

# Role Model Nursing Instructors and Facilitation of Students' Professional Growth Process: Directed Content Analysis

## Abstract

**Background:** The professionalization of nursing is one of the goals of academic education, which needs to be nurtured during education, so this research was conducted to study the views and experiences of nursing students and instructors regarding professional growth through role model nursing instructors. **Materials and Methods:** This was a qualitative study with directed content analysis based on the growing up and role modeling theory in nursing students' education, which was conducted at two universities in Iran from April to September 2021. The participants included 16 undergraduate, master's, and PhD students, and nursing instructors selected using purposeful sampling with maximum diversity. The data were collected through in-depth interviews. **Results:** From the data analysis, 689 unrefined primary codes and 76 integrated codes were extracted. The three subcategories of the previous study included "effort to improve educational quality," "clinical effectiveness," and "promotion of professional status." Generic categories were formed based on the grouping of codes. "Effort to improve educational quality" included the six generic categories of educational effectiveness, effective classroom management, comprehensive evaluation, adherence to educational rules, application of knowledge, and efforts to promote research. "Clinical effectiveness" included the generic category of effective clinical training. "Promotion of professional status" included the two generic categories of effective professional interactions and striving for professional independence. **Conclusions:** It can be concluded that role model nursing instructors can increase the students' abilities, and thus, facilitate their professional growth through a combination of strategies based on the generic categories mentioned.

**Keywords:** Data analysis, faculty nursing, models, professionalism, role

## Introduction

Professionalism is a set of values, behaviors, and relationships that underpin public trust in a profession. Today, implementing appropriate academic strategies to discover the spirit of professionalism in students through undergraduate and graduate courses is a necessity. Although it is difficult to teach professionalism to students in colleges, in studies, suggestions have been made about professional education, including lectures, small group training sessions, problem-based learning, team-based learning, role-playing, and simulation, with the best way being teaching at the bedside. In all the mentioned cases, model-oriented instructors have a greater impact on students' professionalization in practice,<sup>[1]</sup> which has been confirmed all over the world.<sup>[2]</sup> Role modeling in medical education is described as a process in which faculty members demonstrate clinical

skills, express and model specialized thought processes, and reveal positive professional characteristics,<sup>[3]</sup> and the students, by observing these role models and participating in activities, develop their attitudes, values, and professional competencies.<sup>[4]</sup> Modeling is considered as the primary source of learning the human and ethical aspects of health care, which is described as a cognitive process in which students actively observe and imitate the characteristics of their perceived models. The results of a study showed that Bandura's social learning theory bridges the gap between cognitive and behavioral theories.<sup>[5]</sup>

The future of the nursing profession depends to a great extent on nursing students and the training they receive as they join the workforce.<sup>[6]</sup> In addition, role modeling can be effectively used to teach challenging clinical skills such

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as verbal and non-verbal communication, humanism, professionalism, and teamwork. Moreover, the learner's observations of the instructors' behavior affect his/her professional development and career decisions.<sup>[7]</sup> Thus, identifying the characteristics of role model instructors is very important in transferring professional growth to students. Studies show that professional autonomy in nursing has positive effects on nurses' occupation outcomes, such as organizational commitment, job satisfaction, and work performance.<sup>[8]</sup> Previous studies showed that when the faculty development program was highly successful that election and recruitment of clinical educators was based on role modeling; moreover, being aware that they were role models for students played a significant role in intentionally improving positive role models.<sup>[9]</sup>

One of the best ways to transfer professional values is to observe role models.<sup>[10,11]</sup> Considering that role modeling and professionalism are an active educational strategy,<sup>[12]</sup> in most previous studies, role modeling has been implemented in medical fields, but there have been very few studies on the role modeling of nursing instructors in Iran. In a ground theory research by Mokhtari Nouri *et al.*,<sup>[13]</sup> the process of role modeling was implemented in order to facilitate overall growth in nursing students unconsciously, involuntary, dynamically, and with a positive progressive process. One of the paradigmatic concepts in this model was the concept of professional growth in order to explain and identify as many dimensions as possible transmitted through role model nursing instructors in the professional growth in nursing. The present study was conducted with the aim of explaining the viewpoints of nursing students and instructors on professional growth through role model nursing instructors.

## Materials and Methods

The present study was a part of a sequential, exploratory, mixed method study, the qualitative part of which was conducted from April to September 2021 using the unconstrained matrix directed content analysis method. Content analysis was conducted using the Hsieh and Shannon approach. The purpose of directed content analysis is used to validate or perhaps implicitly develop a previous conceptual framework or theory.<sup>[14]</sup> The selected theory in this type of study helps to focus on the research question and can help to detect variables and the relationships between them. In the present study, the study stages proposed by Assarroudi *et al.*<sup>[15]</sup> were used, which were based on the summary and criticism of different qualitative content analysis methods, including the method of Hsieh and Shannon. This method consists of 16 steps and 3 phases. The phases include the preparation phase (steps 1–7), the organizing phase (step 8–15), and the reporting phase (step 16). In short, based on this method, first the interview is conducted and transcribed, and the unit of analysis is determined, and after data immersion, in

the organizing stage, a formative categorization matrix is developed, theoretical definition of the main categories and subcategories is derived, the coding for the main categories is determined, the anchor samples are determined for each main category, and the inductive abstraction of the main categories from the preliminary codes and the link between the generic categories and the main categories are established.<sup>[14,15]</sup> In this study, according to growing up and role modeling theory in nursing students' education that was previously conducted in five universities of medical sciences in Tehran, Iran, the main theme was considered to be "facilitating professional growth."<sup>[13]</sup>

According to the guided qualitative analysis stages suggested in the study by Assarroudi *et al.*, the interviews are conducted in stage 1, which is the preparation stage.<sup>[15]</sup> In the present study, the participants were selected through purposeful sampling from among nursing students and instructors of 2 nursing faculties [Islamic Azad University, Tehran Medical Sciences, and Islamic Azad University, Firoozabad Branch (Fars)]. Individuals rich in information were selected, with the most diversity in terms of gender, age, education level, and occupation. The study inclusion criteria included the ability to express one's experiences and willingness to participate in the study. Undergraduate students in their third semester or higher and nursing instructors who had educational and clinical work experience were selected as the study participants.

The role modeling model structures were used by the researcher in the education of nursing students,<sup>[13]</sup> and semi-structured and in-depth interviews were conducted virtually with 16 participants via voice calls in the WhatsApp application [due to university closure during the Corona Virus Disease 2019 (COVID-19) pandemic], by the researcher until the codes were repeated during the analysis, which indicated data saturation, meaning no new content was added to the data. The average duration of the interviews was 54 minutes, a written informed consent form for audio recording was sent via E-mail to all 16 participants, and their signature was obtained. After greetings and asking demographic questions, the researcher explained the objectives of the research to the participants. The interviews began with questions such as: Tell me about the nursing instructors who were your role models. After receiving the answers, exploratory and in-depth questions were asked such as: Can you explain more? What does this mean? and why? The purpose of these probing questions was to clarify the studied concept based on the information provided by the participants. The manuscripts were reviewed and reread several times, and then, after the interviews were transcribed, each transcript was read several times to create data immersion; thus, the data were analyzed several times. The recorded interviews were immediately typed, and then, entered into the MAXQDA software (version 10; VERBI GmbH, Berlin, Germany).

In the second phase, the organization phase, the formative matrix was deductively derived from the main category and related subcategories of the growing up and role modeling theory.<sup>[15,16]</sup> The categorization matrix of role model nursing instructors based on the growing up and role modeling theory was formed that the facilitation of the students' professional growth process included teaching, holistic care, interaction, professional, and other emerged categories. The coding rules were formed based on the description of the characteristics of the main category based on theoretical definitions. The anchor samples are clear and concise examples, for example, in the current study, the explanation about the characteristics of the role model nursing instructors was negative. Based on the aims of the study and categorization matrix, meaning units were selected from the reviewed content, and then, summarized, and finally, formed the preliminary codes. Next, based on meaning, similarities, and differences, the preliminary codes were grouped and categorized. In the end, based on constant comparison and logical correlation between the generic category and the main category, the concept was developed [Table 1].<sup>[15]</sup>

In order to increase the trustworthiness of the data, the four indices of credibility, consistency, confirmability, and transferability of Lincoln and Guba were used.<sup>[17]</sup> The reliability of the data was ensured by allocating enough time to collecting and interpreting the data and considering diversity in the selection of participants. In order to ensure the reliability of the present research, continuous mental engagement with the data and the method of revision by the participants were used, as well as the revision of the interview texts and the analysis stages by the research team, and an opinion was given about their accuracy for the purpose of member check and peer check. Furthermore, parts of the interview text along with the relevant codes and emerging subcategories were sent to several supervisors, and they were asked to check the process of the analysis steps and give an

opinion on their correctness. In addition, after being written and coded by the research team, the data obtained from the interviews was reviewed and revised. A complete description of the research stages, including data collection and the formation of subcategories, was made in order to provide the possibility of the auditing of the research by the audience and readers, as well as to increase the verifiability of the research was done. In order to ensure the transferability of this study, we tried to use maximum diversity sampling in terms of gender, age, education, and work experience. In addition, the participants' quotes were presented unchanged to ensure the transferability of the findings.

### Ethical considerations

In addition, informed, written consent was obtained from the students and instructors via email to conduct and record the interviews, and sufficient explanations were given to them about the objectives of the research. They were assured of the optionality of participating in the study, the confidentiality of their information, and the possibility of withdrawing from the study at any time during the study. In order to comply with research ethics and the rights of the participants, permission to conduct the research was obtained from Islamic Azad University, Tehran Medical Sciences (IR. IAU.PS.REC.1399.283), which was approved on March 12, 2019; the participants had the right to withdraw from the study at any time, maintain anonymity, and keep information confidential. It was done by the researcher.

### Results

The demographic characteristics of the 16 participants, who included undergraduate, graduate, and PhD nursing students, as well as nursing instructors, can be seen in Table 2. Data analysis in the field of facilitating the professional growth of role model nursing instructors led to the extraction of 689 primary codes and 76 integrated codes.

**Table 1: An example of the steps taken for the abstraction of the facilitation of professional growth**

Meaning unit	Summarized meaning unit	Preliminary code	Group of codes	Subcategory (Based on role modeling theory)	Generic category	Main category (Based on role modeling theory)
The role model professor was selected by the students. She entered with a smile on her face and excitedly bowed and said: "I greet everyone." (based on role modeling theory)	With a smile on her face and with excitement, she bowed and said: "I say hello to everyone."	- Good mood - Passion and excitement in speaking - Respect for others - The connection between good mood, excitement, and respect	The connection between good mood, excitement, and respect	Efforts to improve educational quality	Educational effectiveness	Facilitating professional growth
The teacher should be able to make the class exciting, that is, when she teaches for an hour and a half, the student will not know that the class is over, that is, interesting content should be expressed as much as possible (P3).	Exciting the class and expressing interesting content	Making the class exciting Expressing interesting content	Teaching with excitement and interest			

An example of how to form a generic category from the meaning units resulting from the interviews of the present study and placing it in the subcategory of the study of the theory of growing up and role modeling is shown in Table 3. Moreover, an example of a meaning unit from a previous study and how it is placed in the generic category is shown in Table 4. After grouping the codes of the current study and the previous study, generic categories were formed; the professional growth of nursing students by nursing instructors using role model were placed in three subcategories obtained from the study of growing up and role modeling theory. The subcategories included “efforts to improve educational quality,” “clinical effectiveness,” and “promotion of professional status.” “Effort to improve educational quality” included 44 codes in the six generic categories of educational effectiveness, effective classroom management, comprehensive evaluation, adherence to educational rules, application of knowledge, and efforts to promote research. “Clinical effectiveness” included 20 codes in the generic category of effective clinical training.

“Promotion of professional status” included 12 codes in the two generic categories of effective professional interactions and striving for professional independence. It should be noted that the codes extracted from the reanalysis of the previous growing up and role modeling theory study were also placed in these categories. As shown in Table 5, some codes were extracted only from the previous study (indicated by P), some codes were extracted only from the current study (indicated by C), and some codes were extracted from both previous grounded theory study and the present study (indicated by P+C) [Table 5]. The most important dimensions expressed by the participants of the present study which are included in the three subcategories of the previous study are listed below.

### Efforts to improve educational quality

According to the participants, one of the most effective things in facilitating the professional growth of role model nursing instructors was the effort to improve education through educational effectiveness, effective management

**Table 2: Demographic characteristics of the participants of the current study**

Participants	Educational status	Age (years)	Gender	Marital status	Work experience (years)
P1	PhD candidate (instructor)	30	Female	Single	5
P2	Bachelor's student	20	Female	Single	-
P3	Bachelor's student	24	Male	Single	2
P4	Bachelor's student	22	Female	Single	-
P5	PhD candidate (instructor)	33	Female	Single	6
P6	PhD (instructor)	60	Female	Married	26
P7	Master's student (clinical nurse)	34	Male	Married	7
P8	Bachelor's student	28	Male	Single	4
P9	PhD candidate	34	Male	Married	4
P10	PhD candidate	33	Female	Single	5
P11	Bachelor's student	22	Male	Single	-
P12	PhD (instructor)	45	Female	Married	17
P13	Bachelor's student	21	Female	Single	-
P14	Master's student	30	Female	Single	6
P15	Bachelor's student	25	Female	Single	1
P16	Bachelor's student	26	Male	Single	2

**Table 3: A part of the arranged codes of the interview of the present study based on the existing main categories in the growing up and role model theory study**

Meaning unit	Code	Subcategory	Generic category	Main category
The instructor should be able to make the class exciting (P3).	Make the class exciting	Efforts to improve educational quality	Educational effectiveness	Facilitating professional growth
It means that she is so proficient in the material that she teaches that the student feels that she is reviewing semester 1 to semester 8 (P13).	– Complete mastery of educational content		Educational effectiveness	
Before the evaluation, the professors should have a course on personality to realize that each person is different in terms of personality (P7).	– Full review of all content – Taking a personality class		Comprehensive evaluation	
Her questioning was not in a way that she wanted to give a grade or reduce our grade, and the goal was to read the material she taught (P2).	– Considering different students' characters in a fair evaluation Evaluation for the purpose of learning		Comprehensive evaluation	

**Table 4: An example of steps taken for the abstraction of efforts to facilitate professional growth (main category) Based on the growing up and role model theory study**

Meaning unit	Code	Subcategory	Generic category	Main category
She asked everyone to work based on the nursing process (student).	Application of the nursing process in educating	Efforts to improve educational quality	Educational effectiveness	Facilitating professional growth
As far as it is possible and the software facilities allow, I use any software that help the teaching of the concept for the photo or video class so that my student can learn (instructor).	Appropriate use of new technologies		Use of new technologies	
I advance the course materials in order to categorize (instructor).	Organizing content		Organizing teaching	
I was teaching cardiac arrhythmias. There are various factors in cardiac arrhythmias, and I was trying to highlight the most important, basic, and key points (instructor).	Effective strategies for adjusting lesson content		Good understanding of course content	

in the classroom, comprehensive evaluation, adherence to educational rules, application of knowledge, and effort. Moreover, they should have regularity in teaching, be able to summarize, practice, and repeat the material well, and try to explain the content of the lesson to the students well. The participants acknowledged the following: *“Their academic information should be good and they should convey this information (P2).”*

The next thing that was important in the view of the participants in improving the quality of education was comprehensive evaluation. The role model nursing instructors followed the correct principles in the exams, especially the practical exams, as well as taking into account individual differences and student conditions in the evaluation and by respecting justice, and evaluated the students using several different evaluation methods at different times. An example of the participants’ statements in this regard is as follows: *“He said: I see you running even when you sit down, I see you running even when you stand up” (P5).* Therefore, effective training and student evaluation competence were the most important dimensions.

### Clinically effective

One of the issues expressed by the participants in order to facilitate professional growth was that role model nursing instructors have effective clinical training, and therefore, have clinical competence, and appropriate and effective communication with others, they also provided the opportunity for the students to work practically in the clinical environment. In this regard, a participant said: *“Their educational management was in the clinical environment, and how to use their time. For example I remember we had a professor, when she wanted to tell us her educational goals and she wanted to teach us something, she would bring the file, photo, graph, and everything of a patient with those characteristics that she would explain to us completely, and then, we would realize that with that photo and her graphs, we learned the lessons, and we used case method without knowing it, we understood what nursing and nursing care are (P12).”* So

having clinical competence and effective interaction was one of the most important issues.

### Promotion of professional status

One thing that the participants considered necessary in the facilitation of professional growth by role model nursing instructors was the promotion of professional status, which is possible through effective professional interactions and striving for professional independence. They can help the independence of the nursing profession, meaning they can improve the status of the nursing profession by presentation of the scientific identity of the nursing profession and the social commitment of the nursing profession. In this regard, a participant stated: *“Their professional qualification was very important to me, and this professional qualification included their scientific ability, clinical skills, and communication skills that were very valuable to me (P6).”* Thus, having professional interactions and showing nursing professional competence were important issues. In general, there were many similarities between the views of nursing students and nursing instructors regarding the transferring of professional growth through role model nursing instructors. Although the participants were selected from different educational levels, their opinions were almost similar because their opinions about their role model instructors during their studies at the university were assessed that were almost similar.

### Discussion

The present study was conducted with the aim of explaining the viewpoints of nursing students and instructors on professional growth through role model nursing instructors. Based on the findings of the present study, role model nursing instructors play an important part in the professionalization of students in the nursing profession, and the values of professionalism are transferred from role model nursing instructors to students.

An interesting point that was extracted from the findings is that there were codes extracted in the previous growing up and role modeling theory study that the participants of the current study did not comment on. These codes included

**Table 5: Generic categories and subcategories of facilitating the professional growth of role model nursing instructors based on the group of codes**

Group of codes	Subcategory	Generic category	Main category
Application of the nursing process in education (P*)	Efforts to improve educational quality	Educational effectiveness	Facilitating professional growth
Use of new technologies (P+C**)			
Organizing teaching (P+C)			
Good understanding of course content (P+C)			
Good expression of her/his experiences (P+C)			
Summarizing, practicing, and repeating the material (P+C)			
Using the lesson plan (P)			
Using new teaching methods (P+C)			
Setting assignments for learning (P+C)			
Using appropriate teaching skills (C***)			
Having question and answer classes and constant feedback (C)		Effective classroom management	
Mastery of course content (P+C)			
Appropriate classroom management (P+C)			
Planning to achieve educational goals (C)		Comprehensive evaluation	
Compliance with the correct principles of practical exams (C)			
Considering individual differences and student conditions in evaluation (C)			
Observance of fairness in evaluation (C)			
Using several different evaluation methods (C)			
Conducting evaluations at different times (P+C)			
Adherence to educational rules (P)		Adherence to educational rules	
Applying theoretical knowledge in the clinical environment (P+C)		Application of knowledge	
Having the concern of applying research results in the clinic (P+C)		Efforts to promote research	
Carrying out research activities (P)			
Having clinical competence (P+C)	Clinically effective	Effective clinical training	
Having appropriate and effective communication with students (C)			
Providing the opportunity for students to work practically in the clinical environment (P+C)			
Having suitable management and planning in the clinical environment (P+C)			
Paying attention to patients and their families (C)			
Compliance with professional ethics (C)			
Efforts to improve the performance of students in the clinical environment (P+C)			
Engaging in clinical care with passion (P+C)			
Having effective interaction with supervisors, nurses, and other clinical colleagues (P+C)	Promotion of professional status	Effective professional interactions	
Having effective interaction with professional organizations (P)			
Effective presence in scientific meetings (P)			
Having a high professional scientific position (P)			
Having suitable professional behavior (P+C)			
Showing the scientific identity of the nursing profession (P)		Striving for professional independence	
Illustrating the professional social commitment of nursing (P)			

\*P: Previous theory; \*\*C+P: extracted from both studies; \*\*\*C: Current study

application of the nursing process in education, using the lesson plan, adherence to educational rules, carrying out research activities, having effective interaction with professional organizations, effective presence in scientific meetings, having a high professional scientific position, and illustrating the scientific identity of the nursing profession

and the professional social commitment of nursing. It is possible that after 10 years since the growing up and role modeling theory study, these things are no longer viewed as important. Careful consideration of the above codes seems to show that the participants of the present study do not support rigid frameworks and rules that reduce the flexibility of the role model instructors. Moreover, the high social and professional status of the role model instructor was not important to them. Furthermore, codes were extracted in the current study, which were not extracted in the previous growing up and role modeling theory study. These included the use appropriate teaching skills, having class questions and answers and constant feedback, planning to achieve educational goals, compliance with the correct principles of practical exams, considering individual differences and student conditions in evaluation, observance of fairness in evaluation, and compliance with professional ethics. According to the interviews of the present study, the participants considered the above items as suggestions and requirements for the characteristics of role model nursing instructors, and now more attention should be paid to fair evaluation methods, compliance with ethics and fairness, and the use of teaching techniques. The rest of the codes extracted from the interviews were shared in common between the current study and the previous growing up and role modeling theory study.

In this regard, the ability to teach, having clinical competence, and trying to improve the professional position were important for the students. Based on the growing up and role modeling theory, in the education of nursing students, the role modeling process is dynamic and has a positive progressive trend in order to facilitate all-round growth. The role model nursing technique is among the many strategies used in the field of education promotion to facilitate professional growth.<sup>[13]</sup> Facilitation of professional growth was one of the main categories of role modeling model in the current research

According to the participants of the previous and present studies, role model nursing instructors can help to improve education in order to facilitate professional growth through effective teaching strategies. According to Burgess *et al.*,<sup>[3]</sup> the three main characteristics of a positive role model include clinical characteristics, teaching skills, and the personal qualities that are the teaching skills of building rapport with students, devoting time to students' academic and professional growth, providing a positive learning environment, understanding students' curriculum and requirements, prompt and helpful feedback, and providing interaction with the patient. This is consistent with the generic categories of the present study.

In a review study, Mohammadi *et al.*<sup>[18]</sup> mentioned various characteristics of the teaching skills of a good model, including the use of a student-centered approach, facilitating students' learning, and encouraging teamwork. Other issues include providing opportunities for students

to interact with patients, planning in advance for bedside education by selecting appropriate patients, being responsive to students at different levels, providing effective feedback to students, encouraging reflection, and creating opportunities. Giving feedback to students is considered as a required characteristic of a good clinical instructor.<sup>[18]</sup> Brissette *et al.*<sup>[19]</sup> stated that the most common tool for training professionalism in pathology assistants is providing timely feedback of situations and teaching by example. In the present study, the participants pointed out the importance of comprehensive evaluation by role model nursing instructors. In the current study, it was found that effective clinical competence with effective clinical training played a very important role in the professional growth of nurses, and great role modeling begins with increasing the clinical instructor's self-awareness of their impact on learners. Increasing self-awareness in clinical educators can encourage the prediction and identification of clinical scenarios for the inclusion of role modeling in practice and identification of specific goals for each patient.<sup>[7]</sup>

Burgess *et al.*<sup>[3]</sup> consider the clinical characteristics of role modeling clinical educators in the field of medicine to be a good knowledge base, having history taking skills, ability to explain and demonstrate skills at an appropriate level for students, and empathy, respect, and genuine compassion for patients. In the mentioned study, it was shown that clinical skills and knowledge, character, and teaching skills are the main areas that students consider essential to the identification of positive role modeling.<sup>[3]</sup> It should be considered that clinical instructors do not always have appropriate performance, in other words, role modeling is not positive in itself and students may encounter negative role models in their clinical environment. In the studies of the hierarchy of senior doctors, insensitivity to patients and their discrimination have been stated as examples of negative role modeling. Of course, some clinical instructors are good instructors, but because they cannot demonstrate their abilities, they are considered poor role models from whom students do not learn much.<sup>[2]</sup> Through encouragement, clinical educators who are poor or negative role models can become better role model clinical educators. In previous studies, engaging learners in thinking about patients, providing opportunities to interact with patients, planning in advance for clinical education by selecting appropriate patients, responding to students' needs at different levels, providing effective feedback to students, encouraging reflection and creating opportunities, and giving feedback to students have been introduced as the characteristics of a good clinical instructor.<sup>[2]</sup> In their study, Jabarah *et al.*<sup>[20]</sup> concluded that teaching and measuring professionalism in the Iraqi medical education should focus more on the use of clinical models and case scenarios instead of classroom lectures. The participants in the present study considered effective professional interactions to be important in improving the professional status of nursing. Burgess *et al.*<sup>[3]</sup> considered the respectful

interprofessional interactions of employees as personal characteristics of role model educators and that clinical educators act as social agents in demonstrating the expected culture and professional values of medicine as a profession in the hospital. Studies suggest humanistic and professional characteristics as the main components of the personal characteristics of role models, and instructors' illustration of humanistic characteristics had a strong relationship with the acceptance of role models by students.<sup>[5]</sup>

In the study by Chawla *et al.*,<sup>[10]</sup> one way to improve role modeling is being aware of role modeling, and the instructors should be aware that the students are closely monitoring the instructors and use their values unconsciously. The next issue is that the individual demonstrates competence in the relevant fields, such as inclusive teaching, great passion for teaching, availability, communicating well with students, giving independence in decision-making, encouraging dialogue and communicating easily with colleagues, having a positive attitude, having a sense of humor, and sharing memorable experiences. One other aspect of professional work is to improve the organizational culture, demonstrate leadership ability, including accepting responsibility in difficult scenarios, and participate in the development of relevant employees. Therefore, excellence in role modeling includes all the prominent criteria of clinical competence, clinical training skills, and humanistic personal characteristics. Ahmadian Yazdi *et al.*<sup>[21]</sup> acknowledged that in order to improve clinical empathy skills, special attention should be paid to role modeling. Informing clinical professors and medical students about role models, strengthening students empathetic behaviors, and recruiting professors with strong communication skills were among the suggested strategies,<sup>[21]</sup> which is consistent with the present study in which role model nursing instructors were found to have effective interactions with students, patients, patients' families, and colleagues. In order to strive for the professional independence of nursing, in the present study, it was pointed out that the scientific identity of the nursing profession and the social commitment of the nursing profession are illustrated by role model nursing instructors. Evidently, it should be kept in mind that the professional identity also depends on the way role modeling occurs. This transfer of role modeling and imitation becomes more useful, even though instructors try to create their professional identity,<sup>[22]</sup> However, in general, it should be kept in mind that role modeling is an effective way to support learning and leads to student satisfaction in both clinical and academic departments.<sup>[23]</sup> Therefore, professionalism is beyond a job well done and the most important components of professionalism include non-cognitive skills such as communication (language, empathy, honesty, and compassion), cooperation (responsibility, respect, and duty) and continuous improvement (cognition limitations and the motivation for progress). Therefore, the mastery of professionalism is a very important competence.<sup>[24]</sup>

Therefore, before graduation, nursing students should be more effectively trained in the core competencies of being a professional, because if they graduate without complete mastery of clinical and professional skills, they will fail their future patients. Herman believes that the formation of professional identity by faculty members teaches professionalism to learners through the use of multiple methods and characteristics, and considers role modeling as the most common teaching method.<sup>[25]</sup> Moreover, role model educators consider the hidden curriculum to be effective in the advancement of professionalism and consider the formation of professional identity as one of the essential components of teaching and learning to be a professional.<sup>[25]</sup>

In the study by Mokhtari Nouri *et al.*,<sup>[26]</sup> the six themes of "effort for the human and professional development of students," "individual and managerial empowerment of the instructor," "modeling of the instructor and student," "motivation and effort of the student," "strategies governing the educational system," and "suitable facilitators and equipment" were extracted as facilitating factors. In order to develop the role modeling process in nursing education, it is necessary to pay attention to individual and environmental factors, especially efforts for the professional and human development of nursing students. The professional qualification of role model nursing instructors in professional growth was pointed out by the participants of the present study. Professional competence was defined by Epstein and Hundert about 20 years ago as the constant and wise use of technical skills, communication, knowledge, emotions, values, reflection, and clinical reasoning in daily practice for the benefit of the individual and society.<sup>[27]</sup>

In general, professionalism is not a single skill, but a multidimensional competency with many different components. Teaching professionalism is not the same as transferring knowledge and technical skills, and the methods of professionalism described in the studies include motivation (both internal and external), observation of role models, feedback, reflection, and reflective practice.<sup>[10]</sup> One of the limitations of the present study was the university leave due to the Covid-19 epidemic at the time of the interviews, which were conducted in the form of voice calls on WhatsApp. Of course, studies have shown that the use of online interview methods is useful as a complementary choice in order to facilitate, make attractive, and increase the reliability of research projects.<sup>[28]</sup>

## Conclusion

The findings support the use of role model nursing instructors in the professional development of nursing, and role modeling is considered as a powerful educational strategy. Moreover, role model nursing instructors can increase their ability through a combination of strategies such as effective training, clinical competence, and the promotion of their professional status to facilitate professional growth. Effective teaching is achieved through effective teaching strategies, effective



classroom management, comprehensive evaluation, adherence to educational rules, application of knowledge, and efforts to improve research. Role model nursing instructors, with effective clinical training and clinical competence, establish appropriate and effective communication with others, especially students, patients, patients' families, and department staff. Furthermore, they attempt to improve the performance of students in the hospital by providing students with the opportunity to work practically in the clinical environment and involve themselves in clinical care, and through careful and good management and planning in the hospital, and by observing professional ethics. Ultimately, they endeavor to improve the professional position of nursing by taking into account effective professional interactions and striving for professional independence. They play a very important role in achieving the professional development of nursing.

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### Conflicts of interest

Nothing to declare.

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