meeting its mission to, *'Enhance the teaching and learning experience for staff and students to maximise their future employability' (M3, table 1, chapter 1)*. Findings from the stakeholder survey (chapter 3) and PPP PA and facilitator interviews (chapter 6) found the HWA offers additional clinical placements to SU students outside of the NHS, including for Osteopathy and Midwifery students. Findings from chapters 3 and 6 support that the HWA offers students the opportunity to develop their professional skills, engaging in a multi-disciplinary practice, and delivering healthcare in the context of a business opposed to a LHB. These findings support work by Meah et al. (2009) who found that students delivering healthcare in student-led clinics benefitted from the opportunity to learn about the business side of healthcare provision (e.g., resource allocation and interdisciplinary collaboration). Qualitative insights from PPP facilitators evidence that allowing students to deliver programmes alongside familiar academic mentors boosted their confidence and allowed them to thrive in a familiar environment. Findings from chapter 6 support the idea that the HWA provides enhanced development opportunities for staff. Senior PPP facilitators and the PA outlined how the programme provided them the opportunity to care for women regularly again, showing them how care can be delivered outside of an NHS context.

Findings from chapters 6-7 suggest that certain factors impact the ability of HWA services to enhance learning experiences for students, and that providing opportunities does not necessarily translate into student engagement. Findings from PPP PA and facilitator interviews (chapter 6), along with researcher observations from the ACT psychoeducation programme evaluation (chapter 7) identified a lack of structure and affiliation with an academic programme (*context*) as a barrier for student engagement with service delivery. For example, the ACT psychoeducation programme was not affiliated with an academic programme (i.e., did not provide a clinical placement opportunity) and there was no plan in place for student engagement with the programme. While several students were offered the opportunity to train to present the

programme, none of the students who attended the training engaged with delivery (chapter 7). Conversely, midwifery students engaged with delivering the PPP. The PPP has a structure in place to promote the programme to students (e.g., advertisement during lectures), and students have a motivation for engaging with the programme which is related to their academic programme of study and thus, future careers (*mechanism*). As a clinical healthcare programme, the PPP 'fits' with past models, and is the type of programme you would expect to see in this type of environment (e.g., Meah et al., 2009; Marsh et al., 2015); programmes not affiliated with a clinical programme (e.g., the ACT psychoeducation programme) are less explored in this type of literature. Subsequently, findings from the ACT psychoeducation programme evaluation offer novel insights about factors that might impact a student's engagement with delivering care outside of academic requirements/motivations.

Does the HWA work at enhancing teaching and learning opportunities, for whom, in what ways and why?

This evaluation provides evidence that HWA aspirations to redesign the healthcare workforce and provide enhanced learning and development opportunities for students is being achieved in at least one programme area (e.g., the PPP). Findings suggest that *if* certain conditions/circumstances (e.g., academic programme affiliation) are met then developmental opportunities are enhanced. Findings from this evaluation highlight the need to explore student motivations and perceived gains for engaging with programmes within the context of a setting like the HWA.

Table 49/. *Identified CMOCs for enhancing learning opportunities*

Context	Mechanism	Outcome
If a HWA programme is affiliated with an academic programme/course	*Then* SU students are more likely to engage in programme delivery as they have clear academic and/or professional motivations to do so	And thus, learning/development opportunities are enhanced
	Then SU students are provided with the opportunity to learn from respected mentors	
	Then, SU academics can engage with clinical placements on a regular basis, learning new ways of providing care outside of the context of a LHB	
If a HWA programme has a clear engagement plan/structure in place	*Then* SU students are more likely to engage in programme delivery as they are aware of the professional opportunity	
If placement opportunities are provided at the HWA in addition to NHS clinical placements	*Then* SU students can see a different side of health care provision, and develop a new skill set by delivering care in a business	

Implications of these Findings for Healthcare Provision in Wales

Findings from this evaluation evidence that the HWA has enhanced learning opportunities for students in at least one programme area and is well placed to do so for the reasons discussed in table 49. A review of core Welsh health care policy (chapter 1.2) identified a system that drives innovation in the workforce and makes the Welsh NHS an attractive place to work as an important component in the vision for NHS Wales. Conditions identified as important in achieving that include opportunities for clinical staff (including trainees/students) to develop new skills and expertise, and partnerships with academic and other organisations to provide innovative learning/placements. Findings from this evaluation evidence the HWAs contribution to that aim, by offering enhanced and additional clinical placements for students. Further, the HWA offers several opportunities for qualified HCPs to refresh their skillset and provide healthcare in an alternative setting however, the HWA could do more to innovate in this space. For example, the HWA could do more to provide added learning/developmental opportunities for students on non-clinical programmes (e.g., psychology) through research opportunities. Not only would this benefit students, but this would benefit the HWA and contribute to its aspirations to develop a high impact evidence portfolio that can 'drive excellence in everything we do'. PHPs (Aylward et al., 2013) advocate using resources wisely while providing the best quality care possible. If the HWA can push the boundaries and use its existing resources and opportunities wisely, not only can it improve student opportunities further, but it can do so in a prudent way for example, offering research placement opportunities, and sharing learning with external organisations to inform the evidence base and improve practice.

Missions 1 and 2

The HWA aspires towards achievement of the additional missions:

- To provide a range of high-quality health and wellbeing services closer to where people live *(M1)*
- To Engage in cutting edge research that will drive innovation and excellence in all that we do *(M2)*

Mission 1 was linked to and thus evidenced in the discussion around aims 1, 2, 4, and value 2. Mission 2 was explored in the discussion around aim 5.

9.2 Limitations

This section acknowledges the main limitations of the evaluation and implications for findings. Detailed limitations for the stakeholder survey, LM workshop and quantitative components of the PPP and ACT psychoeducation programme evaluations can be found in chapters 3.4.2, 4.5.2, 6.2.1.4 and 7.2.1.4 respectively.

Sample Size

Small sample size was the key limitation for each component of the evaluation, despite several efforts being made to increase sample size (e.g., amendments to data collection methods). Regarding the PPP and ACT psychoeducation programme evaluations, while a good range of participants took part, and the evaluations benefitted from the insights of multiple stakeholders, interview sample sizes were small (*n*= 6 and *n*= 5 respectively). Uptake for programme user interviews was particularly low (*n*= 3). In the case of the PPP, despite initial willingness to take part in interviews, it is possible that new parents were less likely to be checking their emails and thus, receive invitations to attend. Further, it was hoped that expectant dads/partners would take part in interviews to explore the impact of the programme for them. While facilitators and expectant mums were able to give second-hand accounts of such benefits, having first-hand accounts of their experiences would have been beneficial. Future research should devise an engagement plan/conduct targeted recruitment to engage more expectant dads/partners. In the case of the ACT psychoeducation programme, only two students provided their consent to be contacted to interview, one of which was interviewed. As the programme was cancelled after one run, the researcher was unable to recruit more participants. While, findings should be considered with caution, the sample size for the overall evaluation was sufficient to draw the types of insights needed to answer the evaluation questions. RE (Pawson & Tilley, 1997) is not simply concerned with 'if' a programme works but why and in what ways, and the in-depth information gathered from PAs, facilitators/presenters, and users, was key in developing PT.

Scope of the Evaluation

Programme evaluation criteria was developed to implement an evaluation that would be insightful and manageable within the allocated resources. To add to the current evaluation of the HWA, future research could evaluate other HWA programmes, gaining a broader understanding of how the HWA is working, for whom, in what

circumstances and why. This evaluation used RE methods to unpick whether and why a programme could work in the context of the HWA and for whom, leading to the development of CMOCs that considered how HWA programmes could contribute to the overall aims, values, and missions of the HWA. User outcome data (e.g., questionnaires) was collected to complement and test the assumptions of the CMOCs and PT. The LM (chapter 4) could be further developed into a measurement framework and utilised to benefit future evaluations that want to focus more on outcomes.

9.3 The Impact of Method on this Evaluation

RE (Pawson & Tilley, 1997) has gained popularity in recent years. Conducting a RE allows researchers to really explore what it is about a programme that works (Pawson & Tilley, 2004) and allows researchers to consider the influence of context, gaining a better understanding as to why dissimilar outcomes may be produced when interventions are implemented in different settings or for different people (Doi et al., 2015).

RE was an appropriate methodology to utilise in this evaluation and enhanced the evaluation. For example, the HWA is a new concept and there was little evidence to draw insights from to form hypotheses about what works. Therefore, using a methodology that could unpick how and why a service like the HWA could work was imperative. The HWA is complex, offering several programmes to several audiences. This meant that using an approach sensitive to context, that could understand why one programme may work at the HWA while another may not, would be valuable in understanding the influence of the HWA on its individual programmes. The consideration of contextual factors and mechanisms in producing outcomes for users allowed this evaluation to unearth findings that would not have been possible if another method that simply considered measurable outcomes (e.g., an RCT) had been used.

9.4 PhD Reflections

9.4.1 Original Contribution to Knowledge

This thesis demonstrates originality and contribution to knowledge in the following ways.

To the researchers' knowledge, this is the first evaluation of a university-based, HWA within Wales and therefore, provides unique insights as to whether an HWA can work when delivered within the context of a university, for whom and in what ways. Further,

this is also the first *RE* of a university health centre within Wales. RE methods push the researcher to consider not only whether a programme works but why, for whom and in what circumstances/under what conditions. Due to the novelty of the HWA and limited evidence base of similar UK initiatives, using RE methods to evaluate the HWA allowed the researcher to understand the specific contextual factors and mechanisms that could interact to determine the effectiveness of a health initiative delivered within a university, and to consider the impact that delivering care in a university setting could have on the wider provision of healthcare within Wales.

9.4.2 The PhD Journey: Personal Reflections

Working towards a PhD is a professional and personal journey. The process is a long, intellectually challenging process that leads not only to the development of a thesis but in my opinion, a more well-rounded, thoughtful, and experienced researcher. This section provides my reflections of the PhD journey.

This process has taught me how important it is to plan for all eventualities in research, and the importance of being proactive rather than reactive. For example, while I was able to apply for amendments through ethics to improve participant numbers, in retrospect there are things that could have been done to improve recruitment from the outset. For example, it could have been foreseen that recruitment for PPP user interviews would be difficult due to the timing of the interviews and the fact that expectant parents would (rightly so) have greater priorities than taking part in research. If I were to run the evaluation again, I would look to recruit past participants of the PPP, potentially through HWA postnatal groups.

I have also learnt there is more to research than collecting quantitative and qualitative data to 'prove' a programme's effectiveness. By conducting my own evaluation from formulating aims, to deciding on evaluation methods, I understand and appreciate the importance of every step of the process. I have learnt that reporting on observations from fieldwork is a valid form of data collection and that choosing the right evaluative methodology is just as important, if not more so, than choosing the right outcomes questionnaire.

Working towards a PhD has inevitably improved my skills in planning, managing, and conducting research. I feel more confident in my ability to design evaluation questions, chose the best, and most appropriate methodology to explore these, and collect and

analyse findings using a range of methods. Working with colleagues from different professional backgrounds has allowed me to appreciate the importance of collaborative work and understanding that there are several approaches to research and evaluation.

The PhD process is a long, hard, and challenging process however, the struggles faced while navigating through the process have taught me how to think outside of the box, and that perseverance is a valuable characteristic to have and something that I will endeavour to have going forward in my career.

9.5 Recommendations

This section outlines recommendations that could benefit the HWA and future research of the HWA, prompted by this evaluation.

9.5.1 Recommendations of Action for the HWA

Defining and Measuring Success

- The HWA would be well placed to undertake a priority setting exercise and review its aims, values, and missions along with its capability and capacity to provide programmes that can contribute to these. Findings from this evaluation (chapters, 3 & 6-7) suggest the HWA is well placed to offer programmes in-line with some of its aims (e.g., offering PCC care) due to resources (e.g., staff skillset) associated with its context (e.g., university setting). Assessing where the strengths of the HWA lay, the HWA can focus on the areas where it can have the biggest impact and contribution to transforming healthcare provision in Wales.
- The HWA would benefit from the development of a research framework and guidance tool to collect and analyse data to evidence its benefits and impact against its reviewed aims, values, and missions. The need for such a tool was highlighted through development of the HWA LM (chapter 4) and findings from the stakeholder survey (chapter 3). Findings from this evaluation (chapters, 3 & 6-7) suggest the HWA is well placed to develop a framework due to its resources (e.g., staff research expertise) associated with its context (e.g., university setting). The LM developed in this evaluation (chapter 4) could be used to guide the development of this framework.

Training and Activity Areas

- To ensure the HWA has the capability and capacity to provide programmes in line with its aims, values, and missions, it should ensure appropriate development opportunities are available for staff/students working within the HWA. Through development of the HWA LM (chapter 4), training areas were identified which could lead to attainment of HWA aims, values, and missions. For example, the LM outlines that to provide information, advice, and support to people to help them manage their own health and wellbeing (A2, table 1, chapter 1), the HWA could implement programmes integrating behaviour change techniques, with staff undergoing training in behaviour change theories to understand how to embed these effectively within their programmes.
- To ensure the HWA has the capability and capacity to collect and analyse relevant data to demonstrate benefits and outcomes, the HWA should ensure appropriate development opportunities are available for staff. Research skills were identified by stakeholders as training areas during the LM workshop (chapter 4) and findings from the stakeholder survey (chapter 3) suggest research activity is not thriving at the HWA, despite being a core aim/mission (A5 & M2, table 1, chapter 1).

Programme Selection and Implementation

- The HWA should acknowledge findings from this evaluation that show benefits of utilising the skills and expertise of SU staff (e.g., HCPs who are also teachers) to design and deliver programmes. The concept of the HWA was born out of need for innovation within the healthcare sector, to reduce NHS pressures (chapter 1.2). The unique selling point of the HWA is its university setting and associated resources, which the HWA would benefit from utilising more.
- The HWA would benefit from ensuring HWA programmes have a clear management structure, ensuring accountability, direction, and belief in a programme. Findings from this evaluation (chapters 6 & 7) provide evidence that having a clear owner/champion of a programme can impact its success and longevity at the HWA. Findings suggest this may be particularly important

when external programmes are introduced to the HWA, which have several stakeholders with differing priorities.

9.5.2 Direction for Future HWA Research

This evaluation used RE methods to understand whether a university-based HWA could work, for whom, in what ways and why. Given the lack of similar initiatives in Wales, future HWA research should look to scale up evaluations, consolidating whether unique contextual factors of the HWA (identified in this evaluation) truly impact service user outcomes. Future HWA evaluations should also look to compare HWA services with external services for example, NHS services. Stakeholder survey respondents suggested the HWA 'is proven in reducing waiting lists' for local NHS services, something which could be further explored to support any contribution towards reduced use of NHS services and subsequent cost savings (i.e., can the HWA contribute towards the aim of shifting healthcare away from traditional hospital-based settings towards community-based settings (chapter 1.2.)).

A longitudinal evaluation of the HWA is needed to accurately measure its outcomes and impact over time. A future evaluation could introduce a standardised set of outcome-based measures that could be used across HWA programmes to collect service user outcomes, alongside the introduction of metrics surrounding student involvement within HWA service provision. Such research could measure the impact of the HWA for its core stakeholders (service users and students) over a longer period.

9.6 Concluding Comments

This RE (Pawson & Tilley, 1997; 2004) has evidenced that the HWA 'does work' at providing enhanced learning and development opportunities for SU staff and students (chapter 3 & 6). Further, the HWA is showing promise at offering programmes that improve care outcomes, and focus on the needs of the population, by providing services complementary to the NHS (chapters 3 & 6-7). Findings suggest the HWA may flourish in providing 'homegrown' programmes, that are designed and delivered by SU staff and students (e.g., the PPP), utilising the unique resources associated with its context, and that external programmes (e.g., the ACT psychoeducation programme) might benefit from the implementation of extra management processes/frameworks, to ensure their longevity at the HWA. The HWA is a unique venture, that is well placed to use the unique skillset of its stakeholders (e.g., SU academics and students) to

provide a service that could help redesign the healthcare workforce (e.g., providing placement opportunities, undertaking research to inform the evidence base) and contribute to the transformation of the Welsh healthcare system as outlined in core Welsh healthcare policy (chapter 1.2). Findings from this evaluation offer novel insights into the effectiveness of university-based healthcare centres within Wales and future research should look to replicate/add to these findings to consolidate the potential of the HWA in contributing to transforming Welsh healthcare provision.

Bibliography

A Regional Collaboration for Health. (2015a, June). *Prospectus: A World-Class Health and Wellbeing Economy for the South West Wales Region.* Retrieved from: https://ruralhealthandcare.wales/wp-content/uploads/2017/07/ARCH.pdf

A Regional Collaboration for Health. (2015b, July). *Summary Document: A World-Class Health and Wellbeing Economy for the South West Wales Region*. Retrieved from: http://www.wales.nhs.uk/sitesplus/documents/863/ARCH%20Summary%20Document.pdf

A Regional Collaboration for Health. (2017). *ARCH Portfolio Delivery Plan 2017: A roadmap to improving the health, wealth, and wellbeing of South West Wales*. Retrieved from: http://www.wales.nhs.uk/sitesplus/documents/862/Item20i.ARCH.PDP.pdf

Abel-Smith, B., & Titmuss, R. M. (2016). *The cost of the national health service in England and Wales* (Vol. 18). Cambridge, UK: Cambridge University Press.

Ahlden, I., Ahlehagen, S., Dahlgren, L.O., & Josefsson, A. (2012). Parents' Expectations About Participating in Antenatal Parenthood Education Classes. *The Journal of Perinatal Education, 21*(1), 11-17. DOI: 10.1891/1058-1243.21.1.11

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211. https://doi.org/10.1080/08870446.2011.613995

Allred, J. B. (2016). *The Effects of a Brief Mindfulness-Based Meditation Intervention on Chronic Pain.* (Nursing Theses and Capstone Projects, 236). Gardner Web University, US North Carolina. Retrieved from: https://digitalcommons.gardner-webb.edu/nursing_etd/236

Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International journal of social research methodology*, *8*(1), 19-32. https://doi.org/10.1080/1364557032000119616

A-tjak, J. G., Davis, M. L., Morina, N., Powers, M. B., Smits, J. A., & Emmelkamp, P. M. (2015). A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. *Psychotherapy and psychosomatics*, *84*(1), 30-36. https://doi.org/10.1159/000365764

Aylward, M., Phillips, C., & Howson, H. (2013). Simply Prudent Healthcare–achieving better care and value for money in Wales–discussion paper. *The Bevan commission.* Retrieved from: https://ctrtraining.co.uk/documents/BevanCommissionSimplyPrudentHealthcarev104122013.pdf

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, *84*(2), 191-215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American psychologist*, *37*(2), 122-147. https://psycnet.apa.org/doi/10.1037/0003-066X.37.2.122

Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology and health*, *13*(4), 623-649. https://doi.org/10.1080/08870449808407422

Bajaj, B., Robins, R. W., & Pande, N. (2016). Mediating role of self-esteem on the relationship between mindfulness, anxiety, and depression. *Personality and Individual Differences*, *96*, 127-131. https://doi.org/10.1016/j.paid.2016.02.085

Benzies, K. M., Premji, S., Hayden, K. A., & Serrett, K. (2006). State-of-the-evidence reviews: advantages and challenges of including grey literature. *Worldviews on Evidence-Based Nursing*, *3*(2), 55-61. https://doi.org/10.1111/j.1741-6787.2006.00051.x

Bevan Commission. (2015). A Prudent Approach to Health: Prudent Healthcare Principles. Retrieved from: https://f55ff479-b0d0-4623-9a5f-3a8ab2ee7e60.usrfiles.com/ugd/f55ff4_78e0f988c5054a4490bca1cdc79eaea1.pdf

Bewick, B., Koutsopoulou, G., Miles, J., Slaa, E., & Barkham, M. (2010). Changes in undergraduate students' psychological well-being as they progress through university. *Studies in Higher Education*, *35*(6), 633-645. https://doi.org/10.1080/03075070903216643

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire–II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior therapy*, *42*(4), 676-688. https://doi.org/10.1016/j.beth.2011.03.007

Bor, W., & Sanders, M. R. (2004). Correlates of self-reported coercive parenting of preschool-aged children at high risk for the development of conduct problems. *Australian and New Zealand Journal of Psychiatry*, *38*(9), 738-745. https://doi.org/10.1080%2Fj.1440-1614.2004.01452.x

Bothwell, L.E., Greene, J.A., Podolsky, S.H., & Jones, D.S. (2016). Assessing the Gold Standard – Lessons from the History of RCTs. *The New England Journal of Medicine*, *374*(22), 2175-2181.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101. DOI: 10.1191/1478088706qp063oa

Brown, L. A., Forman, E. M., Herbert, J. D., Hoffman, K. L., Yuen, E. K., & Goetter, E. M. (2011). A randomized controlled trial of acceptance-based behavior

therapy and cognitive therapy for test anxiety: A pilot study. *Behavior modification*, *35*(1), 31-53. https://doi.org/10.1177%2F0145445510390930

Bunn, F., Goodman, C., Reece Jones, P., Russell, B.,Trivedi, D., Sinclair, A., Bayer, A., Rait, G., Rycroft-Malone, J., & Burton, C. (2017). What works for whom in the management of diabetes in people living with dementia: a realist review. *BMC Med 15***,** 141. https://doi.org/10.1186/s12916-017-0909-2

Byrne, J., Hauck, Y., Fisher, C., Bayes, S., & Schutze, R. (2014). Effectiveness of a mindfulness-based childbirth education pilot study on maternal self-efficacy and fear of childbirth. *Journal of midwifery & women's health*, *59*(2), 192-197. https://doi.org/10.1111/jmwh.12075

Byrd, D. R., & McKinney, K. J. (2012). Individual, interpersonal, and institutional level factors associated with the mental health of college students. *Journal of American College Health*, *60*(3), 185-193. https://doi.org/10.1080/07448481.2011.584334

Canadé, R. F. (2014). *Be Here Now: Evaluating an adapted mindfulness-based intervention in a mixed population with acquired brain injury (ABI) and neurological conditions.* (Doctor in Clinical Psychology Thesis). University of Hertfordshire, UK. Retrieved from: https://uhra.herts.ac.uk/bitstream/handle/2299/14399/12019563%20%20-%20Canade%20Rosario%20-%20Final%20hard%20bound%20DClinPsy%20submission.pdf?sequence=1

Canby, N. K., Cameron, I. M., Calhoun, A. T., & Buchanan, G. M. (2015). A brief mindfulness intervention for healthy college students and its effects on psychological distress, self-control, meta-mood, and subjective vitality. *Mindfulness*, *6*(5), 1071-1081. https://doi.org/10.1007/s12671-014-0356-5

Cartwright, N. (2007). Are RCTs the gold standard? *BioSocieties*, *2*(1), 11-20. doi:10.1017/S1745855207005029

Cayoun, B., Francis, S. E., Kasselis, N., & Skilbeck, C. (2012). The Mindfulness-based Self-Efficacy Scale–Revised. Retrieved from: https://mindfulness.net.au/mindfulness-based-self-efficacy-scale.html

Ceretta, L. B., Réus, G. Z., Abelaira, H. M., Jornada, L. K., Schwalm, M. T., Hoepers, N. J., Tomazzi, C.D., Gulbis, K.G., Ceretta, R.A., & Quevedo, J. (2012). Increased prevalence of mood disorders and suicidal ideation in type 2 diabetic patients. *Acta diabetologica*, *49*(1), 227-234. https://doi.org/10.1007/s00592-012-0435-9

Chew-Graham, C. A., Rogers, A., & Yassin, N. (2003). 'I wouldn't want it on my CV or their records': medical students' experiences of help-seeking for mental health problems. *Medical education*, *37*(10), 873-880. https://doi.org/10.1046/j.1365-2923.2003.01627.x

Cooklin, A. R., Giallo, R., & Rose, N. (2012). Parental fatigue and parenting practices during early childhood: An Australian community survey. *Child: care, health, and development*, *38*(5), 654-664. https://doi.org/10.1111/j.1365-2214.2011.01333.x

Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *The British journal of psychiatry*, *150*(6), 782-786. doi:10.1192/bjp.150.6.782

Craig, P., Dieppe, P., Macintyre, S., Michie, S., Nazareth, I., & Petticrew, M. (2008). Developing and evaluating complex interventions: the new Medical Research Council guidance. *Bmj (Clinical Research Ed.)*, *337*, a1655. doi: https://doi.org/10.1136/bmj.a1655

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, *16*(3), 297-334. https://doi.org/10.1007/BF02310555

Czyz, E. K., Horwitz, A. G., Eisenberg, D., Kramer, A., & King, C. A. (2013). Self-reported barriers to professional help seeking among college students at elevated risk for suicide. *Journal of American college health*, *61*(7), 398-406. https://doi.org/10.1080/07448481.2013.820731

D'Amico, N., Mechling, B., Kemppainen, J., Ahern, N. R., & Lee, J. (2016). American college students' views of depression and utilization of on-campus counselling services. *Journal of the American Psychiatric Nurses Association*, *22*(4), 302-311. https://doi.org/10.1177%2F1078390316648777

Danitz, S.B. & Orsillo, S.M. (2014). The Mindful Way Through Semester: An Investigation of the Effectiveness of an Acceptance-Based Behavioural Therapy Program on Psychological Wellness in First-Year Students. *Behaviour Modification*, *38*(4), 549-566. https://doi.org/10.1177%2F0145445513520218

Danitz, S.B., Suvak, M.K., Orsillo, S.M. (2016). The Mindful Way Through Semester: Evaluating the Impact of Integrating an Acceptance-Based Behavioural Program Into a First-Year Experience Course for Undergraduates. *Behaviour Therapy*, *47*(4), 487-499. https://doi.org/10.1016/j.beth.2016.03.002

Datta, A., Aditya, C., Chakraborty, A., Das, P., & Mukhopadhyay, A. (2016). The potential utility of acceptance and commitment therapy (act) for reducing stress and improving wellbeing in cancer patients in Kolkata. *Journal of Cancer Education*, *31*(4), 721-729. https://doi.org/10.1007/s13187-015-0935-8

Deave, T., Johnson, D., & Ingram, J. (2008). Transition to parenthood: the needs of parents in pregnancy and early parenthood. *BMC pregnancy and childbirth*, *8*(1), 30. https://doi.org/10.1186/1471-2393-8-30

de Boer, D., Delnoij, D., & Rademakers, J. (2013). The importance of patient-centered care for various patient groups. *Patient education and counselling*, *90*(3), 405-410. https://doi.org/10.1016/j.pec.2011.10.002

Deci, E. L., & Ryan, R. M. (2004). *Handbook of self-determination research* (Soft cover ed.). Suffolk, UK: University Rochester Press.

De Hert, M., Correll, C. U., Bobes, J., Cetkovich-Bakmas, M., Cohen, D., Asai, I., Detraux, J., Gautam, S., Moller, H-J., Ndetei, D.M., Newcomer, J. W., Uwakwe, R., & Leucht, S. (2011). Physical illness in patients with severe mental disorders. I. Prevalence, impact of medications and disparities in health care. *World psychiatry*, *10*(1), 52-77.

Department of Health. (2011). Preparation for Birth and Beyond – A resource pack for leaders and community groups and activities. Retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/215386/dh_134728.pdf

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. Journal of Personality Assessment, 49, 71-75. https://doi.org/10.1207/s15327752jpa4901_13

Dijkers, M. (2015). What is a scoping review? *KT Update*, *4*(1). Retrieved from: https://ktdrr.org/products/update/v4n1/dijkers_ktupdate_v4n1_12-15.pdf

Dindo, L., Van Liew, J. R., & Arch, J. J. (2017). Acceptance and commitment therapy: a transdiagnostic behavioral intervention for mental health and medical conditions. *Neurotherapeutics*, *14*(3), 546-553. DOI 10.1007/s13311-017-0521-3

Doi, L., Jepson, R., & Cheyne, H. (2015). A realist evaluation of an antenatal programme to change drinking behaviour of pregnant women. *Midwifery*, *31*(10), 965-972. https://doi.org/10.1016/j.midw.2015.06.007

Duncan, L. G., Cohn, M. A., Chao, M. T., Cook, J. G., Riccobono, J., & Bardacke, N. (2017). Benefits of preparing for childbirth with mindfulness training: a randomized controlled trial with active comparison. *BMC pregnancy and childbirth*, *17*(1), 1-11. https://doi.org/10.1186/s12884-017-1319-3

Dunkel Schetter, C. (2011). Psychological science on pregnancy: stress processes, biopsychosocial models, and emerging research issues. *Annual review of psychology*, *62*(1), 531-558. https://doi.org/10.1146/annurev.psych.031809.130727

Ebenso, B., Uzochukwu, B., Manzano, A., Etiaba, E., Huss, R., Ensor, T., Newell, J., Orwujekwe, O., Ezumah, N., Hick, J., & Mirzoev, T. (2016). Reflections from using logic modelling as part of realist evaluation of a community health worker programme in Nigeria. In: *Fourth Global Symposium on Health Systems Research: Resilient and responsive health systems for a changing world*. University of Leeds. Retrieved from: http://eprints.whiterose.ac.uk/119033/

Edwards, N. (2015). *The challenge of change in the NHS in Wales*. Nuffield Trust briefing. Retrieved from: https://www.nuffieldtrust.org.uk/resource/the-challenge-of-change-in-the-nhs-in-wales

Eisenberg, D., Golberstein, E., & Hunt, J. B. (2009). Mental health and academic success in college. *The BE Journal of Economic Analysis & Policy*, *9*(1). https://doi.org/10.2202/1935-1682.2191

DOI: https://doi.org/10.2202/1935-1682.2191

Eisenberg, D., Hunt, J., Speer, N., & Zivin, K. (2011). Mental health service utilization among college students in the United States. *The Journal of nervous and mental disease*, *199*(5), 301-308. doi: 10.1097/NMD.0b013e3182175123

Ekman, I., Wolf, A., Olsson, L. E., Taft, C., Dudas, K., Schaufelberger, M., & Swedberg, K. (2012). Effects of person-centred care in patients with chronic heart failure: the PCC-HF study. *European heart journal*, *33*(9), 1112-1119. https://doi.org/10.1093/eurheartj/ehr306

El-Ghoroury, N. H., Galper, D. I., Sawaqdeh, A., & Bufka, L. F. (2012). Stress, coping, and barriers to wellness among psychology graduate students. *Training and Education in Professional Psychology*, *6*(2), 122. https://doi.org/10.1037/a0028768

Eustis, E. H., Williston, S. K., Morgan, L. P., Graham, J. R., Hayes-Skelton, S. A., & Roemer, L. (2017). Development, acceptability, and effectiveness of an acceptance-based behavioral stress/anxiety management workshop for university students. *Cognitive and Behavioral Practice*, *24*(2), 174-186. https://doi.org/10.1016/j.cbpra.2016.03.011

Evans, K., Spiby, H., & Morrell, C. J. (2015). A psychometric systematic review of self-report instruments to identify anxiety in pregnancy. *Journal of advanced nursing*, *71*(9), 1986-2001. https://doi.org/10.1111/jan.12649

Farace, D.J, & Frantzen, J. (2004). Sixth international conference on grey literature: work on grey in progress. grey literature 2004 conference proceedings; Dec. 6–7, 2004. Amsterdam: TextRelease; 2005

Ferguson, S., Davis, D., & Browne, J. (2013). Does antenatal education affect labour and birth? A structured review of the literature. *Women and Birth*, *26*(1), e5-e8. https://doi.org/10.1016/j.wombi.2012.09.003

Fors, A., Ekman, I., Taft, C., Björkelund, C., Frid, K., Larsson, M. E., Thorn, J., Ulin, K., Wolf, A., & Swedberg, K. (2015). Person-centred care after acute coronary syndrome, from hospital to primary care—a randomised controlled trial. *International journal of cardiology*, *187*, 693-699. https://doi.org/10.1016/j.ijcard.2015.03.336

Fox, R. S., Lillis, T. A., Gerhart, J., Hoerger, M., & Duberstein, P. (2018). Multiple group confirmatory factor analysis of the DASS-21 Depression and Anxiety Scales: how do they perform in a cancer sample? *Psychological reports*, *121*(3), 548-565. https://doi.org/10.1177/0033294117727747

Gagnon, A. J., & Sandall, J. (2007). Individual or group antenatal education for childbirth or parenthood, or both. *Cochrane database of systematic reviews*, (3). https://doi.org/10.1002/14651858.CD002869.pub2

Gao, L. L., Chan, S. W. C., & Sun, K. (2012). Effects of an interpersonal-psychotherapy-oriented childbirth education programme for Chinese first-time childbearing women at 3-month follow up: randomised controlled trial. *International journal of nursing studies*, *49*(3), 274-281. https://doi.org/10.1016/j.ijnurstu.2014.06.006

Goffman, E. (2009). *Stigma: Notes on the Management of Spoiled Identity*. New York, USA: Simon and Schuster

Goodman, J. H., Guarino, A., Chenausky, K., Klein, L., Prager, J., Petersen, R., Forget, A., & Freeman, M. (2014). CALM Pregnancy: results of a pilot study of mindfulness-based cognitive therapy for perinatal anxiety. *Archives of women's mental health*, *17*(5), 373-387. https://doi.org/10.1007/s00737-013-0402-7

Greener, I. (2008). *Healthcare in the UK: Understanding Continuity and Change*. Bristol, UK: Policy Press.

Grégoire, S., Lachance, L., Bouffard, T., & Dionne, F. (2018). The use of acceptance and commitment therapy to promote mental health and school engagement in university students: A multisite randomized controlled trial. *Behavior Therapy*, *49*(3), 360-372. https://doi.org/10.1016/j.beth.2017.10.003

Hall, W. A., Hauck, Y. L., Carty, E. M., Hutton, E. K., Fenwick, J., & Stoll, K. (2009). Childbirth fear, anxiety, fatigue, and sleep deprivation in pregnant women. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *38*(5), 567-576. https://doi.org/10.1111/j.1552-6909.2009.01054.x

Hancock, M.D., Carman, C.J., Peters, B.G., Castle, M., Conradt, D.P., Nanetti, R.Y., Leonardi, R., Safran, W., & White, S. (2014). *Politics in Europe*. California, USA: CQ Press.

Hart, R., & McMahon, C. A. (2006). Mood state and psychological adjustment to pregnancy. *Archives of women's mental health*, *9*(6), 329-337. https://doi.org/10.1007/s00737-006-0141-0

Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and commitment therapy: Understanding and treating human suffering*. New York, USA: Guilford press.

Hayes, S. C., Barnes-Holmes, D., & Roche, B. (2001). Relational Frame Theory: A PostSkinnerian account of human language and cognition (Eds.). New York, USA: Plenum Press.

Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior therapy*, *35*(4), 639-665. https://doi.org/10.1016/S0005-7894(04)80013-3

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy*, *44*(1), 1-25. https://doi.org/10.1016/j.brat.2005.06.006

Hayes, S.C., Strosahl, K.D., & Wilson, K.G. (2016). *Acceptance and Commitment Therapy: The Process and Practice of Mindful Change* (2nd Ed.). New York, USA: Guildford Publications.

Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British journal of clinical psychology*, *44*(2), 227-239. https://doi.org/10.1348/014466505X29657

Hibbard, J. H., Mahoney, E. R., Stock, R., & Tusler, M. (2007). Self-management and health care utilization. *Health Services Research*, *42*(4), 1443-1463 DOI: 10.1111/j.1475-6773.2006.00669.x

Hildingsson, I., Andersson, E., & Christensson, K. (2014). Swedish women's expectations about antenatal care and change over time–A comparative study of two cohorts of women. *Sexual & Reproductive Healthcare*, *5*(2), 51-57. https://doi.org/10.1016/j.srhc.2014.01.001

Huntley, A., Lasserson, D., Wye, L., Morris, R., Checkland, K., England, H., Salisbury, C., & Purdy, S. (2014). Which features of primary care affect unscheduled secondary care use? A systematic review. *BMJ open*, *4*(5), e004746. doi: 10.1136/bmjopen-2013-00474

Ibrahim, A. K., Kelly, S. J., Adams, C. E., & Glazebrook, C. (2013). A systematic review of studies of depression prevalence in university students. *Journal of psychiatric research*, *47*(3), 391-400. https://doi.org/10.1016/j.jpsychires.2012.11.015

Ip, W. Y., Tang, C. S., & Goggins, W. B. (2009). An educational intervention to improve women's ability to cope with childbirth. *Journal of clinical nursing*, *18*(15), 2125-2135. https://doi.org/10.1111/j.1365-2702.2008.02720.x

İsbir, G. G., Inci, F., Önal, H., & Yıldız, P. D. (2016). The effects of antenatal education on fear of childbirth, maternal self-efficacy and post-traumatic stress disorder (PTSD) symptoms following childbirth: an experimental study. *Applied Nursing Research*, *32*, 227-232. https://doi.org/10.1016/j.apnr.2016.07.013

Ivanova, E., Lindner, P., Ly, K. H., Dahlin, M., Vernmark, K., Andersson, G., & Carlbring, P. (2016). Guided and unguided Acceptance and Commitment Therapy

for social anxiety disorder and/or panic disorder provided via the Internet and a smartphone application: A randomized controlled trial. *Journal of anxiety disorders*, *44*, 27-35. https://doi.org/10.1016/j.janxdis.2016.09.012

Josefsson, A., Berg, G., Nordin, C., & Sydsjö, G. (2001). Prevalence of depressive symptoms in late pregnancy and postpartum. *Acta Obstetricia et Gynecologica Scandinavica*, *80*(3), 251-255. DOI: 10.1080/j.1600-0412.2001.080003251.x

Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of clinical child psychology*, *18*(2), 167-175. https://doi.org/10.1207/s15374424jccp1802_8

Kabat-Zinn, J. (1990). *Full catastrophe living: How to cope with stress, pain and illness using mindfulness meditation.* London: Piatkus.

Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life.* New York, USA: Hyperion

Klabbers, G. A., van Bakel, H. J., van den Heuvel, M., & Vingerhoets, A. J. (2016). Severe fear of childbirth: its features, assesment, prevalence, determinants, consequences and possible treatments. *Psychological Topics*, *25*(1), 107-127.

Kohlhoff, J., & Barnett, B. (2013). Parenting self-efficacy: Links with maternal depression, infant behaviour and adult attachment. *Early human development*, *89*(4), 249-256. https://doi.org/10.1016/j.earlhumdev.2013.01.008

Korukcu, O., Kukulu, K., & Firat, M. Z. (2012). The reliability and validity of the Turkish version of the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) with pregnant women. *Journal of psychiatric and mental health nursing*, *19*(3), 193-202. https://doi.org/10.1111/j.1365-2850.2011.01694.x

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of general internal medicine*, *16*(9), 606-613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

Le, M. T. H., Tran, T. D., Holton, S., Nguyen, H. T., Wolfe, R., & Fisher, J. (2017). Reliability, convergent validity and factor structure of the DASS-21 in a sample of Vietnamese adolescents. *PloS one*, *12*(7), e0180557. https://doi.org/10.1371/journal.pone.0180557

Leahy-Warren, P., McCarthy, G., & Corcoran, P. (2012). First-time mothers: social support, maternal parental self-efficacy and postnatal depression. *Journal of clinical nursing*, *21*(3-4), 388-397. https://doi.org/10.1111/j.1365-2702.2011.03701.x

Leigh, B., & Milgrom, J. (2008). Risk factors for antenatal depression, postnatal depression and parenting stress. *BMC psychiatry*, *8*(1), 24. https://doi.org/10.1186/1471-244X-8-24

Levin, M. E., Pistorello, J., Seeley, J. R., & Hayes, S. C. (2014). Feasibility of a prototype web-based acceptance and commitment therapy prevention program for college students. *Journal of American College Health*, *62*(1), 20-30. https://doi.org/10.1080/07448481.2013.843533

Lin, J., Klatt, L. I., McCracken, L. M., & Baumeister, H. (2018). Psychological flexibility mediates the effect of an online-based acceptance and commitment therapy for chronic pain: an investigation of change processes. *Pain*, *159*(4), 663-672. doi: 10.1097/j.pain.0000000000001134

Livheim, F., Hayes, L., Ghaderi, A., Magnusdottir, T., Högfeldt, A., Rowse, J., Turner, S., Hayes, S.C., & Tengström, A. (2015). The effectiveness of acceptance and commitment therapy for adolescent mental health: Swedish and Australian pilot outcomes. *Journal of Child and Family Studies*, *24*(4), 1016-1030. https://doi.org/10.1007/s10826-014-9912-9

Locke, A. (2009). Natural versus Taught' Competing Discourses in Antenatal Breastfeeding Workshops. *Journal of Health Psychology*, *14*(3), 435-446. https://doi.org/10.1177%2F1359105309102200

Lowe, N. K. (2000). Self-efficacy for labor and childbirth fears in nulliparous pregnant women. *Journal of Psychosomatic Obstetrics & Gynecology*, *21*(4), 219-224. https://doi.org/10.3109/01674820009085591

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour research and therapy*, *33*(3), 335-343. https://doi.org/10.1016/0005-7967(94)00075-U

Luoma, J.B., Hayes, S.C., & Walser, R.D. (2007). *Learning ACT: An Acceptance and Commitment Therapy Skills-Training Manual for Therapists*. CA, USA: New Harbinger Publications

Luoma, J. B., Kohlenberg, B. S., Hayes, S. C., Bunting, K., & Rye, A. K. (2008). Reducing self-stigma in substance abuse through acceptance and commitment therapy: Model, manual development, and pilot outcomes. *Addiction Research & Theory*, *16*(2), 149-165. https://doi.org/10.1080/16066350701850295

Macaskill, A. (2013). The mental health of university students in the United Kingdom. *British Journal of Guidance & Counselling*, *41*(4), 426-441. https://doi.org/10.1080/03069885.2012.743110

Mahmoud, J. S. R., Staten, R. T., Hall, L. A., & Lennie, T. A. (2012). The relationship among young adult college students' depression, anxiety, stress, demographics, life satisfaction, and coping styles. *Issues in mental health nursing*, *33*(3), 149-156. https://doi.org/10.3109/01612840.2011.632708

Manzano, A. (2016). The craft of interviewing in realist evaluation. *Evaluation*, *22* (3), 342-360. https://doi.org/10.1177%2F1356389016638615

McCawley, P.F. (2015). The Logic Model for Program Panning and Evaluation. Retrieved from: https://www.researchgate.net/publication/237568681_The_Logic_Model_for_Program_Planning_and_Evaluation

McCracken, L. M., Sato, A., & Taylor, G. J. (2013). A trial of a brief group-based form of acceptance and commitment therapy (ACT) for chronic pain in general practice: pilot outcome and process results. *The Journal of Pain*, *14*(11), 1398-1406. https://doi.org/10.1016/j.jpain.2013.06.011

McConachie, D. A. J., McKenzie, K., Morris, P. G., & Walley, R. M. (2014). Acceptance and mindfulness-based stress management for support staff caring for individuals with intellectual disabilities. *Research in developmental disabilities*, *35*(6), 1216-1227. https://doi.org/10.1016/j.ridd.2014.03.005

Marsh, W., Colbourne, D. M., Way, S., & Hundley, V. A. (2015). Would a student midwife run postnatal clinic make a valuable addition to midwifery education in the UK? A systematic review. *Nurse education today*, *35*(3), 480-486. https://doi.org/10.1016/j.nedt.2014.11.015

Mays, N., Roberts, E. and Popay, J. (2001) Synthesising research evidence. In N., Fulop, P., Allen, A., Clarke & N., Black (Ed). *Studying the Organisation and Delivery. of Health Services: Research Methods* (pp. 188-220). London, UK: Routledge.

McGorry, P. D., Purcell, R., Goldstone, S., & Amminger, G. P. (2011). Age of onset and timing of treatment for mental and substance use disorders: implications for preventive intervention strategies and models of care. *Current opinion in psychiatry*, *24*(4), 301-306. doi: 10.1097/YCO.0b013e3283477a09

McLaughlin, J.A., & Jordan, G.B. (2010). Using Logic Models. In J.S.Wholey., H.P.Hatry & K.E.Newcomer (Ed.), *Handbook of Practical Program Evaluation* (4th ed., pp. 7-32). San Francisco, CA, USA: John Wiley & Sons.

McMillan, A. S., Barlow, J., & Redshaw, M. (2009). *Birth and beyond: a review of the evidence about antenatal education*. UK: Department of Health.

Meah, Y. S., Smith, E. L., & Thomas, D. C. (2009). Student-run health clinic: Novel arena to educate medical students on systems-based practice. *Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine*, *76*(4), 344-356. https://doi.org/10.1002/msj.20128

Mental Health Foundation. (2018, May). *Stress: Are we coping?* London, UK: Mental Health Foundation. Retrieved from: https://www.mentalhealth.org.uk/sites/default/files/stress-are-we-coping.pdf

Merton, R.K., & Merton, R.C. (1968). *Social theory and social structure* (3rd enlarged ed.). New York, USA: The Free Press.

Milgrom, J., Schembri, C., Ericksen, J., Ross, J., & Gemmill, A. W. (2011). Towards parenthood: an antenatal intervention to reduce depression, anxiety and parenting difficulties. *Journal of affective disorders*, *130*(3), 385-394. https://doi.org/10.1016/j.jad.2010.10.045

Mohammad, K. I., Gamble, J., & Creedy, D. K. (2011). Prevalence and factors associated with the development of antenatal and postnatal depression among Jordanian women. *Midwifery*, *27*(6), e238-e245. https://doi.org/10.1016/j.midw.2010.10.008

Mortazavi, F. (2017). Validity and reliability of the Farsi version of Wijma delivery expectancy questionnaire: an exploratory and confirmatory factor analysis. *Electronic physician*, *9*(6), 4606-4615. http://dx.doi.org/10.19082/4606

Ngai, F. W., Chan, S. W. C., & Holroyd, E. (2007). Translation and validation of a Chinese version of the Parenting Sense of Competence Scale in Chinese mothers. *Nursing Research*, *56*(5), 348-354. doi: 10.1097/01.NNR.0000289499.99542.94

Ngai, F. W., Chan, S. W. C., & Ip, W. Y. (2009). The effects of a childbirth psychoeducation program on learned resourcefulness, maternal role competence and perinatal depression: a quasi-experiment. *International journal of nursing studies*, *46*(10), 1298-1306. https://doi.org/10.1016/j.ijnurstu.2009.03.007

Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. *Theory and research in Education*, *7*(2), 133-144. https://doi.org/10.1177%2F1477878509104318

Nieminen, K., Stephansson, O., & Ryding, E. L. (2009). Women's fear of childbirth and preference for cesarean section–a cross-sectional study at various stages of pregnancy in Sweden. *Acta obstetricia et gynecologica Scandinavica*, *88*(7), 807-813. https://doi.org/10.1080/00016340902998436

Nieminen, K., Wijma, K., Johansson, S., Kinberger, E. K., Ryding, E. L., Andersson, G., Bernfort, L., & Wijma, B. (2017). Severe fear of childbirth indicates high perinatal costs for Swedish women giving birth to their first child. *Acta obstetricia et gynecologica Scandinavica*, *96*(4), 438-446. https://doi.org/10.1111/aogs.13091

NHS Wales. (2011). *Together for Health: A five year vision for the NHS in Wales*. Cardiff, Wales: Welsh Government. Retrieved from: http://www.wales.nhs.uk/sitesplus/documents/829/togetherforhealth.pdf

North of England Commissioning Support – NHS. (2016, January). Logic Models a Practical Guide. Retrieved from: https://learning.necsu.nhs.uk/elearning/tcp-c3-d3/templates/logic-models-a-practical-guide.pdf

OECD. (2016). *OECD Reviews of Healthcare Quality: United Kingdom 2016: Raising Standards*. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264239487-en

Ohan, J. L., Leung, D. W., & Johnston, C. (2000). The Parenting Sense of Competence scale: Evidence of a stable factor structure and validity. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, *32*(4), 251. https://psycnet.apa.org/doi/10.1037/h0087122

Otley, H. (2011). Fear of childbirth: Understanding the causes, impact and treatment. *British Journal of Midwifery*, *19*(4), 215-220. https://doi.org/10.12968/bjom.2011.19.4.215

Pan, W. L., Gau, M. L., Lee, T. Y., Jou, H. J., Liu, C. Y., & Wen, T. K. (2019). Mindfulness-based programme on the psychological health of pregnant women. *Women and Birth*, *32*(1), e102-e109. https://doi.org/10.1016/j.wombi.2018.04.018

Pawson, R., & Tilley, N. (1997). *Realistic evaluation*. London, UK: sage.

Pawson, R., & Tilley, N. (2004). *Realist evaluation: The magenta book guidance notes.* London, UK: Cabinet Office.

Pearson, M., Brand, S. L., Quinn, C., Shaw, J., Maguire, M., Michie, S., Briscoe, S., Lennox, C., Kirkpatrick, T., & Byng, R. (2015). Using realist review to inform intervention development: methodological illustration and conceptual platform for collaborative care in offender mental health. *Implementation Science*, *10*(1), 1-12. https://doi.org/10.1186/s13012-015-0321-2

Pop, V. J., Pommer, A. M., Pop-Purceleanu, M., Wijnen, H. A., Bergink, V., & Pouwer, F. (2011). Development of the Tilburg pregnancy distress scale: the

TPDS. *BMC pregnancy and childbirth*, *11*(1), 1-8. https://doi.org/10.1186/1471-2393-11-80

Porter, C. L., & Hsu, H. C. (2003). First-time mothers' perceptions of efficacy during the transition to motherhood: Links to infant temperament. *Journal of family psychology*, *17*(1), 54-64 https://doi.org/10.1037/0893-3200.17.1.54

Public Health Wales. (2009). Our Healthy Future: The public health strategic framework for Wales. Retrieved from: Health in Wales | Our Healthy Future – The Public Health Strategic Framework for Wales

Public Health Wales. (2015, April). A Healthier, Happier and Fairer Wales: Our Strategic Plan 2015-2018. Retrieved from: https://www2.nphs.wales.nhs.uk/PHWPapersDocs.nsf/($all)/52C18E8E3B3B60F080257E2700508245/$file/Public%20Health%20Wales%20IMTP%201516-1718%20v1%20010415.pdf

Public Health Wales. (2019). Research and Evaluation Strategy 2019-2025: Generating the Evidence Needed to Make a Difference to Population Health. Retrieved from: https://phw.nhs.wales/services-and-teams/knowledge-directorate/research-and-evaluation/public-health-wales-research-strategy-2019-2025/

Ranmuthugala, G., Cunningham, F. C., Plumb, J. J., Long, J., Georgiou, A., Westbrook, J. I., & Braithwaite, J. (2011). A realist evaluation of the role of communities of practice in changing healthcare practice. *Implementation Science*, *6*, 49. https://doi.org/10.1186/1748-5908-6-49

Räsänen, P., Lappalainen, P., Muotka, J., Tolvanen, A., & Lappalainen, R. (2016). An online guided ACT intervention for enhancing the psychological wellbeing of university students: A randomized controlled clinical trial. *Behaviour research and therapy*, *78*, 30-42. https://doi.org/10.1016/j.brat.2016.01.001

Ritchie, J., & Lewis, J. (2003). *Qualitative Research Practice*. London, UK: Sage Publications.

Robertson, B., Aycock, D. M., & Darnell, L. A. (2009). Comparison of centering pregnancy to traditional care in Hispanic mothers. *Maternal and child health journal*, *13*, 407. https://doi.org/10.1007/s10995-008-0353-1

Rosenbaum, M. (1990). The role of learned resourcefulness in the self control of health behavior. In: M, Rosenbaum, M. (Ed.). *Learned Resourcefulness: On Coping Skills, Self-Control and Adaptive Behavior* (pp. 50-95). USA, New York: Springer.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ, USA: Princeton University Press.

Rouhe, H., Salmela-Aro, K., Toivanen, R., Tokola, M., Halmesmäki, E., Ryding, E. L., & Saisto, T. (2015). Group psychoeducation with relaxation for severe fear of

childbirth improves maternal adjustment and childbirth experience–a randomised controlled trial. *Journal of psychosomatic obstetrics & gynecology*, *36*(1), 1-9. https://doi.org/10.3109/0167482X.2014.980722

Royse, D., Thyer, B.A., & Padgett, D.K. (2009). *Program Evaluation: An Introduction.* Wadsworth, UK: Cengage Learning.

Rubertsson, C., Hellström, J., Cross, M., & Sydsjö, G. (2014). Anxiety in early pregnancy: prevalence and contributing factors. *Archives of women's mental health*, *17*(3), 221-228. https://doi.org/10.1007/s00737-013-0409-0

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, *55*(1), 68-78.

Ryan, R., & Deci, E.L. (2018). *Self-Determination Theory: Basic Psychological Needs in Motivation, Development and Wellness*. New York, USA: Guilford Publications.

Ryan, R. M., Patrick, H., Deci, E. L., & Williams, G. C. (2008). Facilitating health behaviour change and its maintenance: Interventions based on self-determination theory. *The European health psychologist*, *10*(1), 2-5.

Ryding, E. L., Wirfelt, E., Wängborg, I. B., Sjögren, B., Ryding, E. L., Wirfelt, E & Edman, G. (2007). Personality and fear of childbirth. *Acta obstetricia et gynecologica Scandinavica*, *86*(7), 814-820. DOI: 10.1080/00016340701415079

Sabatelli, R. M., & Waldron, R. J. (1995). Measurement issues in the assessment of the experiences of parenthood. *Journal of Marriage and the Family*, *57*(4), 969-980. https://doi.org/10.2307/353416

Saisto, T., & Halmesmäki, E. (2003). Fear of childbirth: a neglected dilemma. *Acta obstetricia et gynecologica Scandinavica*, *82*(3), 201-208. DOI: 10.1080/j.1600-0412.2003.00114.x

Sanders, M. R., & Woolley, M. L. (2005). The relationship between maternal self-efficacy and parenting practices: Implications for parent training. *Child: care, health and development*, *31*(1), 65-73. https://doi.org/10.1111/j.1365-2214.2005.00487.x

Scriven, M. (1999). The Fine Line Between Evaluation and Explanation. *Research on Social Work Practice, 9*(4), 521-524. https://doi.org/10.1177%2F104973159900900407

Silver, R. M. (2012, October). Implications of the first cesarean: perinatal and future reproductive health and subsequent cesareans, placentation issues, uterine rupture risk, morbidity, and mortality. *Seminars in perinatology*, *36*(5), 315-323. https://doi.org/10.1053/j.semperi.2012.04.013

Smith, P., McKeon, A., Blunt, I., & Edwards, N. (2014). *NHS hospitals under pressure: trends in acute activity up to 2022.* London, UK: Nuffield Trust.

Spice, K., Jones, S. L., Hadjistavropoulos, H. D., Kowalyk, K., & Stewart, S. H. (2009). Prenatal fear of childbirth and anxiety sensitivity. *Journal of Psychosomatic Obstetrics & Gynecology*, *30*(3), 168-174. https://doi.org/10.1080/01674820902950538

Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine*, *166*(10), 1092-1097. doi:10.1001/archinte.166.10.1092

Spitzer, R. L., Kroenke, K., Williams, J. B., & Patient Health Questionnaire Primary Care Study Group. (1999). Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. *Jama*, *282*(18), 1737-1744. doi:10.1001/jama.282.18.1737

Spitzer, R. L., Williams, J. B., Kroenke, K., Linzer, M., deGruy, F. V., Hahn, S. R., Brody, D., & Johnson, J. G. (1994). Utility of a new procedure for diagnosing mental disorders in primary care: the PRIME-MD 1000 study. *Jama*, *272*(22), 1749-1756. doi:10.1001/jama.1994.03520220043029

Stallman, H. M. (2010). Psychological distress in university students: A comparison with general population data. *Australian Psychologist*, *45*(4), 249-257. https://doi.org/10.1080/00050067.2010.482109

Statistics for Wales. (2016, July). Welsh Health Survey 2015: Health status, illnesses and other conditions. Retrieved from: https://gov.wales/sites/default/files/statistics-and-research/2019-02/160622-welsh-health-survey-2015-health-status-illnesses-other-conditions-en.pdf

Statistics for Wales. (2019, March). National Survey for Wales 2017-2018: Adult General Health and Illness. Retrieved from: https://gov.wales/national-survey-wales-population-health

Statistics for Wales. (2020, July). National Survey for Wales: Headline results, April 2019-March 2020. Retrieved from: https://gov.wales/sites/default/files/statistics-and-research/2020-07/national-survey-wales-headline-results-april-2019-march-2020-947.pdf

Stewart-Brown, S., & Janmohamed, K. (2008). Warwick-Edinburgh mental well-being scale. *User guide. Version, 1*. Retrieved from: http://www.ocagingservicescollaborative.org/wp-content/uploads/2014/07/WEMWBS-User-Guide-Version-1-June-2008.pdf

Stoll, K., Edmonds, J.K. & Hall, W.A. (2015). Fear of Childbirth and Preference for Cesarean Delivery Among Young American Women Before Childbirth: A Survey Study. *Birth*, *42* (3), 270-276. https://doi.org/10.1111/birt.12178

Storrie, K., Ahern, K., & Tuckett, A. (2010). A systematic review: students with mental health problems—a growing problem. *International journal of nursing practice*, *16*(1), 1-6. https://doi.org/10.1111/j.1440-172X.2009.01813.x

Stuhlmiller, C. M., & Tolchard, B. (2015). Developing a student-led health and wellbeing clinic in an underserved community: collaborative learning, health outcomes and cost savings. *BMC nursing*, *14*(1), 32. https://doi.org/10.1186/s12912-015-0083-9

Suwansujarid, T., Vatanasomboon, P., Gaylord, N., & Lapvongwatana, P. (2013). Validation of the parenting sense of competence scale in fathers: Thai version. *Southeast Asian Journal of Tropical Medicine and Public Health*, *44*(5), 916-926.

Svensson, J., Barclay, L., & Cooke, M. (2009). Randomised-controlled trial of two antenatal education programmes. *Midwifery*, *25*(2), 114-125. https://doi.org/10.1016/j.midw.2006.12.012

Swansea University. (2020a). *Health And Wellbeing Academy.* Retrieved from: https://www.swansea.ac.uk/hwa/

Swansea University. (2020b). *Health and Wellbeing Academy Background, A Pioneering Collaborative Project*. Retrieved from: https://www.swansea.ac.uk/hwa/health-and-wellbeing-academy-background/

Swansea Univeristy. (2020c). *Antenatal Classes At the Health and Wellbeing Academy.* Retrieved from: https://www.swansea.ac.uk/hwa/health-and-wellbeing-services/midwifery-and-parenting-centre/antenatal-classes-at-health-and-wellbeing-academy/

Swansea University & ARCH. (2016, September). College of Human and Health Sciences Health and Wellbeing Academy Prospectus 2016. Internal Document.

Symon, A., Pringle, J., Cheyne, H., Downe, S., Hundley, V., Lee, E., Lynn, F., McFadden, A., McNeill, J., Renfrew, M.J., Ross-Davie, M., Tiejlingen, E.V., Whitford, H., & Alderdice, F. (2016). Midwifery-led antenatal care models: mapping a systematic review to an evidence-based quality framework to identify key components and characteristics of care. *BMC pregnancy and childbirth*, *16*(1), 168. https://doi.org/10.1186/s12884-016-0944-6

Teixeira, P. J., Carraça, E. V., Markland, D., Silva, M. N., & Ryan, R. M. (2012). Exercise, physical activity, and self-determination theory: a systematic review. *International journal of behavioral nutrition and physical activity*, *9*(1), 78 https://doi.org/10.1186/1479-5868-9-78

Tennant, Ruth, Hiller, Louise, Fishwick, Ruth, Platt, Stephen, Joseph, Stephen, Weich, Scott, Parkinson, Jane, Secker, Jenny and Stewart-Brown, Sarah L. (2007). *The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. Health and Quality of Life Outcomes, 5*(1), 63. https://doi.org/10.1186/1477-7525-5-63

The Health Foundation and Nuffield Trust. (2014). The Four Health Systems of the United Kingdom: How Do They Compare? Retrieved from: www.nuffieldtrust.org.uk/compare-uk-health

The Welsh NHS Confederation. (2017, November). Finance and the NHS in Wales. Retrieved from: https://www.nhsconfed.org/~/media/Confederation/Files/public%20access/Welsh%20NHS%20Confederation%20Finance%20Briefing.pdf

Thorley, C. (2017). *Not by degrees: Improving student mental health in the UK's universities.* London, UK: IPPR.

Tian, Y., Dixon, A., & Gao, H. (2012, April). Data briefing: emergency hospital admissions for ambulatory care-sensitive conditions. Kings fund report. Retrieved from: http://www.kingsfund.org.uk/publications/data-briefing-emergency-hospital-admissions-ambulatory-care-sensitive-conditions

Tighe, S. M. (2010). An exploration of the attitudes of attenders and non-attenders towards antenatal education. *Midwifery*, *26*(3), 294-303. https://doi.org/10.1016/j.midw.2008.06.005

Tinson, A. (2020). Living in Poverty was bad for your health before COVID-19. Retrieved from: https://www.health.org.uk/publications/long-reads/living-in-poverty-was-bad-for-your-health-long-before-COVID-19

Toghiani, Z., Ghasemi, F., & Samouei, R. (2019). The effectiveness of acceptance and commitment group therapy on social anxiety in female dormitory residents in Isfahan university of medical sciences. *Journal of education and health promotion*, *8*, 41. https://doi.org/10.4103/jehp.jehp_111_18

Watt, T., & Roberts, A. (2016). The path to sustainability. Funding projections for the NHS in Wales 2019/20 and 2030/31. London, UK: The Health Foundation. Retrieved from: https://www.health.org.uk/sites/default/files/PathToSustainability_0.pdf

Webster, C. (2002). *The National Health Service: A Political History.* Oxford, UK: Oxford University Press.

Weidmann, A. E., Pammett, R., Landry, E., & Jorgenson, D. (2015). Interprofessional student-run primary health care clinics: implications for pharmacy education in Scotland. *Canadian Pharmacists Journal/Revue des Pharmaciens du Canada*, *148*(3), 156-159. https://doi.org/10.1177%2F1715163515578124

Welsh Government. (2011). Sustainable Social Services for Wales: A Framework for Action. Retrieved from: Title (wales.nhs.uk)

Welsh Government. (2015, April). Health and Care Standards. Retrieved from: Health standards framework english (gov.wales)

Welsh Government. (2015, May). Well-being of future generations (Wales) ACT 2015: The essentials. Retrieved from: https://gov.wales/well-being-future-generations-act-essentials-html

Welsh Government. (2018). The parliamentary review of health and social care in Wales. A revolution from within: transforming health and care in Wales. Retrieved from: https://www.wwcp.org.uk/wp/wp-content/uploads/2019/01/180116reviewen.pdf

Welsh Government. (2019). A Healthier Wales: our plan for health and social care. Retrieved from: A healthier Wales: long term plan for health and social care | GOV.WALES

Welsh Government. (2021, March). Relative income poverty: April 2019 to March 2020. Retrieved from: Relative income poverty: April 2019 to March 2020 | GOV.WALES

WHO. (1998). *Wellbeing Measures in Primary Health Care/The Depcare Project*. Copenhagen, Denmark: WHO Regional Office for Europe

Wijma, K., Wijma, B., & Zar, M. (1998). Psychometric aspects of the W-DEQ; a new questionnaire for the measurement of fear of childbirth. *Journal of Psychosomatic Obstetrics & Gynecology*, *19*(2), 84-97. https://doi.org/10.3109/01674829809048501

W.K. Kellogg Foundation (2004). *Logic Model Development Guide*. Michigan, USA: W.K. Kellogg Foundation. Retrieved from http://www.compact.org/wp-content/uploads/2010/03/LogicModelGuidepdf1.pdf

Wolfe, A. (2001). Institute of Medicine Report: crossing the quality chasm: a new health care system for the 21st century. *Policy, Politics, & Nursing Practice*, *2*(3), 233-235. https://doi.org/10.1177%2F152715440100200312

Yohannes, A. M., Willgoss, T. G., Baldwin, R. C., & Connolly, M. J. (2010). Depression and anxiety in chronic heart failure and chronic obstructive pulmonary disease: prevalence, relevance, clinical implications and management principles. *International journal of geriatric psychiatry*, *25*(12), 1209-1221. https://doi.org/10.1002/gps.2463

Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta psychiatrica scandinavica*, *67*(6), 361-370. https://doi.org/10.1111/j.1600-0447.1983.tb09716.x

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