Original Article

Knowledge, Attitude and Willingness to Work with Older Adults Among Nursing Students in Nepal

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ABSTRACT

Background: Globally, the number of older persons is growing faster and with aging co-morbidity increases, resulting in declined health outcomes, high mortality and increased use of health care resources. The need for production of nurses with the right attitude and knowledge on aging is crucial to improve their willingness to care for older adults. Objectives of the study aims to identify the knowledge, attitude and willingness to work with older adults among nursing students in Nepal.

Methods: Cross- sectional research design was used and the settings for the study were four constituent nursing campuses of TU IOM (Biratnagar, Pokhara, Birgunj and Nepalgunj), population were B.Sc Nursing and BNS students. Census method was adopted to collect the data through a self-administered questionnaire through email. Questionnaire was developed based on Palmore's Facts on Aging Quiz (Revised) and Willingness to Work with Elderly People Scale (WEPS). Descriptive and inferential statistics (Chi square test, Correlation) was used to analyze the data.

Results: The findings suggested that among 148 nursing students, 50.7% had good knowledge on elderly care with mean ±SD =26.66 ± 3.44. More than half of the participants (52%) had favorable attitude on elderly care with median score 26 and 63.5% had willing to care elderly with Mean ± SD = 20.61 ± 5.37.

Conclusions: Nursing students had good knowledge with favorable attitudes and had a willingness to work and care for the elderly. This study tends to associate between willingness to care for older adults with positive attitudes and knowledge on ageing among nursing students.

Keywords: Attitude, Knowledge, Nursing students, Elderly, Willingness to work

INTRODUCTION

The global population is aging (65) and is increasing rapidly than any other age group. In 2017, there were 962 million elderly people which is estimated to double by 2050, and reach nearly 2.1 billion. Majority of the world's aged live in Asia accounting for 57.1% of the total. According to estimates, 79% of people 60 and older would reside in developing countries by the year 2050 from 549 million in 2017 to over 1.3 billion in 2050, the number of older people in Asia is predicted to increase more than double.[1]

Along with the world, Nepal is also facing the problem of population aging[2] and it is estimated that 20% of the old population will be concentrated in developing countries.[3] As per the 2011 census, 2.1 million elderly are living in Nepal making about 8.1 percent of the country's entire population[4] and the demographic trends of older people shows that during the period of 7 year 1991 to 2011 total growth rate of older people is faster than total population growth rate.[5]

Aging is an inevitable natural phenomenon of a living being from birth to death. It is characterized by a general decline in functional capacities and structural changes along with alterations to the body's anatomical makeup, along with physiological,

psychological, and social changes. In the process of aging, a person's abilities towards withstanding stress and strains of life are diminished due to old age related physiological and psychosocial changes.[6] The prevalence of co- morbidity is high among elderly and 80% of the aging people having three or more chronic diseases and it is associated with a decrease in numerous health outcomes, high mortality and increased use of health care resources.[7]

In high- and low-income countries, the disability prevalence among seniors aged 69 and older was 29.5% and 43.4%, respectively.[8] The majority of senior people (84.1%) experienced one or more health-related issues. Arthritis/osteoarthritis (30.5%), cardiovascular issues (27.9%), gastrointestinal issues (20%), COPD/asthma (15.3%), and neurological issues (14%) were the most prevalent health issues.[9] According to Khanal and Gautam[2], elderly people deal numerous health and social issues. Globally, the elderly's quality of life, which is a reflection of their health and wellbeing as a vulnerable group, is a significant topic of concern.[10]As stated above, due to various health problems, the need for health and social services is projected to increase remarkably. Chi, Shyu, Wang, Chuang, & Chuang stated that the growing elderly population increases the likelihood that nurses will care for patients of 65 years or older in hospitals and communities[11] and these days, societal concern is taking the needs and issues of the elderly into consideration.

According to Zhang et al., nursing students' willingness to care for older individuals can be improved by having good attitudes about and knowledge of older adults.[12] Only 37.2% of the participants had good knowledge, and 45.7% had a favorable attitude toward caring for the elderly, according to Fita, Mekonnen, Endalew, & Azagew.[13] According to Chi et al., nursing students' readiness to provide care for elderly people was significantly influenced by their positive attitude and their willingness to care in the issue of the elderly.[11]

Previous research revealed that nursing students commonly have negative opinions regarding senior citizens[19-20] and that after graduation, caring for seniors is not always considered as an appealing careerpath.[21-23]The results of earlier research on attitudes toward and readiness to collaborate with older persons have been troubling and disturbing. Future practitioners of nursing should be equipped to handle the difficulties that lie ahead.[24-25] Thus, nursing students' knowledge, attitude and willingness to work need to be identified that might help to enhance positive attitude and greater preference especially concerning older population.

METHODS

Cross- sectional analytical research design was used to identify the knowledge, attitudes and willingness to work with older adults among nursing students in nursing campuses of TU IOM situated outside the valley (i.e. Biratnagar, Pokhara, Birgunj and Nepalgunj Nursing Campus). Students studying in B.Sc. Nursing and BNS of all constituent campuses were the population of the study. B.Sc. Nursing third & fourth year, and BNS second- & third-year students were sampling units of the study. The Census method was used to select the sample from the entire population i.e. 33 B.Sc. Nursing and 209 BNS students. Among them only 148 respondents filled up the questionnaire completely (72 non-response and 22 incompletely filled). So, the total sample size was 148 respondents.

Data was collected after approval from the IRC, Research Department of IoM. Administrative written permission was taken from all constituent campuses prior to study by submitting an official request letter. Then, concerned coordinators of different years were informed. Data was collected through a self-administered questionnaire administered via google document through email. Prior to collecting data, the respondents were informed of the study's objectives and provided with a written consent. The option to leave the study at any moment was made clear to the respondents. Time to fill up the questionnaire was about 20-30 minutes. The filled-up questionnaire was collected by email. During data collection, continued follow up was done by principal investigator and team members. Duration of data collection was one and a half months. Confidentiality was maintained. Data was used only for the study purpose. The instrument was developed by the research team in the English language after comprehensive literature review with the subject specialists. It was divided into three parts:

Part I consists of the socio- demographic information of nursing students

Part II consists of questions related to Knowledge on aging among nursing students using a revised Palmore Facts on Aging Quiz composed of 50 true-false questions. Among them seven items (question number 8, 25, 26, 27, 29, 32 and 44) which were not contextual to Nepalese society were excluded and question number 43 was modified to make it contextual. The age criteria of 65 years for elderly was changed to 60 years based on WHO definition of ageing and Senior Citizen Act of Nepal.

Part III consists of six-point Likert scale related to attitude and willingness to work with older adult adapted fromWork with Elderly People Scale (WEPS) Likert Scale.

Data was collected through using standard tool. The face validity of the instrument was maintained as the participants could easily fill up the form. Content validity was maintained by reviewing the related literature and consulting the subject experts. Instruments were modified as needed according to the findings of pretesting and feedback to make it contextual. The willingness to work with older persons was measured through a reliable and valid (Cronbach's alpha = 0.81) scale created by WEPS.After receiving mail from the respondents, the collected data was cleaned and examined for completeness. SPSS version 16 was used to modify, categorize, code, and enter the data. Descriptive analysis was done on the basis of research objectives and the research questions by using mean, median, standard deviation, frequency, percentage. Knowledge was categorized in good and poor level of knowledge. Willingness was categorized as willing and unwilling to care. Mean score was used as a cut off point for the level of knowledge and willingness. Attitude was categorized in favorable and unfavorable attitude based on obtained median score. The association between the dependent variables (knowledge, attitude, and willingness to care for the elderly) and the independent variables (socio-demographic factors) was analyzed using inferential statistics (Chi square test).

RESULTS

Socio-demographic characteristics of participants

Overall mean and standard deviation of the age of the participants was 24.9 ± 3.52, 55.4% participants were from Brahmin and Chhetri, 85.1% were enrolled in BNS program. More than two third of the participants 68.9% were from nuclear families whereas 31.1% were from joint families. More than two third of participants (69.6%) had 1-5 years of working experiences whereas only 15.5% had more than 5 years of experience and 14.9% had no experience. Half of them (49.3%) had working experience in general hospitals. Experience of elderly care at home was 58.8% 87.7% had interest in taking care of elderly people and only 3.4% had taken training on elderly care.

Tables 1: Level of Knowledge, Attitude & Willingness to Care for Elderly   (n=148)

Characteristics	Frequency (f)	Percentage (%)
Level of Knowledge		
Good	75	50.7%
Poor	73	49.3%
Mean ± SD 26.66 ± 3.44		
Level of Attitude		
Favorable	77	52%
Unfavorable	71	48%
level of Willingness		
Willing to Care	94	63.5%
Unwilling to care	54	36.5%
Mean ± SD = 20.61 ± 5.37		

Table 1 depicts that out of 148 participants,50.7% had good knowledge and 49.3% had poor level of knowledge on elderly care with Mean ± SD = 26.66 ± 3.44. More than half of the participants (52%) had favorable attitude on elderly care with median score 26 and two third of the participants (63.5%) had willing to care elderly and more than one third (36.5%) had unwilling to elderly care with Mean ± SD = 20.61 ± 5.37.

Table 2: Correlation of Knowledge with Attitude and Willingness

Variables	Knowledge	p-value
Attitude towards care of elderly	Pearson Correlation (r) Value 0.122	0.139
Willingness to work with elderly	Spearman Correlation (rs) Value 0.136	0.99

Table 2 showed no correlation between knowledge and attitude (r= 0.122, *p*=0.139) and knowledge and willingness (rs= 0.136, *p*=0.99) towards care of elderly. Findings reflect that with changes in knowledge there is no change in attitude and willingness to work with elderly.

Table 3: Association between Socio-demographic Characteristics with Level of Knowledge   (n=148)

Variables	Good Knowledge f (%)	Poor Knowledge f (%)	*p*-value
Age			0.082
20-24	35(43.8)	45(56.2)	
25-29	36(62.1)	22(37.9)	
≥ 30	4(40.0)	6(60.0)	
Religion			0.811
Hindu	68(50.4)	67(49.6)	
Others	7(53.8)	6(46.2)	
Ethnicity			0.951
Brahmin/Chhetri	42(51.2)	40(48.1)	
Adiwasi/Janajati	25(51.0)	24(49.0)	
Others (Madhesi,Muslim,Dalit)	8(47.1)	9(52.9)	
Type of Family			0.641
Nuclear	53(52.0)	49(48.0)	
Joint	22(47.8)	24(52.2)	
Marital Status			0.577
Married	29(53.7)	25(46.3)	
Unmarried	46(48.9)	48(51.1)	
Enrolled Program			0.146
BNS	67(53.2)	59(46.8)	
BSc. Nursing	8(36.4)	14(63.6)	
Experience of Caring Elderly at Home			0.486
Yes	42(48.3)	45(51.7)	
No	33(54.1)	28(45.9)	
Duration of Work Experience			0.345
No experience	8(36.4)	14(63.6)	
1-5 years	55(53.4)	48(46.6)	
>5 years	12(52.2)	11(47.8)	
Area of Work Experience			0.383
General hospital	35(47.9)	38(52.1)	
Critical Care Area	32(60.4)	21(39.6)	
Student	8(36.4)	14(63.6)	

Table 3 depicts association between socio-demographic characteristics with Level of knowledge. There is no association between level of knowledge and age, religion, ethnicity, type of family, marital status, enrolled program, experience of caring elderly at home, duration of work experience and area of work experience with *p* value 0.082, 0.811, 0.951, 0.641, 0.577, 0.146, 0.486, 0.345, 0.383 respectively.

Table 4: Association betweenSocio-demographic Characteristics with Level of Attitude   (n=148)

Variables	Favorable Attitude (%)	Unfavorable Attitude (%)	*P*-value
Age			0.6334
20-24	39(48.8)	41(51.2)	
25-29	33(56.9)	25(43.1)	
>=30	5(50.0)	5(50.0)	
Religion			0.305
Hindu	72(53.3)	63(46.7)	
Others	5(38.5)	8(61.5)	
Ethnicity			0.734
Brahmin/Chhetri	45(54.9)	37(45.1)	
Adiwasi/Janajati	24(49.0)	25(51.0)	
Others (Madhesi,Muslim,Dalit)	8(47.1)	9(52.9)	
Type of Family			0.148
Nuclear	49(48.0)	53(52.0)	
Joint	28(60.9)	18(39.1)	
Marital Status			0.474
Married	26(48.1)	28(51.9)	
Unmarried	51(54.3)	43(45.7)	
Enrolled Program			0.040*
BNS	70(55.6)	56(44.4)	
Bsc. Nursing	7(31.8)	15(68.2)	
Experience of Caring Elderly at Home			0.673
Yes	44(50.6)	43(49.4)	
No	33(54.1)	28(45.9)	
Duration of Work Experience			0.113
No experience	7(31.8)	15(68.2)	
1-5 years	58(56.3)	45(43.7)	
>5 years	12(52.2)	11(47.8)	
Area of Work Experience			0.118
General hospital	40(54.8)	33(45.2)	
Critical Care Area	30(56.6)	23(43.4)	
Student	7(31.8)	15(68.2)	

Table 4 depicts association between socio-demographic characteristics with Level of attitude. In which, students' enrolled program was statistically associated (*p*=0.040) with level of attitude. There is no association between level of attitude andage, religion, ethnicity, type of family, marital status, experience of caring elderly at home, duration of work experience and area of work experience.

Table 5:Association betweenSocio-demographic Characteristics with Level of Willingness **(n=148)**

Variables	Willing to Care f (%)	Unwilling to caref (%)	*P*-value
Age			
20-24	50(62.5)	30(37.5)	0.910
25-29	38(65.5)	20(34.5)	
>=30	6(60.0)	4(40.0)	
Religion			
Hindu	84(62.2)	51(37.8)	0.293
Others	10(76.9)	3(23.1)	
Ethnicity			
Brahmin/Chhetri	53(64.6)	29(35.4)	0.902
Adiwasi/Janajati	31(63.6)	18(36.7)	
Others(Madhesi,Muslim,Dalit)	10(58.8)	7(41.2)	
Type of Family			
Nuclear	59(57.8)	43(42.2)	**0.033***
Joint	35(76.1)	11(23.9)	
Marital Status			
Married	36(66.7)	18(33.3)	0.546
Unmarried	58(61.7)	36(38.3)	
Enrolled Program			
BNS	83(65.9)	43(34.1)	0.154
BSc. Nursing	11(50.0)	11(50.0)	
Experience of Caring Elderly at Home			0.797
Yes	56(64.4)	31(35.6)	
No	38(62.3)	23(37.7)	
Duration of Work Experience			
No experience	11(50.0)	11(50.0)	0.116
1-5 years	71(68.9)	32(31.1)	
>5 years	12(52.2)	11(47.8)	
Area of Work Experience			
General hospital	47(64.4)	26(35.6)	0.332
Critical Care Area	36(67.9)	17(32.1)	
Student	11(50.0)	11(50.0)	

Table 5 depicts association between socio-demographic characteristics with willingness to care elderly. In which, students' type of family was statistically associated (*p*=0.033) with level of willingness. There is no association between level of willingness and age, religion, ethnicity, marital status, enrolled program, experience of caring elderly at home, duration of work experience and area of work experience.

DISCUSSION

This study assessed the knowledge, attitude and willingness to work with older adults among nursing students in Nepal. Present study finding revealed that the meanage of the nursing students was 24.9±3.5. Almost all 99.7% of the nursing students were female were Hindu.Similar findings were presented in the study conducted by Ghimire et al., (2019) which revealed that the average age of the students was

22.2±3.2. All (100%) of the nursing students were female and Most of (88.8%) of the nursing students were Hindu this may be the similar content socio-demographic variable of respondents.[54]

This study finding reveals that half (50.2%) of the nursing students had good level of knowledge towards willingness to care towards elderly care, more than half (52.0%) of the nursing students had favorable attitude towards willingness to care elderly and two-thirds (63.5%) of the nursing students were willingness to care elderly. Similarly contradict finding Fita, Mekonnen, Endalew, &Azagew mentioned that only 37.2% of the participants had good knowledge and 45.7% had a favorable attitude toward the care of older people.[13]

According to this study's findings, over two-thirds (63.5%) of students' attitudes toward senior citizens were favorably correlated with how they felt about working with senior citizens (*β*= 0.07; 95% CI: 0.02-0.13); perception scores were also associated with attitude scores. (*β*= 0.22; 95% CI: 0.05–0.38)) of nursing students were willingness (Mean± SD: 20.61± 5.37) to care elderly patient's similar study finding conducted by Chi, Shyu, Wang and et al., reported that the range of scores for nursing students' attitudes toward senior citizens was 44–106, with a mean of 73.86 (SD = 8.9).[11] With a range of 36-75, the mean score on the desire to care for senior citizens was 55.01 (SD = 6.4). Likewise, a similar finding conducted by Cheng, (2021) the willingness score was a little high (mean = 5.2, SD = 1.1). The study tends to be associated between willingness to take care of older adults with positive attitudes and knowledge aging of the participants.

Nursing students' readiness to care for senior citizens is predicted by their positive attitudes and understanding of aging. Lambrinou, Sourtzi, Kalokerinou, &Lemonidou found that in both institutions, final year students had more favorable feelings about elderly persons than first year students.[26] Study conducted by Ghimire et al., (2019) contradict or similar finding revealed that the attitude of working with older persons among students was favorably correlated with their attitudes toward older people (= 0.07; 95% CI: 0.02-0.13); perception scores were similarly correlated with attitude scores. (β= 0.22; 95% CI: 0.05–0.38) [54]

Similar finding was concluded by Cheng (2021) the willingness score was a little high (mean = 5.2, SD = 1.1). Nursing learners' willingness to care for elderly people is predicted by their positive attitudes toward aging and their understanding of aging. The mean age of the nursing students was 22.2±3.2. Almost all (100%) of the nursing students were female and most of (88.8%) of them were Hindu [54]. Nursing students' knowledge in school is predicted by their positive attitudes and understanding of aging. Nearly three-quarters (71.8%) of respondents had good opinions regarding the care of elderly persons, and two-thirds (66.1%) had favorable perceptions of it.[55] Age category 20–25 (OR = 0.45; p = 0.04) and attitude and perception (OR = 1.11; p = 0.002) show a significant correlation. Contradicting data, however, show that there was no meaningful relationship between respondents' attitudes and knowledge (2 = 4.16; df = 2; p = 0.125). Present study findings revealed that knowledge on elderly care and attitude towards elderly are poorly correlated and since p-value >0.05 i.e. 0.139, so there is no significant correlation. The perception of working with older persons among students was favorably correlated with their attitudes toward older people (= 0.07; 95% CI: 0.02-0.13); perception scores were similarly correlated with attitude scores. (β= 0.22; 95% CI: 0.05–0.38). Similar findings revealed that both the control group and the group wearing Senior Simulation suit programs significantly increased their motivation to assist older persons and their favorable sentiments.[56] As this study Pearson correlation value is between -1 & +1, knowledge on elderly care and willingness to work with elderly are moderately correlated and since p-value >.005 i.e. 0.99, correlation is not significant. Similar findings showed that attitudes and knowledge about aging had substantial positive regression weights, suggesting that nursing students with higher scores for these variables would be anticipated to be more receptive to working with senior citizens.[57] Another similar study finding shows that there is significant positive correlation between nurses' attitudes and knowledge level. These might be similar socio-demographic variables of the respondents.[58]

CONCLUSION

Nursing students had good knowledge of elderly care and also favorable attitude was found to work with

older adults. They had positive willingness to work with the older adults. It can be concluded that good knowledge on elderly care might have influenced attitude towards aging to be positive which ultimately might have increased willingness among nursing students to take care of older adults. Furthermore, there is no correlation among knowledge, attitude and willingness. In order to increase the student's preference to care for and work with older adults, adequate clinical exposure is the critical aspect thus requiring revision in nursing curriculum. Similarly, nursing institutes need to pay attention in strengthening the education on elderly care with significance on practical exposure in meeting the diversified health needs of elderly and contribute the nation for healthy aging.

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