

Study of the Relationship Between Nurse Self-Concept and Clinical Performance Among Nursing Students

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Background: Scholars believe that if nursing students appreciate the value of their services, their sense of professionalism will increase and performance will improve. Nevertheless, little is known about the relationship between nursing students' professional self-concept and clinical performance.

Objectives: This study examines the relationship between nurse self-concept and clinical performance among nursing students.

Patients and Methods: This cross-sectional analytical study employed the census method. The sample comprised 86 senior and junior nursing students at Jahrom university of medical sciences. Nurse self-concept and clinical performance were measured by using the nurses' self-concept questionnaire (NSCQ), and the 6-dimension scale of nurse performance (6-DSNP), respectively.

Results: The mean and standard deviation of nurse self-concept and clinical performance scores were 5.46 ± 1.11 and 2.94 ± 1.45 , respectively. Nurse self-concept was related to clinical performance ($r = 0.24, P = 0.02$). Total NSCQ scores were significantly related to four of the 6-DSNP dimensions: planning and evaluation, interpersonal relations and communication, critical care, and leadership.

Conclusions: Attempts should be made to enhance students' nurse self-concept during their education. Counseling, improving public respect for nurses, and implementing measures to enhance students' professional self-concept are essential for improving their performance.

Keywords: Self-Concept; Performance; Clinical; Students; Nursing

1. Background

Professional self-concept has been a major concern over the past century in various fields (1). In professions related to health care, the enhancement of professional self-concept is universally recognized as a major goal (2).

Nurse self-concept refers to the information and beliefs that nurses have regarding their roles, values, and behavior (3). In other words, it is nurses' internalized values and beliefs and the manner in which they affect their thoughts and behavior. Nurse self-concept is strongly influenced by society's impression of nursing: nurses are concerned about their image as nurses. Despite the scientific advances made in the profession of nursing and its treatment as an independent field, most people are unaware of nurses' skills. The media present nurses as people who are directed by doctors and constantly perform routine tasks (4). These factors cause nurses to internalize a negative attitude, which accounts for the severe shortage of nurses and nurses' tendency to leave their jobs worldwide (5). Various studies have shown that Iran faces the same issue. In a study of nursing students' attitude to the profession of nursing, more than half of the respondents considered

leaving the profession and planned to quit or change their majors (6). A similar study showed a significant relationship between nursing students' nurse self-concept and willingness to stay in nursing (7). Thus, the questions of how nursing students perceive themselves and what qualities interest them are of great importance (8).

The importance of nursing students' clinical performance must not be overlooked (9): monitoring students' clinical performance and understanding their perception of their skills and abilities and the expectations of them are essential for identifying their educational needs and ways to help them develop professionally (10). This is also a major issue in their transition from college (11).

Despite the high need for nursing graduates, there are concerns over nursing students' readiness for clinical duties (12). There are practical problems, such as discrepancies between what a learner does and what a learner is expected to be able to do (13). Various studies have concluded that the current educational programs fail to prepare nursing students for real practi-

cal work, and after graduation, most nurses begin like complete novices (10). Ghamari Zare et al. (2013) have reported that the senior nursing students are not quite competent in the process of medication therapy, from both their own and their clinical instructors' perspectives. The medication administration process is one of the critical aspects of professional nursing care, so this finding shows the urgent need for measures to improve students' skills in this regard (14).

Although new nurses possess theoretical knowledge, their practical skills are insufficient for clinical environments (15), and they have difficulty in meeting the ever increasing demands of real-world health care (10).

Some university professors believe that if students appreciate the value of the services they perform and feel responsible, their sense of professionalism will develop. This viewpoint is consistent with the philosophy of the educational curriculum, which aims to give students an opportunity to fulfill their potential (16). Nursing students need to develop a wide range of qualities, views, and behaviors that are necessary for long-term commitment to one's profession: they must feel responsible for their profession, patients, supervisors, and society.

2. Objectives

The objective of this study is to explore the relationship between nurse self-concept and clinical performance of nursing students at Jahrom University of Medical Sciences, Iran.

3. Patients and Methods

The population of this cross-sectional analytical study consisted of all senior and junior nursing students at the nursing college of Jahrom university of medical sciences in 2013 (100 students). Since the study population was small, the census method used and 86 questionnaires were completed (86%). The first- and second-year students were excluded because they had not passed the training courses in hospitals or were not familiar with certain procedures. Inclusion criteria were willingness to participate, being a senior or junior student, and having no major or chronic self-reported physical or mental problems.

After the study was approved by the ethics committee at Jahrom University of Medical Sciences, it was introduced in writing to the head of the nursing college. With the permission of the students' professor, the co-researcher (who was not involved in the students' education) explained to them the objectives of the study toward the end of one of their classes. The students were informed that the questionnaires were anonymous and that their responses would be treated as confidential. Before the questionnaires were distributed, each student had to give his/her consent in writing, and those who were not willing to participate were excluded.

Next, the questionnaires were distributed and students were asked to complete them.

This self-report questionnaire consisted of three parts: questions on the respondents' personal characteristics, the nurses' self-concept questionnaire (NSCQ), and the 6-dimension scale of nurse performance (6-DSNP).

The NSCQ is a 36-item questionnaire designed by Cowin; it addresses the following six dimensions among nurses: self-esteem (6 questions), knowledge (6 questions), caring (6 questions), leadership (6 questions), staff relations (6 questions), and communication (6 questions). The questions were all affirmative, and responses were made on a Likert scale from 1 to 8, with higher scores indicating better professional self-concept. The reliability and validity of the NSCQ have been verified by several studies conducted abroad (17, 18). The Persian version has a Spearman-Brown correlation coefficient of 0.84 and Cronbach's alpha of 0.97 (19), which indicate its reliability and validity.

Designed by Schwirian, the 6-DSNP is a 52-item questionnaire that addresses the following 6 aspects: teaching and collaboration (11 questions), planning and evaluation (7 questions), critical care (7 questions), interpersonal relations and communication (12 questions), leadership (5 questions), and professional development (10 questions). In part one (questions 1 - 42), respondents describe their readiness with the following options: "not at all," "not very well," "satisfactory," and "very well." In part two (questions 43 - 52), students describe how often they performed the activities in question with the following option: "seldom or never," "occasionally," "frequently," and "consistently." Each item is scored on a Likert scale from 1 to 4, with higher scores showing better perceived clinical performance (20). The reliability and validity of the questionnaire have been verified by several studies: Klein et al. found its reliability coefficient to be 0.78 - 0.80 (21). Since the questionnaire had never been used in Iran, in order to verify its content validity, the questions were translated into Persian by an expert, and then translated back into English by another expert. The face and content validity of the questionnaire was verified by 10 faculty members at Jahrom University of Medical Sciences. To confirm its reliability, it was administered to 30 students and Cronbach's alpha was found to be 0.97.

Descriptive statistics (e.g., means and standard deviations) were used to analyze the distribution of the data. Relationships among the variables of the study were examined using Pearson's correlation analysis.

4. Results

The majority of the students were female (65.1%) and single (79.1%). The average age was 21.38 ± 2.46 years, and their average grade was 16.50 out of 20. The Iranian grading system at secondary schools and universities is similar to that of France; the grades range from 0 to 20.

The passing grade is 10. The passing grades for master's and PhD programs are 12 and 14, respectively. Iranian grades are not directly convertible to the 4.0 GPA scale. Usually, grades 17 or more are considered excellent, grades 14 to 16.99 are considered good, and grades 10 to 13.99 are considered acceptable. Students with 9.99 or less fail (Table 1).

The mean and standard deviation of the students' total scores on the NSCQ and 6-DSNP were 5.46 ± 1.11 out of 8 and 2.94 ± 1.45 out of 4, respectively (Table 2).

Students' total scores on nurse self-concept had a weak but significant relationship with clinical performance ($r = 0.24$, $P = 0.02$) (Table 3).

Table 1. Demographic Characteristics of Participants

Variables	Values ^a
Academic year	
Junior	48 (55.8)
Senior	38 (44.2)
Gender	
Female	56 (65.1)
Male	30 (34.9)
Marital status	
Single	68 (79.1)
Married	18 (20.9)

^a Data are presented as No. (%)

Table 2. Participant Scores on the NSCQ and 6-DSNP

Questionnaire	Values ^a
Nurse self-concept questionnaire total score	5.46 ± 1.11
Nurse self-esteem	4.92 ± 1.82
Nursing care	5.51 ± 1.28
Nursing knowledge	5.58 ± 1.65
Staff relations	5.47 ± 1.24
Communication	6.13 ± 1.22
Leadership	5.13 ± 1.44
6-Dimension scale of nurse performance total score	2.94 ± 0.45
Teaching and collaboration	2.80 ± 0.48
Planning and evaluation	2.74 ± 0.55
Interpersonal relations and communication	3.06 ± 0.49
Critical care	2.99 ± 0.53
Leadership	2.95 ± 0.65
Professional development	3.03 ± 0.56

^a Data are presented as mean \pm SD.

Table 3. The Relationship Between the NSCQ Total Score and 6-DSNP Total Score and Its Subscales

Variables	Nurse Self-Concept Total Score (NSCQ)
Nursing performance total scores (6-DSNP)	0.24^a
Teaching and collaboration	0.18
Planning and evaluation	0.91^b
Interpersonal relations and communication	0.26^a
Critical care	0.82^b
Leadership	0.23^a
Professional development	0.17

^a $P < 0.05$.

^b $P < 0.01$.

5. Discussion

The findings of the study showed that Iranian nursing students' self-concept as determined by the NSCQ was comparable to that of students studying abroad. The current students had relatively low professional self-concept and a below-average score on the NSCQ (2, 17, 22). Jahanbin et al. in their study of senior nursing students in Shiraz, obtained similar results and reported that Iranian student nurses' self-concept score was below that found in other studies (23). There are several possible reasons for the low scores of Iranian nursing students: in a study of the challenges Iranian nursing students face during their education, most students mentioned society's indifference to and lack of value for their major (24). Moreover, as students' training begins and they experience the clinical environment, they realize that hospitals are strictly doctor-centered and tasks are divided such that nurses perform only low-level routine ones; that realization will directly and indirectly restrict nurses and make them feel that their potential will be ignored and that they merely have to follow doctors' instructions and cannot intervene independently. Such impressions will act as a subversive education program and influence students to internalize a poor self-concept (25).

Randle (2001) showed that although nursing students' begin their education with average self-esteem, their self-esteem is below average at the end of their education; moreover, along with the considerable decline in overall self-esteem, the self-satisfaction, family, personal, and social components of their self-esteem concurrently decreased (26, 27). Similarly, Edward et al. (2010), reported that nursing students had minimal self-esteem at the end of their education (28). In that study, first-year and fourth-year students had the highest and lowest educational satisfaction, respectively (29). Since the present sample consisted of senior and junior nursing students, their low levels of self-concept were predictable.

Not many studies have examined the relationship between nurse self-concept and clinical performance. Pitt et al. (2012) review showed that few studies had explored the factors affecting nursing students' clinical performance; universities today need to develop and apply strategies that will help various types of students by addressing special factors (30). In the present study, nurse self-concept was related to clinical performance; it can be concluded that nurses with a strong self-concept will perform better in health care. The researcher believes that nurse self-concept, as a motivational factor, can influence individuals' clinical performance and result in greater insight, feelings of responsibility, and professional advancement.

Similarly, Behzadi et al. (2004) state that self-concept affects educational performance, and successful learners owe their educational success to their positive self-image; in other words, how a learner sees him/herself influences his/her educational performance (31). Namdar et al. (2013) found a significant relationship between nursing

students' mental health and academic achievement (32). Since nursing students encounter psychological issues more frequently than before and their academic performance can consequently decline, their mental health issues must be appropriately identified and resolved.

Beauvais et al. (2011) reported a significant relationship between emotional intelligence and clinical performance, confirming the present results (33). Edraki et al. (2011) do likewise, finding a relationship between nursing students' educational satisfaction and academic success (29). Another study found a significant relationship between students' self-esteem and academic achievement (34). However, Tamannaifar et al. (2010) did not find that students' self-concept and self-esteem were significantly related to educational success (35). One reason for this discrepancy could be that Tamannaifar et al. (2010) used Roger's self-concept questionnaire, which addresses an individual's personal traits, while the present study used the NSCQ, which evaluates individuals' images of themselves as nurses. Whyte et al. (2009) did not find a relationship between nurses' knowledge and clinical performance (36). This finding shows that, though knowledge and performance are essential to nursing, other factors need to be considered to improve nurses' clinical performance. Quoting Bellack, Beauvais et al. (2011) mentions that in a complex profession like nursing, cognitive understanding and practical skills are necessary, but not enough (33). Reyes et al. (2012) report a significant negative relationship between nursing students' academic performance and employment: students who worked at least 16 hours a week had poorer academic performance (37).

Even though professional self-concept is not a new concept, not many studies have identified its influential factors. The relationships discovered in the present study can facilitate future studies and improve students' clinical performance. Moreover, to enable nursing students, teachers need to foster their students' professional self-concept, dedicate time for private conversation with their students, listen to their concerns, appreciate students' real attitude toward nursing and correct it the best they can, and most importantly, increase social awareness of the realities of nursing and nurses' abilities.

The use of a survey with data collected at a single point in time means that potential changes in participants over time were not captured. A longitudinal study would make a useful contribution to the body of research investigating nurse self-concept, clinical performance, and their importance to nursing. In-depth research using qualitative interview methods would be useful to determine how students with different levels of nurse self-concept evaluate their clinical performance.

The present results show that professional self-concept and clinical performance are related. Accordingly, attempts should be made to enhance students' professional self-concept during their education. Counseling,

improving public respect for nurses, and implementing measures to enhance students' professional self-concept are essential for improving their performance. These findings can be helpful for teachers, authorities at nursing colleges, and nursing managers.

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Authors' Contributions

Zohreh Badiyepymaie Jahromi developed the study concept, Marzieh Kargar collated and analyzed the data, Somayeh Ramezanli wrote the manuscript, and Zohreh Badiyepymaie Jahromi prepared the final manuscript.

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