

SUSTAINABLE RESIDENTIAL AGED CARE: THE INFLUENCE OF ENVIRONMENT ON CARER WORK SATISFACTION AND STRESS

T. Hilaire, G. Brewer, T. Gajendran

The University of Newcastle, Australia

Trevor.Hilaire@newcastle.edu.au

ABSTRACT

Throughout the developed world populations are ageing which is placing pressure on residential aged care facilities (RAC) and families. People caring for the elderly in RAC face workplace stress and workplace satisfaction that is unique to their area of work on a daily basis. Both workplace stress and satisfaction have been shown to influence quality of care which has been strongly associated with quality of life (QoL) for residents and carers in RAC. Evidence is increasing that the physical environment can influence work outcomes through the introduction of potential stressors or stimuli. Therefore if workplace stress/satisfaction can be affected by the physical environment and workplace stress/satisfaction can influence the level of care, which is a major factor of QoL, then RAC facilities could benefit from considering the insulation of workers from environmental stressors complemented by the promotion of spaces that stimulate satisfaction. Consideration of these aspects of the built environment has implications for environmental and social sustainability as the population of Australia and much of the developed world are ageing which will escalate demand for RAC with increasing levels of dementia specific care. This paper reports on the initial findings of three aspects from Stage 1 of a study that investigated a range of thirteen design variables in RAC with the potential to impact upon carer job satisfaction and stress. Initial responses to the research have confirmed the influence of some of the design variables, cast doubt over the influence of others and provided some new variables. As the research is expanded to include more participants the dependencies and relationships between the candidates and the relevance of the discovered candidates will be further investigated.

Keywords: Residential aged care, satisfaction, stress, built environment, design

INTRODUCTION

The United Nations Populations Fund anticipated that by 2008 half the world's population would reside in cities or urban areas (UNFPA 2007).

This has obvious implications for resource depletion and environmental degradation (Basiago 1999) and significant implications for urban and social sustainability (Basiago 1999). The efficiencies within a community enable it to maintain or enhance social resources (Porta and Renne 2005) which contributes to the changing nature the community's sustainability (Eden 2000).

Older members of the community require varying levels of care from services delivered in their own home to higher levels of care requiring a dedicated facility with the necessary services. In Australia people assessed for higher levels of care under the Aged Care Funding Instrument (ACFI) have their needs met in a Residential Aged Care (RAC) facility (Australian Government Department of Health and Ageing 2008).

The paper will outline the anticipated growing need for RAC facilities and the importance of Quality of life as a principal aim in these facilities. The argument will be made that there are stresses and satisfaction in workplaces and RAC facilities also have particular stressors and points of satisfaction. Carers provide the day to day care and quality of care has been found to impact on the resident's quality of life. The RAC environment can have an effect on workplace stress/satisfaction and some initial indications from Stage 1 of a study to identify significant issues within RAC facilities will be reported. It will be proposed that suitable design of RAC facilities with the work stress/job satisfaction of carers in mind could affect the resident's quality of life and result in a more efficient sustainable facility with the resultant flow on to society. The need for further investigation will be noted.

AFFECT OF STRESS/SATISFACTION ON QUALITY OF CARE AND QUALITY OF LIFE

In 2011, 14% of the Australian population was over 65 years with 6.1% of that group in RAC (Australian Bureau of Statistics 2012). However sustained low levels of fertility and medical advances (Bender 2004) increasing life expectancy (Pardasani 2004; Healy, Sharman et al. 2006) allied to the influx of the baby boomers (Vladeck 2005) are predicted to inflate these figures. People over the age of 65 years are anticipated to account for 20% of the Australian population with a 54% increase by 2023 (Australian Bureau of Statistics 2004). This pattern is repeated throughout the industrialised world (Vladeck 2005; Healy, Sharman et al. 2006; Maples and Abney 2006).

Current indications show the ageing of the population should increase the demand for residential aged care (Coombs and Dollery 2004; Birrell and Healy 2005; Howe and Healy 2005; Mitchell and Mosler 2006) however not all people over the age of 65 years require aged care (Wiggins, Higgs et al. 2004) as people prefer to age in place (Pardasani 2004; Spanbroek

2005), a trend expected to increase as the Baby Boomers grow older (Spanbroek 2005).

The World Health Organisation Quality of Life Group notes Quality of Life (QoL) as being multidimensional and therefore difficult to define (Barnes 2002, Bowling 2007). One aspect of QoL i.e. quality of care in RAC has been the subject of much research (Willhelmson 2005) which indicates a robust relationship between QoL and care (Parker 2004). As QoL is an ill-defined multidimensional term there are other factors, aside from care, to explore and one aspect could be the effect of environmental design.

QoL is a primary aim in RAC facilities with quality of care shown as an essential component. RAC facilities are also work environments for carers and current literature indicates that workplaces can cause stress (Marchand 2002, Parslow 2004, Wellens 2006) and foster satisfaction (Hannan, Norman et al. 2001). The levels of stress or satisfaction in RAC environments can affect care (Hannan 2001, Edvardsson 2005) which is a factor of QoL, (Willhelmson 2005, Parker 2004) the primary aim of RAC. Therefore it would seem reasonable to put forward the question "will the consideration of workplace stress in environmental design affect quality of life in RAC?"

DESIGN VARIABLES AND INITIAL INDICATIONS

A literature review identified areas of workplace stress/satisfaction in RAC where there was a potential impact from the built environment (BE). These areas have been termed "design variables" as, subsequent to further investigation they may be able to be varied to positively affect stress/satisfaction in the RAC workplace. Due to space limitations only three areas noted as having a great potential to impact upon workplace stress/satisfaction have been included in this paper. These areas or design variable have formed the core of a study being presently undertaken to determine the potential or validity of modifications to the physical environment of a RAC facility that may enhance sustainability.

Stage 1 of the project involved the recruitment of carers with a certificate from a vocational training establishment (Technical and Further Education (TAFE) Cert IV) from a number of RAC facilities as participants to discuss their thoughts on the identified design variables during a semi structured interview. The interviews were recorded, transcribed and themes were identified using Nvivo software. A total of twenty nine participants were recruited.

Aggressive or disruptive behaviour

Amongst the most disturbing and distressing behaviours in RAC is aggressive, disruptive or assaultive behaviour (AB) (Landreville, B´edard

et al. 2006). AB in RAC facilities is often associated with changes to behaviour associated with the "behavioral and psychological symptoms of dementia" or BPSD (Lovheim, Sandman et al. 2006). Alzheimer's disease, other dementia and behavioural disorders affect 42% of residents in RAC (Australian Bureau of Statistics 2006) having the potential to exhibit AB.

AB has been described by Landreville, B'edard et al as including "...hitting, kicking, scratching, pushing, biting, punching, grabbing, throwing objects, slugging, pinching, cutting, stabbing, spitting, cursing, swearing, insulting, obscene or profane language, sexual aggression, and sexual advances." (Landreville, B'edard et al. 2006). AB has been described as having a detrimental effect on the carer/resident relationship and may lead to the use of pharmacological or physical restraints (Moniz-Cook, Woods et al. 2000; Morgan, Stewart et al. 2005).

AB is mostly directed at carers as they spend the most time with residents and can often be seen by residents as invading personal space whilst undertaking care responsibilities (Morgan, Stewart et al. 2005).

The actual number of assaults or extent of AB is difficult to determine with estimates of 9.3 assaults per carer each month to almost daily assaults (Morgan, Stewart et al. 2005; Landreville, B'edard et al. 2006). Morgan, Stewart et al conducted a study in 2004 involving 355 carers and found that 64.5% of those working in special care units and 74.4% of those in non special care units had been physically assaulted by residents in the previous twelve months (Morgan, Stewart et al. 2005).

The worst outcomes of AB are job stress, staff burnout, staff turnover , time off work (Morgan, Stewart et al. 2005), emotional exhaustion, distress and injuries (Landreville, B'edard et al. 2006).

Aggressive or disruptive behaviour – initial findings

In this initial stage of the research all participants indicated that they had frequently experienced AB, 66% indicated they did not consider it a source of stress, 31% noted that it was a source of stress to some degree with no participants identifying it as a major source of stress. One participant explained that it was not a source of stress when working with dementia residents but was source of stress when encountered elsewhere within the facility. All participants noted that they considered it to be part of the job for example "*It's a bit unnerving at the time but generally I'm OK with it. I understand that it's part of the reason I am here.*". Only three participants could relate BE factors they felt helped deal with AB being i) nurse stations central to the resident rooms which offered some reassurance that help was close at hand, ii) on a similar line, all staff carry a Dect phone which also gave assurance that assistance was close by, and iii) ground floor residents rooms having a second door to the

outside which provided a convenient escape path. There was one negative comment where the participant felt the BE contributed to AB *"the place is too spread out and we have to redirect residents who get lost and that's when they often get aggressive, they don't like to be lost."*

Training

It has been estimated that carers are responsible for 80% to 90% of resident care but are not always adequately trained to cope with the stresses particular to RAC facilities (Proctor, Stratton-Powell et al. 1998). It has been shown that adequate training can reduce problems with residents (Kotynia-English, McGowan et al. 2005), reduce carer stress (Proctor, Stratton-Powell et al. 1998), improve the attitudes of staff, promote caring behaviours and impact on resident quality of life (Brodaty, Draper et al. 2003).

Staff training in RAC can have a noticeable effect on attitudes, stress, AB, in particular the frequency of assault (Morgan, Stewart et al. 2005) but can be quickly negated if there is a high turnover of staff (Kotynia-English, McGowan et al. 2005).

As the incidence of dementia increases in RAC facilities the nature and focus of training will have to adjust (Morgan, Stewart et al. 2005) to meet the challenge with a regular training support programme which should improve morale and reduce carer stress (Proctor, Stratton-Powell et al. 1998). To accommodate this training programme Stage 1 of the study sought to identify whether participants recognised training as an advantage and if there were experiences between on-site or off-site training facilities and if the requirements for a training facility.

Training – initial findings

Most participants (83%) agreed that training was essential and some admitted that training had helped them particularly with AB and operating lifting equipment. Five participants expressed feelings that training was *"...more something that you have to do, it's less practical and more like meeting their quotient or whatever."* or *"....some of it is really crap, some you just have no interest in."* In regards to the BE all participants had an on-site training area but of these 48% were not dedicated training rooms but resident's activities areas or staff rooms that were taken over for the purpose. One participant had worked for an organisation where the training was off site and felt this was *"...a hassle most of the time, you have to get there and get home, find parking, I didn't like it much."* Specific comments about the BE included excluding residents or the view of residents from the area, a specific example described glass doors where residents could see staff and tried to enter. The size of the room

to adequately accommodate the number of people was also raised in addition to a professional level of integrated equipment.

Residents with high risk of falls

Frail, cognitively impaired residents in RAC facilities are of concern to the community as they present a great risk of falling and the resultant serious consequences (Jensen, Nyberg et al. 2003). Falls were one of the major causes of hospitalisation in older people in New South Wales in 2004 (Australian Bureau of Statistics 2004).

The consequences of falls in older people generates a considerable cost to the community and represents approximately 33% of the cost of medical treatment for all injuries in Sweden (Kallin, Jensen et al. 2004). It is possible that some falls may be preventable and this cost and utilisation of resources could be reduced (Jensen, Nyberg et al. 2003; Kallin, Jensen et al. 2004).

The risk of falls can become a stressor as carers are concerned they cannot supervise every resident in their care (Haggstrom, Skovdahl et al. 2005; Nordam, Torjuul et al. 2005; Bauer 2006) who is at risk of falling. Staff often opt to protect residents at greater risk by restricting or excluding them from areas which may have other effects (Moore and Haralambous 2007).

A wide range of environmental modifications to reduce the risk of falls have been utilised and trialled. These modifications include removing steps, securing floor coverings, providing grab rails and hand rails, improved lighting, rearranging furniture (Jensen, Nyberg et al. 2003), specifically designed beds with bedrails (Kallin, Jensen et al. 2004) and securing resident's personal belongings to avoid clutter (Moore and Haralambous 2007).

Residents with high risk of falls – initial findings

Stage 1 of the study sought to identify whether the risk of falls was a source of stress and identify any potential factors that carers considered to be attributable to the BE.

Only four participants (14%) admitted to little or no stress over residents at risk of falls, comments did not indicate disregard but were along the lines of *"I understand it's part of their age and condition and part of the reason we're here, they will fall and I can't stop it all the time."* Other participants (34%) summed it up as a "balancing act" with comments like *"It's a balance, to allow residents choices and independencies at the risk of falling, you worry about them falling but you can't deny them activity."* however 52% of participants expressed deep concern with comments like

"I felt inadequate, I felt that a fall was inevitable regardless of what you did , I felt helpless." and "They actually made me feel worried at all times" and "It's probably one of the most stressful aspects of the job."

The main reasons the participants gave for resident falls were floors, which comprised contrasts in colours or shades sometimes caused by lighting, changes in floor textures for example changes from vinyl to carpet. Some participants associated the resident's foot wear with changes in the floor patterns or texture as a source of falls. Comments like "we check the foot wear the relatives bring as that sometimes help trip them up on things, we don't always know but we like to check". Floor surfaces are part of the accreditation and certification processes but a few aspects can still create a hazard for frail people. Doors were also identified as a potential falls hazard including lighting at doors and residents, particularly those with walkers, opening and closing doors and becoming entangled or overpowered in the process. One suggestion was auto opening sensors on doors frequented by residents. Another cause of falls mentioned by participants was trying to get out of bed, even with bed rails in place. The suggestion was made to install wiring in facilities to allow sensors in all beds to give a warning when the resident tries to leave. Currently it would appear that the provision for sensors is limited to a number of dementia specific places. Uneven surfaces were also noted, not within the building but in the external paths which included residents falling off paths into garden beds.

DISCUSSION

Literature describes AB as a major source of workplace stress in RAC and for this reason it was included as an area of potential impact in this paper. However the participants in Stage 1 of this project, despite all acknowledging AB experiences did not consider it a high source of stress. This apparent discrepancy with literature could be explained, at least in part, by training as a part of facility accreditation subsequent to the Aged Care Act 1997 under the requirement for "continual improvement". Subsequent to the literature review it was thought that there may be a BE solution to workplace stress caused by AB but it could be possible that the BE solution could take the form of adequate training facilities. Literature is divided with reasons for and against on-site training however the participants did not offer any support for off-site training. This finding could possibly be due to the small number of participants who had experienced off-site training. However there appeared to be a broad support for on-site training facilities which comprised i) criticism of off-site training, ii) no criticism of on-site training, and iii) acceptance by way of suggested improvements to on-site training facilities.

The initial findings in regard to residents with high risk of falls reflects the concern indicated in literature however in the context of the Aged Care

Act 1997, accreditation and certification instruments the initial responses are surprising. Issues raised by the participants should be largely reduced by legislative requirements however it would appear that the area of potential falls is a source of stress. Built environment solutions in further stages of the research will need to include lighting, shading and colour issues, textures and issues surrounding doors.

CONCLUSION

Quality of life(QoL) is multidimensional, complex and difficult to define however there is a strong relationship between QoL and quality of care. This paper has argued that there may be other factors that can affect care and therefore QoL.

The RAC workplace environment can provide particular stressors and sources of satisfaction to which individuals react. There is an association between quality of care and work stress/job satisfaction however with much of the actual care being undertaken by carers (as distinct from registered nurses) their levels of job stress/satisfaction have the potential to have a great affect on quality of care.

The physical environment affects both job performance and job satisfaction by introducing or alleviating potential stressors. Therefore if workplace stress can be affected by the physical environment and workplace stress also affects the level of care which is a part of QoL then RAC facilities may find an advantage in insulating carers from stressors and promoting satisfaction.

The initial findings of Stage 1 of the research indicate that although AB is experienced by many carers in RAC it is not considered by them to be a high level stressor partly due to the impact of training. RAC facilities are required to provide training to the care staff and there is a range of opinions in regard to the adequacy. Most participants indicated experience with on-site training however in many cases further research is required to identify a more suitable BE solution for the training facility.

Residents with high risk of falls remains a significant stressor and despite legislative requirements there appears to be a number of BE issues that could be investigated to further mitigate the risks.

The proposal that social sustainability can be enhanced and quality of life improved for residents in RAC via modifications and adaptations to the physical environment with the aim of reducing stressors and improving satisfaction for carers requires further investigation.

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