Teachers' and postgraduate nursing students' experience of the educational environment in Iran: A qualitative Research

Fatemeh Hajihosseini[1], Mansoureh Zagheri Tafreshi[2], Meimanat Hosseini[3], Ahmad Reza Baghestani[4]

[1] Ph.D. Candidate of Nursing, Department of Nursing, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran
[2] Associate Professor, Department of Nursing, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran
[3] Assistant Professor, Department of Community Health Nursing, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran
[4] Assistant Professor, Department of Biostatistics, School of Paramedicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran

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Abstract

Background: The learning environment has a significant role in determining nursing students' academic achievements and course satisfaction. Creating a proper educational environment is therefore necessary for improving the quality of teaching and learning, and for delivering competent graduates to society.

Objective: The present study was conducted to explore teachers' and postgraduate nursing students' experience of the educational environment in Iran.

Methods: This qualitative study uses an inductive approach and conventional content analysis. Data were collected through semi-structured face-to-face interviews with seven PhD students, seven faculty members (directors) and two focus groups comprising of fourteen master's students in total, selected from three major universities in Tehran, Iran.

Results: Seven subcategories were extracted from the data, including the organizational context, interactive climate, teachers' competency, student appreciation, research centeredness, educational guidance and professionalism.

Conclusion: The educational environment of postgraduate nursing programs in Iran encompasses different dimensions that can serve as both key points for educational environment evaluators and as guidelines for officials at different levels, to modify the weaknesses and improve the strengths of the system.

Keywords: Educational environment, Nursing education, Postgraduate nursing education, Qualitative research

1. Introduction

Nurses are vital resources for achieving health policy goals and promoting public health (1). With an aging population and the increasing demand for nursing services, nurses have become integral to the long-term health of society through providing adequate, safe and high-quality health services (2). A priority of the WHO is to focus on the constant professional improvement of nurses and the promotion of nursing care. Undergraduate and higher levels of nursing education play a critical role in ensuring the adequate competence of nurses in meeting the needs of the community (1). The value of a field of study is determined by its members and the community, and the increasing number of postgraduate nursing students is one way to improve the social status of nurses (3). Nurses take postgraduate courses to simultaneously meet the educational, managerial and clinical needs of their field (4). Based on a systematic review of fifteen articles on the effects of postgraduate nursing programs on patient care and its

outcomes, Cotterill-Walker concluded that postgraduate studies increase self-confidence, improve communication, cause personal and professional growth, promote knowledge of nursing theories and their application and develop the ability to debate, exchange views and make decisions (5). The purpose of PhD nursing programs is to prepare the students for exploration, scholarship and research and ultimately develop their nursing knowledge. Nursing doctoral graduates are expected to have great professional knowledge and a valuable insight into nursing problems and consequently, an improved quality of nursing care in the health system. The rapid development of nursing doctoral programs reported in the literature is a response to the shortage of nursing instructors and other scholarly ranks in the field. This trend is global (6). Sixty percent of the countries in the European Higher Education Area (EHEA) offer masters and PhD programs in nursing (7). Given the numerous advantages of postgraduate programs in nursing, especially doctoral programs, and the severe shortage of nursing doctoral graduates, the number of postgraduate programs in this field has also increased in Iran (8). Iranian universities started offering master's programs from 1988 and PhD programs from 1992 (9). Admission to a postgraduate nursing program in Iran requires a bachelor's degree in nursing and success in the graduate entrance examination. The postgraduate program takes two to three years and includes both theoretical and clinical units. Twelve Iranian universities offer PhD programs in nursing, which last about four and a half years and consist of 45 credits, including a PhD thesis that accounts for 20 credits. The students who are admitted to a nursing PhD program have a master's degree in nursing and have succeeded in both the entrance examination and the interview conducted by the Iranian Board of Nursing (3). An increase in educated postgraduate nurses in Iran developed nursing as a discipline and provide qualified nursing education, especially in postgraduate programs (9). But, the nursing profession is currently faced with a serious human resource crisis, including a severe shortage of instructors (teachers) and leaders in nursing, and since university education requires nursing schools that offer postgraduate programs, developing and keeping high-quality and standard schools is a constant challenge of the nursing profession in all countries (9, 10). The nursing profession is imbued with concerns about the quality of the programs, the resources, the educational environment and the learning experiences as well as the capacity of these programs and schools and their ability to prepare their graduates to meet the public needs with the highest quality possible (6). A full academic ride from bachelor's to master's and doctoral programs is an important objective of nursing education (7). Different authors have emphasized the effect of the educational environment on the outcomes of learning activities and the students' satisfaction (11). A proper academic environment is one of the factors that can prepare graduate students for gaining scientific and clinical experience. An ideal environment prepares the students for their professional future in the best way possible and encourages their professional development as well as physical, psychological and social well-being. This environment should cause the students' both professional and personal development and provide them with unique opportunities for the growth of values such as cooperation, volunteering for services, etc. (12). Modern learning theories focus mainly on the students' learning rather than teaching (13), and an increasing emphasis is therefore placed on the effects of the educational environment on the students' learning experience (14). The quality of the educational environment is a significant indicator of the effectiveness of an educational program (15). The educational environment is the manifestation of the educational program and has even been defined as the expression of the effect of different parts of the educational program on the students (16). Different authors have emphasized the effect of the educational environment on the outcomes of learning activities and the students' satisfaction (11). Moreover, evidence suggests that students who find the educational environment to be desirable enjoy a higher academic achievement than peers who perceive it as undesirable (11, 15), since a positive perception followed by well-being directly increases the students' learning motivation and capacities (17). In contrast, high levels of stress and anxiety in the students can reduce their memory, concentration, motivation, problem-solving capacity as well as learning, adaptability and academic performance (18). The students' experiences and perceptions of the educational environment provide knowledge-based methods for promoting educational programs (13). Evans and Stevenson explored the learning experiences of international doctoral students with particular reference to nursing students, and reported three categories, including pedagogical paradigms (self-directed learning, critical thinking), pedagogical practices (supervision practice, dealing with language, communication and identity in academic practice) and academic environments (professional socialization and opportunities for development) (19). In contrast to the increased number of postgraduate nursing programs in Iran, limited qualitative research has been conducted in the postgraduate nursing context especially in the educational environment. Aghamolaei et al. (2014) reported four categories as effective in the educational environment in Iran, including school atmosphere, teaching, human aspects and non-human aspects (20). Students place a special emphasis on the educational environment, as postgraduate studies require a higher quality of teaching and learning (21). Given the discussed points and the significant effects of the educational environment on nursing education at the master's and doctoral levels and consequently, on public health, exploring the perception of the educational environment by teachers and postgraduate nursing students helps in identifying the strengths and weaknesses of educational environments. Since

the educational environment is a significant indicator in predicting educational outcomes, the results of the present study can also be used in reviewing educational programs, the participation of students in process changes, professional development of postgraduate nursing students, and creating feedback for nursing school members. Therefore, the present article was conducted to explore the perceptions of students and teachers of postgraduate nursing programs and the educational environment dominating nursing schools.

2. Material and Methods

The present study uses a qualitative inductive approach to carry out a conventional content analysis (22). The study participants consisted of master and doctoral students in nursing and teachers and directors of the nursing schools of three major Iranian universities, namely Iran University of Medical Sciences, Tehran University of Medical Sciences and Shahid Beheshti University of Medical Sciences. Purposive sampling was used to select participants. Having at least one year of teaching experience in postgraduate programs at the nursing schools for teachers and passing at least two semesters of a postgraduate program for students, and willingness to participate in this study were the main inclusion criteria. Some of the teachers held management positions at the same time. Maximum variation was observed in terms of gender, age, and work experience, semester in school and nursing specialty when selecting graduate students and in terms of gender, age, teaching experience at the postgraduate level, management experience and holding administrative positions dealing with postgraduate affairs when selecting the teachers. Given the limited study population and the chances of having participants' identity revealed through their characteristics, especially in the case of the faculty members, the participants were not classified by the university so as to ensure the confidentiality of their information. After receiving the approval of the Research Ethics Committee of Shahid Beheshti University of Medical Sciences for the research proposal, and obtaining official permission to conduct the interviews, semi-structured face-to-face interviews and focus groups were used to learn about participants' perception of the educational environment in which they studied. Individual interviews were held with the faculty members and directors at the faculty lounge and with the doctoral students in a classroom. The participants decided on the time schedule of their interviews. To learn about the perception of the master's students of the educational environment in which they studied, focus groups were formed in postgraduate classrooms (23). Participants were asked to sign an informed consent form for conducting and recording the interviews using an mp3 audio recorder. In each of the interviews and focus group meetings, the participants were asked to speak freely and express their perceptions of the educational environment of postgraduate nursing programs in the country. The questions posed to the participants were:

1) What are your experiences and perceptions of the educational environment of the nursing school in which you were/are a postgraduate student? (Question for the students)
2) What are your experiences and perceptions of the educational environment of the nursing school in which you have been teaching postgraduate students or which you have been directing? (Question for the faculty members and directors)
3) In what instances have you had positive feelings about the educational environment and in what instances have you had negative feelings? (Question for the students, faculty members and directors)

Proper follow-up questions were used if necessary, such as "Please elaborate on this point", "Please give an example if possible" and "What do you mean by that?" The interviews continued until data saturation was reached and no new categories were emerging any longer (23). The interviews were promptly transcribed after they were recorded. The individual interviews lasted 20-60 minutes and for a mean duration of 40 minutes. This mean duration was 45 and 57 minutes for the two focus groups, with a mean of 51 minutes. Although data saturation was reached with twelve individual interviews and two focus group meetings, another student and another teacher were still interviewed for a greater certainty. The present study was conducted using a qualitative conventional content analysis based on the following steps:

1) Transcribing the interviews.
2) Selecting the units of analysis
3) Getting a general sense of the whole interview by reading the units of analysis
4) Extracting the initial codes, i.e. the relevant ideas and concepts
5) Classifying similar codes into a subcategory and comparing and labeling them
6) Classifying the similar subcategories into a group and labeling them (24).

Lincoln and Guba's evaluative criteria were used to confirm the rigor and trustworthiness of the data (23). To confirm the validity of the findings, the students, faculty members and directors were interviewed at different times and in different schools. Some of the research participants also reviewed the interview findings to confirm the

validity of the extracted data and the extracted or modified codes. To ensure the consistency of the categories with participants' statements, the data were reviewed by two experts in qualitative research. Outside observers were also employed for confirming the validity of the data and to find out whether they also reached the same conclusions or not; for this purpose, two experts received excerpts of the interview texts and examples of how the subcategories and categories were formed, and commented on them. To verify the confirmability and trustworthiness of the data analysis, a number of the interviews, subcategories and categories were presented to experts in qualitative research who were not involved in the study. No software was used to analyze the data. The participants were briefed on the study objectives and methods, ensured of their right to withdraw from the study at any point, and of the confidentiality of their information and the private storage of the research documents and evidence in a safe place. They were then asked to sign an informed consent form. This study was approved by the Ethics Committee of Shahid Beheshti University of Medical Sciences and the researchers obtained letters of introduction from the university to present to the participants.

3. Results
Table 1 presents participants' details. A total of 2,729 initial codes were extracted at the end of the data analysis. After merging the similar codes, 151 final codes remained. The constant analysis and classification of the data led to the extraction of 25 subcategories placed into seven categories. Table 2 shows an example of the data analysis. Table 3 presents the categories, subcategories, and examples of codes of the teachers' and postgraduate nursing students' experience of the educational environment in Iran.

3.1. Organizational context
The organizational context is the very context available in schools that provides suitable conditions for academic education. The context has tangible aspects such as human resources and non-tangible aspects such as organizational culture.

3.1.1. School facilities
School facilities contribute to a proper educational environment and consist of the welfare, educational, and physical facilities available at the school. A Ph.D. student said, "School is a good place, what with its peaceful physical environment. Like, if we sat down on campus to read something or rest, we'd experience a very calm climate and all these made up a whole that really affected the quality of our education." P 5

3.1.2. Organizational culture
In this study, participants emphasized the presence of dynamism at schools, constructive and pleasant environments, cultural programs, and official support for the staff and teachers as part of the organizational culture that creates an amazing educational environment. In this regard, one of the teachers said, "If the school is dynamic about the theses and uploads the theses defense schedule on the school's website regularly, this will give a good feeling to the postgraduate students." P9

3.1.3. Human resources
According to the participants, human resources also contribute significantly to the educational environment in postgraduate programs. One of the teachers stated, "We've been faced with an increased number of students these years, which is not standard or desirable, and then, we also have a smaller workforce. And now, a shortage of faculty members. These impose an additional pressure." P8.

Table 1. The details of the study participants

Participant	Number and Rank / Level of Education	Gender	Mean Age (in year)	Mean Work Experience (year)
Faculty Member / Director	7 (4 assistant professors, 2 associate professors and 1 professor)	1 male, 6 females	44.4 (Min: 37, Max: 54)	15.5
Doctoral Student	7 (3 in the sixth semester, 2 in the third semester, 1 in the eighth semester and 1 in the ninth semester)	1 male, 6 females	37.7 (Min: 29, Max: 50)	11.8
Master's Student	Group 1: 8 (6 in the third semester and 2 in the third semester) Group 2: 6 (2 in the fifth semester and 4 in the fourth semester)	2 males, 6 females 2 males, 4 female	27 (Min: 25, Max: 31)	3.7

Table 2. Examples of meaning units, condensed meaning units, codes and subcategories

Meaning unit	Condensed meaning units	Codes	Subcategory
The campus was a pretty and nice place	Campus beauty	The importance of school physical space	School facilities
The number of computers was much smaller than the number of students.	Limited number of computers for students	The importance of educational facilities	School facilities
Teachers had a very small room. There were 4–5 teachers in each room.	Teachers' small room; Too many teachers in a room	Teachers needed a private room	School facilities

Table 3. Categories, subcategories, and examples of codes of the teachers' and postgraduate nursing students' experience of the educational environment in Iran

Two examples of codes	Subcategory	Category
1) The need for separate learning environments for students, 2) The need for individual rooms for teachers	School facilities	Organizational context
1) A constructive school environment, 2) Scientific dynamism in the school	Organizational culture	
1) Sufficient number of faculty members, 2) Sufficient number of clinical teachers	Human resources	
1) Students' guidance in writing their theses, 2) Students' need to learn writing their theses	Research guidance	Research centeredness
1) Practical research, 2) Emphasis on research to be done by students	Focusing on research	
1) Teacher's feedback to students, 2) Teachers' ability to transfer knowledge	Teaching skills	Educational guidance
1) Learning among students in different programs, 2) Learning among students in the same program	Informal education	
1) Consistency of learning objectives and evaluation methods, 2) Attention to the educational foreground of students	Teaching process	
1) Group discussions in the class, 2) Using modern methods in teaching	Teaching style	
1) Educational supervision, 2) Proper use of the teachers' expertise	Educational management	
1) Taking criticism, 2) Enthusiasm	Teachers' ethical behavior	Teachers' competency
1) Clinical experience, 2) Teaching experience	Teachers' experience	
1) Being a pioneer, 2) Academic standing	Teachers' knowledge	
1) Intimacy between teachers and students, 2) Exchange of views between teachers and students	Teachers' interaction with students	Interactive climate
1) Consultations between teachers, 2) Coordination between teachers	Professional interactions among faculty members	
1) Mutual understanding between students, 2) Competition between students	Interactions among students	
1) Communication between school administrative staff and students, 2) Communication between school service staff and students	Interactions between faculty staff and students	
1) Communication with foreign universities, 2) Communication between nursing school and other schools	Extra-organizational communication	
1) The importance of students' abilities to the teachers, 2) The importance of students' abilities to the hospital staff	Paying attention to students' competencies	Student appreciation
1) Students being a role model, 2) Respect for disciplines by the student	Valuing students' behavior	
1) Teachers dedicating time to students, 2) Teachers supporting students	Supporting students	
1) Upgrading knowledge, 2) Enhancing clinical skills	Empowering students	
1) Evolution of the universities in nursing postgraduate programs, 2) The importance of educational programs for students	Valuing postgraduate studies	Professionalism
1) The need for nursing specialization, 2) Addressing clinical nursing issues in education	Necessity of clinical centeredness	
1) Nursing profession acceptance by teachers, 2) Not comparing medical and nursing professions by nursing teachers	Accepting the profession	

3.2. Research centeredness

Paying particular attention to research in nursing postgraduate programs as a growing profession will have a positive effect on students' experiences.

3. 2.1. Research guidance

Research holds a special position in the educational environment in postgraduate programs. Guiding the students in research leads to a proper learning experience and prevents their confusion. One of the master's students complained, "They (teachers) did not teach us the bases of conducting research. They only give us some explanations at the beginning of the semester and, by the end, they expect us to work on a massive project." Focus group 1

3.2.2. Focusing on research

Research is an integral part of postgraduate studies, and emphasis on it is necessary to the creation of a proper educational environment. A Ph.D. student expressed, "I feel that research was what our teachers really cared about and invested most of their time in." P4 A group of participants believed that the emphasis on research is so excessive in postgraduate nursing programs that it negatively affects other areas of the program. A master's student stated, "I noticed a year into my studies that, not only has this program failed to improve my practical knowledge, but it has drawn me away from my work and it's making me more of a researcher than anything else. I've got a lot of anxiety about carrying out research-I've only learnt how to conduct research!" Focus group 2.

3.3. Teachers' competency

Teachers' competency refers to a set of ethical behaviors such as being a strict and disciplined role-model that, combined with knowledge and skills, makes the teachers perfect for their role and leads to a proper educational environment in postgraduate nursing programs.

3.3.1. Teachers' ethical behavior

As the center of excellence, faculty members are regarded as one of the fundamental pillars of the learning environment and some of the most important people who have the most frequent interactions with the students and can thus influence them. The teachers' respect for ethical behavior therefore, makes for a more pleasant educational environment. One of the Ph.D. students said, "Mostly, the teachers were quite disciplined. They never canceled class for trivial reasons. They held classes in an environment of order and discipline." P7

3.3.2. Teachers' experiences

The participants also identified the teachers' skills in various fields such as education, research, practice, and management as a factor contributing to a better and more attractive educational environment. One of the master's students said, "One of our teachers is a professor. She has worked for seven years at the ICU. Even taking your internship with her is a wonderful experience, because she has worked in clinical settings herself and she teaches our classes too." Focus group 2

3.3.3. Teachers' knowledge

The participants considered knowledge as an essential part of competence in teachers, and stated that knowledgeable teachers improve the quality of education and contribute to a proper educational environment. One of the Ph.D. students said "The knowledge of a teacher is very important for me. Unfortunately, I feel that teachers do not have enough knowledge and this gives me an unpleasant feeling." P2

3.4. Educational guidance

Educational guidance is a significant component of the educational environment.

3.4.1. Teaching skills

Teachers play a key role in advancing the educational process, by using their teaching skills and through proper and diverse teaching styles and efforts to create a good atmosphere in class. Teachers' teaching skills are the key to the creation of a pleasant classroom setting and the ideal communication of class material to the students. One of the teachers gave an example of these skills and said, "There is a group of students who just treat things lightly (during the student presentations). At these instances, I try to really engage them in class and ask them to concentrate." P12

3.4.2. Informal education

Participants considered informal education as one of the aspects of a proper educational environment. This type of education can be realized through classmates or other students' help. For example, a Ph.D. student said "I feel good when I work with postgraduate students and give them my own experiences, and sometimes learn things, too." P9

3.4.3. Teaching process

The teaching process includes several factors, such as attention to course objectives, richness of the content, and consistent evaluation of the content of teaching. Students have reported paying attention to these factors as a positive experience. One of the postgraduate students expressed their bad feeling of non-compliance with these factors and

said "…some of the teachers said one thing about their evaluation method in the beginning of the semester, but their method was different at the end of the semester, and this was not good at all." Focus group 2

3.4.4. Teaching style

Given the advances in teaching styles towards student-centered methods, teachers' use of novel teaching techniques and their pushing of the students toward self-direction, make the educational environment more active and attractive to students. One of the teachers said, "Postgraduate programs provide the perfect place for trying teaching methods. When the student comes into a postgrad program, especially a doctoral program, you need to use active methods." P12

3.4.5. Educational management

Educational management is the foundation of educational guidance because all the necessary elements for education are provided by the management. For example, a Ph.D. student said "My knowledge increased during the Ph.D. program. One of the main reasons for this was proper planning and professional teachers." P5

3.5. Student appreciation

The students are at the heart of the school activities at any university; therefore, supporting the students and paying attention to their competencies while valuing their behaviors and seeking to empower them facilitates the creation of a proper educational climate and consequently, improves the students' perception of the educational environment.

3.5.1. Paying attention to students' competencies

Given that the majority of Iranian postgraduate students have a background in education, management or clinical practice, paying attention to these competencies and making optimal use of them helps improve the educational climate. One of the faculty members stated, "When I go into a class and see that one or a number of the students have work experience in that particular domain (the subject of the class) and are experienced in nursing, I ask them for help." P10

3.5.2. Valuing students' behaviors

According to students' statements, valuing their behavior is a positive experience in the learning environment. In this regard, one of the postgraduate students said "This is a good feeling, when you see the behavior of students is cared about and positive and negative behaviors of students are discriminated." Focus group 2

3.5.3. Supporting students

Supporting the students is one of the main issues in an educational environment that seriously affects the educational environment. One of the directors stated, "As a manager or someone who is working in this system, I have to be aware of these issues (employed students' issues). I should at least know what my students' needs are, how much I can meet these needs and how I can find a way to minimize these problems." P12

3.5.4. Empowering students

Student empowerment in the university environment, especially by faculty members, is a cornerstone of a proper educational environment. For instance, one of the faculty members discussed the importance of developing a sense of independence in research in the students, "I always tell the students who come to me for their dissertation that, my goal is not for you to just sit down and write a dissertation. I mean for you to learn to carry out independent research with your work on your dissertation, even in the absence of me, your supervisor or your advisor. You should be so capable in research that you can judge your own work."P12

3.6. Interactive climate

The interactive climate of the school, forms part of the educational environment that includes human interactions.

3.6.1. Teachers' interaction with students

Teachers are one of the biggest sources of interaction for the students, and a proper and constructive interaction between the faculty members and the students is conducive to a proper educational environment. A Ph.D. student described the interaction between the teachers and the students in a good educational environment and said, "Our teachers have exceptionally good relationships and are quite friendly with us. I think the rapport they build is quite influential." P7

3.6.2. Professional interactions among faculty members

As part of the interactive climate, professional relationships among teachers greatly affected the educational environment. One of the teachers said, "I love my colleague very much. She is very knowledgeable and enthusiastic. I feel really good when I'm around her." P12

3.6.3. Interactions among students

The interaction between students was one of the most important experiences of students in the educational environment. One of the Ph.D. students said "We tried to learn things from each other, most of them, you know. Because it seemed that we understand each other better." P5

3.6.4. Interaction between the faculty staff and students
Since the postgraduate students spend a long time in school, the interactions with school staff also contributed to their perceived educational environment. One of the Ph.D. students stated "The staff of the postgraduate unit are excellent. You feel so relaxed; the climate is so good that you sometimes forget you are a student." P1

3. 6.5. Extra-organizational communication
The participants noted that the interaction between the nursing school and other universities has a role in improving the educational environment, and emphasized the significance of this role. One of the directors stated, "Universities' interaction with each other is fundamental. It means that we should push our students toward interaction with other universities as well, push them to see other environments too." P13

3.7. Professionalism
This level indicates the understanding that the participants have of the attention to the profession in the School of Nursing.

3.7.1. Valuing postgraduate studies
Participants stated that if the school values the postgraduate program, students will have a better understanding of the environment. For example, a Ph.D. student said "Here (at the school) students expect to be valued because they are postgraduate and Ph.D. students." P2

3.7.2. Necessity of clinical centeredness
The participants emphasized the necessity of clinical centeredness, as clinical practice is the core of this profession, and found that the attempts of the educational environment at placing a greater emphasis on clinical practice helped improve the educational environment for them. One of the Ph.D. students discussed, "In my opinion, each generation of students who graduate should have solved one of the biggest problems of clinical nursing in the country." P6

3.7.3. Accepting the profession
The participants also emphasized the importance of the acceptance of the profession by others, especially by the teachers, as an important pillar of a proper educational environment and a step toward professionalism. One of the Ph.D. students said, "Some of our teachers come and talk about nursing as a serious subject, as a separate field of study. They say that nursing is so valuable, and this is how it should be. But some others fail to do so. Like, they're always comparing it with medicine." P2

4. Discussion
The present study was conducted to explain the perceptions of postgraduate students, faculty members and directors about the educational environment. The participants identified the organizational context as an important factor affecting the educational environment. According to the students, as the main environment in which learning occurs, the faculty or school needs to be prepared for the accomplishment of the educational objectives. An academic environment that is prepared for advanced learning, contributes significantly to a successful postgraduate education. To achieve this goal, schools should have rich human, financial and organizational resources. University support and physical resources are integral tools for postgraduate students, especially doctoral students, since they work independently. Educational programs at this level require an adequate number of teachers to facilitate the learning process (25). In the present study, the participants noted the lack of human and physical resources as a factor contributing to the educational environment. In their study in South Korea, Kim et al. explained the perception of students, teachers and graduates of the quality of their school, the students' competency, the school curricula and the educational resources, and reported the lack of the means of attracting financial resources, the uncoordinated running of libraries and the lack of access to school resources as the most significant disruptive factors in this regard. They also found that the organizational context is such a crucial criterion that access to resources is considered one of the criteria for evaluating PhD nursing programs. These resources include the university, the school or the department of nursing in which the PhD program is taught (26). Student appreciation is another dimension of the educational environment. Along with the technological advances, the students are still considered the core of medical education (27). Evidence suggests that the educational environment affects the students' satisfaction with their educational program, sense of well-being, enthusiasm and academic achievement (28). Appreciating the students in the learning environment is therefore conducive to better training. Paying attention to the students' competencies, valuing their behaviors and their empowerment were proposed by the participants as the most significant pillars of this dimension. Student support is part of student appreciation, since successful and effective learning requires a supportive environment (29). Postgraduate students face many challenges with regard to support. Lee (2009) explained the experiences of students at this level with terms such as stressful, disappointing, boring, painful, lonely and fearful (30). Essa (2011) also discussed the challenges faced by postgraduate students

and identified the degree of value given by the educational system to the students as an important factor (31). Appreciation is therefore necessary for mitigating these unpleasant feelings. The participants identified research centeredness as an integral part of the educational environment at the postgraduate level. Nurses are a professional and knowledgeable group and there is an increasing need for integrating their body of knowledge with healthcare so as to provide high-quality services in an evidence-based interdisciplinary environment (32). This endeavor increases the need for research and research orientation. The participants identified research and research guidance as prerequisites to a proper educational environment at the postgraduate level. A number of the participants, however, believed that the overemphasis placed on research in their academic program overshadows their other responsibilities and roles, especially since the majority of postgraduate students assume numerous other roles than research after graduation. According to Lewallen and Kohlenberg (2011), the present nursing training programs prepare the students more for research and the majority of these programs dedicate little time to teaching and executive roles, although, playing these roles requires more than mere research (33). It appears that schools should create a proper and reasonable balance between research and the other responsibilities of the students. Human interaction was noted in this study as another significant factor contributing to the educational environment. This interaction includes the interaction between the students, the professional relationships between the teachers, the interaction between the teachers and the students and the interaction between the school of nursing and the other faculties. Similarly, Evans and Stevenson reported a proper communication style, peer support and proper human relationships as elements of a positive learning experience in PhD nursing students (19). The participants highlighted the importance of close supportive relationships in the educational environment. Human relationships and human support are so important in the educational environment that Essa reported an educational environment that lacks a good understanding of the students or support, guidance and incentives for them and in which the staff are not adequately supportive as one of the challenges faced by South African postgraduate students and as one of the major factors responsible for the students' dropout (31). Evans and Stevenson found that the positive experiences of postgraduate nursing students contain in part, the students' interactions with the school and with the other students in the larger community (19). According to Kim et al., educational programs should facilitate the interaction among the students and between the students and the school (25). Teachers' competency was another category that was found to be effective in the creation of a proper educational environment. These competencies include the teachers' knowledge, experience and ethical behavior. Faculty members are the center of excellence in a school and their competencies actualize a significant part of the educational goals of a postgraduate student. These goals may include increased knowledge about nursing theories and their application and increased ability to debate, exchange ideas and make decisions (31). Schools intend to help students develop their knowledge, skills and capabilities (35). Developing these capacities requires that the students be guided by competent professors. Aghamolaei et al. explained the ideal educational environment and identified teachers as a key element in the educational process that plays a significant role in actualizing the educational objectives (20). In the present study, all the participants emphasized the teachers' knowledge as one of the most fundamental factors contributing to a proper educational atmosphere in school. Kim et al., reported the shortage of experts in nursing as a weakness of nursing schools in South Korea. They also reported the teachers' lack of knowledge and poor preparation for teaching the semesters as the main weakness of nursing schools in training postgraduate students (26). Educational guidance is another dimension of the educational environment that was of great importance to the participants. According to educational theories, teaching refers to the creation of an environment for learning and the dissemination of knowledge (27). Guidance holds a special place in teaching, and helps the students advance along their path of learning. Lee explained the experiences of PhD nursing students regarding education, and reported that the quality of the students' guidance plays a key role in preventing school dropouts (30). In this study, the participants identified the teaching style, educational management, teaching skills and informal education as the main parts of this guidance. They frequently emphasized the importance of a proper educational guidance in their interviews as a factor that can prevent confusions. Most of the participants identified educational guidance as a motivating factor for better and higher-quality learning. In explaining doctoral students' experiences, Spaulding and Rockinson-Szapkiw argued that programs that emphasize the adult's learning style and characteristics lead to the students' persistence in the educational institution (35). Educational guidance plays a key role in successful academic learning due to the students' interaction with the program directors, the curricula, the learning approaches, the learning styles and the teaching-learning environment (36). Professionalism is another dimension of the educational environment. Postgraduate alumni are expected to be professionally informed, have a valuable perspective on nursing issues and consequently, help improve the status of nursing care in the healthcare system (8). Professionalism is therefore necessary to the achievement of this goal. The participants of the present study identified valuing postgraduate studies as an important subcategory of professionalism that leads to a better educational environment. Postgraduate studies and professionalism at this level are important mainly because

postgraduate studies have the potential to help support this profession and change the attitudes toward it and cause behavioral changes and knowledge and skill acquisition in the graduates. Postgraduate studies also improve critical thinking, clinical decision-making, problem-solving, communication skills, research-based studies and interdisciplinary collaboration and activities (37). The participants of the present study found the lack of acceptance of the nursing profession by themselves and others as a significant inhibitor of the creation of a good educational environment. It is worth noting that nursing has a poor public image and a low social status in Iran. This image causes fatigue, despair and sometimes confusion in the nurses regarding their self-image and social identity. Nonetheless, this problem is not limited to Iranian society and has also been reported in other places such as Hong Kong and Pakistan (9). The participants identified the necessity of clinical orientation as a significant factor contributing to the educational environment. Most of the participants believed that paying attention to clinical practice in the educational environment leads to a better educational atmosphere because nursing is a clinical profession and students are directly or indirectly in touch with clinical practice in the future, irrespective of the role they assume. Although care is the ultimate goal of any health system, the lack of a nursing workforce with postgraduate degrees who actively provide healthcare services, is considered one of the shortcomings of nursing in Iran (3) and should be further addressed.

5. Conclusions
The results obtained in the present study indicate that the educational environment of postgraduate programs in Iran consists of important dimensions such as the organizational context, educational guidance, interactive atmosphere, student appreciation, teachers' competency, research orientation and professionalism. According to the participants, these dimensions need to be further addressed for a proper educational environment to be built for learning at the postgraduate level.

Conflict of Interest:
There is no conflict of interest to be declared.

Authors' contributions:
Study concept and design: Fatemeh Hajihosseini, Mansoureh Zagheri Tafreshi, Meimanat Hosseini and Ahmad Reza Baghestani; Acquisition of data: Fatemeh Hajihosseini; analysis and interpretation of data: Fatemeh Hajihosseini, Mansoureh Zagheri Tafreshi, Meimanat Hosseini; Drafting of the manuscript: Fatemeh Hajihosseini, Mansoureh Zagheri Tafreshi; Critical revision of the manuscript for important intellectual content: Fatemeh Hajihosseini, Mansoureh Zagheri Tafreshi, Meimanat Hosseini and Ahmad Reza Baghestani; Administrative, technical and material support: Mansoureh Zagheri Tafreshi; Study supervision: Mansoureh Zagheri Tafreshi.

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