RESEARCH ARTICLE

KNOWLEDGE AND ATTITUDE OF THE NURSING STUDENTS TOWARDS ELDERLY IN DAVANGERE, KARNATAKA

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ABSTRACT

Introduction: Population ageing is an important emerging demographic phenomenon in India. A growing older population implies the need for a higher quantity and quality of geriatric services, arrangements of income security and improved quality of life in general. In order to offer high quality and effective nursing care to those with a great need, a well-educated workforce is important.
Aim(s) and Objectives: To assess the knowledge and attitude of the nursing students towards old age people in Davangere, Karnataka.
Methodology: This cross-sectional study was conducted in all the existing Institutes of Nursing Sciences (four) providing Bachelor of Science (B. Sc.) Nursing situated in Davangere, India using the Kogan's Old People Scale (KOPS) and the Palmore's Facts on Aging Quiz I (PFAQ1).
Results: Final year students had a higher total score than the first year students for the Kogan's positive subscale (mean scores 50.65 and 45.02, respectively); reverse was observed for the Kogan's negative subscale (mean scores 51.81 and 55.28, respectively). However this was not statistically significant. PFAQ1 total scores were more for the final year than first year students. Statistically significant difference in PFAQ1 was noted for the physical component.
Conclusion: Nursing students in this study have an adequate knowledge and a positive attitude towards the elderly.

INTRODUCTION

Population ageing is an important emerging demographic phenomenon in India, warranting a strong multi-sectoral policy and programme response to deal with many significant implications for the elderly in particular and society at large (Report on the Status of Elderly in Select States of India, 2012). The elderly population (aged 60 years or above) account for 7.4% of total population in 2001, which is expected to rise to 19% by 2050 (Situation analysis of elderly in India, 2012). By mid-century, India's 60 and older population is expected to encompass 323 million people, a number greater than the total U.S. population in 2012. Economic development and urbanization have brought lifestyle changes that have led to unhealthy nutrition, physical inactivity, and obesity contributing to the prevalence of diabetes and other chronic diseases (Today's Research on Aging, 2015).

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In rural areas 55 % of the aged with sickness and 77 % of those without sickness felt that they were in a good or fair condition of health. In urban areas the respective proportions were 63% and 78% (Situation analysis of elderly in India, 2011). Almost one-half (47 percent) of older Indians have at least one chronic disease such as asthma, angina, arthritis, depression, or diabetes (Somnath Chatterji, 2008). A growing older population implies the need for a higher quantity and quality of geriatric services, arrangements of income security and improved quality of life in general (Lekha, 2011). Today, older people often present with complex problems and require higher levels of nursing care given by qualified and well educated health care personnel. However, more than 30% of the caregivers employed in care for older people have no formal education today. In order to offer high quality and effective nursing care to those with a great need, a well-educated workforce is important (Voelker, 2009 and DeGuzman, 2009). With huge deficit of doctors specialized in geriatrics and providing geriatric care, the onus of health care of elderly falls on the existing nursing staff. Thus nursing curriculum in majority of the universities in India has given focus on

geriatric care and treatment so that the nursing graduates will have an orientation on geriatrics at the end of the course. Existing literature review suggests limited number of studies being done on assessing the attitude of nursing staff towards elderly, and even more scarce literature exists in India. Hence the present study aims at assessing the attitude of nursing students towards elderly and provides a knowledge base for future research work on this topic in India. Our research question was: What is the attitude of nursing college students towards elderly and does nursing education increase students' positive attitudes toward older adults?

METHODS AND MATERIALS

This cross-sectional study was conducted in all the existing Institutes of Nursing Sciences (four) providing Bachelor of Science (B. Sc.) Nursing situated in Davangere, India. The study was approved by the Institutional Ethics and Review Board (IERB). All the first and final year nursing students pursuing B. Sc. Nursing were included in the study. Requisite permissions were obtained from the Principals of all the four Nursing Institutes. The first year students were selected assuming that they have poor or limited knowledge and experience on older people's care, while the final year students were expected to have acquired all knowledge that was available throughout their education. The total sample number consisted 214 students both first and final year students of the all the institutes. The students were given a self-administered questionnaire in English.

disagree. PFAQ1 contains 25 true/false statements about ageing. The statements cover the basic physical, mental social facts and the most frequent misconceptions about ageing (Palmore, 1998).

Statistical Analysis

Questionnaires were coded according to the directions given by Kogan (1961) and Palmore (1998) and the data entered and analysed using the EPI INFO version 6. The Students t-test was performed for studying the mean difference between total scale and subscale scores of Kogan's Old People Scale assuming the mean values to be normally distributed. Pearson chi-square test was used for the analysis of PFAQ1 data. Spearman correlation coefficients (r_s) were used to study the relationships between knowledge and attitudes. Statistical significance level was at 0.05.

RESULTS

A total of 214 nursing students participated in the study. This included 110 first year nursing students and 104 final year students. The two groups of students were similar to each other in all the demographic characteristics except for the age differentials. Most of the final year students had older people in their families and many had the experience of living with them (Table 1). The results reveal that the final year students had a higher total score than the first year students for the Kogan's positive subscale (mean scores 50.65 and 45.03, respectively).

Table 1. Demographic characteristics of the nursing students

Demographic Characters	Answers	First Year (N=110) (%)	Second Year N=104 (%)	Chi-Square	p value
Gender	Male	12 (10.91)	15 (14.42)	0.599	0.439
	Female	98 (89.09)	89 (85.58)		
Age	Mean (SD)	18.05 (0.84)	20.74 (0.84)	t=-23.372	0.000
Nursing Science First Choice	Yes	99 (90.00)	93 (89.42)	0.019	0.89
	No	11 (10.00)	11 (10.58)		
Older People In the family	Yes	75 (68.18)	61 (58.65)	2.095	0.148
	No	35 (31.82)	43 (41.35)		
Have you lived with older people	Yes	77 (70.00)	91 (87.50)	9.702	0.002
	No	33 (30.00)	13 (12.50)		

Table 2. Kogan's Old People Scale scores for the first year nursing students related to demographic characters

Scale	Gender Mean(SD)		t value (p value)
	Male	Female	
Positive Subscale's Total Score	47.92(8.26)	44.67(9.18)	1.267 (0.225)
Negative Subscale's Total Score	51.08(6.46)	51.91(11.66)	-0.374 (0.712)
	Nursing science first choice for studying		
	Yes	No	
Positive Subscale's Total Score	44.90(9.18)	46.18(8.68)	-0.462 (0.652)
Negative Subscale's Total Score	51.49(11.22)	54.73(11.05)	-0.919(0.376)
	Older people in the family		
	Yes	No	
Positive Subscale's Total Score	44.41(9.56)	46.34(8.01)	-1.104 (0.273)
Negative Subscale's Total Score	51.84(12.47)	51.77(7.93)	0.035 (0.972)
	Have you lived with older people		
	Yes	No	
Positive Subscale's Total Score	44.87(9.44)	45.39(8.40)	-0.289 (0.774)
Negative Subscale's Total Score	52.32(12.30)	50.64(8.07)	0.850 (0.397)

The questionnaire included demographic questions, the Kogan's Old People Scale (KOPS) (Kogan, 1961) (Kogan, 1961) and the Palmore's Facts on Aging Quiz I (PFAQ) (Palmore, 1998) (Palmore, 1998). KOPS (1961) is a Likert scale and measures attitudes towards the old age people. This consists of 17 positive statements and 17 negative statements on a six-point scale ranging from strongly agree to strongly

The exact reverse was observed for the Kogan's negative subscale (mean scores 51.82 and 55.29, respectively) (Table 2). This implies that the final year nursing students have more positive attitude and less negative attitude than the first year students. However, the results of independent sample t- test reveal that there is no significant difference between first year and final students KOPS scores.

Further, Table 2 and 3 show the differences in scores between different demographic characteristics within each student year. Within each nursing student year, Kogan's Old people scale scores were not significantly different regardless of gender, Nursing Science first choice, older people in their families and the experience of living with them. Kogan's positive subscale score seems to be related with gender, where boys seem to have a more positive attitude than girls but students whose family includes older people and the experience of living with them have had more positive attitude than boys.

attention to attitudinal factors among nursing students. Feelings toward older people in general may be such a factor, and favourable feelings may be a prerequisite for high-quality nursing in different settings for this group of clients. The key findings emerged from this study are related to the attitudes towards older people and knowledge of older people of nursing students in Davangere, India and are discussed below. The results of this study indicate that nursing education may indeed increase students' positive attitudes toward older adults.

Table 3. Kogan's Old People Scale scores for the second year nursing students related to demographic characters

Scale	Gender Mean(SD)		t value (p value)
	Male	Female	
Positive Subscale's Total Score	54.50(13.18)	49.54(7.20)	1.476 (0.159)
Negative Subscale's Total Score	54.75(12.37)	54.94(9.59)	-0.057 (0.955)
	Nursing Science first choice for studying		
	Yes	No	
Positive Subscale's Total Score	50.44(8.64)	49.00(6.20)	0.681 (0.560)
Negative Subscale's Total Score	53.96(9.76)	63.36(7.97)	-3.621 (0.003)
	Older people in the family		
	Yes	No	
Positive Subscale's Total Score	50.30(9.12)	50.20(7.35)	0.062 (0.574)
Negative Subscale's Total Score	55.35(10.99)	54.25(8.29)	0.596 (0.552)
	Have you lived with older people		
	Yes	No	
Positive Subscale's Total Score	50.49(8.43)	48.80(8.47)	0.724 (0.480)
Negative Subscale's Total Score	54.64(10.41)	56.60(6.65)	-0.968 (0.342)

Table 4. Palmore's Facts on Ageing Quiz I results for the Nursing students

Palmore's facts	Students	Mean	SD	t value	p value
Physical facts	First Year	4.2273	.85305	-4.089	.000
	Final Year	4.7115	.87770		
Mental facts	First Year	2.7000	1.05404	-.165	.869
	Final Year	2.7212	.81796		
Most frequent misconception about aging	First Year	2.6455	1.02793	-2.525	.012
	Final Year	2.9904	.97039		
Social facts	First Year	2.0727	1.16295	-.648	.518
	Final Year	2.1635	.87145		
Palmore's total score	First Year	11.6455	2.10542	-3.367	.001
	Final Year	12.5865	1.98348		

Correlation coefficients were calculated between total score of knowledge and the scores of Kogan's attitude subscale. For first year students' correlation coefficient between the negative subscale and knowledge was $r_s = -0.266$, $p < 0.05$, and between the positive subscale and knowledge was $r_s = -0.045$, $p > 0.05$. For the final year students the findings were reverse ($r_s = -0.003$, $p > 0.05$, and $r_s = 0.341$, $p < 0.05$, respectively). PFAQ1 total scores were more for the final year than first year students. The statistical difference was observed between final and first year knowledge scores ($p < 0.05$). However, all students had high scores in the physical facts part of the questionnaire and there was also a statistically significant difference in favor of the final year ones. The final students had higher scores in the most frequent misconception about aging part of questionnaire and there was also a statistically significant difference in favor of the final year ones (Table 4).

DISCUSSION

To our knowledge, this is the first study to compare attitudes regarding the care of older adults among nursing students in India. Hence this study was conducted to generate initial knowledge of the attitudes of nurses working in India toward elderly people and their knowledge of geriatric care. In order to be able to predict future development of nursing care towards elderly it is essential that nursing institutions to pay

Although the mean attitude of final year students was slightly higher than the first year students, this difference was not statistically significant ($P < 0.05$). In addition, a positive attitude toward the elderly correlated with a higher score on the PFAQ indicates the importance of attitude in learning and knowledge. Experience can be considered as an important factor for the direction of the feelings toward older people in this sample. The first year students with little or no previous experience of elderly care might have unfavourable feelings toward older people than the final-year students, who were at the end of their education and had both theoretical and clinical experiences from various specialities. Previous literature shows dual results with contrasting results. Some of the studies among nursing students, medical students and health caregivers have noted negative attitudes toward older people (Cheong, 2009; Hweidi, 2006 and Lovell, 2006). However in terms of experience of working with older people was found to generally improve the attitude of nursing students (Doherty, 2011; Engström, 2011; Sheffler, 1995 and Hartley, 1995). Several international studies have presented findings saying that older age groups of nursing students show more positive attitudes towards older people than younger students do. [17-20] These results were also supported in this study, where the older students were more favourable toward older people than the first year students.

In contrast to the general belief and previous literature the present study shows that male had a more positive attitude towards elderly compared to females, however this was not found to be statistically significant. Possibly because of the small number of males students compared to females in the study this can be a biased result. The results of Palmore's FAQ I total score did not show differences between first and final year students knowledge of older people in either class. Students in both classes had high scores in all the facts part of the questionnaire, however only the physical facts part was found to be statistically significant. Similar findings have been found in the previous studies such as Lee et al (Lee, 2006) 2006, Mellor P et al (Mellor, 2007) 2007 and Ekaterini Lambrinou et al (Lambrinou, 2005), 2009- an indication that the existing curricula are giving more emphasis on biomedical aspects of ageing and not the psychosocial ones. Similar opinion has been given by previous studies (Lee, 2006; Mellor, 2007; Lambrinou, 2005 and McDowell, 1999). It is therefore necessary to discuss how curricula could be improved in order that students are able to care for the older person as a whole.

If students get better education in all aspects of ageing, their attitudes may become even more positive and therefore, their preference for working with older people may increase. Therefore, these findings could be used as a guide in order to revise the curricula in in a way that will promote positive attitudes through further clinical experience not only with older people in hospitals and nursing homes, but also with those living in the community, so that misconceptions about ageing will be diminished (Alabaster, 2007 (Alabaster, 2007); Ryan et al., 2007). Reorganisation of theoretical content so that it will not emphasise only on the biomedical aspects of ageing, could also be made so that there would be improved knowledge in all aspects of ageing and not only physical health (Lambrinou, 2005).

Limitations

Since this was a cross-sectional study the causality cannot be confirmed. It is difficult to support that first year students had not any experience in caring for older people, as many of them have had family experience or had lived with them. This prevents us from concluding that the observed differences in attitudes and knowledge was due to education only. Second limitation is that only first- and final-year students were studied. Thus the results may not be generalizable to students of other years. Although two different years of nursing students were studied, prospective studies following students through yearly follow-up would have been preferable to see if there is a change in attitude towards older persons as students' progress through their study years.

Conclusion

This study is the first of its kind to investigate the attitudes and knowledge of nurses working in India. Nursing students in this study have a positive attitude towards the elderly. It is important that their nursing curriculum continues to have an increasing geriatric component in view of the increasing numbers of elderly persons that they will be caring for due to the ageing population.

Acknowledgments

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