Geriatric Nursing Course: It's Effect on Nursing Students' knowledge and Attitude regarding Caring Elderly

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Abstract

Prepared nurses adequately with sufficient knowledge, skills, and positive attitudes towards elderly improve patient outcomes such as reduced hospital length of stay, reduced readmission rates, and therefor patient and family satisfaction. **Aim**: This study aimed to examine the effect of geriatric nursing course on nursing students' knowledge, attitude regarding caring elderly. **Design**: A quasi-experimental design (pre-posttest) was utilized. **Setting**: This study was conducted at faculty of nursing in Shebin Elkom City, Menoufia University. **Sample**: convenient sample consists of 371 students enrolled in the fourth year, Faculty of Nursing, Menoufia University. Tools of data collection: Tool (1): Structured interviewing questionnaire: It was developed by the researchers. Tool (2): The Attitudes toward Old People Scale (Kogan, 1961). Tool (3): Perceived Job Satisfaction (Everly and Falcion, 1976). **Results**: there was improvement in student' knowledge and attitude toward elderly after implementation of geriatric nursing course. **Conclusion**: The present study has indicated that providing a geriatric nursing course had a positive effect on the attitude toward the elderly and was particularly effective in decreasing the negative attitude of students. In addition it increase student' knowledge level and can make students consider working as a nurse caring for elderly. **Recommendations**: There is a need to revise the nursing curriculum and develop innovative schemes that will increase the students' willingness to work with the elderly. Effective use of mass and social media in order to raise awareness and to change negative attitudes toward elderly. Give a chance for nursing students to be more contact with care of elders through clinical practice.

Keywords: Nursing students, Attitude, Elderly, Geriatric nursing course.

Introduction:

The age structure of the population continues to change in the world, driven by decreasing levels of fertility and increasing life expectancy. All countries will see an increase in the size of older population between 2020 and 2050. The share of the global population aged 65 years or over is expected to increase from 9.3 per cent in 2020 to 16.0 per cent by 2050 (United Nations, 2020).

Health systems in lower and middle-income countries in parts of Asia, the Middle East, and particularly, in sub-Sahara Africa may lack specialized and adequately trained personnel and infrastructure to provide comprehensive care for the older adult population (Ocansey et al., 2013). Older people are generally the largest consumers of healthcare services, as ageing can lead to multiple health issues (Prince et al., 2015).

Nursing students are the main future workforce that will provide direct older people care across different healthcare settings. However, substantial research has found that nursing students are less willing to choose working with older people as their preferred career choice (Abudu-Birresborn, McCleary, Puts, Yakong, & Cranley, 2019; Carlson & Idvall, 2015).

Nursing students' preferences for working with older people are influenced by their attitudes toward older people, which is a psychological construct representing an individual's tendency to evaluate older people, either favorably or unfavorably (Abudu-Birresborn et al., 2019). Nursing students should improve their knowledge, skills, and attitudes, and be prepared to provide care for older adults (Fernández, Castro, Aguayo, González, & Martínez, 2018).

Nursing students without sufficient knowledge and experience in older adults' care may be unwilling to provide care for them. A knowledge deficit of aging, lack of interaction with older adults, and the age difference

between students and elders may be reasons for negative attitudes toward older adults (Mohammed & Omar, 2019). Also can negatively affect the development or sustainability of healthcare services for the aged (Hanson, 2014).

Universities are responsible for training sufficient numbers of nursing students to meet the demands of older people care and motivating them to care for older patients in various care settings (Chi et al., 2016). Nursing care skills are taught to nursing students to enable them to deliver healthcare services to older patients and their families effectively and efficiently (Patton & Henry, 2019).

A challenge for future nurses is to develop their preferences to care for older patients as well as a positive attitude towards ageing (Xiao et al., 2013). Evaluating undergraduate nursing students' attitude towards ageing and their preferences to care for older patients to find a solution to this problem would be beneficial (King et al., 2013; Zhang et al., 2016).

Significance of the study:

According to WHO survey, by 2050, the proportion of people over 60 years old will increase to 22% (World Health Organization, 2020). So meeting the needs of the increasing older adults is challenging for medical and health services. There is a large demand for gerontological nurses due to the growth of the ageing population; in addition, prevalence of degenerative and chronic diseases is high, thus resulting in an unparalleled demand for health care (King et al., 2013), mainly for nursing homes staff, gerontological care nurses and home care personnel (Carlson & Idvall, 2015).

Encouraging nurses to work in caring elderly is challenging in numerous countries. Nursing students' expectations regarding gerontological caring employment reflect a low level of aspiration and most students are not intent on entering the long-term nursing workforce to care for older people (Neville et al., 2013).

Aim of the study:

Examine the effect of geriatric nursing course on nursing students' knowledge and attitude regarding caring elderly.

This aim will be achieved through the following objectives:

1- To equip nursing students with sufficient knowledge regarding caring elderly.

2- To apply theoretical knowledge in different practical settings for caring elderly.

3- To teach students more positive attitude that ensure higher quality elderly care.

Hypotheses:

1- Geriatric nursing course will has positive effect on undergraduate nursing students' knowledge and attitude regarding caring elderly.

Subject and Method

Design: Quasi-experimental, pre- and post-test design.

Research Setting: This study was conducted at Faculty of Nursing in Shebin Elkom City, Menoufia University.

Sample: convenient sample consists of 371 students enrolled in the fourth year, Faculty of Nursing, Menoufia University.

Tools of data collection: Two tools were used by the researchers to collect the data. It includes:

Tool (1): Structured interviewing questionnaire: It was developed by the researchers based on review of the related literatures, which involved the following parts:

A. Socio-demographic characteristics for studied sample: it includes age, sex, social status, and if he /she works alongside study.

B. Knowledge questions regarding caring elderly which were selected to cover theoretical content of the course to assess level of knowledge pre and post intervention. They were 20 multiple choice questions with one score for each right answer. Total score was categorized as poor (< 12), fair (12- 16), and good (17- 20) as per the score obtained by the students.

Tool (2): The Attitudes toward Old People Scale (Kogan, 1961) is a Likert-type scale composed of 17 negative and 17 positive statements about old people. The items are

scored from zero to three. The attitude score is obtained by adding individual item scores for both positive and negative items with reverse scoring being applied to the negative statements. A high score on positive items indicates favorable attitudes while a high score on negative items indicates unfavorable ones. Reverse scoring was employed for negatively stated items.

Tool (3): Perceived Job Satisfaction (Everly and Falcione, 1976). It is a Likert-type scale composed of three selected dimensions of job satisfaction as follows: 1. Positive interpersonal relationships. 2. Development and use of new skills and abilities. 3. Recognition for the work effort through opportunities of advancement. These three factors were used to determine levels of job satisfaction in different nursing clinical areas. The researchers added one question (working in the geriatric area of nursing provides job satisfaction?) to recognize job satisfaction in geriatric clinical area definitely.

The posttest included five open-ended questions regarding the effect of geriatric nursing course.

Validity of the tools:

The tool was tested for its content validity by three experts in the field of Geriatric and Community health Nursing, Faculty of Nursing, Menoufia University. Modifications were done accordingly.

Reliability of tools:

Reliability was estimated among 10 participants by using test retest method with two weeks apart between them. Then Cronbach alpha reliability test was done through SPSS computer package. It was 0.97 for interviewing questionnaire

Pilot study:

It was done by 10 % of students to evaluate the effectiveness of the study tools, clarity, techniques and the availability of the study sample.

Ethical considerations:

The official permission to conduct the study was obtained by the researchers from the dean and ethical committee of the Faculty of Nursing after comprehensive explanation of study purpose and data collection procedures. The contributors were informed that the participation in this study is voluntary and they can withdraw at any time without giving reasons. The purpose of the study was explained to them and they were reassured that any information obtained would be confidential and would be used only for the study purpose.

Field work:

Duration of study: This study was conducted during the period starting from September 2018 to the end of May 2019.

- After obtaining approval and informed consent to conduct the study, the researchers were initiated data collection from students enrolled in the fourth year, Faculty of Nursing, Menoufia University, using self-administered structured questionnaire which included socio demographic data, questions related to knowledge about elderly care and Attitudes toward Old People Scale.

- Before distributing the questionnaire, the researchers introduced themselves and a brief explanation about the purpose of the study was given to the participants.

- The Attitudes toward Old People Scale that most students will find straight forward to use. Students asked to complete the questionnaire by themselves although some may require assistance. Instructions on how to complete the questionnaire are given, before starting the questionnaire. The average time taken for completing questionnaire was around 30-45 minutes.

- The questionnaire was administered at the beginning of the first semester followed by teaching the theoretical geriatric nursing course with practical application. The questionnaire was administered again at the end of the same semester.

- Geriatric nursing course was include the following chapters:
  - Chapter 1. Introduction to geriatric nursing

- Chapter 2. Theories of aging
- Chapter 3. Normal physiological changes of elderly
- Chapter 4. Needs of elderly
- Chapter 5. Common health problems for elderly
- Chapter 6. Home health care for elderly
- Chapter 7. Health promotion and improve quality of life for elderly
- These chapters were taught along 15 weeks (2 hours / week) which conducted in lectures halls in Faculty of Nursing, Menoufia University.

- The researchers use a variety of teaching methods to implement theoretical and practical part. Lectures, brain storming, group discussion for theory while case studies, group discussion, role play and problem solving for practice.

- The practical application was completed where the students were trained on how to care for the elderly in inpatient and outpatient clinics, how to conduct comprehensive geriatric assessment, thus identify needs or problems of elderly and develop appropriate nursing care plan for them. Each student had been assigned to do a 90-hour clinical rotation (6 hours/week for 15 weeks) in an elderly care facility which provided a clinical seminar experience. This seminar facilitated the application of the theoretical content presented in the lectures.

Student' clinical rotation: the students received theoretical part of clinical content for first three weeks at faculty clinical lab. After that the students divided into two big groups and rotation was as the following:

Group A			Group B		
From 4th to 9th week					
Home visit in kafer tanbdy village			G 1 University hospital	G 2 Educational hospital	G 3 Abo bkr clinics
			Geriatric club at 5th week	Geriatric club at 7th week	Geriatric club at 9th week
From 10th to 15th week					
G 1 University hospital	G 2 Educational hospital	G 3 Abo bkr clinics	Home visit in kafer tanbdy village		
Geriatric club at 11th week	Geriatric club at 13th week	Geriatric club at 15th week			

- There was a fifteen -week period between administration of the pretest and the posttest questionnaire.
- The posttest included five open-ended questions regarding geriatric course changes that the students would like to see fulfilled.
- All previous steps repeated with another group of students in the second semester.
- The researchers manipulate the reported data using the appropriate statistical system.

Statistical analysis:

Data was coded and transformed into specially designed form to be suitable for computer entry process. Data was entered and analyzed by using SPSS (Statistical Package for Social Science) statistical package version 20. Graphics were done using Excel program. Quantitative data were presented by mean (X) and standard deviation (SD). Qualitative data were presented in the form of frequency distribution tables, number and percentage. It was analyzed by chi-square ($\chi2$) test. However, if an expected value of any cell in the table was less than 5, Fisher Exact test was used (if the table was 4 cells). Level of significance was set as P value. In addition to the calculation of frequencies and percentages of responses to each item in the survey form, correlated or paired t tests were performed to determine

whether significant differences existed between the posttest and pretest means. Responses to the open-ended items were categorized and interpreted.

Results:

Table 1: this table demonstrates that, Mean age of studied sample was 21±0.7. Near to three quarter of nursing students were females. Majority of the sample (81.9 %) don't work currently.

Table 2: illustrates that, Mean total score of positive items increased in post test while mean score of negative items decreased with statistical significant difference between pre and post test.

Table 3: reveals that, change in knowledge categories in post than pre test where more than half of the sample (55 %) became have fair knowledge about elderly care in post test compared to only 5.1% in pre test. In addition 43.9 % have a good knowledge compared to 0 % in pre test with statistical significant difference.

Table 4: this table illustrates that, 98.7 % of nursing students reported that, they agree with a nurse can develop positive interpersonal relationships in geriatric area of nursing in post test, (66.9 % were agree & 31.8 % strongly agree) compared to 97.9 in pre test. In addition students response regarding job satisfaction in geriatric area was agree with percent 91.1 % post test compared to 88.7 % in pre test with statistical significant difference between pre and post test.

Table 5: this table reveals that, all students reported that their opinions on caring for elderly changed after clinical rotation and elderly care clinical rotation have been helpful for them prior to this time. More than three quarter of the nursing students consider working as a nurse caring for elderly as they reported.

Fig. 2 reveals that, knowledge deficit was the predominant cause for opinion change as reported by more than half of the students (57.1%) followed by self-care deficit (27.8%) then burden of care (34%) and normal changes (22%).

Table 1: Distribution of sociodemographic data among studied sample N (371)

Demographic data	NO	%
Age	Mean±SD 21±0.7	
Sex Male female	95 276	25.6 74.4
Social status Single Married	326 45	87.9 12.1
Do you work alongside study? Less than 20 hours Less than 20-40 hours per week More than 40 hours per week I don't work currently	11 32 24 304	3 8.6 6.5 81.9
Total	371	100

Table 2: distribution of knowledge categories among studied sample pre and post test N (371)

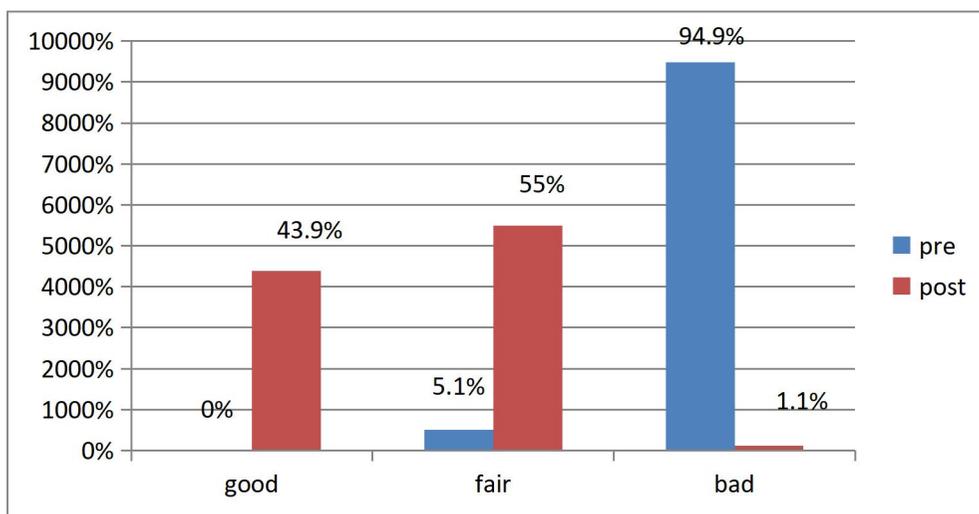| Knowledge categories	Pre test		Post test		P
	No	%	No	%	
poor	352	94.9	4	1.1	.001
Fair	19	5.1	204	55	
Good	0	0	163	43.9	
Total knowledge score	M± SD 6.1± 2.8		M± SD 15.9 ± 1.8		.001
Total	371	100	371	100	

Fig 1: distribution of knowledge categories among studied sample pre and post test N (371)

**Table 3:** Mean score of Kogan attitude among studied sample pre and post geriatric nursing course N (371)

Total scores	pre	post	t	p
	M± SD	M± SD		
Total score of positive items	29.3 ± 4.1	33.8 ± 3.9	19.3	.001
Total score of negative items	28.5 ± 5.4	22.6 ± 4.3	21.4	.001

Table 4: Distribution of subject's responses about job satisfaction in clinical geriatric area of nursing pre and post test

Items	Pre-test No (%)	Post-test No (%)	P value
In geriatric area of nursing, a nurse can develop positive interpersonal relationships.			
Strongly disagree	2 (0.5)	2 (0.5)	0.001
Disagree	6 (1.5)	3 (0.8)	
Agree	248 (66.9)	248 (66.9)	
Strongly agree	115 (31)	118 (31.8)	
Geriatric area of nursing promotes development and use of new skills and abilities for the nurse.			
Strongly disagree	4 (1)	2	0.001
Disagree	21 (5.7)	21 (5.7)	
Agree	237 (63.9)	236(63.9)	
Strongly agree	109 (29.4)	112 (30.2)	
Geriatric area of nursing provides recognition for the work effort through opportunities of advancement.			
Strongly disagree	6 (1.6)	0 (0)	0.001
Disagree	34 (9.2)	32 (8.6)	
Agree	243(65.5)	244 (65.8)	
Strongly agree	88 (23.7)	95 (25.6)	
Working in the gerontology area of nursing provides job satisfaction?			
Strongly disagree	3 (0.8)	2 (0.5)	0.001
Disagree	39 (10.5)	31 (8.4)	
Agree	225 (60.6)	232 (62.5)	
Strongly agree	104 (28.1)	106 (28.6)	
Total	100 (100)	100 (100)	

Table 5: Distribution of student's response regarding open end questions post test

Question	Student's responses				Total	
	Yes		No			
	No	%	No	%	No	%
Have your opinions changed on caring for the elderly after this clinical rotation?	371	100	0	0	371	100
Would you consider working as a nurse caring for the elderly?	286	77.1	85	22.9	371	100
Would elderly care clinical rotation helpful to you prior to this time?	371	100	0	0	371	100
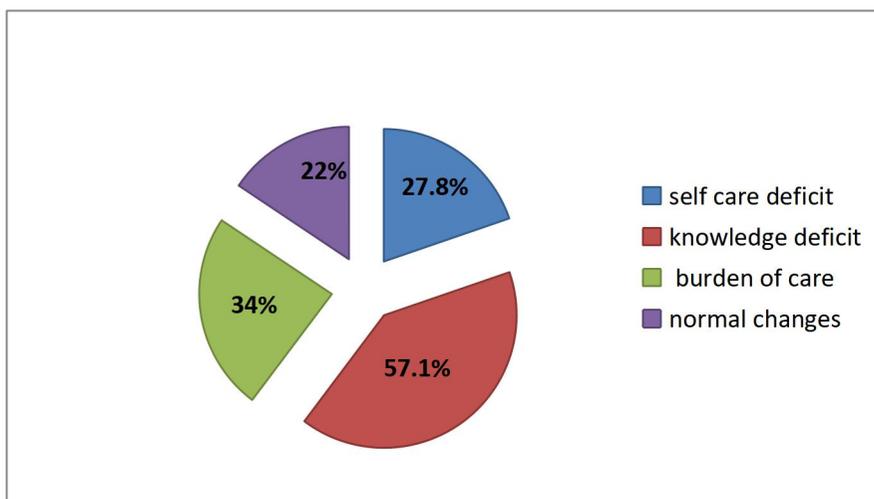
Fig. 2: What experiences or incidence changed student's opinions?

Discussion

The world's population is aging, and the demand for skilled nurses is increasing. Working with older adults has always been an unpopular career choice among student nurses. Nursing students should be prepared to face the challenges of their future practice. Nursing faculties have the responsibility to prepare nursing students to face trends of increasing numbers of older adults and the demands for aged care and to motivate students to work with older people after graduation. This study was conducted to evaluate the effect of gerontological nursing curriculum on the knowledge, attitudes, and preferences of nursing students to work with older adults after graduation.

Regarding the nursing students' knowledge, the findings of this study showed great improvement in their knowledge post gerontological nursing curriculum (theoretical and clinical rotation). The students reported gaining valuable knowledge that helped them

in providing health care and health advice to their elderly relatives from their family, and even neighbors. This finding was similar to Zisberg et al., (2015) where the study findings of nursing students' improved knowledge and beliefs towards caring for older adults after the integrated adult/older adult course offers about gerontological education. On the other line this study findings was contrary to the findings of Lowey, 2018; who studied Students' Knowledge of and Interest in Older Adults: Impact of a Geriatrics Course, she reported that, completing the geriatric course was not correlated with having greater aging-related knowledge.

As regard to attitude, the present study revealed that, there was an increase in total score related to positive attitude and decrease in total score related to negative attitude toward care of elderly. These results correspond with those of previous studies (Akpinar Soylemez et al., 2018; Dy-Boarman et al., 2017; Conti et al., 2016) which show that educational programs for nursing students are effective in increasing

positive attitudes toward the elderly. Also results of the present study show similarity with other studies conducted in the same cultural environment (Turan et al., 2016; Ayoğlu et al., 2014). They reported that, the reason for the higher baseline data in terms of students' positive attitudes post the delivery of the gerontological nursing course is thought to originate from Arab culture and religion. In addition, a designated course in gerontology with a service-learning component can markedly improve student attitudes towards working with older adults (Garbarino & Lewis, 2019).

On the other side these findings were contrast with (Zisberg et al., 2015) who found that although more senior students had greater knowledge of old age, students' attitudes toward older adults did not differ as a result of nursing education. The difference may be related to cultural and religious factors, which reveal great respect for the elderly and not to offend him as stated in the Noble Qur'an, which urges us to do so therefor attitudes are mostly formed within the family.

Regarding the preferences to work with the elderly, the present study found that, more than three quarters of the nursing students willing to work with older adults. This result show similarity with Ayoglu et al., (2014) they found that, two thirds of students stated that they were willing to work with elderly people after graduation. Darling et al. (2017) found that more than half of the students stated that they were willing to work with the elderly. However this study was contrary to the findings of Abudu-Birresborn et al., (2019) and Zisberg et al., (2015) where the nursing students reported a low preference for working with older adults even after nursing education. Nursing students who rejecting the work with the elderly after their graduation based their decision on various reasons such as not having enough experience working with the elderly, having trouble communicating with elderly people, and that working with the elderly is boring and depressing and less prestigious as a career (King et al., 2013; Garbrah et al., 2017). Some nursing students participated in present study stated that they had previous experience of living with an elderly person and had shared

in providing care for aged persons within the family or neighbors.

Conclusion:

The present study has indicated that providing a geriatric nursing course had a positive effect on the attitude toward the elderly and was particularly effective in decreasing the negative attitude of students. In addition it increase student' knowledge level and can make students consider working as a nurse caring for elderly.

Recommendations:

There is a need to revise the nursing curriculum and develop innovative schemes that will increase the students' willingness to work with the elderly. Effective use of mass and social media in order to raise awareness and to change negative attitudes and stereotypes toward elderly. Give a chance for nursing students to be more contact with care for elders through clinical practice.

Conflict of interest: There is no conflict of interest and no fund from any institution.

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