

# Evaluating the formation of professional identity in Iranian nursing students after implementation of a new curriculum

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## Abstract

**Context:** The nursing education program in Iran has been reformed over the past years with the aim of enhancing the moral capabilities and formation of positive professional identity in graduated nurses.

**Aims:** The purpose of this study was to investigate the degree of formation of professional identity in nursing students in Iran.

**Setting and Design:** This was a descriptive cross-sectional study. Two hundred and twenty-one students studying in the last three semesters were selected using convenience sampling.

**Materials and Methods:** The Professional Identity Scale for nursing students was used for data gathering. The questionnaire was translated into Persian by the forward-backward translation method. The study was conducted in 2017 in three of Iran's capital's nursing and midwifery school.

**Statistical Analysis Used:** The data were analyzed using independent *t*-test, one-way ANOVA, Pearson's correlation, and linear regression.

**Results:** The mean age of the subjects was  $23.15 \pm 2.71$  years and 50.7% of them were female. The average score for professional identity was  $55.61 \pm 12.75$ , and the score for professional self-image was  $20.68 \pm 4.82$ ; the benefit of retention and risk of turnover was  $11.94 \pm 3.70$ ; social comparison and self-reflection was  $10.06 \pm 2.50$ ; independence of career choice  $6.80 \pm 1.82$ ; and social modeling  $6.42 \pm 2.30$ .

**Conclusion:** The average score of professional identity was higher than half of the expected score, but it was lower than the maximum score. The nursing education program in Iran failed to advantageously shape the professional identity of nursing students.

**Keywords:** Curriculum, Nursing, Professional identity, Student

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## INTRODUCTION

Professional identity is one of the main consequences of the education program and the socialization process in academic disciplines. It is also one of the most important factors, which is effective in the commitment of employees to their jobs<sup>[1,2]</sup> In nursing, professional identity is an essential element that effect on the performance of nurses who have various roles. It is effective in providing a higher quality of care for patients, as well.<sup>[1]</sup> For this reason, the formation of students' professional identity in the education program and schools is one of the main goals in nursing education.<sup>[2,3]</sup>

Professional identity is defined as a professional self-perception based on attitudes, beliefs, feelings, values, motivations, and experiences that are related to a specific profession.<sup>[4-6]</sup> Having a positive professional identity is an important factor in increasing self-confidence, self-esteem, and interpersonal communication among students. It is also one of the most important factors in job satisfaction, and it is one of the predictors for nurses staying in the profession. The results from previous studies showed that there is a greater willingness to leave the profession among nurses who have negative professional identity and ones who have lower job satisfaction.<sup>[7-9]</sup> In addition, if professional identity does not form positively in a career, it can threat the profession's legitimacy, public trust, and occupational independence endanger.<sup>[10]</sup>

The literature review showed that one of the most important challenges of nursing education is related to the formation of negative professional identity among nursing students.<sup>[11-13]</sup> Nurses' professional identity forms throughout life even before entering nursing education. Clinical experience and work as a nurse have a great effect on the formation of the professional identity of nursing students. College years are very essential in the formation of professional identity because, during this time, students acquire knowledge and skills that distinguish them from laypersons.<sup>[4,14,15]</sup>

Nursing student's professional identity formation is under the influence of many factors, including general image of the profession, workplace environment and values, educational system, and culture of society.<sup>[16,17]</sup> Professional identity in nursing students develops through internalization of codes of ethics, learning protocols, and instructions. Sharing work experiences are another way of promotion of professional identity in nursing students. Clinical work helps nursing students to create professional identity because they experience their own professional

future realities and compare them with what they have learned in theoretical classes.<sup>[18]</sup> Promotion of professional identity is a dynamic and lifelong process in nursing, and it is not only limited to college years but also this phase is an important era.<sup>[19]</sup>

The formation of professional identity has been the subject of numerous studies. Shahidi *et al.* 2014 explored the development of professional identity in nursing students. They used Eisner's evaluation model. Their results showed that the change in nursing students' admission process, training of nursing educators and enhancement of their knowledge can play a significant role in the formation of professional identity.<sup>[11]</sup> Furthermore, Baraz Pordanjani *et al.*, in 2014, in a qualitative study, investigated the barriers of the formation of professional identity in nursing students. The results showed that to develop a positive professional identity, students should be respected and their status should improve in the hospitals and in the community. They also found that the maintenance of professional independence has a positive effect on the positive professional identity of students.<sup>[1]</sup>

Arreciado Marañón and Isla Pera in 2015, in a qualitative study, examined the role of theoretical and clinical education in the formation of the professional identity of nursing students. Their results showed that clinical, theoretical, and practical education is necessary to create professional identity. They showed that the role of clinical educators in creating professional identity is very important.<sup>[18]</sup> In a longitudinal study by Hensel and Laux in 2014, the professional identity of 45 undergraduate nursing students was examined. Their results showed that personal spiritual growth and student perceptions of their competencies could predict that students are suitable for this profession. Furthermore, the quality of education, care, and spirituality during exercise are important in shaping the professional identity of students.<sup>[20]</sup>

In recent years, the nursing education program in Iran is reformed, and it focused on ethical and professional education. Due to this change in curriculum, there is an expectation of positive changes in the professional identity of nursing students. We did not find any study that was conducted on the measurement of the formation of professional identity in Iranian nursing students. This study was conducted to determine the degree of professional identity formation in nursing students of Iran's capital's nursing schools. In recent years, due to the international and national nursing shortage, there is a strong tendency to choose nursing as a career in Iranian youth. Men are also entering the profession more and more, because of the

low unemployment rate in the profession. Nevertheless, the professional identity scores were lower than the desirable level. The possible reason for this is the increase in students who have entered this discipline without enough interest. In recent years, the number of these students increased due to unemployment and relatively higher income in nursing.

## MATERIALS AND METHODS

This was a descriptive cross-sectional study which was conducted in 2017. Nursing students from Tehran University of Medical Sciences, Iran University of Medical Sciences and Shahid Beheshti University of Medical Sciences were enrolled in the study. The sampling was conducted using convenience method from undergraduate nursing students who had inclusion criteria. The criteria for entering this study included 221 students who were studying in terms 6, 7, and 8 and willingness to participate in the study.

Data collected were conducted using two questionnaires. The first one was demographic characteristic's questionnaire that included age, average score, gender, marital status, academic semester, student work and job satisfaction. The Professional Identity Scale for Nursing Students (PISNS), developed by Hao *et al.* was used to measure the professional identity of nursing students. It includes five dimensions: Social modeling; Independence of career choice; Social comparison and self-reflection; Benefit of retention and turnover risk, and Professional self-image.<sup>[21]</sup> PISNS has 17 items, and it rates on a 5-point Likert: Absolutely Disagree (1), Disagree (2), No opinion (3), Agree (4), absolutely agree (5). The minimum score in this questionnaire is 17, and the maximum is 85. Its reliability has been reported 83% by Hao *et al.*

The questionnaire was translated using the WHO process for translation and adoption of tools.<sup>[22]</sup> First, the author translated the questionnaires from English into Persian. In the second phase, an English-speaking person translated the questionnaire into English. A meeting was held in the presence of the research team and experts on the field of professionalism to review the translated scale in its backward translated version, in the third phase. In the next stage, the questionnaires were distributed among 30 students within the sample group to identify the ambiguities in the questions and words. The validity of the professional identity questionnaire was reported to be 89%. Cronbach's alpha was used to determine the reliability of the questionnaire ( $\alpha = 0.787$ ).

The present research is approved by Shahid Beheshti University of Medical Sciences committee of research ethics (IR.SBMU.PHNM.1395.71). After introducing and expressing the research goals and obtaining informed consent verbally, the study participants completed the scales. They were assured that all information obtained would be confidential and that all questionnaires will analyze anonymously.

Data were presented using descriptive statistics (mean, standard deviation and frequency). Data were analyzed with independent *t*-test, ANOVA, Pearson's correlation, and linear regression using SPSS for Windows, Version 16.0 (SPSS Inc., Chicago, USA).

## RESULTS

The mean age of the study participants was 23.13 years. Most of the participants were female (50.7%), single (84.2%). The demographic characteristics of the study units are presented in Table 1.

Based on the results, the average score for professional identity was  $55.61 \pm 12.75$  and the score for professional self-image was  $20.68 \pm 4.82$ ; the benefit of retention and risk of turnover was  $11.90 \pm 3.70$ ; social comparison and self-reflection was  $10.06 \pm 2.50$ ; independence of career choice  $6.80 \pm 1.82$ ; and social modeling  $6.42 \pm 2.30$  [Table 2].

There was no significant correlation between age and professional identity score ( $R^2 = 0.215$ ). The mean of grades of student mean was 16.32, and it had a significant correlation with professional identity [Table 3]. The score of professional identity in women was higher than male students. The professional identity score in married students was higher than single students. Furthermore, the score of professional identity in students who had children and ones who were more satisfied with the job was higher. Job satisfaction and marital status had a high effect on professional identity scores and gender had a moderate effect [Table 4]. Overall satisfaction with the occupation, gender, and marital status predicted professional identity scores [Table 5].

## DISCUSSION

The aim of the current study was to measure the professional identity of Iranian nursing students. It showed that the Student's professional identity scores were higher than half of the expected score. However, it was far from ideal. This result demonstrates the relative success of nursing education program in Iran in shaping the Student's

professional identity. Overall satisfaction with the nursing profession, being a woman and being married had a positive effect on the professional identity of students. Students who were in the last semester had higher professional identity scores in comparison with other students.

The results of the two previous studies showed that students who chose nursing as the first choice in the university entrance exam and were satisfied with the discipline had a better professional identity. The professional identity has a strong relationship with staying within the career. In the present study, there was a significant relationship between satisfaction with profession and professional identity, which confirms the results from previous studies.<sup>[8,23]</sup> Roxburgh *et al.* also argued that nursing students need a high professional identity for learning and development.<sup>[24]</sup>

The result of a study on Iranian nursing students showed that the students acquired different experiences during clinical courses. These experiences were a mixture of pleasant and unpleasant feelings, perceptions, perceptions, and abilities. They were faced with deficiencies, limitations, failures, and deprivations. By gaining knowledge, attitudes and other competencies, they began to overcome the

unpleasant clinical aspects. By gaining the necessary skills and moving along the path to professional development, they also found a more active role in the clinical field and promoted their professional identity. Although unpleasant clinical aspects exist throughout their college years, those aspects weaker in the last years.<sup>[25]</sup> In the present study, some of the study samples were in the 3<sup>rd</sup> year of their education. Nursing students in Iran have complete independence in clinical education in the 4<sup>th</sup> year. It is possible that the lower professional identity scores were related to the 3<sup>rd</sup> years' students.

One of the important results from this research was the higher Student's professional identity score in the final semester. Since, in the final semester, nursing students in Iran work independently in the hospital under the supervision of the head nurse. This factor can be particularly important in shaping the professional identity of students. In line with the results of the present study, Marañón and Pera (2015) in their study stated that nursing students had a low level of professional identity before entering full-time clinical education. Their professional identity shaped in clinical courses. The role of clinical instructors is undeniable in this phase.<sup>[15]</sup> One of the aspects of professional identity which examined for this study was social dimensional modeling, it had a moderate

**Table 1: Characteristics demographics of the nursing students (n=221)**

Variable	Number (absolute frequency)	Percentage (relative frequency)	Total frequency
Gender			
Male	109	49.3	221
Female	112	50.7	
Marital status			
Single	186	84.2	221
Married	35	15.8	
Academic semester			
6 <sup>th</sup>	77	34.8	221
7 <sup>th</sup>	69	31.2	
8 <sup>th</sup>	75	34	
General satisfaction with profession			
No	80	36.2	221
Yes	141	63.8	
Student work experience			
No	89	40.3	221
Yes	132	59.7	

**Table 2: Mean and standard deviation of professional identity score and its categories (dimensions) in nursing students**

Professional identity dimensions	Minimum	Maximum	Mean±SD
Professional self-image	6	30	20.68±4.82
Benefit of retention and turnover risk	4	20	11.90±3.70
Social comparison and self-reflection	3	15	10.06±2.50
Independence of career choice	2	10	6.80±1.82
Social modeling	2	10	6.42±2.30
Professional identity score	17	90	55.61±12.75

SD: Standard deviation

**Table 3: Correlation between “professional identity” and “age and average score” of the students under study**

Demographic variable	Minimum	Maximum	Mean±SD	Professional identity (r, P)
Age	20	38	23.15±2.71	0.119, 0.078
Average score	11	19.11	16.32±1.19	0.211, 0.002

SD: Standard deviation

**Table 4: Comparison of mean professional identity and students' demographic information**

Demographic variables	Professional identity
Gender	
Male	52.60±12.09
Female	58.53±12.75
Independent t-test	t=-3.544, df=219, P=0.001, Cohen's d=0.47
Marital status	
Single	54.12±12.61
Married	63.48±10.52
Independent t-test	t=-4.123, df=219, P=0.001, Cohen's d=0.80
Academic semester ANOVA	
6 <sup>th</sup>	57.36±12.82
7 <sup>th</sup>	56.59±11.44
8 <sup>th</sup>	52.90±13.53
ANOVA	F=2.65, P=0.07
Student work	
No	55.23±13.05
Yes	55.86±12.59
Independent t-test	t=-0.328, df=219, P=0.721, Cohen's d=0.04
Job satisfaction	
No	49.40±12.16
Yes	59.13±11.73
Independent t-test	t=-5.848, df=219, P=0.001, Cohen's d=0.81

**Table 5: The relationship between variables effecting on professional identity in nursing students**

Model	Unstandardized coefficients		Standardized coefficients	t	Significant
	B	SE			
Constant	2.549	6.359		0.399	0.691
Overall satisfaction with the job	8.373	1.539	0.316	5.439	0.001
Sex	4.464	1.486	0.175	3.005	0.003
Marriage status	4.885	2.094	0.140	2.332	0.021

SE: Standard error

average. The results from the studies showed that nursing instructors are the most important role players in the clinical setting, and they are a key factor for the development of the professional identity of students who gradually adapt themselves to professional nursing roles. Clinical instructors are directly involved in real work education. They can influence students' worldview and performance. Therefore, nursing Students' learning of their instructors affects the formation of their professional identity.<sup>[26-28]</sup> In this study, there was a significant relationship between gender and marital status with professional identity. There is no consensus regarding the effects of demographic factors on professional identity. While Fairfield Artman stated, there is a relationship between the underlying characteristics (sex and marital status) and the professional identity of nurses.<sup>[29]</sup> Allahyari Bayatiani *et al.* in their study stated that there was no significant relationship between professional values and demographic characteristics. Perhaps, the reason behind the difference in of our results with Allahyari Bayatiani *et al.* results is because of the difference in the sampling population. In the current study, the sample was recruited from nursing students, while in their study nurses formed the study sample.<sup>[30]</sup> Demographic characteristics may be more effective in the professional identity of nursing students than nurses.

One of the limitations of the current study is the lack of longitudinal design and to achieve a comprehensive view of the changes in the professional identity of nursing students during their education.

Furthermore, the study sample only covered the capital city of Iran. If the results of the research are available from other cities, then it might be better to look at the outcome of the new curriculum.

## CONCLUSION

Based on our result the average score of professional identity was higher than the half of the expected score, but it was far from the maximum score of the scale. On the basis of this, although the Student's professional identity score was acceptable, it was far from the desired level,

which would require more attention. For this reason, faculty and clinical educators should be assisted by planning and taking steps to develop the professional identity of nursing students. Furthermore, using modern methods of nursing ethics education and improving the social status of nurses can help to enhance the professional identity of students. The lower grade of professional identity of male students also requires special attention.

Also it seems that there is a need to increase the educational content related to the professional identity in the curriculum. Due to the importance of individual characteristics, more detailed studies should be conducted in this field. This can help in choosing the more appropriate person to enter the discipline who can better shape positive personal identity. Another important issue is the impact of independent work as a nurse in the health system that has been shown can have a positive effect on the formation of the professional identity of nursing students. In designing a nursing education program, the more students can enter the clinical field sooner, the better the professional identity will form in them. Due to importance of development of professional identity in nursing students it seems that future studies are needed to clarify more factors which affect the development of it. Furthermore, new methods of education should be considered in the nursing curriculum.

## Conflicts of interest

There are no conflicts of interest.

## Author's contribution

Sahar Haghighat and Fariba Borhani Wrote the proposal and draft of the manuscript Sahar Haghighat did the data gathering Parisa Naseri did the data analysis Hadi ranjbar drafted the final version of the manuscript.

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