Knowledge and attitudes of nurses toward caring of older people in primary health-care centers at South of Jordan

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Abstract

Purpose – *This study aims to assess the knowledge and attitudes of 420 nurses toward caring for older people in primary health-care centers in the southern region of Jordan.*

Design/methodology/approach – *Data collected through an electronic survey was analyzed using the Statistical Package for the Social Sciences (SPSS) version 23.0.*

Findings – *The findings revealed that 91.0% of nurses had limited knowledge, with only 7.1% demonstrating average knowledge and 1.9% showing good knowledge about older people care. Furthermore, 85.2% of participants held neutral attitudes toward aged care, while 12.4% had positive attitudes and 2.4% exhibited negative attitudes. A significant correlation was observed between knowledge and attitude scores (p-value = 0.000). Gender and marital status were found to influence attitudes, with significant statistical relationships (p-values: gender = 0.000, marital status = 0.004). These results emphasize the importance of improving nursing education in geriatric care and promoting positive attitudes toward caring for older people patients.*

Practical implications – *The study highlights the need for ongoing professional development to enhance patient outcomes and the quality of care for the older people population. Further longitudinal research and comparative analyses are recommended to deepen the understanding of knowledge and attitudes across various health-care settings.*

Originality/value – *The study revealed a significant correlation between nursing practitioners' knowledge and attitudes toward geriatric care, with gender and marital status significantly influencing attitudes, while age did not. This underscores the need for further research.*

Keywords *Knowledge, Attitudes, Nurse, Older people, Primary health care, Jordan*

Paper type *Research paper*

Introduction

Globally, population aging is increasing, with adults over the age of 60 constituting the fastest growing group, with a significant increase in developing countries, as the number of older people is expected to reach two billion by 2050, accounting for 80% of the total (Faronbi *et al.*, 2017). Some of them live in impoverished countries (Faronbi *et al.*, 2017). Aging is a global issue, and a nursing staff capable of caring for the older people is critical to ensuring quality care (Rush *et al.*, 2017). The large increase in the number of older people individuals will result in a high need for geriatric nursing skills (Hovey *et al.*, 2017).

Aging causes several changes, including a steady loss in physiological reserves, an increased risk of chronic diseases and a general decline in aptitude (Muhsin *et al.*, 2020). In general, the main burdens begin to emerge around the age of 60, such as the burdens associated with disability, death due to age-related loss of hearing, vision and movement,

as well as non-communicable diseases such as heart disease, stroke and chronic respiratory disorders, cancer and fear (Ward and Schiller, 2013). Healthy aging contributes to older people's quality of life by allowing them to manage their health problems positively, survive until late in life without severe life-threatening diseases and keep their capacity to function physically and mentally (Suh *et al.*, 2012).

In the setting of a rapidly aging population, there is a growing requirement for health professionals to demonstrate suitable attitudes toward older people while also expanding their expertise and dedication to working with older people in a range of contexts (Yakubu *et al.*, 2022). Nurses are considered the primary caregivers for the older people. Beliefs and values can shape how people perceive and treat the older people, the attitudes of nurses and other health-care providers influence the preferences and care given to the older people (Attafuah *et al.*, 2022). Geriatric patients value respect, which comes in the form of listening attentively, reassuring them, offering accurate answers, assisting with their basic tasks of daily living, responding swiftly to their discomfort and helping them to manage their time wisely (Wanko Keutchafo *et al.*, 2021). Nurses have a critical role in fulfilling the holistic requirements of older persons, as well as implementing primary health-care strategies (WHO, 2018). As a result, nurses must have extensive knowledge, a pleasant attitude and expertise caring for the older people or patients who are chronically well cared for (Mitike *et al.*, 2023).

Nurses' good knowledge and positive attitude are important and are considered conditions for obtaining good health services for the older people in a variety of different settings, as it is possible that poor knowledge and an unfavorable attitude toward the care of the older people can lead to prolonged hospitalization, in addition to unnecessary re-admission to the hospital, and financial burdens, which leads to increased demand on hospital resources, and negatively affect the results related to treatment (Fita *et al.*, 2021). Because nurses are responsible for the direct care of the older people, they must be familiar with the theoretical and practical aspects of older people care gained through experience or education from health-care providers, as well as be able to identify their needs, plan for them and provide high-quality care (Amsalu *et al.*, 2021).

The quality of care for the older people provided by nurses is influenced by their attitudes, as negative attitudes can have a negative effect, as negative attitudes of nurses are considered one of the problems faced by nursing education for the older people according to previous literature, and it is important to assess nurses' attitudes and knowledge about caring for the older people (Sedri *et al.*, 2022). Studies conducted in several nations found that nurses have a low degree of knowledge and expertise in caring for older people patients, such as Nigeria (40%), Saudi Arabia (14%), Ghana (88.7%) and Zanzibar (82.6%) (Kebede *et al.*, 2024). According to one survey to evaluate nurses' understanding and attitudes toward older patients, the results of the study showed that insufficient nursing knowledge and attitudes toward older patients can have an impact on the quality of care. These results are considered to have important implications for clinical practice and nursing education, as reforms in these sectors can help improve the quality of medical treatment provided to the older people (Attafuah *et al.*, 2022).

In Jordan, a study was done to determine how nurses' demographic and professional traits connect to their level of knowledge, attitudes and age prejudice toward the older people, the study's findings showed that the old face prejudice in health-care settings, which is caused by nurses' lack of knowledge and attitudes about the older people, as these findings had consequences for nursing education, clinical practice and health policy (Rababa *et al.*, 2020).

According to data collected in numerous countries, nurses had insufficient geriatric education, and in a cross-sectional study of nursing students, the majority of participants (82.4%) had limited experience caring for the older people (Muhsin *et al.*, 2020). Nurses are

entirely responsible for providing direct care to older individuals and must be educated about age-related diseases (United Nations Department of Economic and Social Affairs, 2020). Nurses' lack of experience has a significant impact on their ability to care for older patients, and the demand for nurses to become more aware and committed to working with older people in a variety of settings has increased as the population ages (World Health Organization, 2017).

According to recent research, fully qualified nurses can improve patient outcomes when caring for the older people, including shorter hospital stays, decreased readmission rates and higher patient and family satisfaction (Salmond and Echevarria, 2017). The lack of a well-managed older people care unit, training facilities and experienced staff results in inferior care for older individuals (Argaw et al., 2019). Only a few studies have been conducted in Jordan to investigate nurses' knowledge and attitudes toward caring for the older people in primary health-care centers in southern Jordan. Examining nurses' knowledge and attitudes toward caring for the older people is critical for informing policymakers and nurse management of areas that require improvement. Therefore, this study aimed to assess knowledge and attitude of nurses toward caring of older people in primary health-care centers at South of Jordan.

This study on assessing nurses' knowledge and attitudes toward caring for the older people in health-care settings in South Jordan is significant because it has the potential to improve the quality of care for the older people, resulting in better patient outcomes, increased satisfaction among patients and their families and possibly shorter hospital stays (Salmond and Echevarria, 2017). Furthermore, by highlighting research gaps in this area, the study can help policymakers and nurse management address areas that need to be improved in health-care settings (World Health Organization, 2017). Furthermore, the study will help to bridge current knowledge gaps about nurses' attitudes and knowledge of older people care, resulting in better care and support for older people in the region (Argaw et al., 2019).

Methods

Study design

The study used a cross-sectional study design. Wang and Cheng (2020) examine cross-sectional research, which have advantages and disadvantages. Cross-sectional studies have the advantage of providing a picture of a population at a certain point in time, which allows for the examination of correlations between variables. However, a significant limitation of cross-sectional research is their inability to demonstrate causality or discern the direction of connections between variables (Wang and Cheng, 2020).

Setting

This study was implemented in primary health-care centers in southern Jordan. In these primary health care, nurses are at the forefront of patient care, offering a wide range of services to people, families, and communities. They work closely with older people patients to provide preventive care, manage chronic diseases, administer medications and satisfy the physical and emotional requirements of older persons. Nurses in these institutions play an important role in promoting healthy aging and increasing the quality of life for the region's older population.

Study sample

The target group of this research was the nurses working in primary health-care centers at south of Jordan. The sample inclusion and exclusion criteria were organized as follows:

1. *Inclusion criteria*

- Nurses working in primary health-care centers in Jordan.

- Nurses who have direct interaction with older people patients in their daily practice.

- Nurses of all genders and ages from (30 to more than 51 years old).

- Nurses willing to participate in the study voluntarily.

- Nurses who provide informed consent to participate in the study.

2. *Exclusion criteria*

- Nurses not working in primary health-care centers in Jordan.

- Nurses who do not have direct interaction with older people patients in their daily practice.

- Nurses who are on leave or unavailable during the data collection period.

- Nurses who do not provide informed consent to participate in the study.

- Nurses with limited experience in caring for older people patients (unless the study specifically aims to include nurses with limited experience for comparison purposes).

Sampling procedure

The electronic survey sample procedure included sharing information about the study with nurses working in primary health-care centers in South Jordan, using a convenience sampling technique. Nurses were reached out to and invited to participate in the research via social media platforms. Upon expressing interest, the nurses were briefed about the study's objectives and procedures. Those who agreed to participate provided informed consent and were subsequently given access to an online questionnaire. The questionnaire was chosen to evaluate their knowledge and attitudes concerning the care of older people patients. The collected data from the electronic survey will be analyzed to explore the relationship between the nurses' knowledge and attitudes within the context of caring for older people individuals in primary health care in South of Jordan.

Sample size

A sample of 420 nurses was collected based on the average of the samples collected in previous similar studies conducted in Jordan in health-care centers.

Study instrument

- *Tool I:* characterized by the demographic characteristics of the participant. The researchers created it to collect data on participants' age, gender and marital status.

- *Tool II Self-Knowledge Test:* In this study, a questionnaire was developed that aims to assess participants' knowledge about how to care for older people and contains 28 multiple-choice items with one correct answer. According to subjects' scores, which ranged from >15–15–20 and from 21 to 27, the total knowledge score was categorized as poor, average and good.

- *Tool III Age-Related Attitudes Scale:* Contains 34 items discussing the nurse's attitude toward older people. The tool uses a five-point Likert scale. Strongly disagree (1), disagree (2), don't know (3), agree (4) and strongly agree are the point descriptors (5). The instrument includes 17 statements for older adults who rated highly and 17 statements with low ratings. The value of negative responses is reversed and added to the positive responses to produce the result. The total score ranged from 34 to 170;

Higher scores (105–170) indicated a positive attitude toward older people; The neutral score (68–104) is neutral; the lowest score (34–67) is a negative attitude.

- *Scoring:* Correct answers received a score of 1, with no deductions for incorrect responses. Unanswered questions were not scored. Scores were computed as follows, the overall score for knowledge is calculated as (number of correct answers earned ÷ total number of correct answers given) × 100, while the categorical score is calculated as (number of correct answers earned in each category ÷ total number of correct answers given) × 100 (Elebiary *et al.*, 2018).

Researchers translated (Tools II and III) into Arabic and modified them in accordance with the study. A panel of experts in community health nursing and medical surgical nursing evaluated the tool's content validity and translation. Finally, the essential alterations were implemented in compliance. To investigate the consistency of self-administered knowledge questionnaires and The Kogan's Attitudes Toward Old People Scale, reliability was performed for both tools on ten nursing students and nurses working in the aforementioned health-care settings; "Cronbach's alpha" was used, and the result was = 0.82. Twenty student nurses and nurses working in a health-care context participated in a pilot study to assess the tools' clarity. These were not classified as research participants (Elebiary *et al.*, 2018).

Data collection

A reliable measurement tool was used (Elebiary *et al.*, 2018), which is an intentional questionnaire about the topic and the objectives of the study. The questionnaire was published via social media platforms. The answers were completely confidential. The average time to complete the tools was between 15 and 20 min. Data for this study were collected over a 4- months from September to December 2023.

Data analysis

After collecting the data, it was coded and transferred to special design formats Be suitable for computer power. The Statistical Package for the Social Sciences (SPSS) version 23.0 was used for the data. A p-value of 0.05 was used as the cut-off value levels for statistical significance. Correlation, mean was used to test the importance of some relevant variables in this study.

Ethical consideration

Ethical approval was obtained from nurses in primary health-care centers at South of Jordan, where participation was voluntary, and data were collected completely anonymously as no personally identifiable information was obtained. The research team was committed to adhering to ethical principles in all aspects of the study. The research protocol followed the guidelines of institutional ethics committees, as well as international research standards. Participants were aware that they could withdraw from the study at any time, for any reason, without any consequences.

Results

Table 1 shows the sociodemographic characteristics, there were (420) participants participated in our study, regarding to the Age, most of our participants from the age (41–50 years) (50.0%). There were (38.1%) and (11.9%) from the age (30–40), (>51) respectively. There were (37.1%) male and (62.9%) female. According to the material status, there were (18.6%), (47.4%), (25.5%) and (8.6%) single, married, divorced and widow respectively.

Table 2 indicates the correct answers that were determined by the participants in our current study regarding older people care. There were (91.0%) who have poor knowledge about what

Table 1	Frequencies and percentages regarding socio demographic characteristics	
	N	%
Age		
30–40	160	38.1
41–50	210	50.0
>51	50	11.9
Gender		
Male	156	37.1
Female	264	62.9
Marital status		
Single	78	18.6
Married	199	47.4
Divorced	107	25.5
Widow	36	8.6
Total	*420*	*100.0*
Source: Table by authors		

Table 2	Knowledge care of older people among the respondents' nurses (correct response)	
	Knowledge score *N*	%
Poor (<15)	382	91.0
Average (15–20)	30	7.1
Good (21–27)	8	1.9
Total	*420*	*100.0*
Source: Table by authors		

related to older people care. In total, 7.1% of the study sample have average knowledge and 1.9% of the study sample have good knowledge regarding older people care (Figure 1).

Table 3 shows the specific responses of the study sample regarding their attitudes toward older people care. Most of the study sample (85.2%) had a neutral attitude regarding older people care, (12.4%) had a positive attitude and only (2.4%) had a negative attitude regarding older people care (Figure 2).
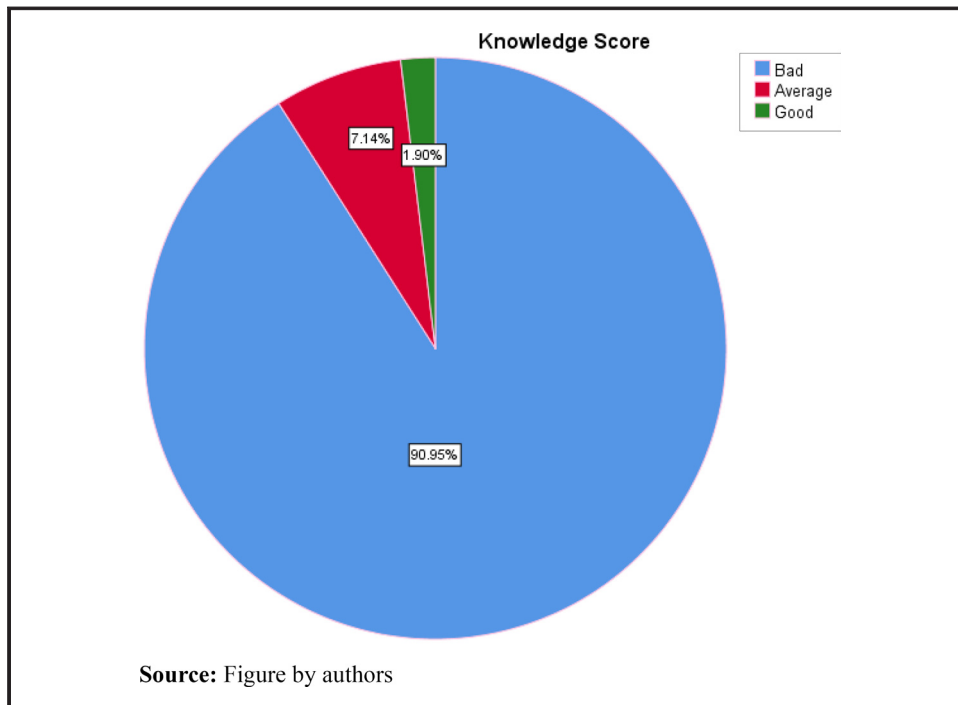
Table 4 shows that there was a significant correlation between knowledge score and attitude score at p-value = 0.000.

Table 5 shows the correlations between knowledge regarding care of older people and sociodemographic characteristics. The results show that there was no significant statistical relationship regarding age (0.105), gender (0.246) and material status (0.159).

Table 6 shows the correlations between knowledge and attitude regarding care of older people and sociodemographic characteristics. The results show that there was no significant statistical relationship regarding age (0.431). There was significant statistical relationship regarding gender (0.000) and material status (0.004).

Discussion

Our study included 420 individuals, with the majority falling between the ages of 41 and 50, which is comparable with the findings of Amsalu *et al.* (2021). However, our study included a greater percentage of female participants than Attafuah *et al.* (2022), which may represent disparities in the gender distribution of nursing staff in different contexts.
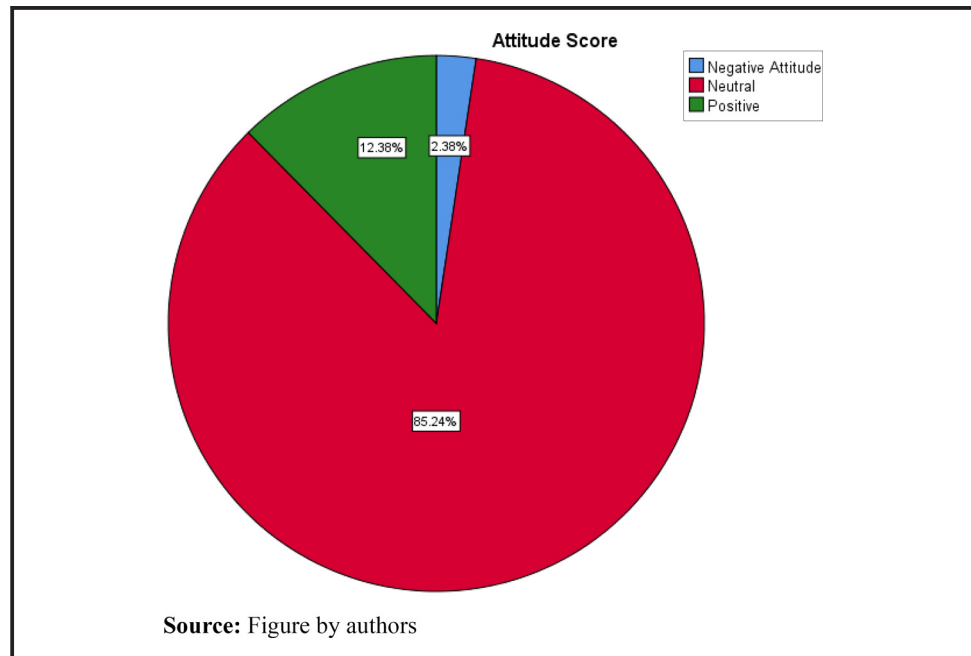
Figure 1 Distribution regarding the knowledge score

Knowledge Score

Legend: ■ Bad ■ Average ■ Good

7.14%

1.90%

90.95%

Source: Figure by authors

Table 3 Categorization of attitude score regarding care of older people

	N	%
Negative (34–67)	10	2.4
Neutral (68–104)	358	85.2
Positive (105–170)	52	12.4
Total	*420*	*100.0*

Source: Table by authors

While our study did not specifically examine attitudes, the age and gender distribution of participants can provide useful insights when compared to the findings of Argaw *et al*. (2019) and Elebiary *et al*. (2018), who focused on nurses' knowledge and attitudes toward caring for older people patients. Overall, while there are some variances in sociodemographic factors, there are also consistent trends in nurses' knowledge and attitudes regarding care for older patients. In our study, we discovered that the vast majority of participants (91.0%) had little awareness about senior care, with only a tiny fraction having average (7.1%) or good (1.9%) expertise in this field.

Furthermore, the majority of the survey sample (85.2%) held a neutral opinion about aged care, with 12.4% positive and only 2.4% negative. We compared our findings to those of previous studies. Rush *et al*. (2017) and Fita *et al*. (2021) investigated nurses' attitudes toward older people care and found that attitudes varied among participants, which is consistent with our findings of neutral, positive and negative attitudes. Similarly, Muhsin *et al*. (2020) discovered a mismatch between favorable views and low knowledge of senior care among nursing students, which is consistent with our findings. However, there are some discrepancies in the findings across studies. For example, Elebiary *et al*. (2018) examined nurses' knowledge and attitudes toward caring for the older people in health-care settings, although their precise breakdown of knowledge and attitude levels may differ from

Figure 2 Distribution regarding the attitude score

Source: Figure by authors

Table 4 Correlations between knowledge score and attitude score

	Knowledge score	Attitude score
Knowledge score		
Pearson correlation	1	−0.299
p-value		0.000
N	420	420
Attitude score		
Pearson correlation	−0.299	1
p-value	0.000	
N	*420*	*420*

Source: Table by authors

Table 5 Correlations between knowledge and socio demographic characteristics

Knowledge score		Age	Gender	Marital status
Knowledge score				
Pearson correlation	1	0.079	0.055	−0.069
p-value		0.105	0.264	0.159
N	*420*	*420*	*420*	*420*

Source: Table by authors

what we discovered in our study. This shows that, while there are certain constant tendencies in nurses' attitudes and knowledge levels regarding aged care, there may also be heterogeneity in the particular percentages observed among research.

In our study, we found a significant correlation between knowledge scores and attitude scores regarding older people care (*p*-value = 0.000). There was also an exploration of

Table 6	Correlations between attitude and socio demographic characteristics			
Attitude score		*Age*	*Gender*	*Marital status*
Attitude score				
Pearson correlation	1	0.039	−0.192	0.139
p-value		0.431	0.000	0.004
N	*420*	*420*	*420*	*420*
Source: Table by authors				

the correlations between knowledge and attitude scores with sociodemographic characteristics. The results indicated that there was no significant statistical relationship between knowledge and age (0.105), gender (0.246) and marital status (0.159). However, there was a significant statistical relationship between gender (0.000) and marital status (0.004) in relation to attitude scores, while age (0.431) showed no significant relationship. When we compare our findings, we may detect both similarities and discrepancies. For example, Argaw *et al.* (2019) conducted a study in Ethiopia that assessed nurses' knowledge and attitudes toward caring for older people patients in government hospitals, suggesting a strong association between these parameters, which is similar with our findings. Furthermore, Amsalu *et al.* (2021) investigated the effect of professional experience on nurses' understanding of geriatric care, which could potentially influence attitudes as well. In contrast, Attafuah *et al.* (2022) examined nurses' knowledge and attitudes regarding caring for older patients, and their findings may have revealed different associations between knowledge, attitudes and sociodemographic factors than ours. This implies that age, gender and marital status may have varying effects on nursing practitioners' knowledge and attitudes about aged care, underlining the need for additional research in this area.

Moreover, while some studies in the literature may support our findings on the relationship between knowledge and attitudes toward older people care, there may be nuances and contextual variations that contribute to the observed differences in the impact of sociodemographic characteristics on these variables. Further research and exploration are needed to gain a better grasp of the intricacies of nursing practitioners' knowledge and attitudes about aged care.

Strengths of the study

- A sample size of 420 people provides a strong dataset for analysis and improves the generalizability of our results.

- Finding a substantial association between knowledge scores and attitudes about aged care indicates an essential relationship that may be used to guide future study and treatments.

- Investigating the relationships between knowledge and attitude scores and sociodemographic parameters expands our understanding of the factors influencing nurses' attitudes toward aged care.

- Comparing our findings to a variety of studies in the literature provides a broader perspective and strengthens the relevance of our findings within the current research landscape.

Limitations of the study

- Lack of longitudinal data: Our study was cross-sectional, which limited our capacity to track changes in knowledge and attitudes over time.

- Generalizability: Because our study was conducted in a unique demographic and geographic context, our findings may not be applicable to other groups or places.

Conclusion

Our study provided crucial insights into nursing practitioners' knowledge and attitudes in caring for older patients. We discovered a significant relationship between knowledge scores and attitudes about geriatric care, highlighting the importance of knowing how these factors interact to shape patient care. In our study, gender and marital status had significant associations with attitudes, but age did not. These findings add to the expanding body of literature on geriatric care and emphasize the need for additional research in this field.

Implication for nursing

Our study's findings have important implications for nursing practice and education. Nursing practitioners must acquire training and education in geriatric care to improve their knowledge and attitudes about caring for aged patients. Addressing awareness gaps and developing positive attitudes toward aged care can help to improve the quality of care for older people. Nursing courses should include modules on geriatric care to better equip future nursing practitioners to work with the older people.

Recommendations

Moving forward, future research should focus on longitudinal studies that follow changes in nursing practitioners' knowledge and attitudes regarding senior care over time. Furthermore, comparison analyses should be conducted to uncover variations in knowledge and attitudes among health-care settings and locations. Educational interventions should be created and implemented to improve nursing staff's understanding and positive attitudes about geriatric care. Policymakers should consider promoting aged care training and professional development opportunities for nurses. Finally, encouraging multidisciplinary collaboration across nursing, geriatrics and other health-care professions can promote holistic care for older patients and lead to better outcomes in health-care settings.

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