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In home or at home? How collective decision making in a new care facility enhances social interaction and wellbeing amongst older adults

CRAIG KNIGHT*, S. ALEXANDER HASLAM*
and CATHERINE HASLAM*

ABSTRACT
Benevolent, long-term care can threaten older adults' sense of autonomy in a residential home environment. Increasing reliance on a hotel style of living has been seen to erode social identity, life satisfaction and even survival or lifespan. Drawing on evidence from both gerontological and social psychological literature, this paper examines the links between the empowerment of residents and their subsequent quality of life in the context of a move into a new care facility in a medium-sized town in South-West England. A longitudinal experiment was conducted during which 27 residents on one floor of a new facility were involved in decisions surrounding its décor, while those on another floor were not. The residents' attitudes and behaviour were monitored at three points over five months (four weeks pre-move, four weeks post-move, and four months post-move). Consistent with the social identity literature, members of the empowered group reported increased identification with staff and fellow residents in the new home, displayed enhanced citizenship, reported improved wellbeing, and made more use of the communal space. Moreover the staff found the empowered residents to be more engaged with their environment and the people around them, to be generally happier and to have better health. These patterns were observed one month after the move and remained four months later. Some implications for theory and practice are discussed.

KEY WORDS – empowerment, social identity, care home, wellbeing, space.

Introduction

To enjoy a long and healthy life, it is typically recommended that people remain active and share interests with others (*e.g.* Seligman 1975). Diet, exercise and sleeping patterns all play their part (Bartke, Bonkowski and

* School of Psychology, University of Exeter, Exeter, UK.

Masternak 2008; Kontos 2004), but for a happy, fulfilled and extended retirement, increasing evidence suggests that it may be social interaction and social engagement that keep people healthy for longer (Barnes *et al.* 2004; Evans 2009; Ertel, Glymour and Berkman 2008; Haslam *et al.* 2009; Jetten *et al.* 2009; Mendes de Leon, Glass and Berkman 2003; Sani, Bowe and Herrera 2008; Schrader 2008). Using a social identity approach (*after* Tajfel and Turner 1979; *see also* Haslam, Eggins and Reynolds 2003; Tyler and Blader 2003), this paper examines the impact of engaging residents *as a group* in decisions surrounding their move into a new care facility. Specifically, the study explores whether empowering residents to make collective decisions about the décor of communal space has any impact on: (a) their identification with others in their home, (b) their wellbeing and quality of life, and (c) their social interaction with fellow residents. In this, the research takes concepts of empowerment and identity realisation from previous studies connected with the workplace and applies these, uniquely, in a care-home environment.

Dominant approaches to care-home management

In spite of concern about the economic cost (Chan and Pang 2007) and the challenges of supporting an ageing population (Bermingham 2001; Shabashova *et al.* 2001), the great body of research into care of older adults argues the need for such care to be people-focused. Reflecting the practical challenges of delivering care, however, there is a tension in the literature between the need to look after older adults and the need to allow them to look after themselves. In resolving this tension, a safety-first tendency often prevails, leading care-home managers to take responsibility for attending to residents' interests (*see* Park *et al.* 2006). In organising and managing the care-home environment, this ensures, among other things, that there is a consistent approach that is commensurate with principles of best practice (Carroll *et al.* 2008; Golander 1995; *cf.* notions of 'one best way' in Taylor 1911). This approach has the perceived advantages of: (a) providing equal treatment for residents (Fahey *et al.* 2003), thereby delivering *distributive justice* (Gray 2009; Tyler and Blader 2000); and (b) minimising the potential for litigation. The latter factor is important because there is evidence that giving too much autonomy to residents can be interpreted as a sign of management's failure to fulfil a duty of care (Phillips *et al.* 2008; Sammet 2007).

Managerial control of care-home space may also come at a price. With little control, residents tend to perceive their lives as being more impersonal and more institutionalised (Kane and Wilson 2001). An emphasis on standardisation and uniformity in care homes can also lead staff to treat residents as homogeneous, with all having the same needs at the same

times – meaning that residents' other social identities (*e.g.* as professionals, grandparents or sports' fans) can be subsumed by their identity as recipients of care (Kasser and Ryan 1999; Oleson *et al.* 1994; Scott *et al.* 2003). Also, as management assumes increasing responsibility for – and control over – ever more aspects of residents' lives, their sense of autonomy tends to be eroded. This in turn can lead to social interaction becoming both restricted and anodyne, thereby compromising the residents' quality of life (Lidz, Fischer and Arnold 1992; Tu, Wang and Yeh 2006).

Social interaction

In line with some of these observations, it has been noted that people in more community-oriented societies such as Japan and Sweden typically live longer than those in individualist countries such as the United States of America or the United Kingdom, and that in almost every walk of life, people who are socially active live longer than the more isolated (Marmot, Siegrist and Theorell 2005; Maugeri *et al.* 2001). Those engaged in society also tend to be happier (Haslam *et al.* 2008, 2010) and less prone to physical illness and cognitive decline (Barnes *et al.* 2004; Mendes de Leon, Glass and Berkman 2003; Ertel, Glymour and Berkman 2008). Accordingly, there is growing evidence of the positive effects of social interaction in residential care homes (*e.g.* Barkay and Tabak 2002; Cheng 2009; Dixon 1991; Hjaltadottir and Gustafsdottir 2007; Klinefelter 1984; Short 1992). For example, Dixon observed that residents who had high levels of social interaction in a care facility felt 'at home' in their living space, as opposed to no more than living in 'a homelike environment' (1991: 160). Such work highlights the importance of friendship and interaction as determinants of residents' happiness and wellbeing (Regev 1997), but also recognises that the quality of social interactions can be compromised by standardised practices that, over time, reduce individuals' quality of life (*see also* Lidz, Fischer and Arnold 1992).

Where social interaction is lacking, residents typically report feeling isolated; this sense of isolation can be reinforced by an inclination to withdraw into their own rooms for long periods and to avoid using communal spaces (Hauge and Heggen 2007). This is problematic since, irrespective of the attentiveness of staff, the society of one's peers has been observed to be a cornerstone of people's capacity to enjoy life in a care home (Cheng 2009; Kahana, Midlarsky and Kahana 1987). Reflecting a life in care dominated by interaction with care staff rather than with fellow residents, an older adult in Andersson, Pettersson and Sidenvall's study said of the care-home staff that 'they are my salvation, but they can't be my companions' (2007: 1716).

Engagement and empowerment

Social interaction may be said to predicate *engagement* and *empowerment* within the home environment (LeCount 2004). In so doing, engagement may be defined as participating intimately and fully in the complexities of one's life (Csikszentmihalyi 1997). Some authors have suggested that engagement is lacking amongst many older adults in care (*e.g.* Klinefelter 1984). Indeed, it has been argued that caring as an activity can so encompass the needs of residents that they are prevented from engaging in decision making and from interacting with their surroundings (Chapman 2002; LeCount 2004). Thus whilst it is recognised that compassion and caring are well represented among the care staff's skills, researchers have argued that caring alone is insufficient (Gentleman 2009; Tyson 1998). If a resident cannot engage with the environment and its people, then she or he is effectively disempowered, even in the most benign surroundings (Rodin and Langer 1976; Seligman 1975). Disempowerment has been shown to be associated with lower levels of motivation, reduced self-esteem and a lack of psychological comfort (Deci and Ryan 1987; Dixon 1991; Folkman and Lazarus 1988).

It is particularly necessary to address explicitly issues of disempowerment in the home environment, with the aim of developing primary relationships of rapport rather than of dependence (Tu, Wang and Yeh 2006). In this regard, researchers have argued that if residents are to have a sense of freedom and *choicefulness* (deCharms 1968), they need to be trusted to make at least some of their own important welfare decisions, *e.g.* choosing bedtimes, leisure activities, meal choices and seating arrangements (Campbell 2003; Jones and George 1998; Robichaud *et al.* 2006). Enabling such choices helps ensure that those who reside in care homes feel in charge of their living space and are not controlled by it (Brink 1993; Dixon 1991; Feingold and Werby 1990). Evidence also suggests that engagement with, and a sense of ownership of, a home's physical space contributes to a sense of social belonging (Hauge and Heggen 2007; Moos 1981). Further, the devolvement of responsibility amongst older adults feeds mutual respect, strengthens social ties and may improve physical wellbeing (Chan and Pang 2007; Regev 1996; Seligman 1975).

To be empowered is therefore to gain, or to regain, mastery over one's life by fully engaging with agents that affect day-to-day living (Rapapport 1984). Empowerment has been observed to be instrumental in making older adults feel more comfortable and happier; it has even been seen to add years to their lives (Clark and Bowling 1990; Regev 1996; Seligman 1975). Kasser and Ryan (1999) found that residents who experienced greater control over their self-care and their religious, inter-personal and

recreational activities reported lower depression, higher self-esteem, greater life satisfaction, more meaning in life, improved general health and better psychological adjustment. In this way, the gerontology research literature provides evidence that social interaction, engagement and empowerment in the care-home environment combine to enhance the physical and psychological wellbeing of the residents (Brink 1993; Gibson 1991; Ozaki *et al.* 2007).

The social identity approach

The idea that the processes which empower group members can foster a sense of shared social identity and thereby enhance social and psychological functioning is well established in the social and organisational literatures (*see* Haslam *et al.* 2009; Jetten *et al.* 2009 for recent reviews). This literature points to the way in which developing social ties within groups enhances the members' social capital (Putnam 2000) and improves both trust and contact amongst group members (Moreland and Levine 2002; Tanis and Postmes 2005), which in turn enable reciprocity of action between group members and lead to a developing sense of social responsibility (Evans 2009; Messer and White 2006) and increasing identification with others (Postmes, Tanis and de Wit 2001). Along these lines, Postmes, Haslam and Swaab (2005) observed that social interaction is one of the principal ways in which a sense of shared *social identity* can be built inductively from the ground up. In particular, this follows from a large body of work informed by social identity and self-categorisation theories (Tajfel and Turner 1979; Turner *et al.* 1994) and is central to Tyler and Blader's (2000, 2003) *group engagement model*. The latter argues that over-and-above the effects of distributive justice, processes which deliver *procedural justice* engender a sense of mutual respect and shared social identity between those in authority and those for whom they are held responsible. Because this sense of shared identity frames social interaction in terms of an inclusive social categorisation (as 'us' rather than 'us–them' or 'me–you'; Turner *et al.* 1994), it is likely to encourage acts of citizenship that promote the common good and the achievement of shared goals (Ashforth and Mael 1989; Haslam 2004; Haslam, Postmes and Ellemers 2003; Organ 1988).

In this respect, the evidence suggests that a sense of procedural justice can be enhanced by participation in decisions that affect one's life. In particular, where issues affect one's group as a whole, a sense of procedural justice and social identification is likely to be enhanced when participative practices engage with people as members of a united group rather than individually or as members of a different group (Eggins,

Haslam and Reynolds 2002). Previous experimental work has tested these ideas in various organisational contexts. Amongst other things, this has shown that when employees are able to exercise choice in relation to the design of their personal office space, this serves to increase organisational identification which in turn leads to increased productivity and wellbeing relative to when employees are placed in: (a) bare offices, (b) offices that have been decorated by others, or (c) offices that they have decorated but that others have subsequently redecorated (Knight and Haslam 2010*b*).

For this paper, the key empirical question is whether these same effects will be observed among a different population (*i.e.* care-home residents rather than employees) and when the manipulations are targeted at a group rather than individuals. The idea that they might is supported by much of the work reviewed above, which indicates that empowerment and engagement impact positively upon the wellbeing and activity levels of care-home residents (*e.g.* Deci *et al.* 2006). It is also supported by evidence that engagement and comfort in an older people's care home can be promoted by allowing the residents to display recognisable artefacts that have meaning for them. They can do this in their own rooms (particularly with artefacts that have personal meaning) and in shared spaces (where the artefacts have shared meaning) (Fitzpatrick *et al.* 2005; Lidz, Fischer and Arnold 1992; Zeisel 2006).

The present research

The ideas outlined in the previous three sections led us to four hypotheses: first (H1) that empowering care-home residents by encouraging their collective input into the design of communal living space increases their social identification with others in the home and their sense of psychological comfort. These factors in turn should encourage them to interact more with others and engage in more citizenship behaviour towards those who share the space with them (H2). They should also enhance their quality of life and physical wellbeing (H3). At a concrete behavioural level, collective engagement in the design process should also encourage residents to make more use of communal space (H4).

To test these hypotheses, we conducted a longitudinal experiment with residents who were scheduled to move out of one UK care home into another that was similar but brand new. The move involved residents who had been accommodated on two floors of the existing care home being moved on to the corresponding floors of the new facility, which provided the opportunity to conduct a natural experiment. This involved collectively empowering the residents of one floor to make decisions about the décor in the new home (the *empowered* condition), while the residents on the

other floor were not empowered in this way (the unempowered, *control* group). All residents received the high level of benevolent care and support that was the care-home organisation's usual practice. It maintained a one-to-one ratio of care staff to residents at the time of the move and the care staff managed all the logistics necessary to minimise stress for the residents (Andersson, Pettersson and Sidenwall 2007; Hodgson *et al.* 2005). Family members were also fully involved to ensure that residents had as much support as possible (Kane and Wilson 2001; Robichaud *et al.* 2006).

For ethical and financial reasons, the participants could not be randomly assigned to the floors or study groups. Accordingly, we decided to apply the experimental (empowered) treatment to residents on the first floor as, prior to the move, they were the least satisfied with their living conditions. This provided the most stringent test of our hypotheses; had we not done this, any improvements could be attributed to pre-existing differences in comfort levels (Haslam and McGarty 2004).

In addition to the provision of standard care, residents in the experimental (empowered) condition were thus given the opportunity to make decisions about how to decorate their home's shared social spaces (*i.e.* the dining room, lounge and corridors). This involved selecting pictures and plants from a range of options. For this purpose, the residents took part in two formal meetings with the care-home managers, representatives of an interior landscaping company, and the researchers. Following these meetings, the residents were asked to make group decisions about the décor of the communal spaces in the new care home. At this point, the residents arranged their own formal and informal meetings to decide on the best designs. There was no interference in this process from the managers, care staff or researchers in relation to either aesthetic choices or spatial arrangement.

In this way, the study allows us to contrast two distinct approaches to residential care. First, the *benevolent managerial approach*, in which all matters of welfare are handled by care-home managers and their staff (*e.g.* Lidz, Fischer and Arnold 1992; McBride 1999; Oleson *et al.* 1994; Polit and Beck 2003). This approach is the predominant model in today's care homes (Gentleman 2009; Zeisel 2006). Second, the *identity empowered approach*, which seeks to raise the residents' wellbeing and life satisfaction by encouraging social interaction, involvement and empowerment with a view to increasing social identification (Haslam, Postmes and Ellemers 2003; Jetten *et al.* 2009; Klinefelter 1984; Matsui 2005; Scott *et al.* 2003). This second approach also echoes calls in the gerontological literature for greater involvement of care-home residents in decisions which affect their everyday lives (Andersson, Pettersson and Sidenvall 2007; Gibson 1991; Tu, Wang and Yeh 2006).

Methods

The participants

Twenty-seven, older adults (17 women and 10 men) from two separate floors of the same residential care-home in South-West England participated in the study – they were 90 per cent of the home's residents. All 27 took part in all three phases of the study. The participants were aged from 67 to 92 years (mean = 79.7, standard deviation (SD) = 7.2) and at the beginning of the study had been resident for from 5 months to 9 years 5 months (mean = 2.1 years, SD = 1.9). All residents were judged by staff to have the capacity to take part in the experiment.

The intervention whose efficacy we assessed was targeted at older adults living in standard residential care. Although they were physically frail and required personal care in a safe and stimulating environment, they were assessed as sufficiently robust not to require individualised nursing care. Of course levels of 'standard care' vary widely between and even within care homes (Calkins, Sanford and Proffitt 2001; Peat, McCarney and Croft 2001), but our criteria for this care level are consistent with previous descriptions of a 'standard care-home environment' (Lidz, Fischer and Arnold 1992; Schrader 2008). Two or three permanent members of staff were on daytime duty on each floor of the home (with one or two staff on duty at night). Generally, the all female staff were dedicated to one floor or the other in order to build rapport between residents and care staff. During the period of this study, there was no staff turnover. Ethical approval for the study was granted by a university research ethics committee. An independent advocate for the residents also gave approval for the study to proceed.

The participants were asked individually whether or not they would like to take part in the experiment and received no reward for their participation. In the light of the within-subjects design, power analysis indicated that this sample size would be sufficiently large to test for predicted effects (assuming effects of moderate to large size, *i.e.* 0.4, a sample of 27 gives a power of 0.90) (*cf.* Cohen 1992). There was no difference in the duration of residence of the residents on the two floors (ground floor mean = 2.11, SD = 1.87; first floor mean = 2.05, SD = 1.95; t (25 degrees of freedom) = 0.35, $p = 0.73$).

Materials and procedure

The questionnaire. The same self-report questionnaire was administered to participants on three occasions: initially four weeks before the move into the new residential home (Phase 1), then four weeks after the

move (Phase 2), and finally four months after the move (Phase 3). On each occasion, the first author sat with each participant as they completed a paper-and-pencil questionnaire that focused on their attitudes to the home. The participants were informed that completion of the survey was taken as indication of their consent to take part in the study and that participation was voluntary. Confidentiality and anonymity were assured. The questionnaire had 21 items, most of which required a response on a seven-point scale (from 1 'completely disagree' to 7 'completely agree'). As a visual aid, this seven-point scale was reproduced on a coloured, laminated A4 sheet with the scale extremes characterised by a full 'thumbs down' (completely disagree) and a full 'thumbs up' (completely disagree). The questionnaire was completed with socio-demographic questions (Phase 1 only) and details about the study and the research project as a whole. In addition to providing reassurance to some participants, full researcher involvement ensured that all responses were completed so that there were no missing data.

The scales were adapted from those used in previous research on issues of empowerment, social identity and wellbeing in relation to the management of organisational space (Knight and Haslam 2010*a*). Adaptation essentially involved shortening the scales. This was done for two reasons: first, because pilot studies had shown that the residents found it very difficult to maintain attention and concentration when completing a long questionnaire, and second, to minimise invasiveness and disruption given that the questionnaire was to be administered on three separate occasions. Moreover, previous research had suggested that abridged measures of such scales typically correlate highly with extended versions (*see* Haslam 2004: 271–4).

The questionnaire assessed six key constructs: (a) *liking for décor* with two items, *i.e.* 'I like the plants in this home' and 'the pictures in this home are boring' (reverse scored) ($r = 0.79$)[1]; (b) *comfort* with four-items, *e.g.* 'This home is a pleasant place in which to live' (Cronbach's $\alpha = 0.80$)[2]; (c) *identification with the staff* with two items, *i.e.* 'I like the care staff in this home' and 'I like the care home managers' ($r = 0.71$)[3]; (d) *identification with residents* was measured by a single item, 'I like my fellow residents'. The residents' experience of the home environment was assessed using two, three-item scales: (e) *environmental satisfaction*, *e.g.* 'I would rather live here than move to a new home' ($\alpha = 0.81$)[4] and (f) *physical wellbeing*, *e.g.* 'Conditions in this home are responsible for many of my minor illnesses and ailments' ($\alpha = 0.71$).[5] After appropriate recoding, the reliability of all scales at each of the three stages of the study was computed (*see* Table 1). All scales had satisfactory reliability at all stages of the study ($\alpha = 0.70$).

TABLE 1. *Scale properties for residents' self-report measures*

Measure	Number of items	Overall scale mean	Cronbach's alphas or correlations			Mean alpha
			P1	P2	P3	
(a) Liking for décor	2	4.01	0.74	0.74	0.90	0.79
(b) Comfort	4	5.51	0.70	0.86	0.83	0.80
(c) Identification with staff	2	5.74	0.79	0.69	0.66	0.71
(d) Identification with residents	1	5.66	–	–	–	–
(e) Life satisfaction	3	5.14	0.74	0.82	0.86	0.81
(f) Physical health	3	4.57	0.60	0.85	0.85	0.77

TABLE 2. *Scale properties for care staffs' observations of residents' behaviour and quality of life*

Measure	Number of items	Overall scale mean	Cronbach's alphas or correlations			Mean alpha
			P1	P2	P3	
(a) Citizenship	2	4.51	0.88	0.85	0.80	0.84
(b) Life satisfaction	2	5.26	0.76	0.79	0.89	0.81
(c) Alertness	1	6.22	–	–	–	–
(d) Physical health	1	5.13	–	–	–	–

Item scores were aggregated to create a set of single scores for each participant.

Observational measures. In addition to the questionnaire, two forms of observational data were collected. First, the care-home staff made week-long observations of residents on eight dimensions at each of the study's three phases. These were presented on a single page with responses on seven-point scales (from 1 'very untrue' to 7 'very true'). These measures assessed four constructs: (a) *citizenship* with two items, *i.e.* 'has been helpful to other residents' and 'has been helpful to staff' ($r = 0.84$)[6]; (b) *life satisfaction* with two items, *i.e.* 'has been in high spirits' and 'has been content' ($r = 0.81$)[7]; (c) *alertness* ('has been alert')[8]; and (d) *physical health* ('has been physically well').[9] The staff recorded these observations at the end of their eight-hour shifts. All identifying information was anonymised during data entry. After appropriate recoding, the reliability of all scales at each phase of the study was computed (*see* Table 2). Item scores were aggregated to create single scores for each participant and the means for each participant for each week of observation were calculated. The second form of

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observational data related to the residents' use of the two main social spaces in the home – the dining room and lounge. The care staff recorded how many residents were using these two areas at 11 am and 7 pm over seven consecutive days during the three phases. The collected data were averaged over the week and anonymised before entry (after Benaim *et al.* 2005).

The results

Scores on all measures were subjected to two-way analysis of variance of the condition to which participants had been assigned (empowered or control) and the study phase (P1, P2 or P3). The second factor was assessed within-participants, which allowed for tests of linear and quadratic trends over the three phases, within and between participants. Relevant means and statistics are presented in Tables 3 and 4.

The residents' self-reports

Liking for décor. As hypothesised, analysis of responses on this measure revealed a main effect for condition ($F(1, 21) = 222.3$; $p < 0.001$) as well as a significant linear effect for study phase ($F(1, 21) = 23.0$, $p = 0.022$). The empowered residents showed greater liking for the décor in their home than the control group (means 5.51 and 2.51, respectively, on the seven-point scales). On average, the participants also liked the décor more over time (means: P1 3.35, P2 4.22, P3 4.44). However, both effects were qualified by significant linear and quadratic interactions between condition and phase ($F(1, 21)$ 79.8 and 19.9, respectively; both $p < 0.001$) (see Table 3).[10] These interactions reflected the fact that after the move, the participants in the empowered condition liked the décor more, while those in the control condition liked it less.

Comfort. The analysis revealed a main effect for condition ($F(1, 21)$ 39.80, $p < 0.001$) as well as significant linear and quadratic interactions between condition and phase ($F(1, 21)$ 32.1 and 15.7, respectively; $p < 0.001$ and $p = 0.001$, respectively). These effects reflected the fact that participants in the empowered condition were generally more comfortable than those in the control group (means: 5.77 and 5.26, respectively), but that this difference was only apparent after the move. Indeed, prior to the move, residents in the control condition reported being significantly more comfortable than those in the empowered condition.

TABLE 3. *Residents' self-reported feelings of comfort, identification and wellbeing*

		Phase			Condition	Linear		Quadratic	
						Phase	Condition × phase	Phase	Condition × phase
Measure	Group	P1	P2	P3	*F*	*F*	*F*	*F*	*F*
(a) Liking for décor	E	3·54	6·27[a]	6·72[b]	222·3**	23·0**	79·8**	2·8	19·9**
	C	3·16	2·16[a]	2·21[b]					
(b) Comfort	E	4·67[a]	6·22	6·43[b]	39·8**	1·0	32·1**	1·0	15·7**
	C	5·50[a]	5·86	4·40[b]					
(c) Identification with staff	E	5·23	6·00	6·28[a]	1·5	6·4*	6·4*	0·0	1·1
	C	5·71	5·52	5·71[a]					
(d) Identification with residents	E	5·45	5·91	6·18[a]	4·5*	0·1	10·5**	0·0	0·4
	C	5·92	5·33	5·08[a]					
(e) Life satisfaction	E	4·58[a]	5·85[b]	6·21[c]	13·8**	2·2	24·7**	0·0	3·0
	C	5·31[a]	4·47[b]	4·42[c]					
(f) Physical health	E	3·36[a]	5·73[b]	5·52[c]	5·8*	2·4	21·9**	4·33*	15·8**
	C	4·94[a]	4·00[b]	3·86[c]					

Notes: C: control group. E: empowered or experimental group. P1 took place four weeks before the move to a new care home, P2 four weeks after the move and P3 four months after the move. Means with the same superscript indicate a significant difference between the empowered and non-empowered groups ($p < 0.05$).
Significance levels: * $p < 0.05$, ** $p < 0.01$.

TABLE 4. *Care staff's observations of residents' behaviour, quality of life and use of social space*

		Phase			Condition	Linear		Quadratic	
						Phase	Condition × phase	Phase	Condition × phase
Measure	Group	P1	P2	P3	*F*	*F*	*F*	*F*	*F*
(a) Citizenship	E	3.96	4.66	5.58[a]	1.2	6.0*	2.3	0.01	0.4
	C	4.04	4.37	4.42[a]					
(b) Life satisfaction	E	4.50	5.32	6.00[a]	0.0	6.18*	6.18*	0.04	0.0
	C	5.25	5.25	5.25[a]					
(c) Alertness	E	6.36	6.57	5.86	0.4	6.4*	0.1	7.4*	0.1
	C	6.25	6.42	5.83					
(d) Physical health	E	4.07	5.71	6.07[a]	2.3	24.7**	1.8	12.2**	0.7
	C	4.00	5.67	5.25[a]					
(e) Use of dining room	E	0.02[a]	0.07[b]	0.00	4.7*	21.1**	14.0**	0.8	47.6**
	C	0.12[a]	0.02[b]	0.01					
(f) Use of the lounge	E	0.22	0.37[a]	0.50	3.1	2.2	4.8*	4.0	5.4*
	C	0.28	0.09[a]	0.23					

Notes: C: control group. E: empowered or experimental group. P1 took place four weeks before the move to a new care home, P2 four weeks after the move and P3 four months after the move. Means with the same superscript indicate a significant difference between the empowered and non-empowered groups ($p < 0.05$).
Significance levels: * $p < 0.05$, ** $p < 0.01$.

Identification with staff. Analysis revealed a significant linear effect for study phase and a significant linear interaction between phase and condition ($F(1, 21)$ 6.4 and 6.4, respectively; both $p = 0.020$). These effects reflected the fact that, over time, the majority of residents identified more with staff (means: P1 5.46, P2 5.76, P3 5.99), but that this increase arose entirely from the enhanced identification of the empowered residents.

Identification with residents. Analysis revealed a main effect for condition ($F(1, 21)$ 4.50, $p = 0.046$), as well as a significant linear interaction between condition and phase ($F(1, 21) = 10.54$, $p = 0.004$). These effects reflected the fact that the empowered participants generally identified more with their fellow residents than those in the control group (means: 5.84 and 5.44, respectively), but that this difference only emerged after the move into the new home.

Life satisfaction. Analysis revealed a main effect for condition ($F(1, 21) = 13.77$, $p = 0.001$) and a significant linear interaction between condition and phase ($F(1, 21) = 24.74$, $p < 0.001$). These effects reflected the fact that the empowered residents generally reported greater life satisfaction than those in the control group (means: 5.54 and 4.73, respectively), but that this was only true after the move. Indeed, prior to the move, residents in the empowered condition reported having significantly lower life satisfaction than the control group.

Physical health. Analysis revealed a main effect for condition ($F(1, 21) = 5.82$, $p = 0.025$), a marginally significant quadratic effect for phase ($F(1, 21) = 4.33$, $p = 0.050$), as well as significant linear and quadratic interactions between condition and phase ($F(1, 21) = 21.87$ and 15.78, $p < 0.001$ and $p = 0.001$, respectively). The empowered residents reported feeling physically healthier than the control group (means: 4.87 and 4.26, respectively), and feeling healthier over time (means: P1 4.15, P2 4.86, P3 4.70). However, interactions arose because (a) the first of these effects was stronger after the move, and (b) the improvement was restricted to the empowered residents. Indeed, prior to the move the empowered residents had reported poorer physical health than the controls, and over time there was a decline in the latter's physical health.

Care staff ratings

Citizenship. The only effect to emerge from the analysis of the citizenship scores was a linear effect for phase ($F(1, 24)$ 6.00, $p = 0.022$). The care staff reported that the participants displayed greater citizenship as the study

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progressed (means: P1 4.00, P2 4.52, P3 5.00). By Phase 3, the score was significantly greater for the empowered residents.

Life satisfaction. Analysis revealed a significant linear effect for phase and a linear interaction between phase and condition ($F(1, 24)$ 6.18 and 6.18, respectively, both $p = 0.020$). These effects reflected the fact that, over time, all residents appeared to have greater life satisfaction (means: P1 4.87, P2 5.29, P3 5.63), but that an increase in life satisfaction was only reported by residents in the empowered condition.

Alertness. Analysis of this measure revealed significant linear and quadratic effects for study phase ($F(1, 23)$ 6.42 and 7.41, respectively, both $p = 0.019$ and $p = 0.012$, respectively). These effects arose from the fact that participants in both conditions were observed to be most alert close to the time of the move, and that their alertness tended to decline thereafter (means: P1 6.31, P2 6.49, P3 5.85).

Physical health. Analysis revealed both a linear and quadratic effect for phase ($F(1, 24)$ 24.7 and 12.2, respectively, $p < 0.01$ and $p = 0.002$, respectively). These effects reflected the fact that over time, all residents appeared to be in better physical health (means: P1 4.04, P2 5.69, P3 5.66), but that the greater increase was among the empowered residents – by Phase 3 residents in this condition felt they were in significantly better health than those in the control condition.

Use of space

The dining room. Analysis revealed a main effect for condition ($F(1, 25)$ 4.7, $p = 0.040$) as well as a significant linear effect for experimental phase ($F(1, 25)$ 21.1, $p < 0.001$). Overall, the empowered residents used the dining room less than the control group (means: 0.03 and 0.08, respectively) and the dining room was used less after the move than before (means: P1 0.07, P2 0.04, P3 0.01). Both effects were qualified by significant linear and quadratic interactions between condition and phase ($F(1, 25)$ 14.0 and 47.6, respectively, both $p < 0.001$). These reflected the fact that before the move, the control group residents used their dining room much more than those in the empowered condition, but that in Phase 2 this pattern was significantly reversed.

The lounge. Analysis revealed significant linear and quadratic interactions between condition and phase ($F(1, 25)$ 4.8 and 5.4, respectively, $p = 0.038$ and $p = 0.028$, respectively). These effects indicate that before the move, the control group used their lounge more than those in the empowered

condition, but after the move this was reversed – although the effect was more pronounced one month after the move (when the empowered residents used the lounge significantly more than the controls) than three months later.

Discussion

The findings provide clear support for all four hypotheses, and therefore demonstrate that empowering care-home residents by encouraging their collective input into the design of communal living space had several substantial positive consequences for both them and the care staff. In particular, engaging with the group in this way gave the residents a greater sense of psychological comfort and social identification with others in the home (H1), led them to display more considerate 'citizenship behaviour' towards those who shared their space with them (H2), and led them to report and exhibit improved life satisfaction and physical health (H3). Finally, the residents who had been collectively engaged in the design of new communal space made much more use of that space than those in the control group (H4).

The presented findings provide clear support for hypotheses derived from a social identity approach to issues of both space management (Knight and Haslam 2010*a*) and health and wellbeing (Haslam *et al.* 2009; Jetten *et al.* 2009). When residents were involved in the design of their collective space, this allowed them some ownership of it (so that it became *their* space), and as a result they reported enhanced feelings of comfort and social identification. In other words, rather than simply being 'in a home' all indications suggest that residents 'felt at home'. They also reported feeling healthier and happier. Moreover, it would appear that those in the empowered condition did not just *feel* different; the care staff's ratings also indicated that they were visibly more active, for which the most tangible evidence was the residents' increased willingness to engage with each other through using the home's social spaces. Indeed, in the period after the move, the empowered residents used their main lounge nearly four times more than the control group did their own, and four months later they were still using the lounge more than twice as often. Indeed, the results suggest that at any time during the day (except at meal times), 50 per cent of the empowered residents were in the lounge. Furthermore, the staff's qualitative reports suggest that on the empowered residents' floor, all but one of the residents were making full use of the home's social spaces (the exception was a recluse who had not emerged from her room in 11 years). Residents on this floor were also proud to point out the pictures

and plants that they had helped to select. On the ground floor, it would seem that most users of the social space came from a 'hard core' of the more sociable residents, and the shyer residents were hardly seen at all.

This evidence of the benefits of applying a social identity perspective in a residential care setting relates to the medical, nursing *and* psychological literatures which urge an interactive approach to aged care (*e.g.* Bandura 1999; Collopy 1988; Frazier and Baker-Smith 1997; Lidz, Fischer and Arnold 1992; Moos 1981; Wilson, Davies and Nolan 2009) and provides support for the criticisms of care approaches that put residents in essentially passive roles (*e.g.* Folkman and Lazarus 1988; Hjaltadottir and Gustafsdottir 2007; Nolan and Grant 1992). Our research also augments Zeisel's advocacy of the importance of place and the meaning of space for older adults in care (Zeisel, Epp and Demos 1978; Zeisel 2006). The present research contributes to a growing body of literature which remarks upon the importance of decision making for older adults in care (Stiggelbout 2000; Wilkinson 1999). At the same time, the findings contest arguments that care-home managers and their staff should make all the decisions on behalf of residents (*cf.* Calkins, Sanford and Proffitt 2001; Carp 1966; Chapman 2002; Gottesman and Bourestom 1974; McBride 1999; Polit and Beck 2003; Tyson 1998). It has been shown that benevolently managed, non-empowered residents generally have a *less* satisfactory experience than those who are empowered to realise their collective wishes (van Bilsen *et al.* 2006). Indeed – whilst recognising the importance of an enriched rather than a lean or bare environment (Knight and Haslam 2010*b*; Vischer 2005) – our findings suggest that collective empowerment has qualitative as well as quantitative benefits for the quality of life of people living in residential care.

Turning to the social psychological literature, the findings are consistent with the work that sees social (*i.e.* group-based) activities as central to life experiences, particularly those that add structure and meaning to people's perceptions of their environment (Ellemers, De Gilder and Haslam 2004), and that motivate engagement with others to create an environment that reflects the group's identity (Ashforth and Mael 1989; Sani, Bowe and Herrera 2008). Moreover, they support the idea that collective empowerment helps people identify with their peers and, as a result, encourages more frequent and productive social interaction (Drury and Reicher 2005; Haslam, Postmes and Ellemers 2003; Postmes, Tanis and de Wit 2001).

These results are consistent with previous work from a social identity perspective that points to a connection between empowerment, social identity and feelings of wellbeing and satisfaction (Ashforth 2001; Haslam *et al.* 2005; Platow, Byrne and Ryan 2005) as well as with the gerontological

literature which has made connections between care-home autonomy, increased satisfaction and longer life (Barkay and Tabak 2002; Kasser and Ryan 1999; Lidz, Fischer and Arnold 1992). Nevertheless, the particular contribution of the present research is that it has established new theoretical and practical links between these two approaches. This has been achieved with an empirical bridge between these two literatures in the form of longitudinal evidence of which factors enhance social identification (in this case, group engagement and empowerment) (Tyler and Blader 2003) and have a long-term impact not only on subjective aspects of health and wellbeing but also on objective realities: specifically, the use of space and patterns of social interaction (Hauge and Heggen 2007; Hopkins and Dixon 2006). In this respect, it is impressive that in a generally benign care setting, two sets of residents receiving the same empathic care followed very different psychological and behavioural trajectories as a function of a relatively simple intervention.

Experimental evidence for this link is important in several ways. Most particularly, it supports the notion that empowerment is as important for older adults as it is for other people (Brink 1993; Gibson 1991; Tu, Wang and Yeh 1996). It also echoes earlier findings from a continuing programme of research that has shown that office workers are happiest, most comfortable and most productive when empowered to realise their own identities by decorating their workspace – an effect attributable to the fact that empowerment served to increase employees' organisational identification (Knight and Haslam 2010*a*). Together, these findings suggest that even the most benevolent forms of space management may be less effective than those which cede at least some control of space to those who live their lives within it (Andersson, Pettersson and Sidenvall 2007; Bandura 1999; Chandler and Lalonde 1998; Moos 1981; Regev 1997).

Limitations and future research

Notwithstanding the support for the study's hypotheses, it is also important to note some limitations that may lessen the findings' broader applicability to gerontological issues. The first concerns the sample population, which although a reasonable reflection of the United Kingdom's actual population of people aged over 70 in terms of gender (63% female, against a national average of 62%; Office for National Statistics 2005) was nevertheless entirely Caucasian. Thus, while we argue for the value of greater identity empowerment, this was for a relatively homogeneous group of participants with no obvious cultural variations. The sample was also rather small. Whilst statistically this was not problematic, in terms of the study's generalisability it would be worthwhile repeating the experiment

in order to replicate and substantiate the findings, not least in the interests of face validity (Anastasi 1988).

Nonetheless we argue that the room-decorating intervention used in this study represents the type of care-home task that is usually handled by the managers (Clark and Bowling 1990; Fahey *et al.* 2003) but which can easily be devolved to residents (Campbell 2003; Moos 1981), which might thereby enhance their autonomy, social identity (sense of group belongingness) and wellbeing (Derks, van Laar and Ellemers 2007; Sani, Bowe and Herrera 2008). Moreover, the significance of our experimental findings lies in the support they provide for the theory-derived hypotheses. It is on this basis that we would seek to make claims about their generalisability (Turner 1981). In this regard, our results echo patterns observed in a wide range of literatures in terms of identity empowerment and its effects upon psychological and physical comfort (Deci and Ryan 1987; Tyson 1998), identification (Kahana, Midlarsky and Kahana 1987; Haslam, Eggins and Reynolds 2003), life satisfaction (Barkay and Tabak 2002) and wellbeing (Tu, Wang and Yeh 2006).

Such linkages also suggest the potential for a broader, pan-disciplinary conceptualisation of the relationship between identity, space management and wellbeing. The potential for these theoretical developments to be translated into tangible practical benefits is also powerfully demonstrated by the present study. It was apparent that the intervention delivered non-trivial realised benefits to both residents and the staff who take care of them. In a society where people generally have a propensity to expect less from older adults than they are capable of delivering – particularly those living in residential care (Barkay and Tabak 2002; Desrichard and Köpetz 2005) – these results challenge the idea that senior members of society are incapable of making important decisions for themselves and reveal the benefits that can accrue from actively working to counter prevailing stereotypes.

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NOTES

1 After McBride (1999).
2 After Vischer (2005).

3 After Doosje, Ellemers and Spears (1995).
4 After Haslam *et al.* (2005).
5 After Spector *et al.* (2005).
6 After Fitzpatrick *et al.* (2005).
7 After Fitzpatrick *et al.* (2005).
8 After Buturusis *et al.* (1986).
9 After Whiteley and Brittain (2006).
10 Although this quadratic effect (like others reported below) was statistically significant, these need to be interpreted with caution due to the acknowledged fragility of such effects (*e.g.* West, Welch and Galecki 2007).

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Address for correspondence:
Craig Knight, School of Psychology,
University of Exeter, Perry Road,
Exeter EX4 4QG, UK

E-mail: Craig.P.Knight@ex.ac.uk