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SPECIAL ISSUE • Cross-cultural contexts of eldercare and caring: theory, research and policy

article

Exploring intergenerational, intra-generational and transnational patterns of family caring in minority ethnic communities: the example of England and Wales

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We investigated family caring using established questions from national surveys of 1,206 adults aged 40+ from six minority ethnic communities in England and Wales. We included in our analysis factors that predisposed caring (age, sex, marital status and household composition) and enabled caring (health, material resources, education, employment and cultural values). In the general population, 15% of adults are family carers. Three groups reported lower levels of caring (Black African [12%], Chinese [11%] and Black Caribbean [9%]) and three reported higher levels of caring (Indian [23%], Pakistani [17%] and Bangladeshi [18%]). However, ethnicity predicted caring independent of other factors only for the Indian group.

key words minority ethnic groups • family caring • intra-generational care • intergenerational care • transnational care

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Introduction

For people with long-term care needs in the UK carers are fundamental to contemporary community care policy (Greenwood et al, 2015). Data from the 2011 census of population of England and Wales report that 10% of the population provide care to a sick, disabled or older person (12% for adults aged 16+) (ONS, 2013), although no details of the care recipient are provided. The ‘Survey of carers in households – England 2009/10’ demonstrates that approximately half of all carers provide co-resident care (meaning that they are caring for someone they live with) and half provide extra-resident care to someone living in another household (NHS Digital, 2018). Using the same data set, Pickard (2015) estimates that carers, predominantly spouses and adult children, provide 75% of care for those with long-term care needs. This reflects the expectation by almost three quarters (70%) of adults in Britain that their family will provide care for them should they require it in their old age (Wanless, 2006; Nuffield Trust, 2012). International research provides evidence regarding the prevalence, demography, dynamics, temporal trends and projections of future demand for carers (eg Dahlberg et al, 2007; AARP and NAC, 2015; Carers Australia, 2015; Hoff, 2015; Robards et al, 2015; Vanier Institute, 2017; Verbakel et al, 2017) and the consequences for carers of providing care (Keating and Eales, 2017).

Many care recipients are older adults, a group that is becoming increasingly ethnically diverse in both England and Wales (Lievesley, 2010; Jivraj, 2012) and in parts of Northern Europe (France, The Netherlands, Belgium and Germany) with the ageing of the populations of post-war migrants (Kristiansen et al, 2016). Data from 2007 for England and Wales show that 18% of the total population was aged 65 or older. Comparable figures for selected self-defined ethnic groups are: 15% for the African-Caribbean grouping; 8% for those of Indian heritage; and 4% for both the Pakistani and Bangladeshi groups (Lievesley, 2010; Jivraj, 2012). Older people from these ethnic groups have higher levels of physical and mental morbidity than the general population, after controlling for other forms of disadvantage (Evandrou et al, 2016). This suggests a greater need for care among these groups. In 1992, Atkin and Rollings (1992: 3) observed that large-scale studies of carers in the UK did not ‘give ... information about the number and circumstances of informal carers from black and ethnic minority groups’, and this still holds true for the UK, limiting the potential for cross-cultural and cross-national research (Moen and De Pasquale, 2017).

Caring and ethnicity

Evidence comparing care and caring is limited in both the attention given to ethnicity and the scope of these studies. There is an emphasis on research examining: the support needs and experiences of carers in contact with services/service access (Greenwood et al, 2015); palliative care needs (Frearson et al, 2013); specific groups of carers, such as Latinos (Maldonado, 2017) or Bangladeshi women (Ahmed and Jones, 2008); and specific conditions, such as dementia (Botsford and Dening, 2015).

Studies comparing caring in different minority groups and drawing comparisons with the general population are limited. Census data from 2011 for England and Wales show that overall levels of caring for those aged 25+ are very similar across ethnic groups (White = 9%; Indian = 8.7%; Black Caribbean = 8.7%; Black African = 9.1%; Pakistani = 8.5%; Bangladeshi = 8.6%) (National Archives, 2016). Sin (2007)

qualitatively explored expectations of care provision in later life among a sample of White British and Asian Indian people that revealed differences in expectations of care receipt from their families. In the US, Pharr et al (2014) used focus groups with Asian-American, Hispanic-American and African-American participants, and reported that caring was culturally ascribed for the minority groups, whereas for European Americans, it was characterised as a personal responsibility. Parveen et al (2013, 2014) compared White British and South Asian carers in the UK. South Asian carers were younger than their white counterparts (with a mean age of 40, compared with 64), but there were no significant differences in hours of caring. The use of the portmanteau term 'South Asian', rather than a disaggregated analysis of the groups that constitute this category (eg of Indian, Pakistani or Bangladeshi ethnicity), as well as the study method (which involved recruiting participants from carer support groups), limit generalisability. Willis et al (2013) explored caring and ethnicity in Indian, Pakistani and Bangladeshi, Black African, and Black Caribbean populations aged 55 and over in England and Wales using the 2005 Home Office Citizenship Survey. Participants were asked about instrumental support (such as help with housework or transport) given to, or received from, those in the same or another household. The Andersen and Newman (1973) model of predisposing factors (gender and age), enabling factors (material resources, education and marital status, household size, and children) and need (long-term limiting illness) was used to investigate the provision of care across ethnic groups and make direct comparisons with the general population. Once need is considered, differences in the provision of care across ethnic groups were attenuated. However, the method used to determine care provision precluded comparison with the wider evidence base.

Care provision may be differentiated in terms of the generational relationship between caregivers and care-receivers. Intra-generational caring describes the situation where care provider and care recipient are from the same generation, such as spouse or sibling care (whereas intergenerational care involves different generations) (Finch and Mason, 1993). The importance of filial piety (which prioritises adult children, notably sons and daughters-in-law as care providers for their parents, rather than spouses) in care provision in some minority groups has been discussed (Dilworth-Anderson et al, 2002; Pinguart and Sørensen, 2005; Miyawaki, 2015, 2016). There is some evidence to support the view that South Asian (Indian, Pakistani and Bangladeshi) carers are motivated by a sense of familism in British studies (Ahmed and Jones, 2008; Parveen and Morrison, 2009; Dobbs and Burholt, 2010; Diwan et al, 2011; Parveen et al, 2011; Giuntoli and Cattani, 2012; Willis, 2012). Victor and Zubair (2015) and Victor, Zubair and Martin (2018) report that older people from Pakistan and Bangladesh articulate clear expectations that they will receive care and support from their children (in law), with some evidence of changes emerging, at least for some members of these communities. One potentially unintended consequence of the focus on filial obligations and cultural values in the study of caring is that the role of same-generation carers (mostly spouses) remains largely unexplored, as are the implications and consequences of transnationalism for the provision and receipt of family care.

Aims of the study

In this article, we report findings of an original study of six ethnic groups and focus on three types of caring relationship: intergenerational, intra-generational and transnational. We adopt the theoretical approach of Willis et al (2013) and frame our analysis using the Andersen and Newman (1973) model of predisposing, enabling and need factors to investigate caregiving practices. This approach enables us to include predisposing factors, such as cultural values, within the broader context of the need for care and factors that enable and facilitate care provision, as noted in other studies (Sin, 2007; Pharr et al, 2014).

The article contributes to the substantive literature by looking at different types of caring across and between ethnic groups, rather than overall levels of caring, and has resonance beyond England and Wales, where the data were collected. The provision of care by people in different ethnic groups is relevant to other European countries characterised by post-war migration (such as the Netherlands and Germany, which were destination countries for many Turkish and Moroccan migrants, and France, with its North African migrants), as well as more widely. Canada, Australia and New Zealand, for example, all have diverse minority groups that are ageing and drawing the attention of academics, policymakers and practitioners. The study also contributes methodological insights relevant to the challenges of conducting quantitative cross-cultural/cross-language research.

Methods

In this article, our focus is on overall levels of care and intergenerational, intra-generational and transnational caring, and on how these vary between different minority groups. Our hypothesis is that overall levels of caring and intergenerational levels of caring will be highest in the Indian, Pakistani, Bangladeshi and Chinese populations given the cultural norm within these communities for adult children to provide care for their parents (in-law).

Study design

As there was no existing suitable data set to answer our research question, we commissioned a specialist research company, Ethnic Focus (see: www.ethnicfocus.com), to conduct the survey of intra-generational, intergenerational and transnational care in minority ethnic communities, as well as the in-depth interviews. The study was initially focused on England in order to enable comparison with existing large-scale studies of carers. Following the award of additional funding, the study was extended to include Wales.

Study population

The study population comprised the six largest ethnic groups in England and Wales: Black Caribbean, Black African, Indian, Pakistani, Bangladeshi and Chinese. Given our focus on caring across and between generations, our study population was drawn from two age groups – those aged 40–64 and those aged 65 and older – as these age groups comprise 85% of all adult carers. Our target sample was 1,200 (stratified as

100 persons per ethnic and generational group: 600 aged 40–64 years and 600 aged 65+ years).

Sampling strategy

We mirrored the ‘Survey of carers in households – England 2009/10’ (NHS Digital, 2018) by drawing our sample using information from the 30,000 Postcode Address File (PAF) units into which England and Wales are subdivided. Each PAF was ranked separately for Wales and England for each ethnic group, creating 12 lists from which systematic random samples were drawn to select sampling points. Potential participants who did not self-identify with one of the six ethnic groups were ineligible for inclusion in the study and were not interviewed. Further details of the sampling procedure are available elsewhere (Burholt et al, 2016, 2018). To assure confidentiality and anonymity, we did not link details of postcodes, which provide data about the areas where participants were recruited in terms of deprivation and area classification (urban versus rural).

Data-collection mode

Interviews were conducted face to face and in respondents’ own homes wherever possible. Interviewer and participant were ethnically matched, with interviews conducted in English, Punjabi, Gujarati, Hindi, Mandarin Chinese, Bengali, Somali, Yoruba and Urdu. For most survey questions, conceptual and functional equivalence was straightforward. As such, these questions were translated during the interview (as is standard practice for the research agency). Twenty questions (including those on caring) were translated into the eight key languages, using front–back translation methods. The survey instrument was piloted in order to ensure that the questions were acceptable to, and understood by, the study population.

Design of the survey questionnaire

The questionnaire included extensive details of caring and care practices, as well as related factors, including the use of services, details of family relationships (national and transnational) and health, quality of life, and migration history. In this article, we only include details of the measures relevant to the specific research question addressed.

Definition of caring

We operationalised our concept of caring in terms of *caring for* rather than *caring about*. This distinction, as articulated by Parker (1990), differentiates the physical and task-oriented aspects of caring from the emotional. We used this definition not because we do not see the value in *caring about* family members, but rather because the *caring for* definition maximises the comparability of items about care, caring and transnational relationships with previous research (eg Burholt and Dobbs, 2014). Our questions were derived from the ‘Survey of carers in households – England 2009/10’ (NHS Digital, 2018). Participants were asked two questions about caring that differentiated between caring for someone living with them and caring for someone in another household: ‘May I check, is there anyone *living with you* [question one]/*not living*

with you [question two] who is sick, disabled or elderly whom you look after or give special help to, other than in a professional capacity (for example, a sick or disabled (or elderly) relative/husband/wife/child/friend/parent)?'. Participants who responded positively to either or both questions were asked a series of follow-up questions about the relationship with the person they cared for (parent, spouse), their care practices (tasks they provided help with, hours of caring, years of caring, use of services) and the impact of caring on their own lives. In this article, we focus on care practices (defined in terms of tasks undertaken, hours of care provided weekly and number of years during which care had been provided), as well as the relationship between the carer and the person cared for (same generation or younger/older generation).

Typology of caring relationships

We used details about the relationship between the carer and care recipient to determine if caring was intergenerational or intra-generational.

Transnational caring

Participants were asked if they had visited children, friends or other relatives living abroad in the past year to provide care (or if they had come to the UK to provide care for such a person).

Modelling the provision of care

Following the work of Willis et al (2013), we conceptualise caring as the outcome of the interplay between predisposing factors, enabling factors and need. Our analysis includes factors that predisposed and enabled caring, but the limitations of the data set meant that factors related to the need for care could not be included. Our predisposing factors were age, marital status, gender, household composition (defined as single-generation or multiple-generation, ie, two or more generations living together) and ethnicity (self-identified by respondents). We also collected data on country of birth (UK or other), and for those born outside the UK, length of residence.

A novel component of our analysis was the inclusion in our set of predisposing factors of two sets of questions that assessed 'sense of belonging' and cultural norms about family responsibility for the care of older relatives. Four questions assessed participants' sense of belonging to their ethnic group, their family, the UK and their country of origin. Each question used a five-point scale (with 1 indicating a weak sense of belonging and 5 a very strong sense of belonging). We categorised responses into those with a strong sense of belonging (score of 4 or 5) versus those with weak attachment (score of 1–3). We used two scenario questions about responding to the care needs of older people to categorise beliefs about family responsibility for caring for older people. The first related to an elderly parent living alone in the UK who can no longer manage. Participants were asked to decide who should care, using a set of options as follows: the older person should move in with one of their children; a child should move in with them; children should visit regularly to provide care; public or private domiciliary care should be provided; or the older person should move into a care home. We asked a similar question about an older person living abroad, with the regular visiting by children omitted. We also asked who should pay for the care

of older people, with the following response options: the older person; the family; the state or other public bodies; or all equally. We grouped the responses to these questions into two categories: care provided by children and non-family solutions.

Our care enabling factors included two health measures: self-reported health status (health rated on a three-point scale: good, fair or poor); and the presence/absence of a long-term (12 months or more) limiting illness. Participants rated their quality of life on a five-point scale ranging from very good to very bad. This was categorised into a dichotomous variable of good quality of life (those responding that their quality of life was very good or good) versus those responding bad, very bad or neither good nor bad. Material resources were measured using three variables: education (differentiating those with and without higher education); home-ownership (differentiating homeowners from those with other forms of tenure); and financial strain (distinguishing those whose needs were poorly met by their financial resources from those whose needs were adequately or well met). We also collected data on whether participants were currently employed (full or part time).

Analysis strategy

Our analysis consisted of descriptive and analytic phases. We used bivariate analysis to test for statistically significant differences in the characteristics of our sample in terms of enabling and predisposing factors between ethnic groups, the overall prevalence of caring, and the generational (intergenerational and intra-generational) and transnational typologies of caring between our six groups. We used chi-square statistics to test for differences across our six ethnic groups, with significance ascribed to differences at $p = 0.05$ or greater. We used logistic regression to examine the relationship between the provision of caring and our predisposing and enabling factors in the analysis. Models were run separately with and without ethnic group, and we reported standardised beta coefficients and 95% confidence intervals. For the regression analysis, the African-Caribbean population were our reference group. Comparative national data for England and Wales are provided where available.

Results

We present our results as follows: (1) description of the study population; (2) prevalence of caring by ethnic group; (3) provision of intra-generational, intergenerational and transnational caring by ethnic group; and (4) modelling caring in minority ethnic groups.

Characteristics of the study population

The achieved sample comprised 1,206 completed interviews (people aged 40–64, $n = 606$; people aged 65 or older, $n = 600$); we met our target quota for all except the Chinese group (see Table 1). We excluded 65 incomplete interviews from the analysis. The overall response rate for the study was 37.5%, but it varied by ethnic group; Indian participants had the highest response rate (48%) and Chinese the lowest (23%) (the other response rates were: Black Caribbean = 40%; Black African = 38%; Pakistani = 43%; and Bangladeshi = 39%). The response rates reflect the challenges of recruiting research participants from minority groups. We approached

3,210 individuals to achieve our sample of 1,206 (see Table 1). In all, 1,748 people declined to participate, with 166 (9%) refusing on health grounds (see Table 1). Recruiting participants from the Chinese population proved especially challenging, and despite increasing our recruitment period by three months, we were unable to increase the number of Chinese participants to achieve our target sample of 200. We did not collect demographic details of those who declined to participate, and cannot robustly estimate potential non-response bias.

Table 1: Survey of caring in minority ethnic communities in England and Wales: response rates by ethnic group

Outcome	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Total
Complete interview	224 (40%)	215 (38%)	201 (48%)	211(43%)	199 (39%)	156 (23%)	1,206
Partial interview	14	12	4	3	9	23	65
Refused	255	250	196	224	240	417	1,582
Refused ill	32	45	13	23	34	19	166
Not in	33	30	9	22	23	36	153
Other	5	9	3	3	5	13	38
Total contacts	563	561	421	486	510	664	3,210

Predisposing factors

The mean age of participants was approximately 60 years, and 50% of the sample were female (see Table 2). Statistically significant differences in care predisposing factors between our groups included that our Black Caribbean and Chinese samples were less likely to live in multigenerational households (approximately 55%) than those in the other groups (approximately 75%). The Caribbean and African samples were significantly less likely to be married than other groups (50% compared with 67–72%). One quarter of our Chinese and Black Caribbean samples were born in the UK, which was higher than for the other groups. Consistently, across all four ‘sense of belonging’ questions, participants in the Indian sample had the highest sense of belonging and the Chinese group had the lowest. At least three quarters of respondents (across all groups) thought that (adult) children should take responsibility for a parent living in the UK who was no longer able to cope. Similar percentages of Pakistani, Bangladeshi and Chinese participants thought that children should respond to the needs of a parent living abroad. Of the Indian group 70% felt that financial responsibility for care should rest with the family (parents or children), which was significantly higher than in other groups.

Enabling factors

Our Indian participants reported significantly higher levels of home-ownership (a proxy measure for social status), higher levels of post-compulsory education, less financial strain, better health and higher quality of life than all other groups. African-Caribbean participants reported significantly higher levels of employment than all the other groups.

Table 2: Characteristics of participants by ethnic group (%)

	Black Caribbean <i>n</i> = 224	Black African <i>n</i> = 215	Indian <i>n</i> = 201	Pakistani <i>n</i> = 211	Bangladeshi <i>n</i> = 199	Chinese <i>n</i> = 156	X ² (df = 5)
Mean age (maximum age) and SD	62 (85) SD = 11.3	59 (78) SD = 11.4	60 (92) SD = 11.7	59 (82) SD = 11.4	59 (78) SD = 11.0	59 (89) SD = 12.2	
Female (%)	46	50	50	54	51	55	
Lives alone (%)	25	16	13	11	2	18	46.4 <i>p</i> = 0.000
Lives in 2+ generation household (%)	55	68	63	71	83	51	64.3 <i>p</i> = 0.000
Married (%)	50	55	68	72	71	67	37.1 <i>p</i> = 0.000
UK-born (%)	24	8	18	18	11	25	531.3 <i>p</i> = 0.000
Mean years living in the UK (range)	49 (11–59)	28 (2–54)	37 (6–55)	35 (2–59)	33 (2–49)	35 (3–57)	
Health rated as good (%)	50	43	50	41	26	54	38.3 <i>p</i> = 0.000
With long-standing limiting illness (%)	28	30	29	34	33	26	
Quality of life good (%)	61	61	82	67	53	64	40.4 <i>p</i> = 0.000
Employed-either full or part time (%)	94	88	75	70	68	90	34.3 <i>p</i> = 0.000
Higher education (%)	22	21	37	21	16	31	49.4 <i>p</i> = 0.000
Owens own home (%)	47	20	74	64	55	47	145.4 <i>p</i> = 0.000
Financial strain – needs poorly met by financial resources (%)	30	42	5	28	41	29	87.8 <i>p</i> = 0.000
Strong sense of belonging to family (%)	79	83	96	86	82	62	68.0 <i>p</i> = 0.000
Strong sense of belonging to ethnic group (%)	74	81	96	83	81	62	69.0 <i>p</i> = 0.000

	Black Caribbean <i>n</i> = 224	Black African <i>n</i> = 215	Indian <i>n</i> = 201	Pakistani <i>n</i> = 211	Bangladeshi <i>n</i> = 199	Chinese <i>n</i> = 156	X ² (df = 5)
Strong sense of belonging to the UK (%)	44	36	84	54	43	41	114.1 <i>p</i> = 0.000
Strong sense of belonging to country of origin (%)	68	75	88	76	79	64	34.6 <i>p</i> = 0.000
Family should care for elderly parent in UK (%)	83	74	83	89	88	78	106 <i>p</i> = 0.000
Family should care for elderly parent outside the UK (%)	62	64	53	77	72	71	140 <i>p</i> = 0.000
Family should mainly be responsible for paying for care of elderly parents (%)	51	47	77	46	33	42	151 <i>p</i> = 0.000

The prevalence of caring

Overall, 180 participants (15%) reported that they provided special help or looked after someone who was sick, disabled or elderly, either in their own or another household; this is the same as for the general population (see Table 3). Levels of caring were significantly higher among three groups with established cultural expectations of family-based care (Indian, Bangladeshi and Pakistani [18–23%]), but not in the Chinese sample (11%). The lowest levels of caring were reported in the Black Caribbean (12%) and Black African (9%) groups.

For the Indian, Pakistani and Bangladeshi groups, the prevalence of caring (compared with the other groups) was significantly higher for female carers, male carers (in the Indian group only) and carers aged 65+. The higher proportion of female carers and those aged 40–64 in the Pakistani and Bangladeshi groups broadly conformed with our expectations. The large proportion of older and male carers was unexpected. Of note is the proportion of males reporting that they were carers in the Indian sample, which is considerably above that reported in the ‘Survey of carers in households – England 2009/10’ (NHS Digital, 2018) (22% compared with 16%).

Given the relatively small total number of survey participants who answered in the affirmative to the caring questions (122), our analysis of care practices combines co-resident and extra-resident care for each group, excluding the Chinese group because of the small sample size. Data on care practices for the five other ethnic groups indicate that they were more likely than carers included in the ‘Survey of carers in households – England 2009/10’ (NHS Digital, 2018) to provide personal and physical care, suggesting: high levels of dependency; caring for 20+ hours per week; and long-term caring (ie for more than five years) (see Table 4).

Table 3: Prevalence of caring by ethnic group (%)

	Black Caribbean <i>n</i> = 224	Black African <i>n</i> = 215	Indian <i>n</i> = 201	Pakistani <i>n</i> = 211	Bangladeshi <i>n</i> = 199	Chinese <i>n</i> = 156	England (aged 45+) ^a
% carers X ² = 23.8 <i>p</i> = 0.000	12	9	23	18	18	11	15
% caring in own household	10	7	16	12	15	6	8
% caring in another household	2	2	7	6	3	5	8
% aged 40–64 who are carers X ² = 14.5 <i>p</i> = 0.01	9	8	15	9	12	4	6
% aged 65+ who are carers X ² = 12.9 <i>p</i> = 0.05	13	7	21	18	19	6	10
% males who are carers X ² = 16.0 <i>p</i> = 0.05	10	10	22	12	14	3	16
% females who are carers X ² = 11.0 <i>p</i> = 0.05	17	10	24	24	22	9	20

Source: ^a NHS Digital (2018) Survey of carers in households 2009/10.

The provision of intra-generational, intergenerational and transnational care

For the 122 carers included in the analysis, approximately one third were providing intra-generational care and two thirds intergenerational care (see Table 4). The nature of the intergenerational caring relationship for our sample was different from the ‘Survey of carers in households – England 2009/10’ (NHS Digital, 2018). In this survey, 50% of carers were looking after someone from the older generation (usually a parent[-in-law] or grandparent) and 14% for someone younger (usually an adult child, but potentially a grandchild). In all our ethnic groups, there was a much higher percentage of ‘downward’ intergenerational caring relationships (ie caring for someone younger than themselves) and a lower proportion of ‘upward’ generational caring (looking after an older adult) (NHS Digital, 2018).

To examine transnational care, we asked participants if, in the last year, they had visited children, siblings or other relatives living outside the UK to provide care, or if such family members had come to the UK to provide care for them. A total of 106 participants had children living overseas, and 241 participants had other relatives overseas, but none had visited or been visited in the past year to provide care. For

the 380 participants with siblings living abroad, four in the Pakistani group and one each in the Indian and Black Caribbean groups (six in all) had visited a sibling in the past year to provide care.

Table 4: Provision of different types of care by ethnic group (%)

% carers providing (multiple response allowed)	Black Caribbean n= 27	Black African n=20	Indian N=46	Pakistani N=36	Bangladeshi N=36	England (aged 45+) +
Personal care	85	80	73	85	59	38
Physical	80	86	88	85	78	38
Services	81	66	57	41	44	47
Paper work or financial	78	62	31	48	63	49
% carers						
Care 20+ hours	70	75	66	44	63	57
Caring for 5+ years	75	60	58	63	55	51
% caring for						
Younger generation	40	40	21	26	36	14
Same generation	33	20	29	43	41	34
Older generation	27	40	50	31	23	52

Source: + NHS Digital (2018) Survey of Carers in Households 2009/10

Explaining family-based care

We used logistic regression modelling to explore the effect of ethnicity on caring and ran two models to predict caring (with carer versus non-carer as the outcome) without (Model 1) and with ethnicity (Model 2) (see Table 5) (the full models are in supplementary Tables A1 and A2 (see appendix). This enabled us to identify the additional explanatory power given to our predictive model by including ethnicity, and to identify if specific ethnic groups had higher levels of caring when other factors were taken into account. We included in the model both predisposing factors – age, marital status, gender, household type (single or multiple generation), household composition (living alone or living with others), sense of belonging (to UK, family and country of family) and family responsibility for caring (care for parent living overseas and responsibility for funding care) – and enabling factors (health status, employment and quality of life).

Our first model accounted for 13% of variance in caring. Three predisposing factors were significantly positively associated with caring. These were: being female (OR = 1.61 [1.11, 2.32]); not living alone (OR = 7.53 [2.90, 19.51]); and high sense of belonging to the UK (OR = 2.17 [1.47, 3.18]). Significant negative relationships with caring were observed with one predisposing factor – high sense of belonging to country of origin (OR = .52 [.32, .84]) – and two enabling factors – good health (OR = .48 [.32, .73]) and high quality of life (OR = .38 [.26, .56]) (see Table 5).

Our second analysis included ethnicity, represented by five dummy variables for Black African, Indian, Pakistan, Bangladeshi and Chinese, with the Black Caribbean

group as the reference value. This significantly increased the fit of the regression ($p < .01$), from 13% to 17%, but did not reduce the significance of the other predictor variables identified in Model 1. Only Indian ethnicity was positively associated with caring (OR = 2.55 [1.41, 4.52]).

Table 5: Modelling the provision of family care

	Model 1	Odds	95% CI	Model 2	Exp B (Odds)	95% CI
Female		1.61*	1.11–2.32		1.70**	1.16–2.47
Age		0.99	0.97–1.014		0.99	0.98–1.01
Married		1.16	0.76–1.76		1.14	0.75–1.75
Homeowner		0.98	0.69–1.401		0.78	0.54–1.13
Employed		1.24	0.82–1.89		1.31	0.85–2.01
Not living alone		7.52***	2.90–9.506		7.92***	3.03–20.73
Multigenerational household		0.75	0.50–1.14		0.72	0.47–1.10
Heath rated good		0.48**	0.31–.72		0.48**	0.31–0.73
Long-standing illness		0.80	0.52–1.22		0.77	0.50–1.18
Good quality of life		0.38***	0.26–.55		0.35***	0.24–0.52
Care for parent in UK		0.01	0.70–1.46		0.01	0.70–1.46
Family pay for care		0.96	0.67–1.38		0.80	0.55–1.17
Belonging to family		0.20	0.69–2.11		1.08	0.55–1.17
Belonging to UK		2.16***	1.47–3.18		1.87**	1.26–2.79
Belonging to country of origin		0.52	0.32–.83		0.52**	0.32–0.85
				Black African	.67	.35–1.30
				Indian	2.55**	1.42–4.58
				Pakistani	1.43	.78–2.58
				Bangladeshi	.15	.64–2.09
				Chinese	0.66	0.32–1.34
R2	0.13			0.17		

Notes: Improvement in fit with ethnicity versus without ethnicity, $\chi^2(5) = 26.02^{**}$. * $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

Our study is original and ambitious in examining intra-generational, intergenerational and transnational caring across six different ethnic groups and two generational groupings: those aged 40–64 and those age 65+. The ambition and originality of our work reflects the importance that we attach to examining key aspects of ageing and later life across and within minority groups in order to complement work focused on

specific individual groups and/or locations. As well as presenting novel substantive findings, our study also provides insights into the methodological challenges of conducting comparative research with minority communities; here, we discuss both elements of our work. However, we fully acknowledge the limitations of the size and representativeness of our sample and our focus on carers rather than care recipients.

Methodological issues

The ambition underpinning our objective of examining care practices across and within six different ethnic groups meant that our study was both complex and, potentially, high-risk. Our research question was not answerable from existing data, and we undertook primary data collection. Given the explicitly comparative nature of our project, and the language skills and knowledge of the different minority groups, it would not have been possible to undertake this without engaging a specialist research company to conduct the fieldwork. We focus our discussion on two methodological challenges: participant recruitment and the development of our survey measures. While there is an emerging literature discussing researching the experiences of ageing in minority ethnic communities (Victor et al, 2012; Zubair et al, 2012a, 2012b; Ahmet and Victor, 2015), the challenges of both identifying and recruiting participants are rarely discussed in detail.

The under-representation of minority groups in research is not specific to the UK (Quay et al, 2017), but also evident in European and North American studies. Survey research with minority ethnic communities in the UK has consistently demonstrated lower response rates compared with the general population. Sheldon et al (2007), in a review of National Health Service-sponsored surveys, reported response rates of approximately 40% for minority groups in general. Our study had an overall response rate of 38%, which varied from 48% for our Indian sample to 23% for the Chinese sample. This illustrates the need to increase participation and the danger of presenting overall response and participation rates for (combined) minority groups. Our study involved recruiting a quota-based sample framed around two age/generation groups across six minority groups in England and Wales; we achieved this for five groups but it proved impossible to recruit sufficient Chinese participants. Despite extending the fieldwork period and engaging the established networks and specialist expertise of our survey contractor, we achieved only 75% of our target sample for this group.

Non-response is also important in terms of research logistics and funding, as well as for the representativeness of the population. We approached 3,210 participants who met the inclusion criteria and recruited 1,206 (38%). This involves substantial research costs. For the Chinese sample, we contacted 664 individuals but completed 156 interviews, so research with this group was especially resource-intensive (something that funders should note if such groups are to be included in research). This limited our analysis of the data on this group and suggests that in future research, we need to consider other ways of including people of Chinese ethnicity.

Another factor in comparative research with different minority ethnic groups and languages is the translation of research instruments and measures into appropriate languages (see Victor et al, 2012). We need to be confident that any differences in caring practices observed are not artefacts of the different use of language. At present, there is no consensus on optimal procedures for this, so in the study, we used established best practice, that is, translating the caring questions into target languages

using front-back translation methods and bilingual/multilingual staff and students. These measures were piloted prior to the main fieldwork; no specific modifications or adaptations were made to the questions and fieldworkers reported no difficulties with the caring questions.

If we are truly to understand the diversity of the experience of ageing among minority communities, we need to include all groups (Torres, 2015, 2019). Ideally, samples in quantitative studies should be broadly representative. In the UK, establishing representativeness is challenging because of the potential under-representation of ethnic groups in the decennial census of population. With this caveat, our sample is broadly representative of adults for the populations included across the key parameters in terms of predisposing (age, gender and marital status) and enabling (health, quality of life and home-ownership) factors associated with caring (see: www.ethnicity-facts-figures.service.gov.uk/).

Caregiving practices

We employed a theoretical lens focused on the role of cultural norms and values about family caring. We hypothesised that both overall levels of caring and intergenerational levels of caring would be highest in the Indian, Pakistani, Bangladeshi and Chinese populations, compared with the other two groups, given the cultural norm within these communities for adult children to provide care for their parents/parents-in-law.

Our reported prevalence of caring was significantly higher in the Indian, Pakistani and Bangladeshi groups, which have established cultural expectations of family-based care, compared with our other three groups. This mirrors the broad pattern from the 2011 national census, although our absolute rates are higher than in both the census and the 'Survey of carers in households – England 2009/10' (NHS Digital, 2018). Of note here is the anomalous position of the Chinese group, among whom the prevalence of caring was low (11%) despite cultural values that promote family caring. The duration, intensity and types of care given were intense among our carers, which is indicative of the higher levels of morbidity experienced by these populations (Evandrou et al, 2016).

Some of our findings were unanticipated and merit further investigation in a larger study. In the Indian, Pakistani, Bangladeshi and Caribbean groups, levels of caring by those aged 65+ were above the national norm. This finding is important as it highlights the role of older carers in minority communities, challenging any assumption that they are simply recipients of care.

The higher prevalence of caring among women in the Indian, Bangladeshi and Pakistani groups was expected given normative gender-based caring roles in these communities. Overall, 40% of all carers in our survey were male, with high levels of caring by males in the Indian group. It is possible that the (non-normative) role of male carers may be more readily revealed in an anonymous quantitative survey than in qualitative interviews, especially when the interviewer is from the same ethnic/linguistic group. This novel finding challenges preconceptions about the role of male carers in minority groups, and merits more detailed investigation to determine if the finding is robust.

We also hypothesised that intergenerational care would be higher among the Indian, Pakistani, Bangladeshi and Chinese study participants than in the other two groups. Overall levels of intergenerational caring were broadly comparable to those

reported in the ‘Survey of carers in households – England 2009/10’ (NHS Digital, 2018). Unexpectedly high levels of caring for someone younger than the carer rather than older, as we had hypothesised, were revealed in our study. This suggests that intergenerational caring in minority groups is not, as is commonly presumed, simply caring for parents/parents-in-law, but, rather, involves high levels of caring for dependent adult children/grandchildren.

We used a modified version of the Andersen and Newman (1973) model to examine the impact of enabling and predisposing factors in understanding the observed levels of caring in the selected groups. This enabled us to evaluate the importance of cultural values alongside other factors. Our initial logistic regression showed that caring propensity was positively associated with three predisposing factors – being female, living with others and a high sense of belonging to the UK (but negatively associated with a high sense of belonging to country of origin – and with two enabling factors – good health and quality of life. It seems plausible that the gender effect reflects cultural norms, and that living with others may facilitate caring by proximity. The relationship between sense of belonging and caring is complex. A high sense of belonging to the UK was associated positively with caring, while a high sense of belonging to country of family origin was negatively related. This apparent contradiction requires further investigation. The negative relationships between caring, health status and quality of life are well established and emphasise that some factors explaining propensity to care are not unique to specific ethnic groups.

Our second logistic regression included ethnicity, which added significantly to the model’s explanatory power and did not negate the factors identified in our first model. Adding ethnicity to the initial model produced a significant improvement in fit, indicating that it has an independent role in predicting caring. However significantly increased odds of caring were demonstrated only for the Indian ethnic group, which had the highest reported prevalence of caring in our descriptive analysis. Our study, alongside the findings of Willis, and combined with consistent evidence of the elevated morbidity of minority communities, suggests that the explanation for increased overall levels of caring among minority ethnic groups may be explained by higher levels of need rather than by ethnicity per se.

Conclusion

Research focusing upon the ageing experience of older black and minority ethnic adults, a sub-field of research labelled ‘ethnogerontology’ (Koehn et al, 2013; Torres, 2015, 2019), is a relatively new field in Britain (Blakemore and Boneham, 1994; Phillipson, 2015; Zubair and Norris, 2015). Our study of caring demonstrates the importance of including ethnicity in gerontological research, policy and practices by focusing on the largest minority ethnic groups in England and Wales, namely, those from the Caribbean, the Indian subcontinent, China and Africa. We believe that our work demonstrates the need for, and potential of, similar comparative work across Europe, North America and Australasia. For example, following the work of Victor (2015) on loneliness, we can compare experiences of minority communities with their peers in both the general population and by their country of family origin. This is one element of an important research agenda for ethnogerontology in Britain, Europe, North America and Australasia in exploring and comparing the experience of ageing and later life across and within minority ethnic groups.

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Conflicts of interest

The authors declare that there are no conflicts of interest.

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Ethics

A favourable ethical review of the study was given by the research ethics committees at Swansea and Brunel universities.

Data availability statement

The data availability statement should read as follows: The anonymised data underpinning this publication can be accessed from Brunel University London's data repository, Brunel. figshare.com under a CCBY licence: <https://doi.org/10.17633/rd.brunel.7560392>

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Appendix

Table A1: Model 1 full version

	B	SE	Wald	Sig	Exp B (odds)	95% CI
Female	0.474	0.187	4.404	0.11	1.61*	1.11–2.32
Age	–.004	0.009	0.170	0.680	0.99	0.97–1.014
Married	0.150	0.212	0.497	0.481	1.16	0.76–1.76
Homeowner	–0.015	0.180	0.007	0.932	0.98	0.69–1.401
Employed	0.221	0.213	1.080	0.299	1.24	0.82–1.89
Not living alone	2.018	0.486	17.24	0.000	7.52***	2.90–9.506
Multigenerational household	–0.279	0.210	1.75	0.185	0.75	0.50–1.14
Health rated good	–7.31	0.211	12.05	0.001	0.48**	0.31–.72
Long-standing illness	–0.223	0.216	1.070	0.301	0.80	0.52–1.22
Good quality of life	–9.63	0.194	24.66	0.000	0.38***	0.26–.55
Care for parent in UK	0.12	0.188	0.004	0.947	0.01	0.70–1.46
Family pay for care	–0.33	0.183	0.033	0.855	0.96	0.67–1.38
Belonging to family	0.180	0.285	0.443	0.506	0.20	0.69–2.11
Belonging to UK	0.773	0.196	15.48	0.000	2.16***	1.47–3.18
Belonging to country of origin	–0.655	0.244	7.214	0.007	0.52	0.32–.83

Notes: Coding of variables: *Caring* (1 = yes; 0 = no); *Gender* (1 = male; 2 = female); *Age* (in years); *Homeowner* (1 = yes; 0 = no); *Multigenerational Household* (1 = yes; 0 = no); *Living alone* (0 = yes; 1 = no); *Parent alone in UK funding* (1 = family; 0 = state); *Parent alone abroad funding* (1 = family; 0 = state); *Who should pay for care* (1 = family; 0 = state); *Belong to family* (1 = high belonging; 0 = low belonging); *Belong to UK* (1 = high belonging; 0 = low belonging); *Belong to country of origin* (1 = high belonging; 0 = low belonging); *Married* (1 = yes; 0 = no); *Health rating* (1 = good; 0 = not good); *Long-standing illness* (1 = yes; 0 = no); *Quality of life* (0 = not good; 1 = good); *Working* (1 = yes; 0 = no). χ^2 (15) = 95.77**, Nagelkerke R^2 = .13. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table A2: Model 2 full version

	B	SE	Wald	Sig	Exp B (Odds)	95% CI
Female	0.527	0.192	57.515	0.006	1.70**	1.16–2.47
Age	–0.006	0.009	0.470	0.493	0.99	0.98–1.01
Married	0.135	0.216	0.389	0.533	1.14	0.75–1.75
Homeowner	0.246	0.191	1.653	0.198	0.78	0.54–1.13
Employed	0.270	0.219	1.513	0.219	1.31	0.85–2.01
Not living alone	2.070	0.491	17.779	0.000	7.92***	3.03–20.73
Multigenerational household	–0.333	0.217	2.360	0.124	0.72	0.47–1.10
Heath rated good	–0.743	0.217	11.703	0.001	0.48**	0.31–0.73
Long-standing illness	–0.268	0.219	1.500	0.221	0.77	0.50–1.18
Good quality of life	–1.038	0.200	26.884	0.000	0.35***	0.24–0.52
Care for parent in UK	0.259	0.243	1.138	0.286	0.01	0.70–1.46
Family pay for care	–0.218	0.191	1.299	0.254	0.80	0.55–1.17
Belonging to family	0.079	0.296	0.071	0.790	1.08	0.55–1.17
Belonging to UK	0.627	0.203	9.543	0.002	1.87**	1.26–2.79
Belonging to country of origin	–0.656	0.250	6.876	0.009	0.52**	0.32–0.85
Black African	–0.395	0.337	1.377	0.241	.67	.35–1.30
Indian	0.936	0.299	9.807	0.002	2.55**	1.42–4.58
Pakistani	0.355	0.302	1.378	0.240	1.43	.78–2.58
Bangladeshi	0.143	0.302	0.226	0.635	.15	.64–2.09
Chinese	–0.413	0.370	1.245	0.265	0.66	0.32–1.34

Note: Nagelkerke $R^2 = .13$.