#### **ORIGINAL PAPER**



# Influence of Religiosity on the Saudi Nursing Students' Attitudes Toward Older People and Perceptions on Elderly Care

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#### Abstract

This cross-sectional study examined the influence of Saudi nursing students' religiosity on their attitudes toward older people and on their perceptions of elderly care. A sample of 175 nursing students of a government university in Saudi Arabia was surveyed using the Kogan's Attitudes toward Older People Scale, the Perspectives on Caring for Older Adults Scale, and the Muslim Religious Index. The students reported they are religious, they have modest attitudes toward older people, and they have neutral perception about elderly care. Religiosity showed a positive influence on the students' attitudes toward older people and on their perceptions about elderly care.

**Keywords** Attitudes · Elderly care · Nursing students · Older people · Saudi Arabia

## Introduction

The human aging population is rapidly increasing on a worldwide scale (WHO 2015). This rapid increase is due to science and technology developments, increased birthrate, falling mortality rates, and increased life expectancy from health-care improvements (WHO 2015). The longevity of older adults in Saudi improved from 64.4 years in the 1980s to 74.3 years in the 2000s (World Bank

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2015). In addition, according to the WHO (2013), older adults in Saudi are projected to upsurge to 18.4% in 2050. The longer the people live, the more likely it is that greater health service and social services are needed to assure their overall well-being upon retirement. This expected older population increase could have a direct effect on the country's health-care services. With the number of older people in Saudi rising swiftly, health-care professionals must be arranged with proper attitude, knowledge, and skills to achieve noteworthy roles in responding to future health-care needs.

In Saudi culture, health care is significantly influenced by their Islamic faith, that is, the religious aspect of spiritual care (Alshehry 2018). Islam is certainly the core influence of Saudi culture and is constantly articulated through their daily activities (Cruz et al. 2017a). According to Ivan (2017), religiosity and spirituality are intertwined. These concepts are viewed as a means of being in the world, in which a person interprets life with a sense of purpose, meaning, faith in a higher being (Weathers 2018). Both religiosity and spirituality are considered human life components as they encourage social—cultural interconnectedness in relation with the psychological dimension, verified through one's values, beliefs, attitudes, and behaviors (Weathers 2018), and affecting health and improvement of a healthy behavior (Rassool 2015). Hence, delivering quality care to the Muslim population likely contains possessing an understanding of the Islamic faith and beliefs.

Religiosity and spirituality are well documented as significant qualities of patient care because they affect the overall quality of life, morbidity, and mortality (Cruz et al. 2017b, c). According to Koenig (2012), spirituality narrates to interconnectedness with a transcendent being (spiritual perceptions), in which individual efforts to uncover the meanings in life and that may or may not involve religion. Spirituality is not synonymous with religious doctrine but can be deliberated as an individual philosophy, values, and life meaning. It is an innate individual attribute, which promotes health and well-being (Nascimento et al. 2013). It is associated with the life essence and related to spiritual concerns. Spirituality produces a feeling of optimism, affection, and faithfulness, which provides meaning to life (Alshehry 2018).

Meanwhile, religiosity is described as individuals' ways to express their spirituality through values adoption, philosophies, and ritual practices that provide solutions to vital life issues including life, death, and dying (Arrey et al. 2016). Religiosity is an interpersonal and organized institutional arrangement with a formal religious group, doctrines, and traditions (Zarzycka et al. 2017). It is most certainly that religion encompasses rules and guidelines that guide life behaviors socially and individually, and can influence people interactions based on their religious values, beliefs, behaviors, and emotions (Henning-Geronasso and Moré 2015). Religiosity has an important role in coping with diseases and well-being. For example, in the survey conducted by Cruz et al. (2016), understanding the religiosity of an individual is necessary before rendering care to Saudi patients undergoing hemodialysis; otherwise, patients will not adhere to the treatment. One of the studies conducted in Brazil showed that religiosity and spirituality reduced the alcoholism addiction and helped the individual to reduce depression and improve health outcomes (Zerbetto et al. 2017). An empirical analysis by ten Kate et al. 2017) noted that individuals with higher religiosity have higher life satisfaction than individuals who are not



religious. Understanding individual religiosity and spirituality almost certainly bring light to patient care delivery.

Nurses, like other health professionals, are extensively recognized in providing holistic care, including spiritual needs (Zamanzadeh et al. 2015). They are primarily accountable for providing care to older adults across different health-care settings (Zamanzadeh et al. 2015). In the same way, nursing students are also held accountable for their care standards toward older people as future health-care professionals. Caring for older people is influenced by several factors, such as the knowledge, skills, and attitudes of the students (Celik et al. 2010). Thus, molding nursing students and inculcating in them the right attitudes toward care of older people is critical. However, empirical findings report that elderly care is generally unpopular among nursing students. For example, students from Nigeria perceive older people as a burden, and caring for them is unsatisfying and an obstacle to the more significant work of caring for younger adults (Faronbi et al. 2017). Likewise, students often view caring for older adults as challenging and uninteresting (Lane and Hirst 2012). These negative attitudes can result in ageism, which is the process of discriminating and stereotyping older adults (Islam 2014), and negatively affect elderly care.

However, despite some studies examining the attitudes of nursing students toward older adults (Alquwez et al. 2018; King et al. 2013), exploring these attitudes in relation to their religiosity remains unclear. Several empirical studies conducted in Saudi Arabia are available, but these lack one or more of the variables included in the current study. First, one study focus only on the attitudes toward older people (Alguwez et al. 2018), three studies focus on spirituality and spiritual care perspectives among nursing students (Cruz et al. 2017b, c, d), but none focus on the influence of students' religiosity in connection with their attitudes toward older people. Second, research does not concentrate on attitudes toward older adults' care but on attitudes toward older adults (Alquwez et al. 2018), which epitomizes two parallel concepts but distinct objects of nurses' attitudes. Third, research focuses on spirituality but not religiosity (Cruz et al. 2017b, c). Overall, no previous study has investigated the influence of religiosity of Saudi nursing students' attitudes toward older people and older care. For these reasons, promoting religiosity from the perspective of the students and considering their attitudes in caring for older people are necessary. This study offers possible explanations to the relationship of students' attitudes and the influence of religiosity in caring for the older population. This study examined the influence of Saudi nursing students' religiosity on their attitudes toward older people and perceptions on elderly care.

# Methods

This study used a descriptive, cross-sectional approach conducted in the Nursing Department of a government university in the central region of Saudi Arabia. Total enumeration sampling was used in the study, wherein all full-time registered students from second to fourth year taking Bachelor of Science in Nursing (BSN) and Saudi nationals were invited to participate. From the 207 students who met the



inclusion criteria, only 175 questionnaires were retrieved and included in the analyses (response rate = 84.5%).

The mean age of the respondents was 19.84 years (SD=0.87, range=19-22), and 94 of them were females. Half of the respondents were in their second year (n=89), while 48 and 38 were in third year and fourth year, respectively. The majority of the respondents belonged to nuclear families (n=98) and rural dwellers (n=123), while the others were part of an extended family (n=77) and were living in urban areas (n=52). With regard to the age of the students' parents, the mean age of the fathers was 47.95 years (SD=6.38, range=41-69) and that of the mothers' was 42.13 years (SD=7.20, range 34-60). The students did not seem to be close with their grandparents, as shown in the mean score of 4.57 (SD=3.33) from a scale of 1-10 measuring the degree of closeness to grandparents.

#### Instrument

Kogan's Attitudes toward Older People (KAOP) Scale (Kogan 1961) was used to collect data on the students' attitudes toward older people. KAOP was designed to measure one's attitudes toward older adults. It is a 34-item scale, where half are negatively worded items and the other half are positively worded. The scale uses a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The responses were added after negatively worded items were reverse-coded; hence, the total scores ranged from 34 to 204, with the higher scores representing more positive attitudes. The original scale manifested good reliability, with reported Spearman–Brown reliability coefficients ranging from 0.66 to 0.83 and inter-scale item correlations ranging from 0.46 to 0.52 (Kogan 1961). For the present study, an Arabic version was used with a Cronbach's alpha of 0.89. This version also has good construct validity as evidenced by the two-factor solution (appreciation and prejudices) with an explained variance of 60.12% (Alquwez et al. 2018).

The Perspectives on Caring for Older Adults Scale (PCOP; Burbank et al. 2002) was used to measure the students' perspectives on elderly care. This scale has 24 items and uses a five-point Likert scale. Scoring can be obtained by adding the responses; 17 items should be reverse-scored before the summation. Scores ranged from 24 to 125, with higher scores indicating more positive perceptions toward elderly care. The Arabic version of the scale has a Cronbach's alpha of 0.94 and an intraclass correlation coefficient of 0.86 for the 2 weeks' test–retest scores, implying excellent internal consistency and stability reliability. The scale was also proved to be a single factor through exploratory factor analysis, with an explained variance of 46.47%.

The religiosity of students was measured through the Muslim Religious Index by Al Zaben et al. (2015). It is a 13-item scale in Arabic language with two subscales, namely Religious Practices Scale (RPS, 10 items) and Intrinsic Religious Beliefs Scale (IRBS, 3 items), and is answered using a five-point Likert scale. Scores were obtained by summarizing the item responses, with possible score ranges of 10–50 for RPS and 3–15 for IRBS. Higher scores indicated greater religiosity. The Cronbach's alpha of the scale ranges from 0.64 to 0.93 (Al Zaben et al. 2015).



# **Ethical Consideration and Data Collection**

This research is part of a research project protocol reviewed and approved by the Institutional Review Board of Majmaah University (MUREC-Dec 19/COM-2017/26). Data were collected from November to December 2017. Information about the study (e.g., the significance of the study, the voluntary participation, the benefits and risks in participating, confidentiality, and the expected participation of the respondents) was provided to qualified students during the recruitment stage and was reinforced during data collection. Informed consent was obtained from each respondent before they were asked to answer the questionnaire. Data collection was carried out for 20–25 min in the classroom in the absence of the students' lecturers. The students were given an envelope with the questionnaire and instructed to put the answered questionnaire inside the envelope and seal it themselves before returning it to the researchers.

# **Statistical Analysis**

The analyses were performed using the SPSS version 22.0. Descriptive statistics were used for the demographic characteristics of the respondents. Mean and standard deviation were calculated for the attitudes toward aging, perception on elderly care, and religiosity. T test, ANOVA with Tukey HSD test, and Pearson product moment correlations were used accordingly to examine the associations between the demographics and religiosity of the respondents. Multivariate multiple regression analysis was performed to examine the multivariate effects of religiosity and demographic characteristics on the two factors of the attitudes toward older people. Multiple regression analysis was used to examine the influence of religiosity on the students' perception on elderly care. All statistical analyses were conducted using the SPSS version 22.0. P values less than .05 were considered significant; 95% confidence intervals were also reported accordingly.

### Results

Table 1 shows that the students reported they are religious, with mean scores of 41.49 (SD=5.27, range=20-50) and 12.78 (SD=1.78, range=6-15) on religious practices and intrinsic religiosity, respectively. Bivariate analyses revealed that female students (M=13.13, SD=1.57) had higher intrinsic religiosity scores than male students (M=12.37, SD=1.94, t=2.86, p=.005). Students living in rural areas were also found to be more religious compared to those from urban areas. The mean score in religious practices (M=42.42, SD=4.00) of the students from rural areas were significantly higher than those living in urban areas (M=39.29, SD=7.02, t=3.02, p=.002). Similarly, the mean score of rural dwellers was significantly higher on intrinsic religiosity (M=39.29, SD=7.02, t=2.27, t=0.026) than



**Table 1** Results of the descriptive analyses of the study variables (n = 175)

Variable	Mean	SD	Range				
Kogan's Attitudes toward Older People Scale							
Appreciation	71.19	7.49	34.00	87.00			
Prejudices	70.66	7.58	34.00	85.00			
Overall	141.85	13.69	68.00	170.00			
Perspectives on Caring for Older Adults Scale	74.13	12.41	34.00	105.00			
Muslim Religious Index							
Religious practices	41.49	5.27	20.00	50.00			
Intrinsic religiosity	12.78	1.78	6.00	15.00			

that of urban dwellers. Students who belonged to an extended family (M=42.82, SD=4.23) reported higher participation in religious practices compared with students belonging to a nuclear family (M=40.45, SD=5.76, t=3.02, p=.003).

The overall mean score of the students in the KAOP was 141.85 (SD=13.69), with individual scores ranging from 68 to 170 indicating moderate attitudes toward older people. In terms of the two factors of the scale, the students' mean score was 71.19 (SD=7.49, range=34–87) in the "appreciation" factor, while a mean of 70.66 (SD=7.58, range=34–85) was recorded in the "prejudices" factor. Furthermore, the students' mean score in the PCOP scale was 74.13 (SD=12.41, range=34–105), implying neutral perceptions about elderly care.

The results of the multivariate analysis on the two dimensions of the KAOP scale are shown in Table 2. The analysis revealed that attendance to religious practices (Wilks' Lambda=0.91, F=8.38, p<0.001) and intrinsic religiosity (Wilks' Lambda=0.88, F=8.38, p<0.001) exerted multivariate effects on appreciation and prejudices. As indicated in Table 3, attendance to

 Table 2
 Multivariate test of significance with Wilk's Lambda test on the students' attitudes toward older people

Predictor variables	Value	F	Hypothesis df	Error df	p
Age	0.99	0.69	2.00	163.00	.502
Gender	0.98	1.53	2.00	163.00	.219
Year of study	1.00	0.03	2.00	163.00	.970
Type of family	0.98	1.30	2.00	163.00	.276
Type of community	0.99	1.23	2.00	163.00	.295
Mother's age	0.99	1.01	2.00	163.00	.366
Father's age	0.98	1.44	2.00	163.00	.239
Degree of closeness to grand parents	1.00	0.35	2.00	163.00	.703
Religious practices	0.91	8.38	2.00	163.00	<.001***
Intrinsic religiosity	0.88	11.41	2.00	163.00	<.001***

<sup>\*\*\*</sup>Significant at 0.001 level



**Table 3** Results of the multiple linear regression analyses to assess the independent relationship between the respondents' characteristics and attitudes toward older people (n=175)

Dependent variable	Predictor variables	ß	SE	Beta	t	p	95% CI		
							Upper	Lower	
Appreciation <sup>a</sup>	Age	0.88	0.96	0.10	0.92	.358	-1.01	2.78	
	Gender	-0.81	0.91	-0.05	-0.90	.371	-2.60	0.98	
	Year of study (reference group: second year)								
	Third year	-0.13	1.36	-0.01	-0.09	.926	-2.82	2.57	
	Fourth year	-0.44	2.11	0.02	-0.21	.836	-4.60	3.72	
	Type of family	1.36	1.69	0.09	0.81	.421	-1.98	4.71	
	Type of community	-1.54	0.98	-0.09	-1.57	.119	-3.48	0.40	
	Mother's age	0.04	0.07	0.04	0.61	.542	-0.10	0.19	
	Father's age	-0.08	0.08	-0.06	-0.93	.354	-0.24	0.09	
	Degree of closeness to grand parents	0.19	0.25	0.08	0.76	.449	-0.30	0.69	
	Religious practices	0.47	0.13	0.33	3.58	<.001***	0.21	0.73	
	Intrinsic religiosity	1.47	0.38	0.35	3.85	<.001***	0.72	2.23	
Prejudices <sup>b</sup>	Age	1.04	1.01	0.12	1.03	.303	-0.95	3.03	
	Gender	0.95	0.95	0.06	1.00	.320	-0.93	2.82	
	Year of study (reference group: second year)								
	Third year	0.07	1.43	0.00	0.05	.963	-2.76	2.89	
	Fourth year	0.13	2.21	0.01	0.06	.954	-4.24	4.49	
	Type of family	2.84	1.78	0.19	1.60	.112	-0.67	6.35	
	Type of community	-0.70	1.03	-0.04	-0.68	.497	-2.74	1.33	
	Mother's age	0.11	0.08	0.10	1.42	.158	-0.04	0.26	
	Father's age	-0.14	0.09	-0.12	-1.66	.099	-0.31	0.03	
	Degree of closeness to grand parents	0.16	0.26	0.07	0.62	.535	-0.36	0.68	
	Religious practices	0.45	0.14	0.31	3.22	.002**	0.17	0.72	
	Intrinsic religiosity	1.65	0.40	0.39	4.10	<.001***	0.85	2.44	

<sup>\*\*</sup>Significant at 0.01 level, \*\*\*Significant at 0.001 level

religious practices ( $\beta$  = 0.47, p < .001, 95% CI 0.21, 0.73) and intrinsic religiosity ( $\beta$  = 1.47, p < .001, 95% CI 0.72, 2.23) had a positive influence on nursing students' appreciation of aging. Similarly, attendance to religious practices ( $\beta$  = 1.47, p < .001, 95% CI 0.72, 2.23) and having a strong intrinsic religiosity ( $\beta$  = 0.45, p = .002, 95% CI 0.17, 0.72) lessen the students' prejudices toward aging.

With regard to the influence of religiosity on how nursing students perceive elderly care, attendance to religious practices showed a positive influence on students' perceptions ( $\beta = 0.57$ , p = .011, 95% CI 0.13, 1.02), as shown in Table 4.



 $<sup>^{</sup>a}R^{2}=0.473$ , adjusted  $R^{2}=0.437$ 

 $<sup>{}^{</sup>b}R^{2}=0.433$ , adjusted  $R^{2}=0.395$ 

**Table 4** Influence of religiosity on the nursing students' perceptions of older people care (n = 175)

Predictor variables	ß	SE	Beta	t	p	95% CI			
						Upper	Lower		
Age	1.31	1.62	0.09	0.81	.421	-1.90	4.52		
Gender	0.39	1.53	0.02	0.25	.800	-2.64	3.42		
Year of study (reference group: second year)									
Third year	1.10	2.31	0.04	0.48	.633	-3.46	5.67		
Fourth year	-0.36	3.57	-0.01	-0.10	.920	-7.41	6.69		
Type of family	-4.94	2.87	-0.20	-1.72	.087	-10.60	0.72		
Type of community	-9.63	1.66	-0.36	-5.79	<.001***	-12.92	-6.34		
Mother's age	0.05	0.12	0.03	0.39	.695	-0.20	0.30		
Father's age	0.28	0.14	0.14	1.97	.051	-0.00	0.55		
Degree of closeness to grand parents	0.38	0.42	0.10	0.88	.378	-0.46	1.22		
Religious practices	0.57	0.22	0.24	2.57	.011*	0.13	1.02		
Intrinsic religiosity	0.28	0.65	0.04	0.43	.669	-1.00	1.56		

Perceptions of older people care were the dependent variable.  $\beta$  is the unstandardized coefficient; SE-b is the standard error

 $R^2 = 0.449$ ; adjusted  $R^2 = 0.412$ 

## Discussion

This study offers meaningful findings pertaining to the influence of Saudi nursing students' religiosity on their attitudes toward older people and perceptions on elderly care. The findings indicate that students are religious, as manifested in their high religious practices and intrinsic religiosity. Such findings are worth noting given that a previous study reflected Muslim people as one of the most religious people in the world and generally hold a strong affiliation to their religion (Alshehry 2018). In Saudi culture, religiosity is a component of human life, verified through one's values, beliefs, attitudes, and behaviors (Weathers 2018). Their attitude and behavior toward health-care needs are closely connected to their religious activities, especially as they relate to daily religious practices and worship (Cruz et al. 2017a). Previous empirical findings reported that future nurses have greater spiritual awareness than any other health professionals (Cruz et al. 2017b, c) because they are trained to help patients acknowledge their condition and alleviate suffering through holistic care (body, mind, and spirit). Thus, future nurses generally foster development and emphasize their cognitive, emotional, physical, and spiritual potentials. This finding is also in line with the previous work conducted among Brazilian Catholic nursing students (Tomasso et al. 2011) and Taiwanese nursing students (Hsiao et al. 2010), in which individual religiosity is higher among nurses compared with other healthcare professionals. However, this issue needs to be taken with caution because the previous studies were conducted among nurses in a non-Muslim country and the diversity of religion may hold very different beliefs from Muslim individuals. Thus,



<sup>\*</sup>Significant at .05 level, \*\*\*Significant at .001 level

future studies can provide essential and additional information to better understand the life experiences of future nurses in relation to their religious affiliation that could contribute to good spiritual care.

The results showed that female students are more religious than male students, further supporting the idea of Koenig (2012) that women pray daily and practice religion services more often than men. This finding was also reported among Christians, with women attending religious services and praying daily more often than men (Swanson 2016). A possible explanation for this finding may be that men are working to be independent, whereas women are working to be relational, obedient, and more open to religion. According to Swanson (2016), while men conservatively work outside of their home, women certainly work within the home, making it possible for religious involvement to be more engaging and fascinating to women. A study conducted among 408 Jordanian Muslim nurses concluded that female nurses are more religious than male because female nurses are more skillful in sharing emotions, feelings, and spirituality with patients, whereas male nurses relate to tangible aspects of rendering care (Melhem et al. 2016).

Other findings reported that students who were living in rural areas were more religious (intrinsic religiosity) and attended religious activities more compared to students who were from urban areas. This finding supports evidence from previous observations (Koenig 2012) which demonstrated that rural settings tend to have homogeneity of ideas on spiritual faith compared with urban settings. Koenig's descriptive study (2012) showed that urban cities tend to be more liberal, openminded, and diverse in thinking, whereas rural settings tend to have homogenous ideas, especially their religions. Some previous studies concluded that in rural communities, churches (Ap Siôn and Edwards 2012), mosques (Rassool 2015), and temples are common venues for large social gatherings and activities, which could certainly affect the religiosity of people in rural areas. Thus, environmental settings play the main role in forming religious experiences and religious knowledge for young Arab adults and their everyday life.

Students belonging to extended families showed greater participation in religious practices than students belonging to nuclear families. Extended families include grandparents who could serve as spiritual guides for young people (Sims and Rofail 2014). Interestingly, grandparents are considered religious and could shape the spiritual belief system, transmit knowledge, values, and behaviors to the young population (Deprez 2017). For example, grandparents who attend religious services frequently are more likely to mentor their grandchildren and share skills and experiences with them (Deprez 2017). Similar findings were reported in which families with grandparents support more religious teachings than those without grandparents (Sims and Rofail 2014). Young family members will certainly be more motivated to be involved in religious activities. Hence, family structure influences the degree of individual religious practices.

Another highlight of the study is that students have a moderate attitude toward older people. This result is similar to that of a previous research conducted among Canadian nursing students (Baumbusch et al. 2017), Australian nursing students, and Chinese nursing students (Xiao et al. 2013). King et al. (2013) went further, arguing that nursing schools are already offering electives on gerontology that may



play a significant role in influencing students' perception and consideration to work with the elderly. Findings that show students having a moderately positive attitude are supported by the previous literature (Alquwez et al. 2018; Cruz et al. 2018) which established a positive attitude toward the elderly. Similarly, in Saudi culture, elderly people are viewed with abundant gratitude and respect (Alshehry 2018) and, consequently, older populations are valued and preserved (Deprez 2017). Therefore, the Saudi population certainly has a high regard and value for older people. Such a finding on moderately positive attitude negates the work of Faronbi et al. (2017), who observed a negative attitude toward aging. Students perceived older people as burdensome, unsatisfied, and obstructive to the more significant work of caring for younger adults (Faronbi et al. 2017). Additionally, students often viewed caring for the elderly as challenging and uninteresting (Lane and Hirst 2012). This negative attitude about aging could have a negative effect on elderly care.

Another highlight of the study is that nursing students generally have neutral perceptions about elderly care, in accordance with our earlier observations, which showed that nursing students perceive elderly care neutrally because it is generally unpopular among them (Faronbi et al. 2017). In Saudi culture, students are exposed to have good relationships with older people. However, once they enter their internship training, they may be exposed to professional standards where a life-threatening disease is of higher priority than care toward the elderly (Alquwez et al. 2018). Moreover, they have limited exposure and practice because they are still in the training stage (Faronbi et al. 2017). This finding may be reflected in a student's vague standpoint and regard toward elderly care. The unpopular perception on elderly care among students may also be attributed to low awareness and inadequate preparation for elderly care practice (Faronbi et al. 2017). Thus, greater consideration on the provision and preparation of comprehensive knowledge and skills toward elderly care should be assessed.

The present study shows the dynamic association between the attendance at religious practices and intrinsic religiosity of nursing students and their appreciation toward aging, wherein the former influences the latter. This result emulates wider empirical research on religiosity, which describes religious people are having a better perception on aging (ten Kate et al. 2017). This outcome has been corroborated by four studies (Alquwez et al. 2018; Deprez 2017; Ivan 2017; Sims and Rofail 2014) which state that religious people have high compassion and regard for older people. This result may be explained by the fact that a religious individual understands that older adults are no longer able to care for themselves. Religious faith among nurses influences the delivery of care, leading to improved health outcomes among older people (Strugala et al. 2016). Research by ten Kate et al. (2017) emphasized that religious practice improves the perception toward elderly relationships and support, as well as relief and solace in the face of life challenges and disease. Alquwez et al. (2018) elaborated that religious involvement leads to a sense of meaning and purpose in life and help for those unable to care for themselves.

Finally, attendance to religious practices influences the perception of nursing students toward elderly care and, consequently, enhances an individual's care toward elders. In support of this idea, high religiosity practice among health-care workers has been consistently identified as an epitome of providing care and coping skills



toward older adults with disabilities (Pearce et al. 2016). Similar studies reported that those with better perception on elderly care may relate very well to other aspects of religiosity (Keenan and Kirwan 2018; Melhem et al. 2016). A study between religious practices and elderly care (Zamanzadeh et al. 2015), for instance, found that nurses' spiritual activities reflect positive emotions, which could provide the nurses confidence in caring for older people. Consequently, Faronbi et al. (2017) stated that the religious beliefs and practices of nursing students provide a means for coping with the stress of their work and comfort while in the presence of suffering, terminally ill old patients. Hence, attending religious services appears to be an important prerequisite for scaling up elderly care and supervision.

Several limitations should be acknowledged from the results of the study. First, this study was conducted at a particular point and focused only on one government university, making it challenging to generalize the findings to another government university. Second, the study used self-report, which runs the risk of social desirability bias. Third, a cross-sectional study was used wherein causality could not be determined.

## **Conclusions**

In this study, female students were more religious than male students, and students living in rural areas were more religious and attended more religious services than those from urban areas. Students with extended families participated more in religious services than those with nuclear families. The students have a moderate attitude toward older people and neutral perceptions about elderly care. The religious practices and religiosity of nursing students are related to their perception on aging and influences their attitude toward and care for the older population. Results provided essential insights into religiosity in potentially shaping students' attitude toward older people and elderly care.

# Implications of the Study

Trends and speeds of aging have created both opportunities and challenges for Saudi nursing students preparing to care for an increasingly older population. Given the potential impact of religiosity on nursing students' attitudes and perceptions toward aging and elderly care, there is a clear advantage to nursing education that can be gained through an enhanced understanding of the connection between students' attitudes and the influence of religiosity in caring for the older population.

The findings of this study have a number of practical implications. First, the university could conduct consistent and constant structured after-school activities, including religious ones, and provide good classroom resources that could improve religious outcomes. For example, extracurricular activities, such as students' religious club across all genders and teachers acting as monitors, may be present at religious meetings that could serve as guides and facilitators of learning. Next, nursing educators could train students on how to talk freely about religion in the



classroom. Combined with the existing religious courses in the Saudi nursing curriculum, doing so could provide a positive force in delivering a holistic perspective on care. Incorporating a faith-based approach to health education and reinforcing it with family ties within the faith community's social structure could also be suggested. This approach could be a pivotal piece in closing the religious gap between rural and urban nursing students and family structure differences among Saudi nursing students.

Attention should be paid at all nursing levels, particularly to maximize the benefits of participating in a creative bonding experience in older adults—young adults' relationships to enhance the quality of perspective in elderly care. Given that religiosity positively affects future nurses' attitude toward elderly care, intervention efforts (e.g., providing nursing electives on gerontology, frequent contact with the elderly, giving allotted time to read religious resources and prayer) may be more effective when the nursing administration support is facilitated. For the administration, an additional prayer room to accommodate people's spiritual needs could be suggested. By doing all of these, students can reflect and gain hands-on experience in caring for the elderly, as well as in incorporating a religious perspective that captures meaningful results, ultimately advancing understanding on how religiosity influences elderly care.

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# **Compliance with Ethical Standards**

Conflict of interest None declared.

**Ethical Approval** This research is part of a research project protocol reviewed and approved by the Institutional Review Board of Majmaah University (MUREC-Dec 19/COM-2017/26).

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