

behaviour, for example to offer comfort in clients' own language. Respondents reported feelings like frustration and incompetency. When clients seem to feel at home at last, this offers great satisfaction to professional carers. Some carers expect that a special care unit for specific minority groups may facilitate optimal care.

Conclusion: Despite the fact that all respondents aim to provide good personal care, problem behaviour in people with dementia from ethnic minority groups may lead to frustration in both client, relatives and professional carers. Intercultural competencies and care may be helpful, but cultural specific care is also expected to improve quality of care.

**PO2.10. Decision-making of nursing home staff when a person with advanced dementia 'unexpectedly' deteriorates**

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Care homes in the United Kingdom are either Nursing homes where there is 24-hour nursing provision or Residential care homes where there is 24-hour provision of social care but no provision of nursing care on site.

There are approximately 400,000 residents in care homes in the UK, it is estimated that 311,730 have dementia with 180,500 living in residential care homes and 131,230 living in nursing homes (Prince et al 2014).

The author is currently undertaking data collection in relation to her PhD study exploring the decision-making experiences of nursing home staff in the UK, when a person with advanced dementia deteriorates unexpectedly. It has been identified that there is no research in the UK relating to this area of clinical practice.

Decision-making in relation to this cohort of residents is fraught with challenges due to the often complex and multifactorial medical and social care issues affecting people with advanced dementia in nursing homes. Another complicating factor is if the person with dementia lacks the capacity to make or; to communicate their wishes within the context of the decision to be made.

Issues such as co-morbidities, advance care planning, family perspectives, prognostication, legal frameworks and local service provision, alongside the skills and knowledge of the staff can all influence this important area of care. Due to often poor-quality outcomes there is a growing propensity to reduce inappropriate admissions to hospital for people with advanced dementia, therefore, understanding some of the factors that may influence decision-making at a point of unexpected deterioration could support improved care and support for people with advanced dementia and their families.

This session will offer some preliminary findings from the study and seek to highlight this key issue. Some of the emerging data that may be influential for practice and policy will be discussed.

**PO2.11. Respiratory function and upper limb functional ability in people with dementia: A shout for attention**

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Background: Dementia is one of the main causes of disability and dependency in older people, leading to decreased lung function and ability to perform activities of daily living (ADL). Nevertheless, little attention has been given to the assessment of respiratory function in this population, and functional capacity studies have been focusing on lower limb when upper limb (UL) plays a key role in ADL performance.

Aim: This study aimed to characterise the respiratory function and UL functional ability of people with dementia (PwD).

Methods: An exploratory cross-sectional study was conducted with a total of 76 participants (46 (60.5%) female, 75.2±5.7 [62-88] years old and 26.5 [24.2-29.7] kg/m<sup>2</sup>); 22 institutionalised PwD

(Addenbrooke's Cognitive Examination-III [ACE-III]  $40.8 \pm 17.7$  points), 28 community-dwelling PwD (ACE-III  $52.8 \pm 18.5$  points) and 26 healthy older people (ACE-III  $88.7 \pm 5.4$  points). Lung function (Peak Expiratory Flow [PEF]), respiratory muscle strength (Maximal Inspiratory/Expiratory [MIP/MEP] and sniff nasal inspiratory [SNIP] pressures) and UL functional ability (Grocery Shelving Task [GST]) were recorded. Descriptive statistics was used to characterise the sample. Comparisons among groups were explored using a One-way ANOVA.

Results were significantly worse in institutionalised than in community-dwelling PwD, and the values from these two groups were significantly worse than those from the healthy older people group, i.e., lung function (PEF:  $183.8 \pm 69.8$  vs.  $280.2 \pm 72.1$  vs.  $411.5 \pm 115.5$  L/min;  $p < 0.001$ ), respiratory muscle strength (MIP:  $28.5 \pm 11.6$  vs.  $46.5 \pm 11.4$  vs.  $88 \pm 26.9$  cmH<sub>2</sub>O,  $p < 0.001$ ; MEP:  $46.7 \pm 27.2$  vs.  $71 \pm 22.4$  vs.  $122.4 \pm 27.4$  cmH<sub>2</sub>O,  $p < 0.001$ ; and SNIP:  $31.2 \pm 12.1$  vs.  $45.7 \pm 18.4$  vs.  $74.1 \pm 21.1$  cmH<sub>2</sub>O,  $p < 0.001$ ), and UL functional ability (GST:  $130.7 \pm 52.6$  vs.  $90 \pm 50.4$  vs.  $38.5 \pm 12$  seconds,  $p < 0.001$ ).

Conclusions: This study showed that respiratory function and UL functional ability, in PwD, declines with worse cognitive function and institutionalisation. Awareness for respiratory and UL routine assessment in PwD is needed to guide personalised and early interventions. Future studies with larger and representative samples are recommended.

#### **PO2.12. Relationship between upper limb functional ability and respiratory function in people with dementia**

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Background: People with dementia often experience lower respiratory tract infections. It is also known that people with dementia present decreased functionality, namely in upper limbs. These two facts lead to higher level of functional dependence and institutionalisation in people with dementia. It is likely that impaired upper limb functional ability affects respiratory function but this association in people with dementia is unknown.

Aim: To explore the relationship between upper limb functional ability, lung function and respiratory muscle strength in people with dementia.

Methods: An exploratory cross-sectional study was conducted. People with dementia were recruited in nursing homes, day care centres, long-term care facilities and in the community. Upper limb functional ability (Grocery Shelving Task [GST]), lung function (Peak Expiratory Flow [PEF]) and respiratory muscle strength (Maximal Inspiratory/Expiratory [MIP/MEP] and sniff nasal inspiratory [SNIP] pressures) were recorded. Descriptive statistics was used to characterise the sample. Correlations were explored with the Pearson's correlation coefficient.

Results: Fifty people with dementia [ $75.9 \pm 5.9$  years old; 35 (70%) female; Body Mass Index= $26.6 \pm 3.9$  kg/m<sup>2</sup>] participated. GST was significantly: i) low and negatively correlated with SNIP ( $r = -0.49$ ,  $p = 0.002$ ); and ii) moderate and negatively correlated with PEF ( $r = -0.58$ ,  $p < 0.001$ ), MIP ( $r = -0.54$ ,  $p = 0.001$ ) and MEP ( $r = -0.57$ ,  $p = 0.001$ ).

Conclusions: Upper limb functional ability correlated significantly with lung function and respiratory muscle strength in people with dementia. Those with lower upper limb functional ability seem to present worst lung function and respiratory muscle strength. Thus, early detection and personalised interventions may prevent clinical and functional decline in this population. Further research on respiratory function and upper limb functional ability is needed to enhance knowledge on dementia management.

#### **PO2.13. Lifestyle integrated Functional Exercise for people with Dementia - LiFE4D: Pilot study**

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