

## Role Playing Approach vs. Traditional Method about Neonatal Admission Skills among Midwifery Students

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### Abstract

#### Introduction

Since, employing new education approach is necessary for enhancing medical students' skills, so the aim of this study was to determine the effectiveness of role-play approach compared the traditional method about neonatal admission skills in delivery room among midwifery students.

#### Materials and Methods

This was an experimental study in 2013-2014 in Isfahan-Iran. After baseline testing, 30 midwifery students were trained using role-playing method for neonatal admission skills (n=15, case group) and using a traditional method (n=15, control group). Participants were tested after intervention in final term. The collected data was analyzed using SPSS version 13 and descriptive and analysis such as independent t-test and paired test. The significant level was considered less than 0.05.

#### Results

Before intervention, the findings did not show any significant difference between skill scores of two groups (role-play and traditional method); while a statistically significant difference was observed in after intervention between the scores of two groups (P=0.003). After intervention, Paired t- test showed a statistically significant difference in skills scores in two groups respectively (P=0.024, P=0.010).

#### Conclusion

Role-play teaching technique can be increased neonatal admission management skills levels in midwifery students. So, the conduction of this educational model is recommended as an effective learning in neonatal admission management. The role playing approach leads to comparable practical neonatal admission management-performance compared to traditional method. Therefore, this approach could be useful in special educational settings especial midwifery and neonatal wards.

**Key Words:** Midwifery students, Neonatal admission, Role-playing approach, Skills.

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Received date: Aug 19, 2015 Accepted date: Sep 12, 2015

## Introduction

Professionalism in medicine depends on the quality and quantity of education in clinical settings (1). In different studies, insufficient education of students has been mentioned as a factor for failure to achieve professionalism. While several studies have been conducted in this field, the question of what teaching method has the highest effect on teaching students has remained unanswered (2). Teaching methods is one of the most important factors in the learning process (3).

One of these educational methods is role-playing approach. In this approach, the teacher demonstrates how to use a device or teaches how to make an object; and hereby, he offers a skill to a large number of learners within a short time. This method is based on observation and seeing (4). These people learn specific skills through seeing. For example, a teacher has decided to teach the students in the classroom to work with a tool through this approach. The most important benefit of this approach is using real and actual objects in education and can be used more for practical or technical lessons (5). Steps for implementation of demonstration method are as follows:

- Step one: the teacher should specify the purpose of teaching and provide the necessary facilities in advance,
- Step two: the teacher should express the goals for students and explain how and why they do the action,
- Step four: the teacher should demonstrate the correct procedure and steps,
- Step four: after performing of the above steps, the teacher must receive feedback from the learners (6, 5).

According to what has been mentioned, in this approach the teacher tries steps tries to

perform specific skills with very slow movements in order enhance the level of learning; whereas, in clinical environments, due to lack of time and place, the possibility of such a method is very time-consuming and difficult (7). In this regard, the results of the study by Sotto (8) on teaching intravenous cannulation to medical students showed that using active methods resulted in the improved performance. Also Mohamedirizi (9) found similar results in her study so that the demonstration teaching method improved self-efficacy of students in the field of labor administration. Whereas, results of the study by Ord (10) on students' performance about placement of laryngeal mask and Greif's study (11) on the students' performance on cricothyroidotomy showed there was no significant difference between four-step approach and the conventional method regarding improving student performance. In fact, in the case of providing teaching through active method and based on learners' personal experience, learning rate of individuals in communicational and interpersonal skills significantly increases (12). Regarding the importance of primary care learning and admission of the baby in the early stages of birth in midwifery education and the fact that midwifery students are exposed to multiple stressors in hospitals maternity wards and during managing delivery, and since midwifery profession is involved with clinical judgment, students of this profession should learn how to adopt efficient decisions and perform proper functioning and also provide the necessary supports for the patients during the sensitive and critical moments, without being affected by stress, anxiety and other undesirable feelings (13, 14). Therefore, considering the shortcomings of clinical education at universities across the country (4), a study was conducted among midwifery students to determine the effectiveness of role-

playing approach on neonatal resuscitation skills in the delivery room.

## Materials and Methods

This quasi-experimental study was conducted on 30 midwifery students selected through convenient sampling method. In this study, all undergraduate midwifery students who were in their last semester were divided into 2 groups according to the respected director of the Department of Midwifery in Nursing and Midwifery School, Isfahan University of Medical Science, Isfahan the Central of Iran.

Inclusion criteria included:

- Having a written consent,
- Conducting at least 5 deliveries without Supervision of instructor,
- Not participating simultaneously in a similar research.

Also, exclusion criteria included:

- Not wanting to continue the study and excessive absenteeism (a day in the apprenticeship).

After grouping the students into two groups based on drawing the first group were trained by role-playing approach (15 members) and next group were trained by a usual clinical approach (15 members).

The skills related to the office of neonatal admission were completed based on the evaluation form before the training. Again after both types of teaching, it was completed at the end of the course.

Scoring of the performance of students was as follows: after rating the performance of students in a certain order of respectively, very poor, poor, average, good, and very good, 0, 25, 50.75 and 100% of the score of that item was given to the performance. This checklist has been set by the office of Midwifery Affairs, the Ministry of Health-Iran (15). In the educational approach of role-

playing, first philosophy and purpose of the operation was explained theoretically to the students. Then the way to accept the neonates was explained and shown to the students by the instructor. In the final stage, the researcher asked the students to repeat each step individually again in order to understand that learners have understood or not and in case of problems, the researcher could correct the mistakes. In a typical clinical education approach (traditional method), students were doing all the expected processes on a real patient along with a instructor. This study has been conducted after obtaining permission from the Isfahan University of Medical Sciences and after approval of Ethics Committee (Ethics Code Number: 292258). After explicit expression of objectives and getting written consent from them, samples of both groups were selected on the basis of inclusion criteria before starting the intervention and also in order to avoid bias or influence of interventions on groups, non-random selection was applied. Initially researchers, based on the checklist of choosing research unit (including inclusion and exclusion criteria), selected the qualified individuals and gave them an informed consent form. Also the researcher clarified the purpose of the study and the research was done only with their full knowledge and consent. Data were analyzed by SPSS statistic software version 14 and by Student's t-test and paired t-test is used. A P value less than 0.05 were significant.

## Results

30 midwifery students in equal two group, were selected and trained using role-playing method (case group) for neonatal admission skills and using a traditional method for other students (control group).

Results showed the mean age of students were  $21.7 \pm 2.01$  in the range of 21 to 22 year-old. Based on results, Table 1 showed

in two groups had increase average of neonatal admission skills after intervention.

**Table 1:** Comparison between mean and SD of neonatal admission skills in experimental and control.

Variables	Role-playing approach	Traditional method	P value
	mean±SD	mean±SD	
Pre-intervention	1±0.02	1.4±1.3	P=0.14
Post-intervention	4.55±0.22	2.01±0.2	P=0.001
Paired t-test	P=0.013	P=0.003	

## Discussion

The present study showed that the role-playing approach was a effective instructional method to increase neonatal admission management skills levels in midwifery students. In this regard, Mohamadirizi's study in Isfahan (16) showed that the practical learning of midwifery students has increased significantly in both demonstration and normal groups which indicates the effectiveness of both methods on the student's learning. In two separate studies also the effect of using simulated patients and active learning methods was investigated in comparison with lecturing on students' skills in IUD insertion. They have concluded that students whose trainings were taken through simulated patients' method as an active teaching method had significantly more skills than the control group. These results confirm the findings of the present research; and all indicate the effectiveness of using active educational methods in respective skills training (16, 17). Results of the Hosseini Nasab et al. in Tabriz (18) on 30 nursing students in order to determine the comparative effect of computer assisted instruction and practical demonstration on learning vital signs measurement showed

that scores of awareness and knowledge of the students have significantly improved in both groups after the test intervention, however, there was no significant difference in posttest knowledge scores between the two groups. The results of the Zraick's study (19) and Schwartz's study (7) showed that using stimulated patient method did not have an advantage over traditional training; and they have suggested that more research is needed to focus on educational positive results that can be obtained from the use of this new method of teaching. The results of these two studies are not consistent with the present study which can be due to the absence of accurate assessment approach, lack of designing appropriate tools and inconsistency of educational content with educational purposes.

The present study was conducted in order to improve midwifery students' skills levels. Attention of educational system to the use of different educational methods and its impact on promoting the level of performance and skills of the students pave the way for development of these methods especially in the midwifery courses. Transmission of information and the method of teaching in the dormitory, exchange of experience between intervention and control groups could happen which were uncontrollable. Therefore, it is recommended that for further studies, the implementation of clinical teaching occurs in one academic year and the implementation of another teaching approach happens in the next academic year. Due to the small sample size in this study, it is suggested that future research can be conducted in two different semesters. This means that in one semester, all students of midwifery have a 4-step approach to apprenticeship and in another semester another group has apprenticeship in the usual way and both groups will be followed for two terms. Such study can largely reduce the problem

of short-term observation and the heterogeneity of the teachers.

### Conclusion

The results show more effectiveness of role-playing learning approach which leads to better neonatal resuscitation skills among midwifery students. Therefore, this method can help the teachers in order to plan for the modification of educational programs in course of apprenticeship and internship and improve the management skills of students' neonatal permission.

**Conflict of Interest:** None.

### Acknowledgement

This study was a part of a research project approved in 2013 (Research Number: 292258) in Isfahan University of Medical Sciences and was financially sponsored by Vice Chancellery of Research in the related university. We greatly appreciate the support and cooperation of this Vice Chancellery, as well as all of the midwifery students and Ms. Azidehak.

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