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Attitudes and perceived competence of residential care homes staff about dementia care

ORIGINAL ARTICLE

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ABSTRACT

Background. This paper reports on the attitudes towards dementia and self-rated competence of staff working in residential care homes for the elderly (RCHE) in Hong Kong.

Methods. This cross-sectional survey involved 1780 RCHE staff. Staff attitudes were assessed using the Chinese version of the Approach to Dementia Questionnaire, whereas self-rated competence in relation to dementia care was assessed using a specially developed questionnaire.

Results. Of the respondents, 64.9% (n=1155) were working in subvented RCHE and 92.1% (n=1640) were females. In terms of education levels of staff, 18.0% (n=320) were professional, 70.3% (n=1252) were semi-skilled, 2.5% (n=45) were non-trained, and 9.2% (n=163) were missing data. Respondents from private RCHE had significantly lower education levels ($p<0.01$), longer working hours ($p<0.01$), less working experience ($p<0.01$), and an older age range ($p=0.02$), compared to those working in subvented RCHE. Staff working in subvented RCHE had significantly higher 'hope' attitude subscores than did staff working in private RCHE ($p<0.05$). Such a difference was not observed for the 'person-centred' domain. Professional education level, age-group of 20 to 29 years, and working experience of 11 to 20 years were predictors of better 'hope' attitudes, whereas professional education level and working hours of 20 to 44 hours/week were predictors of higher 'person-centred' attitudes. RCHE staff were least competent in managing behavioural problems (yelling/shouting, aggression, and inappropriate sexual behaviour).

Conclusion. Many RCHE staff, particularly those in private facilities, are not adequately trained and have long working hours (>45 hours per week). Staff training to improve knowledge and attitudes, and provision of enabling work condition for staff to adopt a more person-centred approach in dementia care are recommended.

Key words: Attitude of health personnel; Dementia; Homes for the aged; Nursing care

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INTRODUCTION

In Hong Kong, people aged 65 years and older accounted for 12.4% of the total population in 2006. The figure is expected to increase to 27% in 2030.[1] Advanced age is a risk factor of dementia, and increased prevalence of dementia imposes a considerable health care burden on our society.[2]

Older people with increasing frailty and

dependency in activities of daily living may lose the capacity of community living without family support. In Hong Kong, only those elderly people (aged ≥65 years) who are in poor health or have functional disabilities needing assistance in personal care and activities of daily living are eligible to receive government-subsidised residential care services. Most residents in residential care homes for the elderly (RCHE) are frail physically or mentally or both. Dementia is the most common reason for RCHE admission,[3] and affects more than half of RCHE residents. The comparatively high institutionalisation rate in Hong Kong (6.8%), compared with Taiwan (2.0%), Japan (3.0%), and Singapore (2.3%), suggests a substantial number of elderly with dementia are cared for by RCHE staff.[4]

The interactive dynamics of RCHE staff, residents, and environment affect the wellbeing of both the staff and residents. Common neuropsychiatric symptoms in dementia[5] are significant predictors of caregiver burden.[6,7] The combination of cognitive, behavioural, and affective problems creates a stressful experience for the caregiver. High levels of staff stress can lead to burnout, resulting in more negative attitudes towards RCHE residents and reduction in empathy levels.[8] More 'hopeful' attitudes predict more positive care staff behaviours,[9] whereas more 'person-centred' attitudes are associated with greater recognition of dementia in residents.[10] In addition, improved quality of care and quality of life for RCHE residents follows positive changes in staff attitudes.[11]

In Hong Kong, family caregivers of individuals with dementia are faced with increasing demands and unmet needs.[12] In a local survey of public knowledge and attitudes towards dementia, the respondents had a variety of misconceptions about dementia and its symptoms.[13] The caregiving role of RCHE staff is under-acknowledged. This study assessed the attitudes and perceived competence of RCHE staff about dementia care, so as to guide the planning of staff development programmes.

METHODS

This cross-sectional survey was carried out from April to September 2011. 35 subvented and 35 private RCHE in 3 regions (Kowloon East Cluster, New Territories West Cluster, and New Territories East Cluster) in Hong Kong were invited to participate. Convenience sampling was adopted, and all the recruited RCHE were receiving services provided by the psychogeriatric outreach team. The estimated total number of staff in these RCHE was 2000, based on the number of frontline workers reported by the RCHE nurses-in-charge. The education level of staff was categorised as: (1) professional staff consisting of nurses, physiotherapists, occupational therapists, and social workers, (2) semi-skilled staff including care workers who attained a certificate level of health care–related training, and (3) aides without any formal education in health care, such as workmen, cooks, drivers, and clerks.

All nurses-in-charge were contacted and agreed to participate. A cover letter outlining the purpose of the study and guaranteeing voluntary participation, anonymity and confidentiality was sent together with the questionnaires to nurses-in-charge for distribution to staff directly involved in daily care of residents with dementia. The questionnaires were collected after one month. This study was approved by the Survey and Behavioural Research Ethics Committee of the Chinese University of Hong Kong.

Measurement of attitudes

There are a number of self-report instruments for measuring ageism and attitudes towards disabilities, but they are not specific to dementia and cannot address the tripartite model of attitudes. Many specific instruments for dementia lack validation and generalisation to care staff.[14] The Approach to Dementia Questionnaire (ADQ) was selected because it was validated by direct observation of the quality of staff care interactions.[15] The ADQ was translated into Chinese by an experienced medical translator and back-translated by a psychiatrist fluent in both languages. The Chinese version of the ADQ was evaluated by an expert panel (3 psychogeriatricians, one specialist psychogeriatric nurse, and one occupational therapist specialised in geriatrics) and deemed relevant for use in the health care system in Hong Kong. There were 19 items to measure staff attitudes towards dementia residents on a 5-point Likert scale. The subscores of 2 attitude domains: 'hope' and 'person-centred' indicated the extent of 'hopefulness' of respondents about dementia-related features and the extent of 'person-centred' approach adopted in the care of residents with dementia, respectively. Higher scores indicated more positive attitudes. The subscales had

good reliability (Cronbach's α of 0.76 for 'hope' and 0.85 for 'person-centred') and internal consistency (Cronbach's α of 0.71 for 'hope' and 0.83 for 'person-centred').[16]

Measurement of perceived competence

An 11-item, self-rated competence questionnaire in Chinese was designed by the expert panel. Pertinent questions were identified based on extensive literature review and the expert panel's clinical experiences. Staff confidence related to dementia care was rated in 7 areas: (1) to recognise dementia symptoms in residents, (2) to manage behavioural problems of dementia, (3) to manage common mood problems in dementia, (4) to monitor side-effects and the use of psychotropic medications, (5) to organise activities for individuals with dementia, (6) to create partnership with families and relatives, and (7) to obtain dementia-specific professional information and support. Each item was measured on a 6-point scale; 6 indicated very confident and 1 indicated not at all confident (**Appendix**).

The mean scores of the 'hope' and 'person-centred' domain were calculated by dividing the summary scores by the number of items in that domain, i.e. 8 items for 'hope' attitudes and 11 items for 'person-centred' attitudes. Descriptive analyses were performed for the sociodemographics and the ADQ 'hope' and 'person-centred' subscores.

Table 1
Characteristics of staff in residential care homes for the elderly (RCHE)

Variable	No. (%) of participants		
	Subvented RCHE (n=1155)	Private RCHE (n=625)	Total (n=1780)
Gender			
Female	1073 (93.0)	567 (90.6)	1640 (92.1)
Male	39 (3.4)	35 (5.6)	74 (4.2)
Missing data	42 (3.6)	23 (3.8)	66 (3.7)
Age (years)			
<30	110 (9.5)	58 (9.3)	168 (9.4)
30-39	296 (25.6)	124 (19.8)	420 (23.6)
40-55	612 (53.0)	361 (57.7)	973 (54.7)
>55	79 (6.8)	51 (8.1)	130 (7.3)
Missing data	57 (4.9)	31 (5.1)	89 (5.0)
Education			
Professional	257 (22.3)	63 (10.1)	320 (18.0)
Semi-skilled	746 (64.6)	506 (80.8)	1252 (70.3)
Non-trained aids	38 (3.3)	7 (1.1)	45 (2.5)
Missing data	113 (9.8)	19 (8.0)	163 (9.2)
Working hours/week			
<20	17 (1.5)	10 (1.6)	27 (1.5)
20-44	508 (44.0)	90 (14.4)	598 (33.6)
45-60	529 (45.8)	163 (26.0)	692 (38.9)
>60	12 (1.0)	288 (46.0)	300 (16.9)
Missing data	88 (7.6)	74 (12.0)	163 (9.2)
Working experience (years)			
≤1	94 (8.1)	71 (11.3)	165 (9.3)
2-5	319 (27.6)	194 (31.0)	513 (28.8)
6-10	275 (23.8)	171 (27.3)	446 (25.1)
11-20	235 (20.4)	62 (9.9)	297 (16.7)
>20	57 (4.9)	15 (2.4)	72 (4.0)
Missing data	174 (15.1)	112 (18.1)	287 (16.1)

Independent *t*-tests were used for comparison of these mean sub-scores between groups (females vs. males, subvented RCHE vs. private RCHE). One-way analysis of variance (ANOVA) with Scheffe post-hoc tests was used to assess associations between attitudes and respondents' education level (professional, semi-skilled, non-trained aides), age in years (<30, 30-39, 40-55, >55), working experience in years (≤1, 2-5, 6-10, 11-20, >20), and working hours/week (<20, 20-44, 45-60, >60). The general linear model was used to investigate potential associations between attitudes and RCHE type, education level, age, working experience, and working hours. Staff-perceived competence was analysed using the one-sample *t*-test, in which the test value was set at 4 (somewhat confident) for comparison with the mean score of each item. A p value of <0.05 was considered statistically significant. Missing data were handled by pairwise deletion.

RESULTS

1780 questionnaires were completed and returned. The response rate was 89%. Of the respondents, 64.9% (n=1155) were working in subvented RCHE and 92.1% (n=1640) were females. In terms of education levels of staff, 18.0% (n=320) were professional, 70.3% (n=1252) were semi-skilled, 2.5% (n=45) were non-trained, and 9.2% (n=163) were missing data (**Table 1**). Respondents from private RCHE had significantly lower education levels (p<0.01), longer working hours (p<0.01), less working experience (p<0.01), and an older age range (p=0.02), compared to those working in subvented RCHE.

The mean 'hope' attitude subscore was significantly lower than the mean 'person-centred' attitude subscore (3.18±0.48 vs. 3.80±0.36, p<0.01). There were no gender differences in mean scores for both 'hope' (female: 3.18±0.48, male: 3.28±0.51) and 'person-centred' (female: 3.80±0.36, male: 3.86±0.40) domains. Staff working in subvented RCHE had significantly higher 'hope' attitude subscores than did staff working in private RCHE (3.21±0.48 vs. 3.13±0.48, p<0.05). Such a difference was not observed for the 'person-centred' domain (3.80±0.36

Table 2
Frequency of 'agree' or 'strongly agree' responses to each item in the Approach to Dementia Questionnaire (ADQ)

ADQ items	No. (%) of participants who agreed/strongly agreed
'Hope' attitude	
People with dementia are very much like children	1155 (66.3)
Dementia sufferers are sick and need to be looked after	960 (55.4)
It is important to have a very strict routine when working with dementia sufferers	903 (52.1)
People with dementia are unable to make decisions for themselves	765 (44.0)
Once dementia develops in a person, it is inevitable that they will go downhill	711 (40.5)
It is important not to become too attached to residents	192 (11)
Nothing can be done for people with dementia, except for keeping them clean and comfortable	106 (6.1)
There is no hope for people with dementia	99 (5.7)
'Person-centred' attitude	
People with dementia need to feel being respected, just like anybody else	1723 (98.1)
Good dementia care involves caring for a person's psychological needs and physical needs	1714 (97.6)
It is important to respond to people with dementia with empathy and understanding	1633 (93.0)
People with dementia are more likely to be contented when treated with understanding and reassurance	1551 (89.1)
It is important for people with dementia to have stimulating and enjoyable activities to occupy their time	1539 (87.7)
People with dementia are just ordinary people who need special understanding to fulfil their needs	1396 (78.9)
It is important for people with dementia to be given as much choice as possible in their daily lives	1165 (66.5)
People with dementia often have good reasons for behaving as they do	1021 (58.4)
There are a lot of things that people with dementia can do	945 (54.0)
Spending time with people with dementia can be very enjoyable	809 (46.9)
It doesn't matter what you say to people with dementia because they forget anyway	433 (24.6)

for both). The frequency of 'agree' or 'strongly agree' responses to each item in the ADQ is shown in **Table 2**.

Regarding staff education level, post-hoc comparison revealed that the mean 'hope' attitude subscore for professional staff was significantly higher than that for semi-skilled staff and non-trained aides (3.38 vs. 3.13 vs. 3.11, p<0.01). For 'person-centred' attitudes, a significant difference was only noted between professional and semi-skilled staff (3.93 vs. 3.77, p<0.01). With regard to staff age-group, staff aged <30 years scored significantly higher in 'hope' attitudes (mean, 3.35) than staff of other age-groups (p<0.01). For the person-centred' domain, a significant difference was only noted between staff aged <30 years (mean, 3.89) and those aged ≥40 years (p<0.05). In terms of working experience, staff who had worked in the field for 2 to 5 years (mean, 3.15) scored significantly lower in the 'hope' attitudes than those who had worked in the field for >10 years (p=0.02). In relation to working hours, staff who worked 20 to 44 hours per week had higher scores in both 'hope' and 'person-centred' attitudes than those who worked for longer hours per week (p<0.01). The results of Scheffe post-hoc tests are shown in **Table 3**.

In the general linear model (**Table 4**), professional education level, age-group of 20 to 29 years, and working experience of 11 to 20 years were predictors of better 'hope' attitudes, whereas professional education level and working hours of 20 to 44 hours/week were predictors of higher 'person-centred' attitudes. Type of RCHE did not affect the attitudes (p>0.05).

The mean differences (mean score minus 4) of the 11 items in the self-rated competence questionnaire are presented in **Table 5**. The variables with a mean score significantly lower than 4 (i.e. 'somewhat confident') were regarded as areas in which staff were not sufficiently confident to handle. The mean

Table 3
Staff attitudes towards dementia care in terms of education level, age, working experience, and working hours (ANOVA with Scheffe post-hoc tests)

Variable	Mean±SD	
	'Hope' attitude subscore	'Person-centred' attitude subscore
Education		
Professional	3.38±0.47*	3.93±0.36§
Semi-skilled	3.13±0.46	3.77±0.36
Non-trained	3.11±0.42	3.8±0.32
Age (years)		
20-29	3.35±0.51*	3.89±0.35ˡ
30-39	3.2±0.49	3.84±0.39
40-55	3.17±0.44	3.78±0.35
>55	3.1±0.48	3.75±0.3
Working experience (years)		
≤1	3.17±0.45	3.83±0.38
2-5	3.15±0.45†	3.8±0.36
6-10	3.18±0.47	3.81±0.35
11-20	3.27±0.55	3.81±0.36
>20	3.36±0.46	3.9±0.36
Working hours/week		
<20	3.07±0.43	3.92±0.35
20-44	3.30±0.51‡	3.88±0.38‡
45-60	3.16±0.45	3.78±0.33
>60	3.09±0.45	3.75±0.35

* p<0.01 when comparing with all other groups
† p=0.02 when comparing '2-5' with '11-20' and '>20' groups
‡ p<0.01 when comparing '20-44' with '45-60' and '>60' groups
§ p<0.01 when comparing 'professional' with 'semi-skilled' groups
ˡ p<0.05 when comparing '20-29' with '40-55' and '>55' groups

scores of 3 items were significantly lower than 4: (1) yelling/shouting (item 2II), (2) aggression (item 2III), and (3) inappropriate sexual behaviour (item 2V) [all p<0.05]. For semi-skilled and non-trained staff, use of psychotropic medication (item 4) was also significantly lower than 4 (p<0.01).

Table 4
Factors associated with staff attitudes towards dementia care (general linear model)

Variable	'Hope' attitude		'Person-centred' attitude	
	Coefficient (SE)	p Value	Coefficient (SE)	p Value
Type of residential care home for the elderly				
Subvented	Reference	Reference	Reference	Reference
Private	0.04 (0.04)	0.31	0.04 (0.03)	0.16
Education				
Professional	Reference	Reference	Reference	Reference
Semi-skilled	-0.19 (0.04)	<0.01	-0.13 (0.03)	<0.01
Non-trained	-0.19 (0.09)	0.04	-0.12 (0.07)	0.10
Age (years)				
20-29	0.16 (0.05)	0.01	0.05 (0.04)	0.14
30-39	0 (0.03)	0.97	0.03 (0.03)	0.22
40-55	Reference	Reference	Reference	Reference
>55	-0.09 (0.06)	0.12	-0.05 (0.04)	0.21
Working experience (years)				
≤1	-0.01 (0.05)	0.86	0.02 (0.03)	0.63
2-5	Reference	Reference	Reference	Reference
6-10	0.01 (0.03)	0.69	0 (0.03)	0.92
11-20	0.09 (0.04)	0.02	-0.01 (0.03)	0.65
>20	0.12 (0.07)	0.10	0.02 (0.06)	0.73
Working hours/week				
20-44	Reference	Reference	Reference	Reference
45-60	-0.01 (0.03)	0.66	-0.03 (0.02)	0.26
>60	-0.08 (0.05)	0.10	-0.07 (0.04)	0.04

Table 5
Self-rated competence of staff in managing dementia residents (one-sample *t*-test)

Variable	Professional (n=320)		Semi-skilled (n=1252)		Non-trained (n=45)	
	Mean difference	p Value	Mean difference	p Value	Mean difference	p Value
1	0.70	<0.01	0.43	<0.01	0.10	0.65
2I	0.20	<0.01	0.25	<0.01	0.23	0.12
2II	-0.14*	<0.01	-0.11*	<0.01	-0.43*	0.01
2III	-0.31*	<0.01	-0.31*	<0.01	-0.34*	0.02
2IV	0.03	0.61	0.07	0.02	-0.05	0.77
2V	-0.43*	<0.01	-0.53*	<0.01	-1.0*	<0.01
3	-0.00	0.95	-0.01	0.73	-0.16	0.38
4	0.50	<0.01	-0.17*	<0.01	-0.74*	<0.01
5	0.41	<0.01	0.54	<0.01	0.37	0.01
6	0.46	<0.01	0.40	<0.01	0.36	0.03
7	0.26	<0.01	0.35	<0.01	0.34	0.05

* Mean score of variable significantly lower than 4

DISCUSSION

In this survey, female respondents aged 40 years or older who had lower than a professional education level were over-represented. More than half of the respondents had ≤10 years of working experience, and 72% of the respondents working at private RCHE had long working hours (i.e. >45 hours per week). These findings suggest that staff working in RCHE, especially in private RCHE, were not adequately trained and had long working hours. Staff are usually expected to learn the necessary skills on the job. These findings are similar to those in other developed countries.[17,18]

Participants in this study were more positive in response to 'person-centred' attitudes than 'hope' attitudes (3.80 vs. 3.18, p<0.01), which is in keeping with findings of previous studies.[19,20] 44% of staff in our study agreed/strongly agreed with the statement "People with dementia are unable to make decisions for themselves". This was double that of the 21% in the Norwegian study.[20] In addition, staff in this Hong Kong study appeared to be less 'person-centred' than Norwegian staff, as a much higher proportion of local staff agreed with the statement "It doesn't matter what you say to people with dementia because they forget anyway" (24.6% vs. 3.8%). Moreover, about half of the staff in our study were neutral or disagreed with the statement "There are a lot of things that people with dementia can do". They might have a tendency to undermine the autonomy and capacity of residents with dementia. The factors accounting for such cultural variation are worth studying in depth by a qualitative method.

Lower levels of education[20,21] and overworking[8] are associated with less positive attitudes about dementia. Our study confirmed this proposition. However, lesser-trained staff who worked for long hours constituted the majority of respondents. The problems of inadequate training for dementia care and overworking must be addressed at the managerial level, in order to provide a more supportive work environment.

In this survey, staff younger than 30 years and those with a working experience of >10 years were in general more 'hopeful' than staff in older age-groups and those who had been working for only 2 to 5 years in the field. The effect of age and work experience on 'hope' attitudes could not be adequately explained by their education level per se, because analysis by general linear model demonstrated that all these 3 factors affected the 'hope' attitude score independently. Our observation supported the postulations that negative emotions increase with age,[22] and the resulting burnout leads to less positive attitudes.[8] Nonetheless, further qualitative studies are needed to delineate the influence of age and work experience on 'hope' attitudes. Concerning the 'person-centred' attitudes, higher staff education (professional level) and not overworking (>60 hours per week) were facilitators of a 'person-centred' approach in dementia care.

Behavioural and psychological symptoms of dementia are very common. 97% of patients with dementia have experienced at least one neuropsychiatric symptom in 5 years.[5] Behavioural disturbances are among the most stressful aspects of care provision.[6,7] Our survey supported this observation, as the least-competent area perceived by staff was management of behavioural problems (including yelling, aggression, and inappropriate sexual behaviours). Skills to address the unmet needs of the residents to alleviate their 'need-driven behaviours' should be taught to staff.[23] However, the effectiveness of classroom teaching alone is doubtful and seldom lasts beyond the training period.[24] The importance of 3-stage (predisposing, enabling, and reinforcing) educational activity is highlighted.[25,26] Besides dissemination of information to modify staff knowledge, beliefs, and attitudes in the predisposing stage, care home administrators should provide an enabling work environment to staff so that they can implement the new skills they have learned.

Limitations

The representativeness of our sample may have been compromised by the sampling method used as only staff of RCHE receiving the psychogeriatric outreach service were included. The generalisability of findings about the general attitudes and perceived competence of RCHE staff can be improved by extending the survey to all RCHE in Hong Kong.

The use of the Chinese version of the ADQ and the self-rated competence questionnaire may be a limitation. The internal consistency of the Chinese-version ADQ has not been tested, and there was potential cultural deviation in the understanding of

the statements. Nonetheless, in order to ensure the validity and cultural relevancy, the Chinese-version ADQ had gone through a stringent translation process, and both questionnaires had received rigorous review by an expert panel. They had been tested in a pilot study. The lack of qualitative information about factors contributing to staff attitudes is another limitation. Exploratory study is necessary to investigate staff attitudes from a more in-depth and multifaceted aspect. The psychometric properties of the competence questionnaire should also be studied formally before it can be adopted as a standard assessment tool.

The total number of staff in the RCHE was likely to be under-reported by the RCHE nurses-in-charge, resulting in an over-estimation of response rate. The instruction given to nurses-in-charge about the estimation of staff number was the 'number of staff who have direct involvement in daily care of residents with dementia'. We assumed that 'aides without any formal education in health care, such as workmen, cooks, drivers and clerks' was the group of staff not counted as having direct involvement in daily care of dementia patients by some nurses-in-charge. Clearer instructions and a more specific target population should be used in future studies.

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APPENDIX
照顧痴呆症(失智症)患者的信心指數*

		十分有信心					完全沒信心
1	辨認出患有痴呆症徵狀的長者	6	5	4	3	2	1
2	處理以下痴呆症相關的行為問題						
I	遊走/不停踱步	6	5	4	3	2	1
II	大聲叫嚷	6	5	4	3	2	1
III	攻擊行為，如在護理過程中向職員吐口水或拳打腳踢	6	5	4	3	2	1
IV	重覆行為，如找尋物件或拍打桌椅	6	5	4	3	2	1
V	不恰當的性行為，如在公眾地方自慰	6	5	4	3	2	1
3	處理痴呆症相關的情緒問題（如焦慮、抑鬱、暴躁）	6	5	4	3	2	1
4	處理精神科藥物（如觀察藥物副作用或何時提供「需要時用/PRN」的藥物）	6	5	4	3	2	1
5	安排適當的活動給痴呆症患者	6	5	4	3	2	1
6	回應痴呆症患者之家人的關注和訴求	6	5	4	3	2	1
7	在照顧痴呆症患者方面，得到及時的專業資訊和支援	6	5	4	3	2	1

* 請於每項圈出你最同意的信心指數