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The dementia social care workforce in England: secondary analysis of a national workforce data set

Shereen Hussein BSc, MSc, PhD
Senior Research Fellow
Social Care Workforce Research Unit
King's College London

Jill Manthorpe MA, FRSA
Professor of Social Work
Director
Social Care Workforce Research Unit
King's College London

Abstract

Objective: Little is known about the social care workforce supporting people with dementia in England. This article seeks to compare the characteristics of people employed in the social care sector supporting people with dementia with other members of the social care workforce. Methods: This article reports on secondary analysis of a new national workforce dataset from England covering social care employees. Secondary analysis of this dataset was undertaken using 457,031 unique workers' records. Results: There are some important differences between the dementia care workforce and other parts of the social care workforce in respect of the dementia care workforce being more likely to be female, to work part-time, to be employed by agencies, and to be less qualified. Many work for medium sized care businesses and in people's own homes. The findings are set in the context of efforts to increase training and skills. Conclusion: Knowledge of the social care workforce is relevant to care quality and should be borne in mind when planning interventions and commissioning services.

Key words: workforce; dementia care staff; social care; national data, quantitative analysis; care workers.

Background

Large numbers of unpaid carers and paid care workers support people with dementia (Ferri et al 2005). Increasingly, in most of the developed world, care is shifting from the private to the public sphere. Because dementia affects 24.3 million people worldwide, a figure anticipated to reach over 81 million by 2040 (Knapp *et al*., 2007a), new knowledge and skills may need to be regularly transferred to those caring for people with dementia and the capacity of the workforce to respond to demand needs to be assured. Knapp *et al.,* (p. 15, 2007) have observed:

> Shortages of qualified or skilled staff for long-term care services are reported in a number of countries. Conditions of employment are poor.

Dementia has recently been receiving policy attention in England (Department of Health (DH) 2009). Here the term social care is used to describe community-based care from the many sectors that lie outside health services (the National Health Service). Typically social care services encompass residential care in care homes (with or without nursing), home care (domiciliary care) and day services. People pay for this care themselves or it is funded by local authorities. The English *National Dementia Strategy* (DH 2009) stated that by 2014 services are expected to be able to support early diagnosis and intervention, and enable everyone to *'live well with dementia'*. Like many policy documents it concentrates on systems or services, rather than the workforce, yet evidence from the Department of Health's consultation on the *Strategy* suggested that its ambitions are being undermined by major skills shortages in the social care sector (Community Care 2009; Community Care 2010). An All-Party Parliamentary Group on Dementia (2009) and members of the House of Commons' Committee on Public Accounts (House of Commons 2010) raised serious concerns over the slow pace of improvement needed to improve the quality of dementia care. This had been previously identified as a matter of 'urgency' (House of Commons 2007) in the context of rising trends of greater disability and multi-morbidity among care home residents particularly (Macdonald and Cooper 2007).

Little is known about the social care workforce supporting people with dementia in England although, in contrast, details of the numbers of people with dementia in the UK, as well as other countries are extensive (Knapp *et al.* 2009). However, there is growing anxiety about the quality of social care and the activities of people paid to provide care to people with dementia which makes a focus on the workforce pertinent. So far, there has been no consistent effort to identify and to characterise the dementia social care workforce in England thus potentially rendering attempts to improve dementia care less than optimally effective.

Many studies of those working in English social care services for people with dementia have focused on their deficits or shortcomings (Bond 2000). No care home exhibited even a fair standard of care in Ballard *et al's* (2001) observational study of staff and resident interactions. A survey of 254 care home staff revealed that they had received little training, particularly that related to the mental health needs of older people, including depression and dementia, and concluded that the quality of care was sub-optimal as a result (Mozley *et al.* 2004). While Hughes and colleagues (2008) judged knowledge of dementia among care home staff to be reasonable; staff confidence in dealing with related situations was low. Lawrence and Banerjee (2010) suggested that community support teams were necessary to intervene in care homes to raise the quality of care provided by a demoralised staff group possessing few opportunities by discussion of problem solving techniques. Overall, however, while problems are apparently easily identified, little is known about the characteristics of those staff working with people with dementia compared to other staff working in social care with other client groups. This makes it difficult to see whether matters such as lack of training or qualification, workforce shortages or turnover, temporary or part-time working, are broadly prevalent in the sector or are more likely in, or even confined to dementia care. As Moriarty (2010) has commented in relation to training in social care, factors such as the organizational culture of a care

home and difficulties, such as staff shortages or high turnover, may undermine training initiatives and furthermore are often unexplored or unreported contextual elements of interventions.

Studies of the wider social care workforce in England have emphasised recruitment problems, retention issues, stress and specific skills shortages (Eborall *et al.,* 2010) and these features are commonly found in other developed countries (Stone 2004a; Wells 2004; Edvardsson *et al.,* 2009). Objective 13 of the *National Dementia Strategy* identified a crucial role for training and workforce development to develop '*an informed and effective workforce for people with dementia'* repeating much the same ambitions expressed a decade ago by the body then responsible for social care skills and by researchers (Topps 1999; Hannan, Norman & Redfern 2001). The *Strategy* envisaged that the way to transform the quality of dementia care would be through minimum dementia training for all staff as well as specialist training for professional and non-professional practitioners (see, for example, Downs *et al.* 2009). However, almost concurrently, a mapping exercise (DH, Skills for Care (SfC) and Skills for Health (SfH), 2010) identified gaps in specific dementia training. These features are not unique to England; for example, Doyle (2009) identified similar gaps in relation to dementia care in Australia.

In this context of the importance of the social care workforce, it is useful to better understand this labour force and in particular to investigate if it shares the characteristics of the wider social care workforce so directing attention to sector-wide issues. The rationales for this are that many of the issues connected with care quality and continuity may not be resolved by training alone if there are problems endemic to social care and that, if so, any training initiatives will need to reflect and to respond to the composition and characteristics of this workforce.

Methods

This article uses the latest data of the National Minimum Data Set for Social Care (NMDS-SC) to investigate the characteristics of the social care dementia workforce as presented by employers who completed the NMDS-SC. The NMDS-SC, introduced in 2005, was the first attempt to gather standardised information on the social care workforce in England. By the end of June 2010 the NMDS-SC had been completed by 24,203 employers who provided detailed information on 501,734 employees. We used this to examine the specific profile of those identified as working in social care services that explicitly provide services for older people with dementia compared to workers in other settings. We restricted our analysis to employees aged over 16 and under 76 years of age; we also removed some duplicate records, this resulted in 457,031 unique workers' records. Over three quarters of NMDS-SC returns, received June 2010, were updated during the previous 12 months. These returns contain data from 13,542 providers, all registered with the Care Quality Commission (CQC), accounting for 54.4 percent of all CQC registrations. The dataset also contained information from a considerable number (10,661) of care providers that are not CQC registered (for example, day care centres not providing personal care that are not required to register).

We employed descriptive and multivariate statistical analysis with the following aims:

- To identify the proportion of the workforce which works in organisations where older people with dementia are clients or users;
- To explore whether the characteristics of this dementia care workforce differ from those supporting other client groups; and
- To explore in depth the variations in levels of qualifications held, and those being worked towards, among the dementia care workforce in comparison to the rest of the care workforce.

After identifying employers providing services to older people with dementia (either as a main service user group or part of other groups) we examined the profile of all workers in such services in comparison to other social care workers. In this article we refer to paid staff who are reported to be working in social care settings that support people with dementia (either as the main service user group or not) as the 'dementia care workforce'. We compared this group to 'other workers'; those working in social care settings that do not support people with dementia (for example, services for people with learning disabilities/intellectual impairment, or adults with mental health problems or long-term conditions or disabilities). The descriptive analysis informed a logistic regression model designed to identify any significant differences between the dementia care workforce and the rest of the care workforce. The model used can be simplified in the following equation:

$$\log it(DementiaWorkForce) = \alpha + b_1 Age + b_2 Gender + b_3 Disabled + b_4 Ethnicgroup + b_5 Qualification + b_4 Employmentstatus + b_5 Workpattern + b_6 Jobgroup + b_7 Establishmenttype + b_8 MainService + b_{11} Establishmentsize$$

Equation 1

The results of the logistic regression model identified how and in which ways the dementia care workforce differed from other sections of the care workforce while taking into account the effect of all factors together. The final model was predicted to have 'very good' discriminatory power with Area Under the ROC Curve (AUC) criteria value of 0.71 (Hosmer and Lemeshow 2000). All analysis was conducted using R statistical environment (R Development Core Team 2007). The June 2010 NMDS-SC data release contained new data items that had been introduced at the beginning of 2010. The new items refine the qualification questions, seek additional information on nationality and country of birth, but have yet to be completed by most employers. These new data items were analysed as complimentary elements to the main analyses based on the main data returns, but were not included in the regression model due to high number of missing values.

Results

The NMDS-SC individual data records (June 2010) indicated that 42 percent (n= 191,716) of workers were working in organisations providing care for people with dementia. The descriptive analysis revealed some apparent variations between the dementia care workforce characteristics both at personal and organizational levels and between them and other elements of the social care workforce working with different client groups. Table 1 presents these findings, on the personal level the mean age was very similar between the two groups of workers (those working in settings providing

care for people with dementia and those who are not). However, the dementia care workforce was more female dominated than the rest of the workforce, with 87 percent of the former being female. Reported disability was much lower among the dementia care workforce than the rest of the workforce. In terms of ethnicity the profile of the dementia care workforce resembled the rest of the workforce, except that it contained relatively more Asian or Asian British workers (mainly due to proportionally more 'other Asian'). Larger proportions of dementia care workers work for employment agencies, on temporary contracts, or are employed through a pool or a bank system where employers request them to work when needed. They are more often working in adult domiciliary services (home care) than care home or other services, and work for small to medium size organizations. In terms of highest qualifications held, a concentration around National Vocational Qualification (NVQ) level 2/2+ qualifications is evident, with relatively fewer dementia care workers possessing higher level qualifications. To account for possible interactions between these factors and to identify the main profile of the dementia care workforce we constructed a logistic regression model as explained above. The model identifies three groups of characteristics at personal, job and organizational levels, enabling an examination of their associations with being part of the dementia care workforce or not. We used a forward step-wise regression process and the model presented in equation 1 was the optimal model with highest value of Area Under Curve (AUC), a total of 106,421 unique complete cases were included in the model.

Table 1 Descriptive analysis of the dementia care workforce characteristics compared to 'other' workforce

Characteristics	Other care workforce	Dementia care workforce
Age		
Mean	42.5 years	42 years
SD	12.9	13.2
Valid number of records	265,315	191,716
Gender		
Male	19.5%	12.8%
Female	80.6%	87.2%
Valid number of records	256,864	180,967
Reported disability		
None	97.1%	98.7%
Any	2.9%	1.4%
Valid number of records	199,503	158,764
Ethnicity		
White	82.9%	81.1%
Mixed	1.8%	1.2%
Asian or Asian British	4.8%	6.5%
Black or Black British	8.1%	8.7%
Other groups	2.4%	2.6%
Valid number of records	202,193	156,603
Highest qualifications held		
Other relevant qualifications	20.1%	14.4%
Entry or level 1	1.0%	1.0%
Level 2 or 2+	33.3%	47.4%

Characteristics	Other care workforce	Dementia care workforce
Level 3 or 3+	30.5%	26.5%
Level 4 or 4+	15.1%	10.7%
Valid number	84,660	64,066
Highest qualification worked towards (NVQ)		
Other relevant qualifications	17.2%	8.8%
Entry or level 1	2.1%	0.3%
Level 2 or 2+	35.8%	55.8%
Level 3 or 3+	35.2%	26.9%
Level 4 or 4+	9.7%	8.2%
Valid number	26,757	17,741
Main Job role		
Direct Care	69.2%	73.7%
Manager/Supervisor	9.9%	7.2%
Professional	7.2%	5.2%
Other	13.7%	13.9%
Valid number	290,769	208,265
Work patterns		
Full-time	49.4%	47.2%
Part-time	37.2%	42.2%
Neither of these	13.5%	10.6%
Valid cases	221,359	155,117
Employment status		
Permanent	89.2%	86.5%
Temporary	2.8%	3.9%
Bank or pool	6.0%	5.0%
Agency	0.6%	2.9%
Other	1.3%	1.7%
Valid cases	239,077	162,620
Sector		
Local authority	20.4%	11.8%
Private sector	55.3%	74.6%
Voluntary or third sector	20.4%	11.0%
Other	3.9%	2.6%
Valid cases	289,763	207,431
Staff size group		
Micro (<10)	9.6%	3.8%
Small (10-49)	55.5%	44.4%
Medium (50-199)	29.3%	48.9%
Large (200 or more)	5.6%	3.0%
Valid cases	245,605	202,548
Main service provided		
Adult residential	58.6%	52.1%
Adult day services	3.3%	1.4%

Characteristics	Other care workforce	Dementia care workforce
Adult domiciliary	15.5%	39.6%
Adult community care	6.1%	4.5%
Other	14.0%	2.5%
Valid cases	290,769	208,265

The results of the logistic regression model presented in Table 2 indicate that indeed age is not significantly different between the dementia workforce and the rest of the social care workforce, however, most other personal, job and organisational characteristics are significant. In terms of personal characteristics, the logistic regression model confirmed that the dementia workforce has significantly more representation of women and workers from Black and Minority Ethnic (BME) communities (particularly Asian). The odds ratio of being female among the dementia care workforce, in comparison to other workers, is 1.77 ($p<0.001$); and that of being of Asian ethnicity is 1.72 ($p<0.001$). The results also confirmed a concentration of dementia workers with NVQ level 2 qualifications. The odds ratio of holding lower or higher qualifications than level 2 (or 2+) ranged from 0.63 to 0.73 (all with $p<0.001$) when compared to that held by other workers. In terms of working patterns, the largest magnitude was in relation to being agency workers, those registered with employment agencies and not employed directly by care providers. The odds ratio of dementia care workers to be working for an agency is 5.74 ($p<0.001$) compared to other parts of the social care workforce. They are also significantly more likely to work part-time (or through other arrangements) than full-time.

The findings presented in Table 2 also confirm the higher likelihood of dementia workers to be employed in the private sector, in adult domiciliary (home care) settings and for medium-sized organizations (OR= 1.83, 3.60 and 1.64 respectively; $p<0.001$). On the other hand, they are significantly less likely to be employed in the voluntary (not for profit) sector, in adult day care settings, and in micro and large organizations. The organisational characteristics of the dementia care workforce thus are significantly different from other care workers. Dementia care workers are significantly more likely to be working within adult domiciliary and community care settings and are more commonly found in private and medium-size establishments (50-199 staff members). The high likelihood of agency workers (OR=5.74) working in dementia care is significant. The logistic regression model confirms the specific profile of the dementia care workforce and identifies that this workforce is particularly less likely to hold qualifications at NVQ levels 3 or above, identifying an important skills gap. Data on qualifications being worked towards also reflect the concentration at level 2. Over half (57%) of dementia care workers are undertaking educational modules that may lead towards NVQ2 in comparison to only 35 percent of the rest of the social care workforce. On the other hand, only 13.4 percent of the dementia care workforce are working towards NVQ level 4 (health and social care, care or registered managers) compared to 17 percent of the rest of the care workforce.

Table 2 Results of logistic regression model (presented in equation 1); showing significantly different characteristics of the dementia care workforce

Independent variables included in the predicting model	Odds Ratio	95% Confidence intervals		p-value
		Lower	Upper	
PERSONAL CHARACTERISTICS				
Age	1.00	1.00	1.01	0.089
Women	1.77	1.69	1.84	<0.001
Any disability	0.60	0.54	0.66	<0.001
Ethnicity (ref: White)				
Mixed	0.82	0.72	0.93	0.003
Asian	1.72	1.62	1.82	<0.001
Black	1.11	1.05	1.17	0.000
Other	1.49	1.36	1.64	<0.001
Highest qualifications (ref: lev2/2+)				
Entry/1	0.73	0.64	0.83	<0.001
Lev3/3+	0.72	0.69	0.74	<0.001
Lev4/4+	0.63	0.60	0.66	<0.001
Other relevant qualification	0.69	0.66	0.72	<0.001
JOB CHARACTERISTICS				
Employment status (ref: permanent)				
Temporary	1.08	0.98	1.20	0.130
Bank	0.79	0.72	0.86	<0.001
Agency	5.74	4.87	6.80	<0.001
Other	1.31	1.14	1.52	<0.001
Work pattern (ref: full-time)				
Part-time	1.23	1.20	1.27	<0.001
Neither of these	1.16	1.07	1.25	<0.001
Main job role (ref: managers/sup)				
Direct Care	0.84	0.81	0.88	<0.001
Professional	0.85	0.79	0.90	<0.001
Other	1.25	1.17	1.34	<0.001
ORGANISATIONAL CHARACTERISTICS				
Sector (ref: local authorities)				
Private	1.83	1.74	1.92	<0.001
Voluntary	0.71	0.67	0.75	<0.001
Other	0.99	0.91	1.07	0.744
Service setting (ref: adults residential)				
Adult day	0.67	0.61	0.73	<0.001
Adult domiciliary	3.60	3.47	3.73	<0.001
Adult community care	1.93	1.81	2.07	<0.001
Staff size group (ref: small)				
Micro	0.34	0.32	0.36	<0.001
Medium	1.64	1.59	1.69	<0.001
Large	0.67	0.60	0.74	<0.001

Having 'No Qualifications'

New items relating to whether workers hold no qualifications or are not working towards any qualifications had been completed for 11,904 workers (6,266 workers in dementia settings and 5,638 in other settings). Among this sub-sample, as Figure 1

shows, 9.6 percent of dementia workers hold no qualifications compared to 8.7 percent for other workers (these differences are not statistically significant χ^2=3.208, p=0.073). For this subgroup of workers, dementia workers were significantly more likely not to be working towards any qualifications (11.1% vs.7%; χ^2=57.12, p<0.001). According to this sub-sample, the dementia care workforce contains larger proportions of workers with no qualifications as well as larger proportions of workers who are not working towards any qualifications. This finding is consistent with the finding obtained from the logistic regression model presented above.

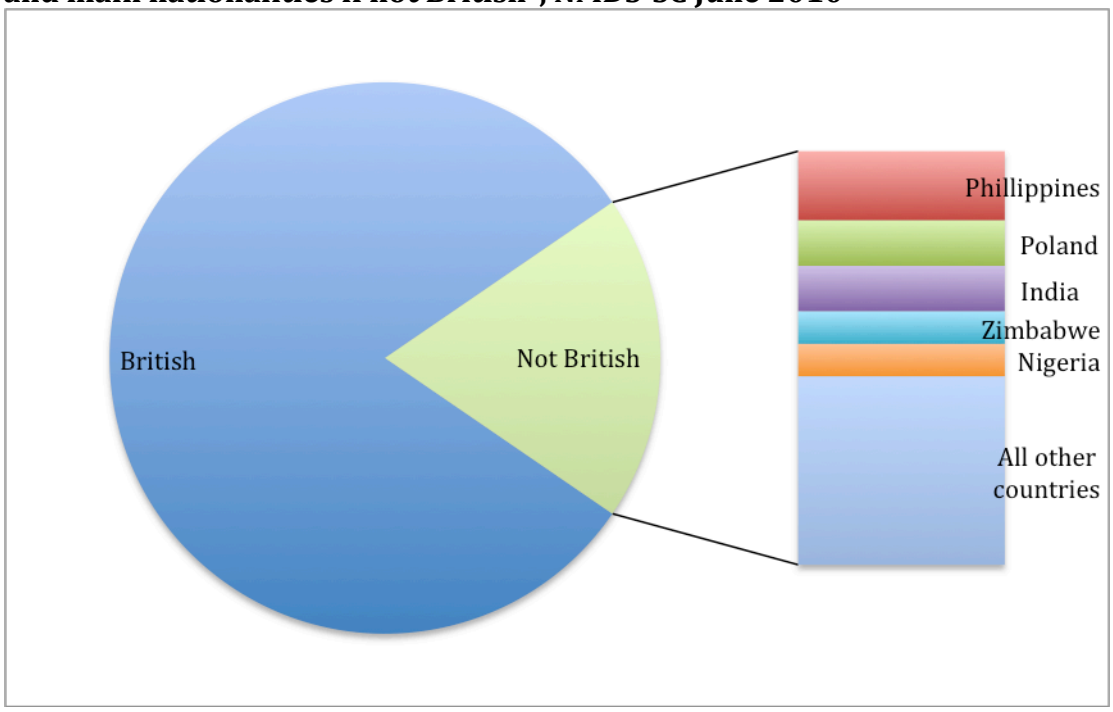
Figure 1 Percentage of dementia care workers and other workers who are identified to have 'no qualifications' and 'are not working towards any qualifications'[1]

Nationality

Skills for Care introduced the collection of information on nationality and country of birth of workers at the beginning of 2010. By end of June 2010 employers had provided such information on a total of 89,437 workers (44,568 of them working in services providing care for older people with dementia) (see Figure 2). This initial sample indicates that the dementia workforce contains significantly more non-British workers (19.1% vs. 15.3%; χ^2=231.3, p<0.001) than other parts of the care workforce. The main nationalities of non-UK workers among the dementia workforce were the Philippines (17%, n=1437) followed equally by Poland and India (10.8%). Nearly eight percent were from both Zimbabwe and from Nigeria. The relatively large percentage of dementia workers from the Philippines was reflected in data on overall ethnicity showing larger proportions from 'other Asian' groups when compared to workers in services which do not provide dementia care.

[1] Based on recent returns to NMDS-SC covering information on 11,904 workers

Figure 2 Distribution of dementia care workforce by whether British or not and main nationalities if not British[2], NMDS-SC June 2010



Discussion and Conclusion

Globally, dementia care is provided not in hospital but in social care settings staffed in the main by non-professionals who are increasingly providing supporting people with substantial cognitive impairment (Howe & Kung, 2003; Reilly *et al.* 2006). Caring for people with dementia within social care settings requires much more than just having '*a kind heart and common sense*' which has been reported as attracting most care workers (Doyle and Ward, 1998). Current working and employment conditions, with limited career pathways, may not dramatically change this perception and may be at the root of low levels of skills and lack of continuity of care. These concerns may resonate in other developed countries. While levels of training, its content, and the qualifications of the dementia care workforce are receiving increasing policy attention this analysis reveals that specific gaps in training may be related to the composition of the social care workforce and its patterns of frequently relying on part-time, unqualified and, to some extent, casual labour, within a sector that is also increasingly dependent on migrant workers to fill skills gaps rather than fostering a sustainable labour force. The *National Dementia Strategy's* aim to transform the quality of dementia care through minimum dementia training for all social care staff and to develop the workforce thus needs to be set in the context of this profile of dementia care practitioners. Its implementation should address these fundamental questions of sustainability and labour market development.

The analyses presented here provide a first detailed insight into the dementia care workforce in England as identified through the NMDS-SC. It compared the dementia

[2] Based on recent returns to NMDS-SC during 2010 (information available for 44,568 workers in settings providing care for older people with dementia)

care workforce with an appropriate and realistic comparator, the rest of the adult social care workforce, rather than health service professionals. The NMDS-SC does not yet provide complete coverage of the workforce, but currently over half of Care Quality Commission (CQC) registered providers and other non-CQC registrants in England have completed the NMDS-SC returns. The NMDS-SC identifies staff working with older people with dementia but may not capture staff supporting younger people with dementia. Additionally, growing numbers of people with dementia (or their families) may be employers themselves, employing their own care workers through personal budgets (funded by local government adult services) (Manthorpe 2010) or privately (as in the United States, see Tilly 2007, Martin *et al.,* 2009, and in Scotland, Reid Howie Associates, 2010). Nevertheless, the current data provide information on the largest group of workers providing care for older people with dementia in England, some 191,716 workers who work, directly or indirectly, with older people with dementia.

There are four key findings arising from this analysis, starting with the ambitions of the *National Dementia Strategy* around training. First, while similar number of dementia care workers compared to other workers in social care hold no qualifications, the former are less likely to be working towards any qualifications. In terms of qualifications held and being worked towards, dementia care workers are concentrated around the very low levels of NVQ level 2/2+ and are significantly less likely to hold higher qualifications than other workers. Specific skills may be required for better quality services and better capacity may improve job satisfaction among dementia care workers (Coogle, Head and Parham, 2006). As Zimmerman *et al.,* (2005) suggested in respect of other promising initiatives, such as developing specialist home care workers, these areas may not necessarily be under the control of the facility and resources may be inadequate. Comas-Herrera *et al.* (2011) found that increases in pay levels and qualifications of care assistant staff working with people with dementia were anticipated by experts in the area of dementia.

Among the more recent data items collected by the NMDS-SC is information on nationality and country of birth. The current sample providing nationality data was relatively small; however, the data illuminate the level and composition of migrant workers within the dementia care workforce. This initial sample indicates that the proportion of non-British workers is significantly higher among the dementia care workforce than the rest of the social care workforce. This may explain some of the reported difficulties around communication and racism identified in (authors 2010) and points to the need to adapt training and induction, supervision and mentoring. A key finding is that the main nationality groups working in dementia care are not particularly different from the care workforce as a whole (Hussein, Stevens and Manthorpe 2010) suggesting that any adaptations may need to be sector wide.

Thirdly, in terms of job characteristics, professional and managers/supervisory staff are less commonly found in the dementia care workforce in comparison to other services, possibly reflecting the large proportion working in home care with its substantial autonomy and little supervisory or managerial contact. One of the most important findings was the over-representation of agency and other temporary workers among the dementia care workforce and the diminution of the local authority employed home care workforce (common still in some parts of the UK, see Fleming and Taylor 2006). The regression model shows that workers are significantly more

likely to be working part-time and to be agency workers within dementia services than other care workers. Training may be difficult for them to access or not regarded as a worthwhile investment. While this provides a flexible workforce from the point of view of employers (Cornes *et al.,* 2010), it may contribute to lack of continuity, fragmented systems and problems in inter-professional communications. Issues of pay and working conditions are known to affect workers' stress levels and job satisfaction (Bishop *et al.* 2009) but the views of people with dementia and carers about such labour market matters are less often articulated and might be the subject for research around rewards and employment practices.

The *National Dementia Strategy's* promotion of community care confirms that home care is envisaged as the prominent form of support. The *Strategy's* encouragement of improved access to services (Boyle 2010) may heighten demand for home care. Indeed, the implementation of the *Strategy* depends on £1.9 billion savings from reduced reliance on care homes and increased community care, even though the House of Commons (2009) cautioned against over-reliance on home care workers seeing them as lacking understanding of dementia. English policy makers may need to heed others' advice (Wellin and Jaffe 2004; Stone 2004b) that home care workers must be increasingly recognised as an important part of the dementia care workforce, a group that will include large numbers of migrant workers in many developed countries (Martin *et al.,* 2009). This suggests the need for greater engagement with this workforce rather than a concentration on care homes and other building-based services.

This analysis of the dementia care workforce provides a more detailed picture of its composition and characteristics than has hitherto been available and this English illustration of the value of investment in large-scale data collection may be of interest to others. Such a database extends others' work on care home staff (eg Squillance *et al.,* 2007) and could provide baseline data for skills enhancement and retention efforts as tried in respect of nurses working in long-term care work in the US (Hollinger-Smith and Ortigara 2004). Our analysis has exposed some similarity between the dementia workforce and others working in social care and this suggests the importance of workforce development across the sector. Such development will need to address potential tensions of high expectations of training when these are not accompanied by other workplace benefits, such as security of employment or career development opportunities and rewards. Understanding the social care workforce may also be relevant to the work of other professionals who increasingly will seek high quality dementia care from this highly varied and diverse workforce.

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