

Studying the Relationship between Professional Commitment and Autonomy with the Level of Education in Intensive Care Nurses

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Abstract

Professional commitment and autonomy are factors influencing the retention process in the nursing profession, job satisfaction, and the quality of care in special care units. The level of education of nurses plays an important role in their ability to develop autonomy and commitment. This study was done to investigate the relationship between autonomy and professional commitment with the level of education. The present study was a cross-sectional research that was done in the special care department of hospitals. The research tools included a demographic questionnaire, and an autonomy and professional commitment questionnaire. To determine the relationship between the variables, Pearson correlation, analysis of variance, and independent t-tests were used. According to the findings, the average score of professional commitment in the special care department and the average score of professional autonomy in nurses indicated high professional commitment and professional autonomy in nurses working in these departments. Professional autonomy in the dimension of performance-based autonomy had the highest mean (25.26 ± 6.31) and in the dimension of value-based autonomy, it had the lowest mean (23.87 ± 6.15). Professional autonomy had a significant relationship with the level of education ($P = 0.020$). The findings revealed that there is a significant relationship between professional commitment and autonomy ($P < 0.05$). Therefore, familiarizing nurses with the factors affecting autonomy, including increasing and updating knowledge, can be effective in increasing autonomy.

Keywords: Professional commitment, Autonomy, Critical care nursing, Level of education

Introduction

One of the most sensitive departments of the hospital, which plays a vital role in the recovery and control of patients with critical conditions, is the Intensive Care Unit. Due to being in life-threatening conditions, patients in special care units need constant attention and follow-up by trained nurses and specialists for diagnosis, management, and care [1-3]. Compared to other intensive care unit personnel, nurses spend more time in contact with patients, and the decisions made by them have a special and important role in the clinical outcome of patients [4, 5].

Many internal and external factors can affect the decision-making process of nurses; one of the factors that can play a very important role in the decision-making process of nurses is autonomy and professional commitment. The concept of autonomy is derived from a word with Greek roots (Autonomos), where Auto means self and Nomos means law, which in general means self-law. Since ancient Greece, this concept has changed a lot. In examining it, several themes have been derived, which include self-management, ability and competence, critical thinking, freedom, and self-control. Although there are many commonalities between these themes [6]. Autonomy means the freedom to make decisions within the scope of professional expertise in the job that the working person

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can operate based on these decisions and within the mentioned scope [7, 8]. According to self-administration theory, autonomy is one of the most important components of self-motivation for work. According to this theory, the presence of autonomy in the work environment is one of the factors affecting the health of employees, and work environments with low autonomy lead to psychological problems for employees [9-11].

In general, it can be said that professional autonomy is defined as having the power to make decisions and freedom of action according to the professional knowledge base, and the pillar of professional autonomy in nursing is defined as the power to act based on one's knowledge and judgment to provide nursing care [12, 13]. Due to the increase in the severity of sick people in special care units, nurses should respond to acute and complex problems of patients [14, 15].

Therefore, practice and autonomy in clinical decision-making are universal prerequisites to support critical care nurses in performing their care responsibilities in an evidence-based, quality, and patient-centered manner [16]. In addition, autonomy in decision-making is a prerequisite for ethical decision-making. As a result, fostering nursing autonomy is one of the priorities of nursing managers of special care units [17].

Another concept that makes a person want to continue his career despite all the difficulties and hardships is professional commitment, which can be defined as a person's heartfelt satisfaction with the duties assigned to a person, with the condition that without any system Supervisory, the person performs his duties in the best way. In this way, professional commitment in nurses is a strong belief in the goals and values of the profession and the will to work hard in the profession. Professional commitment leads to reduced burnout, increased job satisfaction, and ultimately increased quality of patient care. Professional commitment is one of the effective factors in the nursing profession [18]. Commitment includes an implicit explanation of the mechanism of producing continuous human behavior [19] and it can be defined as the compatibility between personal beliefs and the individual's performance with the set professional goals in the organization, and greater coordination between these two items leads to progress and in short, it means the personal efforts of the person on behalf of the profession [20, 21].

Professional commitment is formed during the process of socialization and people face it through professional experiences. Therefore, the work environment, performance, work pressure, and organizational culture will affect the professional commitment of employees [22]. Professional commitment plays a vital role in the correct performance of job and professional duties. Professional commitment is one of the important criteria for professionalization in nurses [23].

According to the above, in previous research, organizational commitment has been mentioned, and less has been addressed to the factors influencing autonomy and professional commitment in special care nurses. Therefore, in this study, the researchers sought to investigate the relationship between autonomy and professional commitment with the level of education of special care nurses to provide deeper scientific evidence of the factors related to the autonomy and professional commitment of nurses.

Materials and Methods

The current research is cross-sectional research that was conducted in various special care units (CCU & ICU) of hospitals. The research sample includes nurses working in adult special care units (CCU & ICU). Sampling in this research was done using available methods.

According to the objectives of the research, previous studies, and based on the standard deviation of the dependent variable of professional commitment and taking into account the type 1 error of 0.05 and the power of 0.8, the study sample size was estimated to be 193 people. The final sample was determined to be 160 people. Inclusion criteria included at least a bachelor's degree in nursing, at least 6 months of experience in the intensive care unit, and willingness to participate in the study. The exclusion criteria included failure to complete more than half of each of the questionnaires.

In this study, three questionnaires were used to collect data. Demographic information was checked using questions about age, sex, work history, marital status, type of special department, work shift, level of education, and employment status.

To examine professional autonomy, the professional autonomy questionnaire compiled by Varjus *et al.* [7] was used. This questionnaire has 18 items in three subscales of knowledge-based autonomy, performance-based autonomy, and value-based autonomy, each item on a 6-point Likert scale (completely disagree, somewhat

disagree, almost disagree, somewhat agree, almost agree, completely agree) and its range of scores is between 18 and 108, with higher scores reporting desirable professional autonomy.

In addition, a professional commitment questionnaire was used to check professional commitment [23]. Lachman and Aryana [23], which is used to describe professional commitment, designed this questionnaire. This questionnaire contains 26 questions ranging from completely disagree to completely agree. The range of scores of this questionnaire is between 26 and 130, and higher scores indicate higher professional commitment. In the present study, the validity of this tool according to the opinion of ten nursing professors, and its reliability was checked using internal correlation and Cronbach's alpha during a pilot study on 20 qualified nurses (other than the main study samples), which was equal to 0.89. After defining the samples and explaining the objectives of the research, the questionnaires were distributed manually and online to the nurses, and 4-6 days were given to the nurses to return the questionnaires. 193 questionnaires (63 written items and 130 electronic items) were distributed among the nurses of special departments, and after removing 33 incomplete items, the information from 160 questionnaires was completely analyzed.

SPSS version 23 software was used to analyze the obtained data. Descriptive statistics of frequency and percentage, mean and standard deviation were used to describe the research units. The level of significance in this study was considered 0.05. In addition, to determine the relationship between the two main variables of the research, i.e. autonomy and professional commitment of nurses, Pearson's correlation test and analysis of variance, independent t-test were used. In this research, the fully observed ethical considerations included coordination for sampling, informing the participants of the study in terms of the confidentiality of the information obtained, and voluntary participation in the study. In addition, all participants signed the informed consent form.

Results and Discussion

Out of 193 nurses who participated in this research, 96 were women (60%) and 64 were men (40%). The average age of people was 31.88 ± 5.77 years and the range of age changes was between 22 and 48 years. Other demographic information is given in **Table 1**.

Table 1. Demographic information of nurses working in hospitals.

| Demographic characteristics | | Mean \pm SD | N | % |
|-----------------------------|----------------|------------------|-----|------|
| Gender | Female | - | 96 | 60 |
| | Male | | 64 | 40 |
| Age (years) | < 27 | 31.88 ± 5.77 | 43 | 26.9 |
| | 28-33 | | 62 | 38.8 |
| | 34-39 | | 27 | 23.1 |
| | 40-48 | | 18 | 11.2 |
| Marital status | Married | - | 117 | 73.1 |
| | Single | | 43 | 26.9 |
| Work experience (years) | < 5 | 8.17 ± 6.01 | 57 | 45.6 |
| | 5-9 | | 55 | 34.4 |
| | 10-15 | | 20 | 12.5 |
| | > 15 | | 28 | 17.5 |
| Work shift | Fixed morning | - | 4 | 2.5 |
| | Fixed evening | | 3 | 1.9 |
| | Fixed at night | | 1 | 0.6 |
| | In Circulation | | 152 | 95 |
| Special Section | ICU | - | 110 | 68.8 |
| | CCU | | 42 | 26.3 |
| | Dialysis | | 8 | 5 |
| Education level | Bachelor | - | 152 | 95 |
| | MSc | | 8 | 5 |

Examining the scores of nurses participating in the research showed that the mean and standard deviation of professional autonomy were 74.10 and 15.35, respectively. Professional autonomy in the performance-based autonomy dimension had the highest average (25.26 ± 6.31) and in the value-based autonomy dimension had the lowest average (23.87 ± 6.15) (**Table 2**).

Table 2. Average scores of professional autonomy and its dimensions.

| Professional autonomy and its dimensions | Min. | Max. | Mean | SD |
|--|------|------|-------|-------|
| Autonomy based on knowledge | 6 | 36 | 24.97 | 5.48 |
| Performance-based autonomy | 6 | 36 | 25.26 | 6.31 |
| Value-based autonomy | 6 | 36 | 23.87 | 6.15 |
| The total professional autonomy scores | 18 | 108 | 74.10 | 15.35 |

The mean and standard deviation of professional commitment were 91.14 and 12.82, respectively. The average score of professional commitment showed that, in general, nurses had a high professional commitment. Professional commitment had the highest mean (3.63 ± 0.78) in the dimension of involvement with the nursing profession, and the lowest mean (3.02 ± 0.56) in the dimension of understanding nursing (**Table 3**).

Table 3. Professional commitment and its dimensions.

| Professional commitment and its dimensions | Mean | SD | Min. | Max. | Based on the 0-5 spectrum | | | |
|---|-------|-------|------|------|---------------------------|------|------|------|
| | | | | | Mean | SD | Min. | Max. |
| Understanding of nursing (0-30) | 18.13 | 3.36 | 7 | 26 | 3.02 | 0.56 | 1 | 4 |
| Satisfaction with nursing job (0-20) | 14.53 | 3.13 | 5 | 20 | 3.63 | 0.78 | 1 | 5 |
| Getting involved with the nursing profession (0-30) | 22.89 | 3.98 | 6 | 30 | 3.82 | 0.66 | 1 | 5 |
| Sacrifice for nursing profession (0-50) | 35.53 | 4.82 | 20 | 45 | 3.55 | 0.48 | 2 | 5 |
| The total score of professional commitment (0-130) | 91.14 | 12.82 | 43 | 118 | 3.51 | 0.49 | 2 | 5 |

Pearson's correlation test was used to investigate the relationship between autonomy and professional commitment of the research subjects. The results showed that there was a direct and significant correlation between autonomy and professional commitment ($P < 0.001$), which means that with increasing professional autonomy, professional commitment increases. This correlation was moderate and equal to 0.511 (**Table 4**).

Table 4. Investigating the relationship between autonomy and professional commitment of special care nurses.

| Professional autonomy | Professional commitment | Understanding of nursing | Satisfaction with nursing job | Getting involved with the nursing profession | Sacrifice for the profession | Professional commitment |
|-----------------------------|-------------------------|--------------------------|-------------------------------|--|------------------------------|-------------------------|
| Autonomy based on knowledge | Result | - | 0.451 | 0.461 | 0.432 | 0.493 |
| | P-value | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Performance-based autonomy | Result | 0.262 | 0.409 | 0.453 | 0.424 | 0.470 |
| | P-value | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Value-based autonomy | Result | 0.234 | 0.281 | 0.321 | 0.312 | 0.361 |
| | P-value | 0.003 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Professional autonomy | Result | 0.310 | 0.440 | 0.479 | 0.451 | 0.511 |
| | P-value | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |

The results showed that there is a significant relationship between the professional commitment of nurses with the variables of gender ($P = 0.025$), marital status ($P = 0.009$), and age ($P = 0.001$). The professional commitment of female nurses as well as married nurses was significantly higher than other people. In addition, professional commitment among the age group of 28-33 years was higher than other age groups. There was a significant relationship between the professional autonomy of nurses with the variables of gender ($P = 0.012$) and education level ($P = 0.020$). The professional autonomy of female nurses as well as nurses with a bachelor's degree was significantly higher than other people (**Table 5**).

Table 5. Demographic characteristics and relationship with autonomy and professional commitment.

| Demographic characteristics | | N | Communication with professional autonomy | Mean and standard deviation results for professional autonomy | Communication with professional commitment | Mean and standard deviation results for professional commitment |
|-----------------------------|----------------|-----|--|---|--|---|
| Gender | Female | 96 | P = 0.012 | 70.38 ± 16.62 | P = 0.025 | 88.33 ± 76.13 |
| | Male | 64 | | 76.58 ± 13.99 | | 93 ± 11.88 |
| Age (years) | < 27 | 43 | P = 0.26 | 75.37 ± 14.92 | P = 0.001 | 93.90 ± 11.35 |
| | 28-33 | 62 | | 72.96 ± 13.73 | | 86.75 ± 13.14 |
| | 34-39 | 27 | | 77.24 ± 16.25 | | 96.24 ± 11.56 |
| | 40-48 | 18 | | 68.50 ± 18.80 | | 88.66 ± 12.93 |
| Marital status | Married | 117 | P = 0.056 | 75.50 ± 14.45 | P = 0.009 | 92.74 ± 11.11 |
| | Single | 43 | | 70.28 ± 17.16 | | 86.71 ± 16.01 |
| Work experience (years) | < 5 | 57 | P = 0.75 | 73.13 ± 13.64 | P = 0.83 | 90.93 ± 12.36 |
| | 5-9 | 55 | | 76.25 ± 16.90 | | 89.87 ± 13.94 |
| | 10-15 | 20 | | 74.92 ± 18.02 | | 92.12 ± 14.36 |
| | > 15 | 28 | | 73.04 ± 15.61 | | 92.69 ± 14.36 |
| Work shift | Fixed morning | 4 | P = 0.601 | - | P = 0.501 | 94.13 ± 13.08 |
| | Fixed evening | 3 | | 73.95 ± 15.54 | | 90.98 ± 12.84 |
| | Fixed at night | 1 | | 74 ± 16 | | 91.10 ± 13.25 |
| | In Circulation | 152 | | 72.69 ± 13.79 | | 90.74 ± 11.57 |
| Special Section | ICU | 110 | P = 0.227 | 82.88 ± 12.28 | P = 0.831 | 93.75 ± 14.58 |
| | CCU | 42 | | 74.74 ± 14.95 | | 91.49 ± 12.44 |
| | Dialysis | 8 | | 61.88 ± 18.73 | | 84.63 ± 18.55 |
| Education level | Bachelor | 152 | P = 0.020 | 70.38 ± 16.62 | P = 0.141 | 88.33 ± 13.76 |
| | MSc | 8 | | 76.58 ± 13.9 | | 93 ± 11.88 |

The results of the present study showed that based on the obtained score, the professional autonomy of nurses in special care units is desirable. Considering the importance and influence of professional autonomy in the performance and medical services provided, it is important to promote it. The results of the studies of Papathanassoglou *et al.* [14] as well as the study of Lee and Yang [24] are in line with the findings of the present study and they have reported that professional autonomy is favorable. According to Kramer and Schmalenberg's study [25], nurses do not have a clear understanding of the term autonomy, and the level of autonomy of nurses has not changed in the last 15 years, which is inconsistent with the present study [25].

Low professional autonomy among nurses is almost common and is related to following doctors' orders. Decision-making is one of the factors that originates from the concept of professional autonomy of nurses [26]. Various traditional, religious, economic, political, social, and cultural factors hurt professional autonomy in nursing, which is different in each country [27-29]. The support and performance of nursing managers are effective in nurses' understanding of professional autonomy. Nursing managers should empower nurses, support them, and provide them with opportunities to increase their competence to increase their sense of autonomy [30, 31].

Service delivery systems at the community level with the leadership of nurses can play a very important role in decision-making and planning and the prevention process of care as well as referral to a doctor in the care team. In addition, the promotion of primary services by nurses will create a place to introduce the nursing community to the public. When nurses perform the management and planning of these services at a wide level in society, it increases their professional autonomy [32, 33]. Holding in-service training, division of work based on merit and competence, continuous evaluation of performance, and paying attention to the abilities and talents of nursing personnel can play a role in increasing normative commitment. Professional commitment directly affects the way

and quality of work in organizations, and especially the nursing profession that deals with the soul and soul of human beings, and its importance is to the extent that it is prioritized over job satisfaction [34-36].

Due to the limited nature of the research community, it is necessary to research nurses from other departments as well as in larger samples to explain and interpret the relationship between the variables and generalize the findings. It is suggested to conduct qualitative studies for a deeper understanding of the variables of this study. It is also suggested that a study be conducted to investigate the effect of organizational climate on commitment and professional autonomy in future research.

Conclusion

The results of the present study showed that there is a significant relationship between autonomy and the professional commitment of nurses. This finding means that with increasing professional autonomy, professional commitment increases in nurses. Professional commitment directly affects the way and quality of work in organizations, especially the nursing profession, so it is important to predict and implement strategies to improve it as much as possible in the medical staff, especially nurses. In addition, the findings showed that due to the limited number of the research community and the limitation of different levels of education in this research, it could not be claimed that people with a bachelor's degree have better results.

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