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How to make clinical and classroom evaluation in nursing effective: Content analysis

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ABSTRACT

Evaluation is the heart of any educational program. In nursing education, ensuring the competence of nursing graduates is of particular importance. The main objective of this study was to investigate teacher nurses' experience about student evaluations in clinical settings and classrooms. The experiences of 28 educators were collected until data saturation through in-depth semi-structured interviews. Data were analyzed using content analysis method. The constant comparison method was used in order to perform qualitative analysis. Accuracy and consistency of the study was obtained with regard to the four axes of real value, applicability, continuity, and fact-based. During the data analysis, three main themes emerged: effectiveness of the implementation process, feedback efficiency, and collaborative evaluation. Findings reveal a gap between what Iranian nursing teachers understand as being a fair and equitable efficient evaluation and what they have experienced during their careers. We discovered that accuracy evaluation has the potential play a critical role in changing traditionally taught nursing education programs and increasing student's confidence regarding their impact on patient care outcomes. In conclusion, findings suggest that collaborative evaluation can affect the professional competency of students before they enter a clinical setting; by attention to influence of teachers on the nursing profession through the preparation of its practitioners. The implications of such findings are of concern for the ongoing credibility and integrity of student evaluation.

Keywords: Understanding experiences, nursing educators, evaluation process, clinical setting, content analysis, qualitative study.

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INTRODUCTION

Evaluation is one of the most important aspects of the education process. Evaluation is an important mean for educators, managers and nurses to gain information about nurses' professional strengths and weaknesses and consequently educational and developmental needs (Numminen et al., 2014). This process helps students to obtain the desired skills and goals. Also, it assists educators in designing a comprehensive and acceptable system (Oermann et al., 2009). Cazzell and Rodriguez (2011) believe a proper evaluation is an evaluation that focuses on learning and teaching qualifications and not on improving the teaching. From the students' perspective, the assessments validate their progress through the program. Therefore, assessment becomes a

motivating force for student learning (Shumway et al., 2003).

In nursing education, assessment of student learning is undertaken for a number of reasons, such us to ascertain that students have acquired the necessary knowledge and skills prior to graduation and to measure their preparedness and judgment to ensure effective, safe, and ethical patient care (Badros et al., 2005; Salsali 2005). Also, it ensures graduates have the skills to be competent and safe practitioners (Bradshaw, 2011). A study conducted by Salsali et al. (2005) in Iran showed that due to lack of appropriate evaluation tools, 70% of nurses' activities are repetitive in hospitals. Negative outcomes of an evaluation performance can include loss

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in job satisfaction, low motivation, indifference to do duties, and a reduction in system efficiency (Cazzell and Rodriguez, 2011). Consequently, applying an accurate evaluation method for nursing students is essential in order to determine their eligibility, because it can be said that the role of evaluation and of supervision not only affects the behavioral changes of learners but also other elements of nursing education (Lindquist et al., 2012). In other words, the evaluation of nurse competence is the basic condition for ensuring quality of care and expanding nursing performance (Bradshaw, 2011; Butler et al., 2011). Therefore, it is mandatory to promote evaluation processes in accordance with social-cultural conditions through a qualitative study aiming to develop appropriate strategies to enhance the evaluation process such as choosing the right tools, grading and leveling and appropriate method.

Through this research, we tried to understand instructors' experiences regarding the evaluation of student's classroom and clinical experiences. The purpose of this qualitative study was to explain the comprehension and experiences of Iranian nursing teachers regarding effective student evaluations in theoretical and clinical settings, based on their socio-cultural perspective. This study contributes to the richness of published literature on the nursing profession, cross-nationally.

METHODOLOGY

Design

This qualitative study, which has been carried out using a conventional content analysis approach, was a part of an extensive investigation about efficient education in nursing. Qualitative content analysis is the analysis of the content of narrative data; it offers a flexible method to identify prominent subthemes and patterns among themes (Elo and Kyngas, 2008; Polit and Beck, 2010). In the context of insufficient knowledge about a phenomenon (such as efficient education in nursing) or knowledge fragmentation, the inductive approach is recommended (Elo and Kyngas, 2008) in order to explain and interpret data and elaborate on the dominant and major themes of participants' experiences (Elo and Kyngas, 2008; Polit and Beck, 2010).

Setting and participants

This study was carried out in Iran in 2014. We aimed to explore experiments' nursing teacher about assessment of student. The participants were selected by purposeful sampling and included a total of 28 registered educators (22 females and 6 males). Data gathering was conducted in nursing faculties. The interviews were carried out in a free and relaxed environment according to the participant's preferences (within the faculty).

Data collection

Unstructured interviews were used as the data-gathering tool. The interviews covered the teachers' experiences about the effectiveness of education in nursing practice. The questions included: "how do you conduct a 'good evaluation' in a classroom

Table 1. Characteristics of participants.

Variable	Minimum	Maximum	Mean
Age (year)	28	62	38 ± 4
Experience (year)	3	32	$26 \pm 3/2$

and clinical setting?" and "what factors impact the effectiveness of an evaluation?" On average, the interviews lasted between 30 and 60 min. Some participants were interviewed twice (in two separate parts, in order to improve the depth of data gathering) for obtaining in-depth information, interviews were in the open form until data saturation. Although the research was trying to maintain the flow of interview, she avoided directing the participants' responses toward a particular track. Interviews were recorded by audio recorder and transcribed immediately following each session. While there was a total number of 28 participants, 32 separate interviews were performed. The maximum variation of sampling was considered in terms of the participants' gender, age, nursing experience, and place of work (Table 1). The interviews were subsequently transcribed, read, re-read, and analyzed by a team of researchers. The results showed mean of age was 38 ± 4 and mean of experience was $26 \pm 3/2$ (N = 28) (Table 1).

Rigor

The criteria of credibility, applicability, consistency, and neutrality were used to enhance the trustworthiness of the study (Chiovitti and Piran, 2003). To ensure credibility, the analyzed results were explained to participants in order to make sure their intentions and feelings were fully understood by the researchers. For applicability, researchers interviewed participants until they had accumulated sufficient data. As a means of enhancing consistency, two professors of nursing, with experience in qualitative research studies, reviewed the results.

Data analysis

The interviews were recorded on tapes. The interviews were subsequently transcribed, read, re-read, and analyzed by the research team. The overt and covert messages and transcribed texts were analyzed using a qualitative content analysis approach. This is an approach that focuses on subject and context and the differences and similarities within categories and themes(Elo and Kyngas, 2008). Inductive content analysis was undertaken through different steps. At first, the content of each interview (the text) was repeatedly read to obtain an overall understanding of the data and to gain ideas about further analysis. Subsequently, all the texts were divided into meaning units (each one containing several words, sentences, and phrases) related to the aim of the research. The meaning units were then condensed into open coding (DeSantis and Ugarriza, 2000). The data was organized in the next step. This process included open coding [notes and headings were written in the text while reading it (extracted from meaning units)], and creating categories and themes. The written text was read through again, and as many headings as necessary were written down in the margins to describe all aspects of the content. The headings were collected from the margins onto coding sheets and categories were generated at this stage (Elo and Kyngas, 2008). The lists of categories were grouped under higher order headings. Categories were grouped as main categories or themes. The purpose of creating categories was to provide a means of describing the phenomenon, to increase understanding, and to generate knowledge (Elo and Kyngas, 2008; Polit and Beck, 2010).

At this stage, we obtained 8 sub-themes and three final themes. All researchers were engaged in the process of analyzing and synthesizing the data. Throughout the entire analysis process, subcategories, categories, and themes were compared with the original texts until consensus among all authors was attained. Therefore, the total process of analysis was briefly carried out while transcribing each interview, open coding, and dividing the data into meaning units, subcategories, and themes.

Ethical considerations

This study obtained ethics approval by the Research Council of Ahvaz Jundishapur Medical Sciences University. The study's ethical considerations were anonymity, informed consent, withdrawal from the study, and recording permission. Prior to the study, the nurses were informed verbally about the aim of the study. It was mentioned that they could withdraw from the study at any time without being penalized. Informed consent was obtained from the nurses who willingly participated in the study. To protect the privacy, confidentiality, and the identity of the participants, interviews were conducted only with the participation of the interviewer and the interviewee.

FINDINGS

The data analysis resulted in three main themes (Table 2 and Figure 1). Themes were not mutually exclusive or independent, but rather overlapping and intertwined. The themes and their related categories summarized the nursing teachers' experiences of the effectiveness of evaluations and the manner in which they present efficacious training and meet students' needs below is the meaning of each theme, explained in the participants' own words.

Affecting the implementation of the evaluation process

This theme includes three sub-themes: factors of evaluation, suitable evaluation tools, and suitable methods of evaluation.

Factors of evaluation

According to the experiences of participants, evaluation depends on many factors such as conditions and time of run, individual characteristics (students and instructors), facilities and setting, the numbers of students, and content of learning. The most important factor was how the instructors treat their students. One participant said:

"Instructors who treat students with respect do not cause stress in the student. So, they learn better and their student's evaluation scores are good" [3asi¹].

¹ asi = Assistant Professor

Suitable evaluation tools

Most participants mentioned problems with the evaluation process, including the use of multiple-choice exams for all courses regardless of its content, and an incompatibility between educational goals and evaluation questions. One participant stated:

"The exam questions are multiple choice, regardless of the standard questions. It isn't good for clinical" [Aso² 5].

Participants also mentioned the final exam, emphasizing that the number of students and course content act as a barrier to quality evaluation processes.

Suitable methods of evaluations

Participants in this study considered the exact evaluation criteria (class and practice) as an important factor in determining the amount of accessing goals. Most participants acknowledged that evaluations will continue to be performed using traditional methods of evaluation in a classroom and a clinical setting. Although some instructors are having attempted to undertake precise evaluations, the dissatisfaction of most students with the results of the evaluation indicates the absence of objective evaluation criteria. The majority of participators emphasized the weakness of objectivity especially with regards to clinical evaluations. One participant emphasized: "Evaluation method for training in the different settings are the similar. Then students have a score, regardless evaluation method" [ins8].

Another participant said: "The absence of valid methods of evaluation has been often reported to authorities, but we have not been able to use new and valid methods in student evaluations yet" [ins 3].

Influence feedback

The second theme was influence feedback. This theme consisted of two sub-themes: negative and positive feedback.

Feedback is an important aspect of the evaluation process. It affected on change of our method. Participants stated that teachers must be able to translate and interpret various situations experienced by students throughout their clinical placement. Determining the quality of student learning is an ongoing challenge for all educators. However, for educators and students in the health sector, evaluation of learning takes on a different dimension in terms of ensuring that graduates are competent and thus safe practitioners. Some of the educators explained their understanding phrases

²aso = Associate Professor

Table 2. The main theme and their sub-themes.

Main theme	Sub-themes
Affecting the implementation of the evaluation process	Factors of evaluation, suitable evaluation tools, suitable methods of evaluation
Influence feedback	Negative feedback, positive feedback
Collaborative evaluation	Self-evaluation, peer evaluation

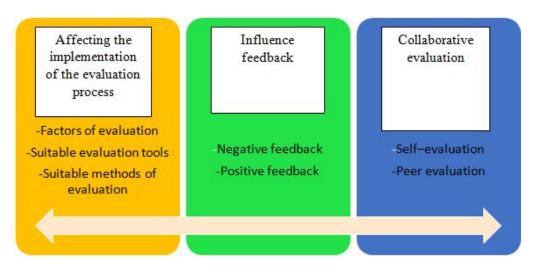


Figure 1. Relation between themes and subthemes.

commonly used in teaching and learning process. Instructors teach them and finally to measure their learning based on defined goals. One participant said:

I reformed and changed my teaching method and enhance efficiency of evaluation due to positive evaluation of student [asi26].

Also, most participants emphasized that feedback helps to identify their strengths and weaknesses. Instructors stated that they use the evaluation results to review the educational goals and reform educational methods.

Collaborative evaluation

The most important theme of this study was participation in the evaluation, as identified in the three sub-themes: self-evaluation, peer evaluation, and teacher evaluation. The sub-themes are based on the experiences of participants.

Self-evaluation

Many instructors used the self-evaluation method in the evaluation of students, because they do not have the tool for this method. They have participated in student

evaluations for some time. They emphasized that this method provides an opportunity for students to find their own strengths and weaknesses through self-evaluation and adopt appropriate strategies to compensate for their deficiencies. One instructor said:

When there are a small group of students, I allow them to participate in evaluation processes. In this case, they will be satisfied with their score, because they can identify the problem with the teaching. [ins28].

Peer evaluation

Participants also considered peer evaluation as a complementary method as students interact very closely with the other practitioners, so they are able to identify each other's abilities. One instructor stated:

On the first day, I told students that they would be evaluated by their peers [the head nurse] and me. 30 percent of your evaluation is done by clinical colleague and we would see how they were trying to work best. [asi3].

While participants considered their participation in the evaluation as necessary and complementary, they also

believed it is not enough and does not ensure accuracy.

It is true, the students and other colleagues' opinions help to make the score more precise, but using the standard forms in the evaluation is more important. [aso-15].

DISCUSSION

Based on the findings obtained from participants' experiences, one of the critical and essential components of the nursing education system is the evaluation process. Researchers believe that a proper evaluation improves the quality of teaching and learning. Also, it enhances the quality of education by describing and analyzing the educational system (Vaismoradi and Parsa-Yekta, 2011, O'Brien et al., 2014). The findings indicate that evaluation processes are not well understood within nursing faculties in Iran. Students have only been evaluated through a final exam; summative evaluation has seldom been used. On the other hand, most of the instructors used multiple-choice questions in exams and more questions are designed in the domain of knowledge.

As a result, they do not consider objectives of educational in the domain of emotional and psycho-motor mental in the student evaluation (Vaismoradi and Parsa-Yekta, 2011). Some factors affecting the optimal performance of evaluations include nursing instructor's emphasis on four-choice questions, a high number of students, high volume of content, and little attention being given to developmental evaluation. They considered these factors to be part of the problems blemishing evaluation results. Current methods of evaluations are not accurate and do not include reliable criteria. Further, participants also emphasized the limited use of developmental evaluation in learning [P: 157]. Participants' experiences showed they do have not enough time to implement developmental evaluation given the large number of students and high volume of Hanna (2011) and Shah-nemati mentioned that developmental evaluation considers the depth and quality of student's overall learning; it also allows students to be aware of their learning status and address their weaknesses. Also, it helps instructors to be aware of the quantity and quality of her or his learning as well as their teaching manner (Corlett, 2000). Then, evaluation process is unfair based on experiences' participants in study.

Also, Baker (2012) stated: "If the summative evaluation is not done, and it only is confined to the final evaluation, there will not be another opportunity to change teaching methods and restorative program. So, in developmental evaluation, it should be tried to obtain the most basic and greatest information on impairments of learning and teaching" (P: 633). Further, Rigby et al. (2012)

emphasized that continuing evaluation is effective in promoting competence (P: 18). Participants believed that the final evaluation is the main criterion for student evaluations within the current system of nursing education in Iran; they believe that this is an appropriate method with which to determine student competence.

Another important finding was the suitableness evaluation method. Findings showed participants used traditional evaluation methods. Not only they did not pay attention to the appropriateness of evaluation tools and methods in relation to the objective of education in classroom and clinical settings, but they also believe that this tool is not capable of determining the true level of student learning and their clinical competence. Ryan (2011) argued that the tools should be designed based on field characteristic. Butler et al. (2011) argued: with appropriate evaluation can be obtained information which is guidance for better learning of professors and students and better services for the care recipient. Therefore the results of literatures is contradicts white results study.

The results of this study suggest that most instructors and students are not satisfied with manner of the evaluation, especially in clinical practice. Researcher emphasize that the use of standardized and objective evaluation methods to ensure accurate evaluation results (Lee, 2005; Butler et al., 2011). However, the student evaluation process in Iran is performed according to western resources and there is no guidance for the objective evaluation of students. Further, nursing instructors have been evaluating students based on their experience, however, the students are not satisfied with this evaluation method (Vaismoradi and Parsa-Yekta, 2011). In order to solve this problem, researchers have proposed new methods and standards of evaluation, such as simulation based on tasks (Smith et al., 2012; Dearmon et al., 2013), Portfolio (Ryan, 2011), OSCE (Bartfay et al., 2004) and DOPS (Yang et al., 2011) for measuring different aspects of nursing performance.

Feedback is a reaction against an important phenomenon and a strategy in the educational processes. It can be inferred from participants' experience in this study that evaluation takes place in the final stage of the education process. Hence feedback has not played an effective role in the modification of student or instructor behavior. Having said that, some instructors did attempt to understand and act upon student feedback in order to improve or change the manner in which classes were management. Providing feedback and performance student evaluating are essential components of teaching skills; as the purpose of feedback is to help the student to improve his or her performance (Reising and Devich, 2004). Results of participants' experiences indicate that the temporary reaction to the results of evaluation cannot be called feedback. However, educational objectives must be revised based on the results of the feedback and it must be planned to improve objectives in accordance with the

educational needs of learners. In this regard, Salsali (2005) argued that the evaluation results of student academic achievement can help students to improve their performance; student feedback also provides information to special educators and planners, and can be effective in improving performance and educational programming. Consequently, feedback should be viewed as an interaction and stimulation for improving the quality of education.

Participatory evaluation, a modern method of evaluation, is one of the main themes of this study. expressed their experiences emphasized the need for peer evaluation, non-peer evaluation, and self-evaluation in order to achieve a reliable outcome. Participants believe students play an important part in the evaluation of student learning, especially in a clinical setting, because they interact directly with one another and can offer valid and reliable information. In fact, as learners study numerous courses together they would inevitably have an opportunity to evaluate each other. Therefore, self-evaluations and peer evaluations are supplementary methods to other methods of evaluation to measure students' clinical performance (Corlett, 2000; Barry et al., 2012). Some experts believe that various resources are necessary to show a clear picture of the performance of students, because there is a tendency to form a value judgment in individual evaluations. Accordingly, self-evaluations and peer evaluations offer an opportunity to receive feedback from learners; they can offer a useful reflection of the success of educational programs for developing their necessary abilities and particular performance, and can be a powerful tool for enhancing individual and group dynamics (Kelly, 2007). Of course, instructors encourage the use of participation of counterparts (evaluation of students by students) in the process for many reasons. They believe that multiple methods of evaluation are effective in the modification of evaluation criteria and making more accurate results. Instructors, who have used this method in the evaluation, have been satisfied with the accuracy of evaluation results. They stated the number of students objecting to evaluation results is generally very small and negligible.

Peer evaluation allows nurses to give and receive professional and personal support that promotes professional development. Professional support offers possibilities for change and alternative action. Personal support requires respect for the equality and individuality of peers. Personal peer support can decrease feelings of uncertainty and insecurity caused by work.

Many researchers have recommended that peer evaluation should be a key component in evaluating the teaching effectiveness of nursing faculties. Despite the purported advantages of peer evaluation, it remains a controversial method for faculty evaluation. Kelly (2007) argued: "With regard to scores dissimilarity in different assessment techniques, self-evaluation and peer evaluation could be considered as supplementary

methods for other evaluation methods in the evaluation of students' clinical performance" (Kelly, 2007).

The findings of this study illustrate the positive views of participants in response to the application of supplementary evaluation methods; adopting these methods can be an appropriate strategy to dealing with the challenge of dissatisfaction with the traditional and current evaluation methods. Also, the findings highlight a gap between Iranian nursing instructor's perception of a fair and equitable evaluation and what they experienced during their academic careers. There is a need to change the process of evaluation to increase the feeling of fairness and justice regarding evaluation among nursing students. Therefore, in order to correct and improve the performance of individuals, organizations need to use effective and efficient methods for performance evaluation (Salsali, 2005) and ability for applying the theoretical and clinical knowledge appear in performance of, and competence of, nursing (Levett-Jones et al., 2011).

CONCLUSION

A course is effective when proper evaluations are undertaken to determine the student's current situation and to identify factors for changing learning, consistent with the educational needs of students and new developments in society.

As a result, to ensure the accuracy of the evaluation results, according to modern methods of evaluation, they should attempt to design accurate and sensitive tools and practices of evaluation to meet their specific requirements. The findings can be helpful to expose international nursing instructors to new perspectives so they can reconsider the weaknesses of their evaluation processes.

In addition to developing a multi-disciplined, transparent, and fair participatory evaluation system, they should provide preliminaries for determining eligibility of students before they enter the nursing field so they may provide superior care.

Limitations of the study

The researchers acknowledge that almost all papers in this field have focused on evaluations in a clinical setting. By attention given the evaluation process is very complex, therefore, repeating this study with the participation of all those involved in education, especially students and training managers, can provide useful information to planners.

Implication

The results can be used for health policy/practice/

research/medical education. Nursing instructors' awareness of new evaluation methods and participation of clinical colleagues in the evaluation process led to the identification of the strengths and weaknesses of student's knowledge and skills. This process can determine student's competency level before they enter the nursing field.

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