



# The Relationship Between Emotional Intelligence, Professional Values, and Willingness to Work with Elderly Populations Among Nursing Students

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## Abstract

**Background and aims:** Population aging has emerged as a significant challenge for healthcare systems worldwide. As future members of the healthcare team, nursing students' willingness to work with the elderly and the factors influencing this willingness are of critical importance. The present study aims to investigate the willingness to work with elderly populations and its relationship with emotional intelligence and professional values among Iranian nursing students.

**Methods:** This cross-sectional study was conducted with a sample of 246 nursing students, selected through convenience sampling methods. Data were collected using a demographic characteristics checklist, Weis and Schank's Nursing Professional Values Scale-Revised (NPVS-R), a questionnaire assessing willingness to work with the elderly, and Siberia Schering's Emotional Intelligence Questionnaire (Goleman model).

**Results:** The mean age of the participants was 22.61 years ( $\pm 1.57$ ). The findings indicated that the willingness to work with the elderly (mean =  $57.41 \pm 16.02$ ), emotional intelligence (mean =  $100.13 \pm 14.48$ ), and professional values (mean =  $96.94 \pm 21.73$ ) were all above average levels. Furthermore, the results revealed a positive relationship between willingness to work with the elderly and the professional values of nursing students ( $P > 0.05$ ), while a negative relationship was observed with emotional intelligence ( $P < 0.001$ ).

**Conclusion:** The results indicate a positive correlation between nursing students' willingness to work with the elderly and their professional values, whereas a negative correlation was identified with emotional intelligence. Emphasizing the importance of professional values and providing a supportive practice environment that fosters positive experiences in caring for the elderly may enhance nursing students' willingness to engage in this area of care.

**Keywords:** Age, Emotional intelligence, Professionalism, Students, Nursing

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## Introduction

Aging is characterized by natural, irreversible, spontaneous, and progressive changes that diminish both physical and mental abilities (1). Over the next 40 years, the global population of individuals aged 65 and older is projected to double (2). The challenges and transformations associated with aging underscore the necessity for reforms in care structures (3). A critical requirement in this context is the availability of skilled and knowledgeable nurses specializing in elder care (4).

Nurses play a vital role as primary caregivers and represent the largest group of healthcare providers within the health system. Their mission is to deliver essential

services at the highest standards to protect, sustain, and enhance the health of society (3). Concurrently, nursing students, as future nurses, must be adequately prepared to provide appropriate nursing services and care in diverse situations (5). They hold a central and unique position in ensuring the quality of care (6). While caring for the elderly constitutes an important aspect of nursing responsibilities (7), it appears that this care is influenced by the willingness to work with older adults (8).

Stereotypes associated with old age and dependency have contributed to the development of negative attitudes among healthcare providers towards the elderly (9). This phenomenon, coupled with the various consequences of

aging, leads many employees to perceive working with the elderly as unattractive, resulting in a reluctance to engage in elder care (8). Consequently, it can be asserted that one of the significant barriers to providing care services to the elderly is the caregiver's unwillingness to work with this population (8).

In recent years, there has been a growing interest in emotional intelligence, with substantial efforts directed towards assessing its potential to elucidate behavioral changes in human interactions (10). Emotional intelligence, which encompasses self-awareness, self-management, social skills, and empathy, is an essential competency for nursing students to deliver competent care (11, 12). It appears to play a valuable role, both directly and indirectly, in enhancing the quality of patient-centered care (13).

Additionally, another critical factor influencing professional development and behavior evaluation that enhances patient care is professional values (14). Values, ideals, and beliefs constitute a fundamental aspect of the nursing profession, serving as the cornerstone for decision-making and practice (15). As ethical dilemmas become increasingly prevalent in the field of healthcare, these values are recognized as essential guides (16) for navigating clinical practice both professionally and ethically, while also shaping the identity of the nurse (17). Therefore, it can be posited that an individual's adherence to professional values significantly influences their capacity to act ethically and appropriately within their role (14).

Population aging is one of the most significant phenomena affecting the world today (18). Statistics indicate that the prevalence of aging populations and their associated challenges is rising globally (1). The willingness to work with the elderly is regarded as a crucial factor influencing the quality of care provided (8). The attitudes and willingness of nurses towards caring for the elderly are often formed during their student years (7). Research indicates that several variables can impact students' willingness to engage with this demographic.

Emotional intelligence, with its various dimensions, can significantly influence the performance of nursing students. Additionally, professional values serve as a framework for managing stressful and emotionally charged situations. This study seeks to integrate psychological and ethical variables to provide a more comprehensive understanding of the factors that affect the willingness to work with the elderly.

From a social perspective, recognizing the variables related to the willingness to work with the elderly aligns with the broader goals of promoting well-being and health across all age groups. The findings of this study may inform the design of educational programs, support interventions aimed at enhancing the willingness to work with the elderly, and guide policies for recruiting nurses in geriatrics-related departments.

Given the demographic shift towards an aging

population, the increasing demand for trained nurses, and the current lack of sufficient research in this area, this study aims to explore the willingness of nursing students to work with the elderly and its association with emotional intelligence and professional values.

## Materials and Methods

### Setting and Study Design

This cross-sectional study was conducted in 2023-2024 among Qazvin University of Medical Sciences, Iran nursing students. By choosing  $\alpha=0.05$ ,  $\beta=0.20$  and choosing  $r=0.2$  using the following formula:

$$n = \frac{(z_{1-\alpha/2} + z_{1-\beta})^2}{r^2} + 3$$

The required minimum sample size was 199 participants, but 246 individuals were included in the study. Convenience sampling was used for participant selection. Nursing students in their fourth term or higher (18 years old and above) (19) were eligible to participate, provided they agreed to participate in the research. Participants were excluded if they chose not to continue or failed to complete the questionnaire fully. The questionnaires were distributed to students on various days throughout the week and completed in the researcher's presence.

### Data Collection Tools

#### Demographic Checklist

This checklist included age, sex, marital status, academic semester, experience working with elderly patients, volunteer work experience with the elderly, passing specialized units in geriatrics, and participating in workshops on geriatric issues.

#### Weis and Schank's Nursing Professional Values Scale-Revised (NPVS-R)

This scale comprises 26 items across five dimensions: Caring, Activism, Professionalism, Justice, and Trust. Responses are measured using a 5-point Likert scale. The total score on this questionnaire can range from 26 to 130. The scores are interpreted as follows: a score between 26 and 47: the amount of nursing professional values is low, 47 to 94: average, and a score above 94: the amount of nursing professional values is high. The psychometric evaluation of the tool was conducted in Iranian studies, and a Cronbach's alpha of 0.92 was reported for it (19). Weis and Schank (19) designed and validated this scale.

#### Willingness to Work with the Elderly People Scale (WEPS)

This scale contains 20 items divided into four dimensions: attitude toward behavior, mental norms, perceived behavioral control, and willingness to engage in behavior (working with the elderly). Responses are recorded on a 6-point Likert scale, ranging from "completely disagree" (1) to "completely agree" (6). The total score of this questionnaire ranges from 20 to 120, with higher scores

indicating lower willingness to work with the elderly. The validity and reliability of the questionnaire have been established in Iran, with a reported Cronbach's alpha coefficient of 0.82 (8, 20).

### **Siberia Schering's Emotional Intelligence Questionnaire**

This questionnaire has 33 items that measure five dimensions of emotional intelligence: self-awareness, self-control, self-motivation, empathy, and social skills. These items are scored on a 5-point Likert scale from completely disagree (1) to agree (5) completely. The total score of this questionnaire ranges from 33 to 165; the higher the score, the higher the level of emotional intelligence. The validity and reliability of the Siberian Schering Emotional Intelligence Questionnaire in Iran have been confirmed (Cronbach's coefficient = 0.84) (21-23).

### **Statistical Analysis**

Mean, standard deviation, frequency, and percentage were used to describe quantitative and qualitative variables. To explore the moderating effect of professional values in the model, the relationship between emotional intelligence and willingness to work with the elderly was initially assessed without including professional values in the model. Then, professional values were considered as moderators. Given that the number of items varied across domains, to make the scores of each domain comparable, standardization of scores was performed as follows (formula for standardizing scores in the range of 0-100):

$$\text{Standardized Score} = \left\{ \frac{(X - X_{\min})}{(X_{\max} - X_{\min})} \right\} \times 100$$

X = Questionnaire score

$X_{\min}$  = Minimum possible score

$X_{\max}$  = Maximum possible score

Univariate and Multiple Linear Regression were used for data analysis. A significance level of less than 0.05 was considered. Analyses were performed using SPSS software version 22.

### **Results**

In general, 130 of the 246 students participating in the study were female (52.8%), and 234 were single (95.1%). The mean age of the students was  $(22.61 \pm 1.57)$  years. In total, 207 students (84.1%) had experience working with the elderly, and 227 students (92.3%) had completed specialized courses for the elderly. Only 15.4% of students reported volunteer work experience (Table 1).

According to the results, the Willingness to work with elderly people among these students is higher than the average level (standard score = 37.41, mean  $57.41 \pm 16.02$ ). In this tool, the mean score of the student's attitude was  $(17.04 \pm 4.04)$  with a standard score of 48.20, which shows the high importance of this aspect in the student's opinion. In addition, the mean emotional intelligence score of the students was obtained  $(100.13 \pm 14.48)$  with

**Table 1.** Demographic characteristics of the nursing students

| Variable                                             |         | N (%)      |
|------------------------------------------------------|---------|------------|
| Sex                                                  | Male    | 116 (47.2) |
|                                                      | Female  | 130 (52.8) |
| Marital Status                                       | Single  | 234 (95.1) |
|                                                      | Married | 12 (4.9)   |
| Academic Semester                                    | 4       | 70 (28.5)  |
|                                                      | 5-6     | 82 (33.3)  |
|                                                      | 7-8     | 94 (38.2)  |
| Experience Working with Elderly Patients             | Yes     | 207 (84.1) |
|                                                      | No      | 39 (15.9)  |
| Volunteer Work Experience with the Elderly           | Yes     | 38 (15.4)  |
|                                                      | No      | 208 (84.6) |
| Passing Specialized Units in the Field of Geriatrics | Yes     | 227 (92.3) |
|                                                      | No      | 19 (7.7)   |

a standard score of 59.86. The highest scores were related to the dimensions of self-motivation (56.36), self-control (55.57), empathy (55.25), social skills (53.55), and self-awareness (40.03), which were above average.

The results indicated that the professional values of nursing students were at a favorable level, with a mean of  $96.94 \pm 21.73$  and a standard score of 68.21. Although all the dimensions of professional values are at a high level, in the separate examination of the dimensions, the dimension of caring, with a standard score of 70.19 and a mean of  $(34.27 \pm 7.83)$ , is the highest. The dimension of Activism, with a standard score of 65.10 and a mean of  $(18.02 \pm 4.64)$ , is the lowest score for self-attributions (Table 2).

Table 3 shows that people with higher emotional intelligence were less willing to work with the elderly, so for a unit increase in emotional intelligence, the willingness to work with the elderly decreased by 0.27 units. Also, with one unit increase in professional values, the willingness to work with the elderly increases by one unit. The results revealed that as the academic term advanced, willingness to work with the elderly decreased by 0.19 units. Women were 4.23 points more willing to work with the elderly than men. Those with experience working with the elderly had a willingness 4.22 units higher. In comparison, those with voluntary experience had a willingness 8.87 units higher than others. Students who had completed specialized geriatrics courses showed an 8.90-unit increase in their willingness to work with the elderly compared to those without such training.

### **Discussion**

The present study found that nursing students' willingness to work with the elderly exceeds the average. According to the description of the tool, the lower the number, the greater the willingness to work with the elderly. In the study by Cheng et al. in China, the motivation of nursing students to choose geriatric nursing as a career is at an average level (24). However, the above study did not

**Table 2.** Mean (SD) of professional values, emotional intelligence, and willing to work with the elderly in nursing students

| Variable                             | Minimum | Maximum | Mean (SD)      | 0-100 |
|--------------------------------------|---------|---------|----------------|-------|
| Professional Values                  |         |         |                |       |
| Caring                               | 9       | 45      | 34.27 (7.83)   | 70.19 |
| Activism                             | 5       | 25      | 18.02 (4.64)   | 65.10 |
| Professionalism                      | 4       | 20      | 15.11 (3.76)   | 69.43 |
| Trust                                | 5       | 25      | 18.41 (4.36)   | 67.05 |
| Justice                              | 3       | 15      | 11.13 (2.84)   | 67.75 |
| Total                                | 26      | 128     | 96.94 (21.73)  | 68.21 |
| Willingness to work with the elderly |         |         |                |       |
| Attitude Towards Behavior            | 7       | 28      | 17.04 (4.04)   | 48.20 |
| Mental Norms                         | 5       | 29      | 14.25 (4.65)   | 37.00 |
| Perceived Behavior Control           | 5       | 30      | 13.36 (5.89)   | 33.44 |
| Willingness to Perform Behavior      | 5       | 29      | 12.77 (6.15)   | 31.08 |
| Total                                | 29      | 102     | 57.41(16.02)   | 37.41 |
| Emotional Intelligence               |         |         |                |       |
| Self-Awareness                       | 8       | 32      | 20.81 (4.17)   | 40.03 |
| Self-Control                         | 12      | 30      | 22.56 (4.06)   | 55.57 |
| Self-Motivation                      | 13      | 31      | 21.78 (3.32)   | 56.36 |
| Empathy                              | 7       | 29      | 19.26 (4.08)   | 55.25 |
| Social Skills                        | 7       | 25      | 15.71 (3.63)   | 53.55 |
| Total                                | 56      | 136     | 100.13 (14.48) | 50.86 |

**Table 3.** Univariate and multiple linear regression analysis of the relationship between emotional intelligence and nursing professional values with the willingness to work with the elderly among nursing students

| Variable                                             |         | Crude coefficient (CI:95%) | P-value   | Adjusted coefficient (CI:95%) | P-value   |
|------------------------------------------------------|---------|----------------------------|-----------|-------------------------------|-----------|
| Emotional Intelligence                               |         | -0.27(-0.41, -0.14)        | $P<0.001$ | -0.23(-0.36, -0.10)           | $P=0.001$ |
| Professional Values                                  |         | 0.11(0.02, 0.21)           | $P=0.014$ | 0.14(0.06, 0.23)              | $P=0.001$ |
| Age                                                  |         | 0.08(-1.21, 1.37)          | $P=0.902$ | -                             | -         |
| Sex                                                  | Male    | 1                          | 1         | -                             | -         |
|                                                      | Female  | 4.23(0.23, 8.24)           | $P=0.038$ | 4.3(0.43, 8.16)               | $P=0.029$ |
| Marital Status                                       | Single  | 1                          | 1         | -                             | -         |
|                                                      | Married | 4.82(-4.53, 14.16)         | $P=0.311$ | -                             | -         |
| Academic Semester                                    |         | -0.19(-1.79, 1.41)         | $P=0.817$ | -                             | -         |
| Experience working with elderly patients             | No      | 1                          | 1         | 1                             | 1         |
|                                                      | Yes     | 4.22(-1.27, 9.72)          | $P=0.131$ | -                             | -         |
| Volunteer work experience with the elderly           | No      | 1                          | 1         | 1                             | 1         |
|                                                      | Yes     | 8.87(3.41, 14.34)          | $P=0.002$ | 8.23(2.82, 13.65)             | $P=0.003$ |
| Passing specialized units in the field of geriatrics | No      | 1                          | 1         | 1                             | 1         |
|                                                      | Yes     | 8.90(1.43, 16.37)          | $P=0.020$ | 8.89(11.78, 16.00)            | $P=0.014$ |

consider the willingness to work with the elderly. However, the results of the two studies are somewhat consistent. In another study in Hong Kong, the willingness to care for the elderly among nursing students was found to be slightly higher (25), which is consistent with the results of the present study. Contrary to the present study's findings, Rathnayake's analysis showed that students have a relatively positive attitude towards the elderly, but have little willingness to work with them (26). In other words, the results of the two studies are not aligned. To explain this difference, the above research was conducted in Sri

Lanka. Cultural differences and different educational structures can affect people's willingness. Another important point is to pay attention to the cultures of other societies. In Iranian society, the elderly have a high value and status. Therefore, it is not out of the question to see the difference in the results of two cultures.

Contrary to the present study's findings, the results of studies in China and Egypt also show that the willingness to work with the elderly is low among nursing students (27, 28). One possible explanation for the discrepancy between the previous studies and the current research may be the

differences in educational curricula. In the present study, the curricula and teaching methods have evolved over the past few years, influenced by demographic shifts toward an aging population. Contrary to the present study's findings, Che et al. also showed that students are moderately willing to work with the elderly (29). Attitudes toward caring for the elderly vary across societies, influenced by cultural factors and social structures. As a result, several studies have produced conflicting findings on this topic (4). For this reason, the difference in the results can be justified. In discussing the clinical application of this finding, it should be noted that we are currently facing an increase in the elderly population. This finding shows that it is possible to make more detailed plans to improve the elderly care system and use this capacity to build a better future for the elderly.

In this study, the mean emotional intelligence score was higher than average. This finding is consistent with the results of Rakhshani et al. (30), Hamah-Morad et al. (31), and Shamsaei et al. (32). Meanwhile, the average score of emotional intelligence of the study samples of Cheraghi et al. is higher than that of the present study (33). One possible reason for the differing results between the two studies may be the samples used, as Cheraghi et al. conducted their research with nurses. Nurses have a higher average age than students. The researcher believes that this high average age can affect emotional intelligence.

Ghadrenzhad et al.'s study (34) among nurses also showed that the study samples have an average level of emotional intelligence (79.07). This differs from the findings of the current study. Nursing is a sensitive profession in the health field, and nurses are frequently exposed to work pressure due to the characteristics and conditions of their work environment (34). However, nursing students have not fully entered the clinical and care environment. Although Ghadrenzhad et al. used different tools to examine emotional intelligence, it seems that the difference in results is related to the difference in the research population of the two studies. The difference in the results of different studies may be attributed to other teaching and learning methods, university evaluation systems, differences between target groups, and sample sizes. The researcher believes that emotional intelligence can be one of the key components in managing issues and problems, as well as working with the elderly, so it is recommended that managers and policymakers develop specialized courses to strengthen this skill in students.

The current study's findings regarding the professional values of nursing students indicate that the students' professional values have a high mean score. Additionally, these values influence their behavior and decision-making, serving as motivational factors. In fact, before entering clinical environments, students have a framework for their professional activities, based on which they can perform well in different situations. In line with the present study's findings, various studies in Iran (35-37) have shown that professional values have high importance and are at the

desired level. Considering that all three studies above were done in Iran. The common context and culture are the main reasons for the results to be consistent.

In contrast to the current study's findings, Shafipour et al.'s research reported that the mean scores of students' professional values were average (14). To explain this difference, it should be noted that the study by Shafipour et al. was conducted earlier than the present study. The passage of time and cultural and social changes can affect the results. The high professional values of these students can be used as a source of improvement in the quality of care. In addition, this resource can help students manage stressful nursing situations and patient care. Therefore, managers are expected to take effective steps to strengthen this variable.

However, students in the current study did not perceive all domains of professional values as equally important, a finding that is consistent with results from other studies (35, 36, 38). According to the reported priorities of professional values, students place the greatest emphasis on the patient care dimension, viewing it as the central aspect of their profession. This highlights the significance of care in nursing education in academic programs and clinical environments. Patient care is a fundamental element of nurses' ethical framework and a key component of nursing education, with students recognizing it as the most important value (39). In Alfred et al.'s study, American and Taiwanese students prioritized care as their professional values (40). Lin et al. also assigned the highest score of professional values of students in Taiwan to the dimension of care, which is in line with the results of the present study (41). Also, these findings align with other studies in Iran (35, 42). In explaining this finding, it should be said that one of the main goals of nursing is care. It is not far from the mind that the care aspect is given priority. The patient is the priority, and the present study's findings also confirm this. Policymakers are expected to help improve the quality of care and create a decent culture by guiding this priority. However, in the study of Razmjoei et al., among nurses, the mean related to the aspect of care was the second priority (15), which is inconsistent with the present research. It seems that the different research communities are a good reason for the difference in the results of the two studies. The difference in the priorities of professional values in the present study and other studies shows that students on the verge of graduation do not have the necessary knowledge of the dimensions of professional values of their jobs. The importance of these values is clarified in the educational content of the academic career. Apart from these cases, culture also plays an important role in shaping values, and these results reflect the socio-political process experienced by Middle Eastern students (43).

The findings of this study indicated that as professional values increase, students' willingness to work with the elderly also increases. These results align with the survey by Bahadir-Yilmaz et al.'s study (44). It is suggested that

learning and embracing professional values and applying them in clinical practice during nursing education play a crucial role in fostering a positive attitude toward the elderly among nursing students throughout their training (45). The correlation between the professional values of nursing students and providing equal care to all people, supporting patients, defending patients' rights, and respecting their differences has been reported in studies (46, 47). As a result, it is essential to integrate the teaching of professional values into nursing curricula and clinical activities, allowing students to learn and internalize these values through experience. It is believed that acquiring and applying professional values in clinical care during nursing education is crucial for helping students develop a positive attitude toward the elderly (44). According to this finding, managers and policy makers are expected to increase the training in professional values and provide the basis for improving the willingness to work with the elderly. These types of interventions can have an impact on attitude. They can help compensate for the lack of specialist staff for elderly care.

One of the other findings of this research was that as the emotional intelligence score increases, the willingness to work with the elderly decreases. Lina et al.'s study showed that emotional intelligence positively correlates with human-centered care ability (48). However, this study did not directly address the willingness to work with the elderly if we consider the concept of care and the willingness to work with the elderly under the human-centered care set. The findings of the two studies are not in agreement. However, a study in Saudi Arabia found a positive and significant relationship between emotional intelligence and nurses' job performance (49). Although the above study did not consider the willingness to work with the elderly and has a different research community, the willingness to care for and work with the elderly could be viewed as a component of nurses' job performance. Therefore, the results of the two studies are not consistent. Another study in Australia (50) found that employees with higher emotional intelligence were likely to provide better quality patient care. In other words, emotional intelligence is directly related to the quality of care. Quality of care is a general concept that can be applied to the elderly and the young. Although the above study has a different statistical community, with this description, it seems that the results of the above study are not aligned with the present study. From the researcher's point of view, the difference between the results of the above studies and those of the present study can be investigated in several ways. First, the variable of willingness to work with the elderly can be affected by many cultural and social issues. Even individual perceptions can affect this variable. Therefore, the researcher believes a person may have high emotional intelligence, but does not want to work with this age group. In addition, emotional load, previous experiences, and financial and spiritual motivation can also affect people's willingness; people

with high emotional intelligence may not want to bear the work and emotional load of working with the elderly. One of the main reasons for the difference in the results is related to the research community. Students are not yet fully involved in directly caring for the elderly. Maybe their encounter with direct care can change their willingness. However, such a phenomenon needs further investigation to discover the deep logic. Raisi et al. (51) reported no significant relationship between emotional intelligence and the communication skills of hospital managers. However, the above study is different from the study of psychologists in the variable of willingness to work with the elderly. However, communication skills and willingness to care for the elderly can be a part of the process. With this description, the results of the two studies are somewhat aligned.

### Limitations

The generalizability of the findings is one of the study's main limitations because it was conducted in a single university. It is suggested that future studies be performed in several medical sciences universities. Furthermore, the data may be biased due to the self-report nature of the questionnaires. It is suggested that other data collection methods, such as interviews, be used in future studies. The psychological state of the participants at the time of completing the questionnaires can impact the results, so an attempt was made to complete the questionnaires when the samples were in a normal mental and emotional state. Conducting the study cross-sectionally was another limitation of the study. Conducting longitudinal studies can be helpful in better discovering the status of these variables in nursing students.

### Conclusion

This study found that students' willingness to work with the elderly and their emotional intelligence are above average, while their professional values are at the desired level. Additionally, the study revealed a positive relationship between students' willingness to work with the elderly and their professional values and a negative relationship between emotional intelligence and their willingness to work with the elderly. Based on these findings, it is recommended that nursing students be taught professional values and that values-based courses be incorporated into the curriculum to enhance their willingness to work with the elderly. Creating an appropriate practice environment to foster positive learning experiences related to elderly care, along with recognizing the crucial role of nursing educators in strengthening the relationship between students and the elderly, could effectively increase students' willingness to work with the elderly.

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### Conflict of Interest Disclosure

The authors declare that there are no conflicts of interest.

### Consent for Publication

Not applicable.

### Data Availability

The datasets utilized and/or analyzed in this study are available from the corresponding author upon reasonable request.

### Ethics Approval

The study commenced with a review and approval from the Ethics Committee of Qazvin University of Medical Sciences (IR.QUMS.REC.1402.166). Participants were provided with comprehensive information regarding the study's purpose, methodology, and the confidentiality of their data. Written informed consent was obtained from all participants. All research procedures were conducted in accordance with the principles outlined in the Helsinki Declaration.

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