THE EXPLORATION OF PROBLEMS AND INHIBITORY FACTORS IN LEARNING OF CLINICAL SKILLS AND TRAINING AMONG STUDENTS
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Abstract

Introduction: The clinical training is a dynamic process that plays a crucial role in training of competent and efficient
nurses. The importance of clinical nursing appropriate training is undeniable in individual and professional development
and clinical skills. Nursing students are mainly exposed to several problems in clinical training. Doubtlessly, recognition
of these problems is the first step in reduction of clinical training bottlenecks. The students are personally deemed as one
of the best and most reliable sources to explore the problems and barriers of learning clinical skills and training. In the
present study, the problems and barriers of learning clinical skills and training have been investigated from the
viewpoints of students in Zahedan Nursing Faculty in 2013.

Methods: The subjects were 143 students from Zahedan Faculty of Nursing (operation room, midwifery, and nursing
wards) were elected as sample by classified sampling method proportional to sample size in academic year (2012-13) in
this descriptive- sectional survey. The questionnaire was utilized as a tool for data collection in which they were scored
and ranked in two parts including first part consists of demographic information (gender, age, educational discipline)
and the second one regarding the problems and barriers against learning clinical skills and training with 39 questions
based on Likert 5-scale spectrum that ranged from choices of completely agreed (5) to completely disagreed (1) and also
content and face validities of this questionnaire was approved by means of comments from academic teachers and its
reliability was determined by calculation of Cronbach alpha coefficient as 0.83. The data were analyzed by descriptive statistics and t-test as well as SPSS-18 software at 95% level of confidence.

**Findings:** With respect to the given results, the problems and barriers against learning clinical skills and training were determined with order preference according to viewpoint of nursing students. The student’s dissatisfaction with way of presentation of theoretical and practical lessons was considered as the first priority and then other variables were ranked respectively as follows: problems and barriers (with mean value of 4.21 and standard deviation 0.61) and then the relationship among instructor and student as the last priority in these problems and barriers (mean = 3.85 and standard deviation = 0.34). Similarly, one-way ANOVA on respondents based on their educational discipline indicated that there is difference among three groups in various educational disciplines (nursing, midwifery, and operation room) for students in advantages of using clinical skills training center ($\alpha<0.05$). Tuckey range test showed that there is difference in status of educational discipline (nursing and midwifery) but no difference was seen among status of educational discipline in operation room and midwifery.

**Conclusion:** The research finding indicated that the existing problems and barriers against learning of clinical skills and training were caused especially by dissatisfaction of students with method of presentation of practical and theoretical lessons, the existing hospital facilities, and the related features to instructors and external factors. With recognizing these problems, the related officials and practitioners will be able to provide the ground for rising of quality and to remove barriers for the applicants by controlling external factors to the great extent.

**Keywords:** Clinical Training, Clinical Skill Training Center, Student, Nursing Faculty

**Introduction**

Training is a continuous trend that is followed up by work process, experience, and acquisition of human skills in encountering several situations. Changing behavior of learner is the main goal in education. Exertion of conscious change in students’ behavior is the major objective in training of nursing. To achieve this goal, it should be tried that what the learner trains to be proper and constructive (Abbasi, 2008). One of the important cornerstones in training of nursing is clinical environment that may play essential and efficient role in training and learning. In fact, clinical training is an education thereby the student will be able to employ the learned concepts in the practical field with interaction with the environment (Chan & Fong, 2009).
The clinical training may provide an opportunity for the students to convert theoretical knowledge into various subjective, mental, and sensory skills, which are necessary for taking care of patient (Vahabi et al, 2010). At present, the experts do all their best effort to provide some conditions in faculties and the related environments of clinical training for students to acquire nursing specialized skills since learning of clinical skills are the paramount part of learning of professional behaviors among nursing students, in which students train their professional activities and form their occupational culture through exposure to appropriate and valuable situations (Heydari et al, 2011). The nursing students may be exposed to various training problems and issues only with working in clerkship environments and as a result they will be able to upgrade their theoretical knowledge (Dehghani, 2005). The more fruitful clinical training is presented, the more efficient nurses will be today students for tomorrow and a healthy community is the product of the efficient nurses (Sahebzamani et al, 2012). Many studies indicate a relatively great distance among clinical training and classic training of nursing. The existing clinical trainings are not necessarily able to provide opportunity for student to acquire clinical competency and skill. The study that was done by Salehi showed that according to nursing students and instructors, there is no appropriate coordination among theoretical and clinical nursing trainings (Salehi, 2001). Likewise, Nahas et al have indicated the great distance between theoretical and practical learning of nursing in their investigation (Nahas et al, 1999).

Given that clinical training makes up about half period in curricula of nursing students during study (Delaram, 2006) but in many cases we witness the condition in which even the knowledgeable students are confused before the patient and they could not independently undertake the responsibility of patient’s medical care (Lonik et al, 2001). The results of many studies suggest that there is a relatively deep gap in trend of scientific nursing and midwifery training with clinical performance of students in such a way that the existing clinical trainings may not necessarily empower the student to acquire clinical competency and skill (Hadizadeh et al, 2005; Kokar & Haghani, 2011).

If training standards are not observed and the patients are hospitalized again after discharge because of lack of receiving of training and or inadequate training, the nurses will be responsible for the created loss (Marcum et al, 2002). Among them, the nursing faculties are tasked with training of nurses, who can present the clinical services based on the latest scientific advances and they could meet the requirements of care-seekers with adequate clinical knowledge and skill (Dehghani et al, 2005). Creation of appropriate clinical training for students during their scholastic career is one of very
appropriate strategies in this important field (Marcum et al, 2002). The clinical environments have some variable and unexpected and challenging characteristics and this may inevitably affect on training of students and make the role and performance of clinical instructors more sensitive and important while some of experts have assumed clinical training more sensitive and significant than class room training (Robinson et al, 2008).

Recognizing these factors lead to improving quality of training of patient since with identifying the obstructive factors and removal of barriers and problems, the patients will be also benefitted from profits and advantages of training of patient rather than revival of nurses’ training role (Kowatz, 1999). Improvement and enhancing the quality of clinical training requires the review of status quo constantly and recognition of strong points and correction of weak points so in this regard students’ comments and ideas may improve future clinical programs for them (Ebrahimi, 1994). In order to examine various aspects of clinical training problems from students’ view in the conducted studies, several factors have been purposed as the clinical training problems according to students’ view including downplaying the role of clinical training, lack of access to experienced instructors, lack of coordination among clinical trainings, inadequate welfare and educational facilities, lack of permanent access to instructor to meet educational needs and not encouraging the students in above-said issues, learning non- scientific and improper methods, lack of cooperation with ward personnel, not implementation of procedures by student(s) during clinical clerkship period with educational course, lack of correspondence among clinical training goals and content with its theory, and not identifying student’s task description in the given district (Mohammadi et al, 2005). One of the other problem we encounter them in clerkship centers is shortage of instruments and facilities and possibility for execution of theoretical learned procedures in clinical environment. In many centers, some factors like absence of adequate equipments and coordination of service giving policy among educational staffs like instructors and students with ward personnel may create some problems in clerkship environments, which are also major problems in nursing clinical training (Abdulalian, 2000).

Various studies have shown that the several existing problems were the barrier against achieving these goals. Of these problems one can refer to some them including absence of certain tasks description for students and instructors, lack of coordination between the received contents and their application in clinical environment, shortage of welfare and educational facilities (Dehghani et al, 2005), lack of coordination between expectations of ward personnel with educational goals, inappropriate ratio of number of students with patients in wards, inadequate facilities and non
application of training aid devices (Delaram, 2006), inappropriate relationship among physicians, nursing supervisors, and other personnel with students (Hadizadeh et al, 2005), lack of adequate opportunity for implementation of standard procedures, unsuitable clinical conditions and situation according to theoretical principles (Dehghani et al, 2005), stress in clinical environment, the absence of suitable and uniform value-driven criteria for students, instructor’s inadequate skill, lack of self-confidence (Zeighami et al, 2005), fear and anxiety and stress during implementation of clinical task (Abdoli, 2005). The review on several studies also signifies the problems in clinical training and they also argued that there is no the needed coordination between educational staff and nursing services and there is more need to revise clinical training (Dehghani et al, 2005). Similarly, it has been referred to some factors like attaching lower importance for clinical training, lack of access to clinical instructors adequately, lack of coordination among theoretical and practical lessons, facilities and performance of hospitals, and not encouragement for students (Hadizadeh et al, 2005). In general, the results of numerous studies have reported evaluation of nursing students as inappropriate from status of clinical training (Zeighami et al, 2005; Hadizadeh et al, 2005). The results of investigation that was conducted by Marcum et al (2002) titled as perception of professional nurses from training of patient also indicated that 92% of nurses consider training of patient as priority for their nursing medical cares. They expressed three inhibitory factors in training of patient as priority of time shortage, inadequate number of personnel, and rejection of training by patient respectively. In other studies, it has been referred to some other factors like the relationship among personnel and students, lack of trust among them, fulfillment of tasks by nursing managers, rules and regulations of wards, role of clinical instructors and support of classmates as inhibitory factors for clinical learning in students (Bartz and Barr, 2003).

Certainly, recognizing the efficient positive and negative factors in learning of clinical skills can be effective in reduction of problems and strengthening of positive points and students are personally one of the paramount sources for this review, who are in direct interaction with this process (Beech, 2008). Despite of conducting survey regarding review on clinical training problems throughout the country and with respect to differences among instructors, students, and educational systems in any academic unit, the review on problems of clinical training separately in any training center and within very short time intervals may seem very necessary since using the resultant findings from these studies may play essential role in improvement the qualitative and quantitative level of learning the clinical skill and training. Hence,
the present study is intended to examine the problems and inhibitory factors against learning clinical skill and training among students in Zahedan Faculty of Nursing.

Methodology
In a descriptive- sectional study, the problems and inhibitory factors against learning clinical skill and training among students in Zahedan Faculty of Nursing were examined and compared in academic year 2012-13. The research statistical population included all students from nursing faculty comprising of (operation room- midwifery and nursing) that was selected by means of classified sampling method proportional to sample size among of them, 143 participants were chosen separately from students in Medical Sciences and Nursing Faculty (operation room = 32; midwifery = 36; and nursing = 75) as sample. The questionnaire was a tool for data collection where this questionnaire included two parts: The first part consisted of demographic information (gender, age, and educational discipline) and the second part was concerned with problems and barriers in learning of clinical skill and training with 39 questions including characteristics of instructors (3 questions), the relationship among instructor and students (4 questions), Training by instructor and personnel in medical ward ( 5 questions), the relationship among patient and student (2 questions), student’s satisfaction with the existing regulations in the ward (6 questions), the existing academic and hospital facilities (3 questions), the relationship among personnel and student (7 questions) and about the method of presentation of theoretical and practical lessons (9 questions). And it was scored based on Likert 5-scale spectrum ranged from completely agreed (5) to completely disagree (1).

In the current study, content validity and face validity were determined by using the comments from academic teachers in nursing and medical training field and the reliability of that questionnaire was calculated by Cronbach alpha coefficient as 0.83. The given data were analyzed by means of descriptive statistics and t-test and via SPSS-18 software at 95% level of confidence.

Findings
143 students from Zahedan Faculty of nursing participated in this investigation including from operation room, midwifery, and nursing wards. According to the derived results, 61.9% of the studied sample was female and 38.1% of them were male and the mean age of female students was 21.36 years while the average age of male students was 22.19 years.
The studied data which have been derived from Table (1) show the order preference of problems and inhibitory factors against learning of clinical skills and training based on the nursing students’ point of view where the variable of student’s dissatisfaction with method of presentation of practical and theoretical lessons was the first priority and then respectively these variables were ranked as follows: inhibitory factor (mean = 4.21; standard deviation = 0.61), characteristics of instructors as the second priority (mean = 4.17; standard deviation = 0.59), the existing hospital facilities as the next priority (mean = 4.11; standard deviation = 0.53), and the relationship among instructor and student and problems and barrier (mean = 3.85; standard deviation = 0.34) as the last priority. But Table (2) examines one-way ANOVA for respondents according to their educational discipline.

Table (1): The Order preference of the studied mean and standard deviation of sample according to variable of problems and inhibitory factors against learning of clinical skill and training.

<table>
<thead>
<tr>
<th>Fields</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student's dissatisfaction with method of presentation of practical and theoretical lessons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Characteristics of instructors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The existing facilities of hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The relationship between student and personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student's satisfaction with the regulations in the ward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student's satisfaction method of training of skills by instructor and personnel in the ward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The relationship between student and patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The relationship between instructor and student</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (2): One-way ANOVA for variable of problems and inhibitory factors against learning of clinical skill and training with respect to educational discipline

<table>
<thead>
<tr>
<th>Research variables</th>
<th>Variance sources</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational discipline</td>
<td>Among groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
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<td></td>
<td>Total</td>
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</table>
As it shown in Table (2), there is difference among three groups in several educational disciplines (nursing, midwifery, and operation room) for students in advantages of using from clinical skill training centers \( (\alpha < 0.05) \). Namely, students’ educational discipline differs from each other with respect to their opinions about review the problems and barriers against learning of clinical skills and training. It is referred to Tuckey range test to examine various groups in the given variable. Table (3) indicates (Tuckey) range test that has been carried out among three groups of educational disciplines in order to identify mean variance.

**Table (3): Tuckey Test for variance (difference) among educational discipline and variable of problems and inhibitory factors against learning of clinical skill and training.**

<table>
<thead>
<tr>
<th>Employment status</th>
<th>Mean variance</th>
<th>Standard deviation</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing</td>
<td>Operation room Midwifery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation room</td>
<td>Nursing Midwifery</td>
<td></td>
<td></td>
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<tr>
<td>Midwifery</td>
<td>Nursing Operation room</td>
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As it observed in Table (3), there is some difference in mean values of advantages for using form clinical skills center with respect to educational discipline status (nursing versus nursing), but no difference was seen in educational discipline status of operation room with midwifery.

**Discussion and conclusion**

The review on the derived data in Table (1) displays the priority of variable of problems and barriers against learning clinical skills and training according to nursing students respectively including student’s dissatisfaction with method of presentation of practical and theoretical lessons as the first priority, problems and barriers \( (\text{mean}= 4.21, \text{standard deviation}= 0.61) \) and characteristics of instructors as the second priority \( (\text{mean} = 4.17; \text{standard deviation} = 0.59) \), and the relationship among instructor and student as the last priority with problems and barriers \( (\text{mean} = 3.85; \text{standard deviation} = 0.34) \). This finding verifies the results of study which has been conducted by Shahbazi and Salimi (2000).

The variable of student’s dissatisfaction with method of presentation of practical and theoretical lessons, the foremost inhibitory factor is lack of support and distrust and absence of appropriate feedback in educational activity. The given results are complied with studies done by Aljeel and Sari (2007). The results of this investigation indicated that the
existing hospital facilities and student’s satisfaction with the regulation in the given ward are some of the barriers against learning of clinical skills. This point may signify the coordination among educational and medical officials and planners in constant revision and recognition of the needed requirements and facilities for learners and their utility toward preparation of the required new resources for students in educational hospitals.

In the investigation which has been carried out by Hadizadeh et al (2005), the findings suggested that most of students had evaluated performance of their instructors at good level and also performance of colleague personnel with instructor and students at average level while regarding clinical equipments and facilities and method of clinical evaluation they argued that clinical equipments and facilities were unfavorable and inappropriate. It seems that in this field, it was due to lack of creating standard wards and suitable facilities, which caused this case to be complied with the results of similar researches (Chen et al; 2009; Sevikala and Linu, 2005). Thus it appears that the creation of balance among admission of students and the existing educational facilities along with consideration of incurred costs may act as a step toward removing this problem. The research findings showed in research of Beech (2008) that students might feel a sense of security and confidence or lack of confidence in clinical environments based on type of behavior and feedback, which received from their instructors. Also Delaram (2005) reported that students’ satisfaction with instructors was the paramount strong points in presentation of clinical courses in faculty while the weak points also included lack of coordination between expectations of ward personnel with educational goals, attaching no importance to students’ comments in planning, lack of student’s permission in making decision for planning of medical care to patient, inappropriate number of students in the given ward, inadequate facilities, lack of application of educational aid devices, and absence of evaluation of instructors by students. The researcher argues that as the educational environment becomes greater in size and number of students and educational disciplines and courses are added, as a result, the instructors will have less leisure time because they concern with greater number of clerkship groups; while, the opportunity and potential of instructor will be greater for training of students in educational environment with smaller size. In a study that was done by Mehdipour et al (2004), the results showed that clinical training should be presented by instructors of theoretical courses relating clerkship. Similarly, instructors argued that it was better to present training of theoretical lessons prior to clerkship and at the same time they assumed evaluation of students in clinical environment as the effective factors on clinical training. Similarly, one-way ANOVA on respondents based on educational disciplines
indicated that there is some difference in advantages of utilization from clinical skills training center among three groups of students in educational disciplines (nursing, midwifery, and operation room) \((\alpha < 0.05)\). Tuckey range test showed that there is some difference in educational discipline status (nursing with midwifery), but no difference was seen in educational discipline status in the fields of operation room with midwifery. In an investigation which was conducted by Robinson Wolf et al (2008), they concluded that members of faculty that teach nursing students in universities, may play important role in training of knowledge, skills, and values to them to present the secured medical care for patient and they contribute them to employ their potentials. Likewise, Bitts et al (2005) concluded that type of planning in faculties might extremely affect on clinical teaching for students. Similarly, students, who dealt with training of nursing as part-time occupation, showed further satisfaction with their clinical work compared to full-time students.

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