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Explanation of medical students' experiences of educational clinical supervision: A qualitative study

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Abstract:

CONTEXT: Clinical supervision is a mechanism that allows medical trainees to learn their profession through the practice of clinical activities alongside more experienced physicians who ensure safe and timely care delivery. Therefore, recognizing of medical students experiences as people who will provide health services to people in future can be an important source for gathering information and planning to improve the quality of clinical education. The aim of this study was to explain the experiences of medical students from clinical educational supervision.

METHODS: This study was a qualitative content analysis conducted on 15 interns of the surgery and internal departments of medical and educational centers in Islamic Azad University Najafabad Branch in Isfahan, Iran to discover. The sampling method was purposive, and data were collected through semi-structured interviews in 2019. Data analysis was performed using a qualitative content analysis method with a conventional inductive approach.

RESULTS: Five main categories and nine subcategories were developed. The main categories include fundamental role, relaxed alertness, shadow education, toxic education, and abandoned educational.

CONCLUSION: The educational clinical supervisory has an efficient performance in clinical teaching which needs to be more assessed and improved.

Keywords:

Educational clinical supervision, medical education, medical student

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Introduction

Educational clinical supervision is a mechanism that enables medical students to learn their profession through clinical practice along with the help of experienced physicians, who practice safe and timely adaptations.^[1] Clinical supervision is referred to direct or indirect supervision by a clinical supervisor in professional projects or performed processes by a student or group of students in a clinical setting to guide the provision of feedback and professional and educational personal evaluation for the presentation of better and high-quality care to patients.^[2] Factors influencing the quality of clinical

supervision include communication skills, feedback, and educational skills.^[3] The results of studies in this field indicated that the factors such as high population and insufficient or ineffective communication were the factors leading to an increase in medical errors.^[4] A study conducted by Shahjooi *et al.* revealed that more than half of the students under the study had poor communication skills. There was a direct relationship between the desire toward critical thinking and interpersonal communication skills.^[5]

Gaining appropriate productivity requires the educated personnel to receive the maximum necessary efficiency, knowledge, and skills during the educational period for their future careers. Therefore, learning

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for medical students in an educational, clinical setting is considered as an essential part of the curriculum.^[6] Unfortunately, professors today spend little time on clinical education. Thirty-five years ago, 55% of teaching time was advocated for clinical education, but according to available studies these days, it reached <16%.^[7]

Therefore, since the purpose of medical education was to educate people with the necessary abilities to meet the growing needs of society,^[7] one of the most noticeable responsibilities of clinical educators is to be aware of the different abilities of students during internships to change the level of support and the provided supervision based on the needs of students according to the variable and unpredictable conditions of patients over time.^[8]

Therefore, applying clinical supervision can lead to a positive impact on improving students' learning. It is supposed to be observed as one of the fundamental solutions in the development of a medical, educational system. The studies in Iran exhibited that in spite of instrumental clinical supervision of student behavior, student learning improved significantly.^[9] It is worth mentioning that if clinical supervision performed effectively, not only enhanced students' ability but also improved the final outcome in patients.^[10]

At this moment, the important issue is posed on how to supervise the activities of students so that they can succeed, given the increasing developments of today's world, in any situation and with any facility in performing the tasks and roles that will be assigned to them in the future.^[9]

Since the general medical plays a conductive role in the system of providing services and promoting public health,^[11] it is required to investigate the clinical supervision status in this field that its functional and professional outcomes affect the world health and community health indicators. Clinical supervision on medical students can improve the quality of provided services, knowledge, capabilities, and suitable and safe performance of patients. The performed surveys showed that the only published study on the status of clinical supervision in Iran in the field of medicine was carried out by Razmjoo in the residency course,^[3] and there was no study on the manner of clinical supervision in clinical education of general medical students in the country.

Concerning the significance of professional skills in medical students for inhibiting diagnostic and therapeutic errors, that their outcome was discussed, it was significant to examine the experience of students in this field, whose performance and professional behavior influenced the world health and community health indicators. Hence, the present study was attempted to explain the

experiences of general interns, especially educational strategies of clinical supervision in the Najafabad Azad University of Isfahan in Iran in the year 2019.

Methods

This qualitative study was a part of the Master's thesis in the field of medical education approved by the ethics committee of Shahid Beheshti University of Medical Sciences with the code of ethics IR.SBMU.SME.REC.1398,007.

Participants

This research was an inductive qualitative type through the method of thematic content analysis. Participants in this study were general interns in internal and surgical departments of the Faculty of Medical, Islamic Azad University, Najafabad Branch. The interns who had inclusion criteria were selected. The inclusion criteria were being interested in participating in the research, passing at least one of the internal or surgical departments, or both and being while passing the last 6 months of the internship. Then, using the target sampling method, the participants in the research were identified, and a telephone call was made to them, and they were invited to participate in the research. Before each interview, the researcher explained the objectives to the participants and after their agreement and receiving their consent, specified the time and place of the interview. Sampling was continued to saturate the data. All interviews were conducted from April to September 2019.

Data collection

Data were gathered through face-to-face semi-structured interviews. The duration assigned for each interview was 54 min to 1 h. At the beginning of each interview, after requesting permission from the participants to record their voices, the required explanations were provided to the participants, including having the right to leave the study and ensuring the confidentiality of the text and audio of the interviews.

The interview started with the phrase "Please explain what you do during your internship day," According to the participants' responses, more detailed questions were raised. All questions were prepared in the area of medical education supervision.

Data analysis

In this qualitative research, the experiences of 15 interns in the internal and surgical departments of the hospital were analyzed under the contract of Islamic Azad University, Najafabad Branch, with the use of qualitative content analysis and Krippendorff's approach, which considered the content analysis process to be the

collection of data, unification, sampling, reporting, data reduction, inference, and analysis.^[12]

Analysis operations initiated after the first interview, and coding and categorization happened after the two interviews. This enabled the researcher to design other required questions and guide the study route better. The following steps in data analysis were carefully observed: The interviews were written on paper, one by one, and word for word. Then, they were examined line by line, and meaningful sentences related to the main issue of the research were bolded. The main concept of meaningful sentences was extracted by code, and the classification of codes was started. Then, codes with the same meaning were placed under one category and named. After each new interview, the previous classifications were reviewed and merged, or a new classification was created. By supervising one experienced supervisor in qualitative data analysis, the performance of classification and naming was reviewed. Therefore, with the formation of classification, the main themes of the study were extracted, and the relationship between the categories was identified.

While analyzing the data, it was attempted to avoid any presuppositions.^[13] In order to improve the validity and reliability of the research, the texts of the interview and extracted codes were examined by the two members of the research team to make sure of the accuracy of the codes, naming of categories, similarities, and differences.^[14] In this time, the researchers interacted with the participants, and the participants have received a summary of the researchers' interpretation of the findings for confirming the results.

With the purpose of improving the validity of the research, the participants were selected with the highest frequency, and the data collection process continued to the saturation level. On the other hand, to increase the reliability, the codes, subcategories, and the obtained categories were approved by a specialist in qualitative research, who was not present in the extraction of the results.

Results

The participants of this study were 15 General Medicine Interns admitted in 2012 and 2013, with the mean age of 24.7 ± 0.7 . 10, of them were women, and 5 of them were men.

The results obtained from the analysis of 15 interviews created 435 primary codes, which were minimized to 55 codes after deleting duplicate codes and merging similar codes. Ultimately, the leading codes from the data analysis were assigned in 18 subcategories and 5

main categories, including fundamental roles, relaxed alertness, shadow education, abandoned educational, and toxic education. These categories consisted of subcategories that contended with different aspects of the clinical supervision strategy [Table 1]. In the following, the research findings with an excerpt from the texts of the conducted interviews were provided.

Fundamental roles

Educational capabilities are also known as one of the major skills of an educational supervisor. In the present study, most students and faculty members believed that the clinical supervisor had an instrumental role in carrying out educational goals. consolidation of cognitive construction. In this category, some concepts were mentioned for the participants, including the manner of transferring the knowledge, expressing strengths and weaknesses, reviewing recorded documents, re-examining patients in specific cases by the professor, helping to gain competency, strength individual development, assign the responsibility of learning to the student, and the availability of the professor.

In case of helping to gain competency and strength individual development, one of the students stated that:

"... Two or three professors are saying that: Suppose that we are not here, you yourself ask and recognize the therapy method you want. I like this method. It makes us to realize. But in the other state, the professors ask, and we listen to how they ask questions, depending on the way the professors recommend." M D 14

In the case of expressing strengths and weaknesses, student 5 stated that:

Table 1: Main and subcategory extracted from the experience of general practitioners of Educational Clinical supervision

Category	Sub category
Fundamental roles	Expertise
	Comparative study
	Consolidation of cognitive construction
	Responsibility
Relaxed alertness	Situational education
	Educational compassion
	Fair behavior
	Interventionist observation
Shadow education	Thought-based education
	Working slow
	Delegating the education tasks
Abandoned educational	Educational underselling
	Indifference to education
	Lack of support
Toxic education	Inanimateness
	Educational silence
	Violent behavior

"... Never in Public. If we had a tenant, they wouldn't say something in front of the tenant. In case of having tenant, they tried to say in private when were alone, whether while rounding or walking up the steps ... they behaved well." M D 15

Relaxed alertness

Relaxed alertness stands for overcoming the learner's fear and motivating him/her to internalize the received data^[15] and is another main category that is consisted from the subcategories of situational education, educational compassion, fair behavior, interventionist observation, and thought-based education. Participants in this category stated notions, namely education in different environments, attention to the psychological dimensions of the student, maintaining patient safety, observing the student while performing practical work, educating the key points of the examination.

In case of describing the experience from observing the student while doing practical work, student 3 stated:

"They often wash their hands with supervising the attending. Attending might want us to stitch, and then they would check. For examples, doctors checked and supervised carefully, and if we made a mistake, they opened the wound, and they completely performed this task. They intervened and helped us." M D 3

In the case of educating the key points of the examination in the differential diagnosis, one of the students stated that:

"... suppose that one patient came and I felt that he had tenderness in his stomach. The doctor examined him, and they said that it's not tenderness it's abdominal pain. The patient himself stated that I myself remember a case that happened like this. He said that someone who has tenderness, for example, in the first examination, does not let anybody touch him, and the drawback. The second time, he does not let you to examine him. This patient learns you whether he is suffering from tenderness or not." M D 5

Shadow education

Shadow education is indirect education and at the same time, formal education. In this type of education, the main educator is not present, and educations are provided by other people. Its subcategories are working slow and delegating the education tasks. The concepts expressed by the participants in this category could be mention as receiving the answers of the student with delay, using the other medical professions in educating the student, assignment of reading the theoretical issues to the student, and asking guidance from other professors.

In the case of experiencing the use of the other medical professions in education, student 1 stated:

"The professor asks the technician to teach stitching. The technician will explain to us if we do not know stitching at all. He stitches a little, explains that, and asks us to continue that, and then he just observes us." M D 1

Abandoned educational

The other main achieved category is abandoned educational, consisting of subcategories of educational underselling, indifference to education, and lack of support. Most of the participating students stated that the professors did not devote enough time to educating, did not observe their educational needs, and had a sense of rejection.

In this case, the student 5 stated that:

"Some of the attending do not like to call them at all. It means that they do not note any telephone number to call them. I think my internet is not good enough to communicate with attending very easily. No, it's not easy." M D 5

In this case, the other student stated:

"They did not have enough time, but there should be a plan for the internet. There was a serious problem with the network in the internal department. In the surgical department, between the surgery operation and when I am resting, the attending come and want me to ask the questions. This process happened badly in the internal department, and I might have just 1-3 effective weeks in 3 months. The other persons had the situation like me." M D 6

Toxic education

Toxic education is a poisonous and harmful education that can damage the learning of learners, and finally, the education system by creating silence among the students and lack of enthusiasm in learning. The subcategories of this type are inanimateness, educational silence, and violent behavior. The concepts mentioned in this category were minimizing the teachers' strictness, not asking questions of the student due to assigning the study of the questioned issues to the student, laughing at the student, penalizing, creating a feeling of insecurity in the student, subjective behavior with the students, biased and immoral evaluation.

In the case of the slight strictness of faculty member, the student 12 stated that:

"I like the attending be stricter. For example, when I come to see one patient, I should completely control the patient. The attending should get me involved in the patients and tell me that we have a strange patient in the ward. They should

remind me of the rest of the patients. If the professor is going to ask me the question in this regard, so I go and observe the patients and read to answer very well. Some attending do not pay attention to the students when they come and go, and if they go to the emergency department. I think these tasks should be taken more seriously and everyone performs his task until the end of shift." M D 12

In the case asking the question, one of the students stated that:

"I myself, basically, ask my question there. If the professor is going to penalize or punish me and want me to be more on my duty or search extensively, I prefer not to ask the question at all." M D 13

Discussion

This research was carried out with the general aim of explicating the experiences of general interns in general medicine in the field of clinical supervision education strategy, which was gained from researchers' and medical students' work experience in clinical education and medical education development office. Moreover, this notion was not popular, especially in Iran, in the texts related to the field of general medical clinical education.

Subsequently, this paper explained the five categories of interns' experiences of the current state of clinical supervision, including fundamental roles, relaxed alertness, shadow education, abandoned educational and toxic education, indicating that clinical supervisor enjoyed different unique, multidimensional tasks and capabilities which were affected by various factors.

Fundamental roles

The major skills of the educating supervisor were education capabilities, facilitator instead of leader, creating challenges without threatening, providing professional guidance and education.^[16] The study conducted by Sobhani Nejad and Nejadan revealed that one of the competencies required by educators was specialized and professional competencies. Besides updating their knowledge and skills, they should also be able to use communication and information technology.^[17] In the current study, participants also showed different skills and competencies that were in line with many studies.

Relaxed alertness

In recent years, according to numerous studies performed in the area of clinical education and its effective factors, the authorities were oriented towards the significance of the clinical setting and its effective factors. The factors affecting the clinical setting were the atmosphere in the educational space, facilities, and

equipment, personnel, patients, and educators. Each of these factors was considered conducive in educating the patient and providing patient care^[18] In a study by Merghati *et al.*, participants' experiences and beliefs about educator behavior and personality traits exhibited that a strong and positive relationship was clear between the professor's flexibility, innovation and adaptability, and helpful student learning. In the students' opinion, one of the factors, which was able to indirectly involve learning, was the supportive and directive role of professors in forming a durable emotional relationship and also enhancing the motivation and trust of both sides.^[19] The participants referred to similar concepts in line with the present study.

Shadow education

This was among the concepts used in this study and was not addressed in the other studies related to educational, clinical supervision. Shadow education apparently is similar to formal education and encompasses two dimensions of assignment of education task and working slow.

This category stressed the study of issues by students and the presentation of education to medical students by staff, physicians, and other faculty members working in the intended clinical departments. However, these persons could be significant factors that existed in clinical education. The use of clinical nurses in educating the students in the form of preceptor and mentoring roles led to a lessened gap between educating and clinic^[20] they can make this role to face with some problems due to insufficient time, a heavy responsibility for the direct care of patients, high workload and the absence of adequate education.^[21] Therefore, they failed in implementing the clinical education program, and most of the students were abandoned in the clinic.^[22]

In the present study, the students participating in the survey declared that nurses and other staff members of medical departments dealt with time constraints and executive and legal rules in educating the students. On the other hand, it was evident that the provided education was not based on scientific principles and resources. This matter led to the bafflement of the students in learning scientific principles. To approve the Student's statement, one of the educational authorities of the faculty also noted that the assignment of education to other staff without programming and ensuring the accuracy of the provided education and obtaining permission from the clinical competency assessment committee was contrary to educational regulations.

Abandoned educational

The management of different aspects of education in the clinical setting by the education supervisor was another

characteristic of the clinical supervision educational strategy from the perspective of the participants in this study. According to the study by Razmjoo, the clinical supervision on medical students resulted in the promotion of the quality of provided services, knowledge, abilities and proper and safe performance of patients, which in addition to reducing irreparable damage to patients, eventuated in the reduction of enormous costs caused by mistakes in the process of therapy and managing diseases.^[3]

On the other hand, the patient was one of the educational resources and materials in the clinical setting, and clinical education should be taken place while caring for the patient. Put differently, learning knowledge and their application was one part of the learning process in the clinical learning setting.^[23] But if the number of patients increased to a level that faculty members spent all their time providing services to them, the education would occur in short and limited time or free time while caring the patient and there was no chance to discuss and think about something they learned and creating deep learning.

The study conducted by Mabuda *et al.* also illustrated that lack of educational support and learning, lack of time, the gap between theoretical and practical education, and poor interpersonal interactions between students, educators, and staff in ward imposed undesirable impacts on student learning.^[24]

In line with these studies, the students participating in the present study not only addressed to the therapy and service provision due to the number of patients but also they counted the frequency of employment of faculty members in different medical centers and settings, such as collaborating with private hospitals and the necessity to attend the clinic of the hospital under study as the factors that allocated more time to therapeutic activities.

Toxic education

Contrary to the necessity and the significance of clinical education, the results of studies demonstrated the serious deficiencies in the process of clinical education, or other words, the disconnection between theoretical and practical education. With clinical internships, it was feasible to prepare a positive clinical learning setting for the students and provide an appropriate ground special for improving their clinical competencies.^[25]

The results of a study carried out by Novoa-Gómez *et al.* referred that the most time was spent on evaluation, intervention, and conceptualization skills by supervisors during educational, clinical supervision, and the minimum time was related to emotional and interpersonal processes.^[26] In the study by Del Aram (2006) and Ghafourifard *et al.* (2015), the students confirmed the quality of education in the fields of

educational purposes and the educator, while in the case of the educational setting, supervising and evaluating and dealing with students was not very desirable.^[27]

Consistent with these studies, the students participating in the current study mentioned that violent behavior with students led to educational silence between them.

One of the limitations observed in this study was the participants' discontent in expressing the opinions related to the roles of faculty members (students group) and the difficulties caused by organizational problems. Therefore, they were assured that the audio file of the interviews was kept confidential, and the text would be implemented with code and without name and surname. The other limitation was the impossibility of generalizing the results to other universities, which was hoped to increase the generalizability of the obtained results by performing extensive studies in this field and selecting participants from different educational groups and different universities across the country.

Conclusion

The internship course in general medical education was of utmost significance. At this time, students learned to make a link between theoretical and practical knowledge and be prepared to enter the real setting of society and provide services independently. Therefore, if the strategy of clinical supervision and its quality was accepted as a key factor in establishing this relationship and clinical learning, the lack of practical cases and structural information for clinical supervision would be more prominent. Moreover, the absence of one constant model for clinical supervision in medical students led to confusion of professors and students in this field. The educational managers were not capable of reviewing the suitable clinical supervision criteria.

Confirmation

The authors would like to thank all the officials of Najafabad Azad University also Interns and faculty participating in this study that the results obtained are the result of their sincere cooperation.

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Conflicts of interest

There are no conflicts of interest.

References

1. Piquette D. Clinical supervision and learning in acute care environments: A multifaceted relationship: University of

- Toronto (Canada); 2014. https://tspace.library.utoronto.ca/bitstream/1807/68180/1/Piquette_Dominique_201411_PhD_thesis.pdf.
2. Australia H. National Clinical Supervision Support Framework: Health Workforce Australia; 2011. <http://www.ntrtn.com.au/sites/default/files/hwa-national-clinical-supervision-support-framework-2011110.pdf>.
 3. Ahmadi S, Vafaiezhad L, Baradaran HR, Dargahi H. The Status of Clinical Supervision in Midwifery Education: Perspective of Midwifery Clinical Teachers and Students in Tehran University of Medical Sciences. *Iranian Journal of Medical Education*. 2017;17(0):82-91.
 4. Holder AR. Medical errors. *ASH Education Program Book*. 2005;2005(1):503-6.
 5. Shahjooi S, Jalalmanesh S, Ebrahimi E. Relationship between critical thinking and interpersonal communication skills in nursing students of Azad University Tehran medical Branch. *2 Journal of Nursing Education*. 2014;3(3):1-13.
 6. Salmani N, Amirian H. Comparison Between Nursing Students And Trainers Viewpoints About Clinical Education Environment In Islamic Azad University Of Yazd, In The Year 2006. *Strides In Development of Medical Education*. 2006;3(1): 11-8.
 7. Malkan Rad E, Ainollahi B, Hosseini SJ, Mottaz Manesh N. Clinical education and clinical evaluation. Iran, Tehran: Tohfeh, Boshra 2006;First Edition.
 8. Alavi M, Abedi H. Nursing students' experiences and perceptions of effective instructor in clinical education. *Iranian Journal of Medical Education*. 2008;7(2):325-34.
 9. Salehi S. Effect Of Clinical Supervision on the Faculty Teaching Quality at Nursing and Midwifery School in Isfahan University Of Medical Sciences. *Iranian Journal of Medical Education*. 2000;1(1):56-63.
 10. Bruijn M, Busari J, Wolf B. Quality of clinical supervision as perceived by specialist registrars in a university and district teaching hospital. *Medical Education*. 2006;40(10):1002-8.
 11. Sadr Arhami N, Kalantari S, Atarod S. Medical Students Attitude Towards their Field of Study and Future Career. *Iranian Journal of Medical Education*. 2004;4(1):76-81.
 12. Kojori J, Dehghani MR, Amini M, Bazrafkan L, Saber M, Pillar A, *et al*. Important points in medical education. *Irsa*. Iran: Shiraz 2009.
 13. Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. *Qualitative health research*. 2005;15(9):1277-88.
 14. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse education today*. 2004;24(2):105-12.
 15. Ozden M, Gultekin M. The effects of brain-based learning on academic achievement and retention of knowledge in science course. *The Electronic Journal for Research in Science & Mathematics Education*. 2008.
 16. Launer J, editor *Supervision, mentoring and coaching: One-to-one learning encounters in medical education*. Edinburgh: ASME 2006.
 17. Determination a qualification framework for Technical and Vocational Education and Training (TVET) Trainers and Labor-Coaches in technical and Work- knowledge schools. *Skill Training*. 2015;4(13):7-46.
 18. Merghati khoi Ea-s, RImaz S, Zarei F, dastoorpour M. Exploring The Teaching and Learning Approaches from the viewpoint of Postgraduate Students and their Lecturers. *Iranian Journal of Health Education and Health Promotion*. 2013;1(3):67-82.
 19. Salim T, Khodayarian M, Rajbion H, Mendegari ZA, Chi MA, Javadi SS, *et al*. Evaluation of Clinical Professors and Students of Shahid Sadoughi School of Nursing and Midwifery about Clinical Education Status During Years 1388-1390. *Yazd Medical Education Research and Development Center*. 1391;7(3(7)):67-78.
 20. Coates VE, Gormley E. Learning the practice of nursing: Views about preceptorship. *Nurse education today*. 1997;17(2):91-8.
 21. Chow FL, Suen LK. Clinical staff as mentors in pre-registration undergraduate nursing education: Students' perceptions of the mentors' roles and responsibilities. *Nurse Education Today*. 2001;21(5):350-8.
 22. Condell S, Elliot N, Nolan L. Perceptions of the clinical learning environment: A supernumerary student survey. *All Ireland Journal of Nursing and Midwifery*. 2001;1(4):148-51.
 23. Gandomkar R, Salsali M, Mirzazadeh A. Factors Influencing Medical Education in Clinical Environment: Experiences of Clinical Faculty Members. *Iranian Journal of Medical Education*. 2011;11(3):279-90.
 24. Mabuda BT, Potgieter E, Alberts U. Student nurses' experiences during clinical practice in the Limpopo Province. *Curatonia*. 2008;31(1):19-27.
 25. Fink M. Nursing students' perceptions of obtained and desired levels of support and supervision in the medical-surgical clinical learning environment: University of San Francisco; 2005. <https://search.proquest.com/openview/de85b11268399b30a7f6092fdcc0b7b6/1?pq-origsite=gscholar&cbl=18750&diss=y>.
 26. Novoa-Gómez M, Córdoba-Salgado O, Rojas N, Sosa L, Cifuentes D, Robayo S. A descriptive analysis of the interactions during clinical supervision. *Frontiers in Psychology*. 2019;10:669.
 27. Ghafourifard M, bayandor a, zirak m. The Status of Clinical Education in Teaching Hospitals Affiliated with Zanjan University of Medical Sciences from the Viewpoints of Nursing and Midwifery Students. *Journal of Medical Education Development*. 2016;8(20):9-20.