Pathology of clinical training in nursing students of intensive care unit: A qualitative study

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Abstract
Aims: Training and internship periods have a basic role in making skills and professional abilities of nursing and obstetric students. Training is very important in obstetric units but its importance is twice in intensive care units. The goal of this study was to determine students, trainers and head nurses’ experiences and their opinion about intensive unit training.
Methods: This qualitative-research is a theme analysis study in which nine nursing students, five nursing trainers, four head nurses of surgery unit and one training supervisor were selected and interviewed based on purposeful sampling. All interviews were documented and analyzed.
Results: By analyzing the written texts, there were a huge number of primary themes and five main themes which had some sub-themes. Main themes were the factors related to good management of the trainers, factors about trainers’ experience and their information adequacy, factors related to higher level managers’ supervision on training, factors related to imperfections of trainers’ experience and information and factors related to trainers’ management. All themes were categorized to two strength and weakness classes.
Conclusion: While it has been reflected from all ideas that there are clear strong points in intensive units training, there are some weaknesses which can be eliminated by managerial measures such as revising lesson plans, enhancing supervision and establishing training workshops.

Keywords: Clinical Skills, Trainer, Student, Qualitative Study

Introduction
Nursing training is a foundation for providing efficient human resources in order to satisfy the society needs [1]. Clinical training is as half of significant and sensitive aspects of nursing professional competencies’ formation. Almost fifty percent of the time spent in nursing schools, is spent on clinical training [2]. Clinical training is the process in which students gradually and by presence of patients acquire experience and prepare their mind for experiences and logical thinking for solving patients’ problems [3, 4]. Training and internship courses have essential role in formation of basic skills and professional competencies of nursing and midwifery students. Clinical training is the most important part of nursing professional training, since the student through it finds the required opportunity for the scientific learning of the theoretic lessons and acquiring professional skills [5, 6]. Weakness in the planning for training, especially clinical training, is the cause of some problems which ultimately lead to the graduates’ professional skills’ weakness and reduces the effectiveness and efficiency of training system and the quality of health-treatment services to the society [7].

Results of the study conducted to investigate the needs of nursing faculty professors of United States’ Indiana University, showed the teachers’ need for teaching in health care environments, evaluation, lesson plan approaches, learning resources and information technology, components’ perception and teaching elements and duties of professors [8]. Although studies have shown that the clinical trainers have inadequate preparedness for fulfilling the training responsibility [9, 10], qualitative assessment can illustrate more dimensions of the week and strength points of the clinical training.

Training is of importance in normal wards, but its importance will be doubled in intensive units. Normally, the faculties consider some particular measures for such environments. This study is the result of interviews with senior students, matrons and associated instructors for answering two following questions: how is the training process in intensive units? What factors damage the correct performance of clinical training in intensive unit?
Methods

Present study is a qualitative study with content analysis approach which was conducted in a nursing faculty and a hospital by structure-free interview with senior nursing students, matrons and the instructors who were faculty members. Using content analysis approach helps understanding implicit and explicit concepts of interpretations [11, 12]. Data were analyzed using content analysis approach and level one, two and three coding were done [13, 14]. Participants included 9 senior nursing students, 5 instructors (2 from CCU, 2 from ICU and 1 from hemodialysis ward) and a supervisor.

The interview was in form of open ended questions and without structure, and it was conducted separately for each participant and averagely 60 minutes for each one. It was asked from the colleagues to express their opinions, criticisms and suggestions about training process in intensive units freely and with comfort. In the beginning of each interview the consent form was filled by each participant after explaining the aim of interview.

All interviews were recorded and completely written. In this study, the content of interviews was turned into written form and then was read several times. In the next stage, the initial codes (the sentences with main concepts) were extracted. The initial codes that were related to each other and could form the potential themes were categorized into one group. Then, each of the potential themes was reviewed and checked with participants’ statements and final themes were determined.

In order to clarify the accuracy and strength of the data, which was somehow similar to validity and reliability in quantitative studies, the objective method was completely carried out which is a characteristic of qualitative studies:

- continuous studying and evaluation of the data by allocating appropriate time for actual realization of data and establishing the proper association
- Using integration in data collection methods in the form of interview and the written text
- Reviewing the extracted themes and codes by two of researchers as observers and make consensus on selected codes and themes’ classification
- Reviewing of the participants’ manuscripts and approving the first level codes by participants of the study
- Search for finding the opposite data and analyzing the negative ones in the written text of each participant and among different users.
- Checking the validity of researchers by cooperation of researchers who had study backgrounds and qualitative articles

Results

The average age of students was 22 years and only one of them was working at ICU simultaneously. The average age of matrons was 35 years, the average of their working experience was 11 years and their matronship duration average was five years. The instructors of intensive unit had the average age of 46 years and their work experience with students was at least five years and utmost 22 years. All colleagues expect the training supervisor were men.

59 initial concept codes were obtained and were divided with regard to the nature of concepts into strength and weakness classes.

<p>| Table 1- Strength class: Main themes, Sub-themes and indices (Highest to lowest rate of index incidence) |
|---------------------------------------------------------------|---------------------------------------------------------------|</p>
<table>
<thead>
<tr>
<th>Main theme</th>
<th>Sub-theme</th>
<th>Indices</th>
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</thead>
<tbody>
<tr>
<td>Training discipline</td>
<td>Having lesson plans, resident instructor’s permanent presence, timely presence</td>
<td></td>
</tr>
<tr>
<td>Factors associating with instructor’s good management</td>
<td>Fulfilling duties in ward</td>
<td>Fulfilling all of the patients’ affairs, taking and delivering patient to the instructor, writing nursing report, dose calculation, unit’s interest in student’s presence, ECG observation, separating patient from hemodialysis machine, student as the section’s assistant</td>
</tr>
<tr>
<td>Students’ satisfaction</td>
<td>Very well training, more independence in intensive unit, improvement of the training center compared to other centers, students’ interest</td>
<td></td>
</tr>
<tr>
<td>Sufficient time</td>
<td>conference presentation opportunity, discussion opportunity</td>
<td></td>
</tr>
<tr>
<td>Factors relating to instructor’s competency</td>
<td>Instructor’s dominance</td>
<td>Repeating subjects with patience, performing the method by instructor, proximity of training with theoretic lessons, clinical task of instructor in the unit, instructor as the assistance of the unit</td>
</tr>
<tr>
<td>Emphasis on nursing</td>
<td>Instructors’ emphasis on nursing</td>
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</tbody>
</table>

From the six sub-themes in the strength class (table 1), four sub-themes (training discipline, fulfilling duties in ward, students’ satisfaction and sufficient time)
were categorized as factors associated with good management of instructor and two sub-themes (instructor’s dominance and emphasis on nursing) were categorized as factors related to instructor’s competency. In weakness class, from seven sub-themes (table 2); three of them (lack of training discipline, theoretic topics’ performance, lack of lesson plan presentation) were categorized as factors related to higher-level managers’ supervision. Two sub-themes (emphasis on medical aspects and lack of instructor’s dominance) were categorized as factors related to lack of experience and knowledge and two sub-themes (lack of accurate evaluation and students’ dissatisfaction) were categorized as factors related to instructor’s mismanagement

1- Factors associating with instructor’s good management

a) Training discipline: Timely and regular presence of instructor, permanent presence of instructor (hemodialysis) and having lesson plan were signs of training discipline. Quotation from the student: “in the hemodialysis unit, instructor was present before us and left after us. We presented medical study but we didn’t have case study in any of the units.”

b) Participation in care: Students were responsible for implementation of all care tasks of patient beside the head nurse, taking over and delivering patient (at ICU before 12 o’clock and in hemodialysis after the end of hemodialysis), dose calculation in ICU, observing patients’ ECG’s in CCU, matron’s interest in presence of the student, student as ward’s assistant and separating patients from hemodialysis apparatus, were signs of performing some works in the unit. Quotation from student: “Our free time was spent looking at patients’ ECG’s”, “Separating patients from the machine was done once by instructor, afterward we did it but we were not allowed to connect the patient to the machine”.

c) Students’ satisfaction: more independence in intensive units, improvement of training center compared to other centers, students’ interest.

d) Sufficient time: There were the opportunity of conference presentation and discussion for all students. Quotation from hemodialysis instructor: “Time shortage in the theoretic class is well compensated in the ward”.

2- Factors relating to instructor’s competency

a) Instructor’s dominance: Performing procedures first by instructor and then by student in ICU and hemodialysis unit, repetition of subjects with patience, closeness of training to theoretic subjects in ICU and hemodialysis section, assistance and companionship of instructor in unit and

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<th>Index</th>
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</thead>
<tbody>
<tr>
<td>Factors related to higher level managers' supervision on trainings</td>
<td>Lack of training discipline</td>
<td>Untimely presence, disturbing ward’s discipline, students’ release, occasional nursing report, lack of task division, lack of punctuality</td>
</tr>
<tr>
<td></td>
<td>Performing theoretical subjects</td>
<td>Frequent theoretic tests, compensation of theoretic discussion in training</td>
</tr>
<tr>
<td></td>
<td>Ignoring the lesson plan</td>
<td>Lack of patient introduction, lack of nursing process implementation, lack of lesson plan observation, generality of topics and purposes, lack of holding student conference</td>
</tr>
<tr>
<td>Emphasis on medical aspects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factors related to lack of experience and knowledge of instructor</td>
<td>Lack of dominance</td>
<td>Increasing staffs’ work at the beginning of training, lack of professor’s proficiency, ambiguous replies to questions, distance between theoretic topics and training, the lack of positive feedback, increasing of the staffs’ work throughout the training, excessive noise of section</td>
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<tr>
<td>Factors related to instructor’s mismanagement</td>
<td>Lack of accurate evaluation</td>
<td>Lack of time, effectiveness of flattery, small range of scores, extreme waste time in CCU, lack of help to student</td>
</tr>
<tr>
<td></td>
<td>Students’ dissatisfaction</td>
<td>Dissatisfaction with evaluation, illogical low scores, dissatisfaction with trainings, the lack of clinical evaluation, unreliable method for study evaluation, being not good, doing some tasks, students’ criticism</td>
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instructor as one of the hemodialysis section’s staff were of factors showing the instructor’s dominance in training environment. Quotation from matron: “…at the present time students are assistants in the section. Since the instructor him/herself is present, we are comfortable”.

b) Emphasis on nursing care: Considering the importance of care in nursing occupation, Emphasis on nursing care was expressed as an independent secondary code, but was just attributed to the instructor of the hemodialysis section; not in the form of the nursing process framework but it was taught to students in a five-step form and was asked from them. Quotation from students: “The framework of nursing process was not seen in any section” “In hemodialysis section, instructor more emphasized on nursing but not within the nursing framework”.

The contents of weakness class were divided into three parts, of which two were related to the instructor and the other related to higher-level management. These factors include:

1- Factors relating to higher-level managers’ supervision

a) Lack of training discipline: Untimely presence, disturbing of ward’s discipline (head nurse), students’ release (training supervisor), occasional nursing report, inefficient division (CCU), lack of punctuality, no label installation, shortage of closet or independent room for students. Quotation from student: “At ICU and CCU we had extra time but we had more extra time at hemodialysis section”. Quotation from head nurse: “I saw senior students who were studying for master test in the rest room”, “Some of my students, came irregularly and got late, service delay was their excuse; later I realized that all of them came by their own car”.

b) Performing theoretic subjects: Frequent theoretic tests, compensation of theoretic discussion in clinical training sessions

c) Ignoring the lesson plan: Not applying the nursing process, lack of lesson plan observation, generality of topics and purposes, lack of student conferences, lack of patients’ introduction. Quotation from student: “Prior to training, instructors gave lesson plan, but did not completely observe it and they did not well judge.” Quotation from instructor: “we want the nursing process from student, but not the complete implementation of all stages, since the opportunity of intensive training is too low”.

2- Factors related to lack of experience and instructor’s knowledge

a) Emphasis on medical aspects: “addressing medical subjects instead of nursing ones” was among the problems of the course. Quotation from student: “instructors more addressed medical issues and passed nursing care subjects generally”.

b) Instructor’s lack of dominance: “Increase of staffs’ work at the beginning of training”, “Lack of professor’s proficiency”, “Ambiguous replies to questions”, “Distance between theoretic topics and clinical training”, “Lack of positive feedback”, “Increase in staffs’ work throughout the training” and “Excessive noise of the ward” were signs of lack of instructor’s dominance. Quotation from matron: “The instructor who works in this ward, previously only came with students and we had some problems with students; but since the instructors work 3 to 4 shifts per month in this ward, they have become dominant both in theoretic and practical issues and work well with students” “Students really benefit, actually they see kidney’s function out of body”.

3- Factors associated with mismanagement

a) Lack of accurate evaluation: “The shortage of time”, “effectiveness of flattery”, “small range of scores”, “extreme waste of time in CCU, hemodialysis section and ICU”, “not helping the students” are among factors associated with lack of accurate evaluation. Quotation from student: “For example, if a student had not memorized the complications of amiodarone he/she scored 18 but one who did not know anything scored 15. The scores’ range is too small”.

b) Students’ dissatisfaction: “Dissatisfaction with evaluation”, “unreasonable low scores”, “dissatisfaction with trainings”, “lack of clinical evaluation”, “unreliable methods of study evaluation”, “doing some works other than nursing” and “students’ criticism” were causes of students’ dissatisfaction. Quotation from student: “At CCU we took over the patient but the work was not divided”, “The professor did not concentrate enough”, “In CCU training we had a lot of extra time”, “I’m not satisfied with any of trainings at all,”
Discussion

The results show that despite the strength points in the trainings of intensive unit, several weak points are also seen. Totally, it is concluded from findings that strong and weak aspects have direct relationship with dominance, management and function style of the instructor, also the higher level of instructor. With a glance on results of the instructor dominance, it was concluded that the positive points are associated with ICU and hemodialysis section. Therefore, all students of mentioned courses consider the ICU and hemodialysis instructors as positive individuals. Students’ opinion has direct relationship with the efficiency of instructors, but all instructors equally are not effective for all aims and all students [15]. Among the other results is lack of sufficient emphasis on implementation of nursing care by instructors that has been proposed by most of students, while instructors have rejected it. The clear point is that the students have not been asked based on stages of the nursing process. This factor can be one of the main causes of distance between theoretical and clinical issues. The feeling of distance between theoretical and clinical issues exists intensively among students. Review of studies confirms this problem [16, 17, 18].

Discipline, order and constant presence of instructor in hemodialysis section, even before students’ attendance, was from the strong points of the results, although did not have generality and depended on student’s taste or commitment. In other parts, especially when discouraged students consigned without any motivation to the head nurse (as instructor), they abused the opportunity and this led to disorder. Just the matron of hemodialysis section was satisfied and welcomed with regular presence of students and instructor’s performance. CCU’s matron stated that students disturb the ward’s order and increase the work of staff. Comparing the rate of instructor’s presence in the ward according to students’ comments in three parts, the most attendance was in hemodialysis ward and the least attendance was in CCU. Matrons’ opinion about the instructor and students’ discipline had direct relationship with instructors’ presence.

Although all students were handed lesson plans at the very beginning of the training, all of them believed that the lesson plan was not taken into account; either the lesson plan implementation is not possible and it is written symbolically or instructors haven’t been able in its implementation. In both cases, the problem can be solved by managers’ supervision and control. Observing the teaching setting often should be done unexpectedly and with quick feedback and annual review [19].

Receiving students’ comment about the design of the lesson plan is effective in their satisfaction. Janson writes “Although lesson plans were placed at excellent ranking, it didn’t have consistency in the student’s eye” [20]. This deficiency can affect the evaluation method, since usually the evaluation criteria are determined in lesson plans. Lack of all students’ satisfaction with the evaluation method especially in particular wards can be an evidence of deficiency in available criteria in lesson plans or their ignorance by instructors. Clinical nursing supervision is a systematic and constant process which promotes the professional measures [21].

One of the essential items of a lesson plan is the implementation of nursing process, which students claimed that it was not asked from them throughout training. But instructors asserted that it was asked but not considering its all steps, since time shortage is an obstacle for its perfect implementation. With regard to the fact that the interviewer had dominance on training and nursing process implementation and had a complete course experience of training with students under the interview, this may have affected the students and instructors’ answers. A disputable point is that this problem did not occur due to lack of time, since all students acknowledged that they have had extra time in ward. Lack of instructors’ enough proficiency can be a factor for lack of nursing process implementation in training environment.

Conclusion

From the total comments of students, matrons, training supervisor and instructors, it is reflected that obvious strong points exist in intensive units’ clinical training which is hoping with a review of similar studies [22], but training directors of higher levels should also notice the weak points, since most of proposed problems and defects are correctable with proper management strategies. In this respect, revising the lesson plans from the aspect of goals’ implementation, and morality, holding training workshops for clinical evaluation method according to documented goals in lesson plans, holding the workshop of nursing process stages’ implementation for instructors is recommended. In addition, constant control and monitoring of lesson plan implementation by higher-level directors in training environment, holding
constant weekly meetings for training instructors in order to create coordination and coherence of interaction style with students, following up the facility problems of instructors and students in training environment is recommended. Encouraging research conduction for detecting the pathology of other training courses and employment of instructors in wards which they work seems to be necessary.

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References