



Triggers for reflection in undergraduate clinical nursing education: A qualitative descriptive study

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ABSTRACT

Background: Reflection is a key component of effective teaching in baccalaureate nursing education. However, there are limited empirical studies into the factors which trigger reflection in undergraduate clinical nursing education.

Objectives: This study aimed to explore reflection triggers in undergraduate clinical nursing education with a specific focus on verbalized reflection in spoken dialogues.

Methods: This qualitative descriptive study was conducted in 2017–2018. Participants were seventeen clinical nursing instructors, 32 nursing students, and nine newly graduated nurses who were purposively recruited from four universities and two hospitals in Iran. Data were collected via 26 in-depth semi-structured face-to-face interviews with clinical nursing instructors and newly graduated nurses and four focus group discussions with students. Conventional content analysis was used for data analysis.

Results: Reflection triggers fell into the following four main categories: conscious comparison of actions, confrontation with influential realities, emotional and moral involvement in patient care, and demanding accountability.

Conclusion: This study suggests triggers for reflection in clinical nursing education. Instructors' use of reflection triggers can help students reflect on their actions and practice.

1. Introduction

Nurses need to make prompt decisions in unpredictable clinical situations (Peixoto and Peixoto, 2016). Thus, nursing education focuses on teaching strategies which promote nurses' critical thinking, autonomy, open-mindedness, and attentiveness (Donovan, 2007; Bulman and Schutz, 2013). Similarly, nursing students are expected to focus not only on learning technical clinical skills, but also on learning critical thinking, knowledge seeking, and self-awareness (Scheel et al., 2017). Clinical nursing education, a main component of nursing education, provides students with the opportunity for learning these skills and capabilities (Tiwari et al., 2005). The aim of clinical nursing education is to help students learn how to learn, learn through experience, and promote their learning (Ehrenberg and Häggblom, 2007).

Reflection, a key component of clinical nursing education (Jayasree and John, 2013), is an effective strategy for improving students' clinical and professional skills and capabilities (Ruth-Sahd, 2003). It is defined

as purposeful thinking on an experience in order to analyze practice and judge about actions with the aim of promoting knowledge, attitude, and practice and modifying beliefs associated with that experience (Griffiths, 2004). It focuses on the deep understanding of the experience and thereby, help people modify their practice or behaviors (Cadman et al., 2003).

An important point in using reflection in education is to induce it (Reid, 1993; Jarvis, 1992; Mann et al., 2009). Reflection induction pertains to the creation of meanings by the learner in professional discourses (Boud, 1999). Therefore, reflection dialogues are considered as a strategy for inducing reflection (Scheel et al., 2017; Bulman and Schutz, 2013). People usually have limitations in verbalizing what happens during reflection; therefore, reflection dialogues can facilitate learning in nursing education (Okuda and Fukada, 2014). Some studies also reported that verbalized reflection with an instructor or supervisor can enhance reflection effectiveness (Murphy, 2004; McLeod et al., 2015; Scheel et al., 2017). Factors which can induce reflection are

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called reflection triggers (Verpoorten et al., 2011; Menard and Ratnapalan, 2013). Previous studies reported that reflection is induced following triggers such as specific, new, or surprising experiences (Menard and Ratnapalan, 2013; Mann et al., 2009; Boud, 1999), confusing or distorting dilemmas (Aronson, 2011), discomfort, doubtfulness (Boud, 1999), and emotions such as anxiety, anger, or satisfaction (Howatson-Jones, 2016).

Induction of meaningful reflection is a difficult task and hence, some instructors or learners find it difficult or challenging to engage in reflection (Sandars, 2009; Parrish and Crookes, 2014). It is affected by the authentic context, the immediate environment, instructors' competence, and students' learning and thinking styles (Smit and Tremethick, 2017; Aronson, 2011; Mann et al., 2009; Braine, 2009). Assessing unstructured learning situations and understanding reflective learning which happens during instructor-student spoken dialogue can provide valuable information about verbalized reflection in clinical settings and pave the way for its promotion. The present study aimed to explore reflection triggers in undergraduate clinical nursing education in Iran with a specific focus on verbalized reflection in spoken dialogues.

1.1. Medical-surgical Clinical Nursing Education in Iran

Undergraduate nursing education in Iran is a four-year bachelor's program which includes both theoretical and practical courses. The curriculum of the program is a centralized curriculum developed by the Iranian Ministry of Health and Medical Education and consistently offered by all nursing and midwifery schools. Medical-surgical nursing courses constitute the largest part of the curriculum and form the basis of nursing care (Tabari et al., 2014). Therefore, clinical nursing education mainly pertains to medical-surgical courses so much so that 765 h out of a total of 1837 h of clinical nursing education during the four-year undergraduate nursing program are related to these courses. Moreover, around 1225 h of the 1837-h clinical nursing education are offered in the fourth year of the program. Clinical nursing education is provided by faculty members during the first three years and by preceptors or hospital nurses during the last year.

2. Methods

2.1. Design

This qualitative descriptive study was conducted using conventional content analysis. This design helped us explore participants' views, perceptions, experiences, and feelings about reflection triggers in the actual environment of nursing education (Sandelowski, 2000).

2.2. Setting and Participants

The population of this study consisted of last-year nursing students and their clinical instructors from four public and private universities in Iran as well as newly graduated nurses from a specialty hospital and a subspecialty hospital in Iran. Participants were selected from these three different groups in order to obtain in-depth data about the different aspects of the study subject matter (Mitchell, 1986). In total, seventeen clinical nursing instructors, 32 nursing students, and nine newly graduated nurses were purposively recruited to the study. Participants maximally varied respecting their age, clinical education experience, and nursing degree (for instructors), age, grade point average, and gender (for students), age, total grade point average, and affiliated hospital ward (for newly graduated nurses).

2.3. Data Collection

Study data were collected from January 2017 to February 2018 through 26 in-depth semi-structured face-to-face interviews with

clinical nursing instructors and newly graduated nurses and four focus group discussions with students. The number of students in focus group discussions was 5–10. An interview guide was developed based on the existing literature and was piloted through interview with two students, two instructors, and a focus group discussion. Interviews and focus group discussions were held in Persian by the first author and lasted 45–60 min. The main question for starting interviews and focus group discussions was, "How does reflection start in undergraduate clinical nursing education?" In order to collect detailed data, we also used probing questions such as "Can you explain more about this?" "Do you mean...?" "How?" Sampling from all three groups were simultaneously performed and continued up to data saturation, i.e. when no new categories were emerging from the collected information. Therefore no further data collection or analysis was necessary (Fusch and Ness, 2015). Interviews and focus group discussions were recorded using a digital audio recorder.

2.4. Data Analysis

The data were analyzed through conventional content analysis (Graneheim and Lundman, 2004). Immediately after each interview or focus group discussion, the first author listened to its content and transcribed it word by word. Then, the transcript was read line by line and sentences or expressions which pointed to reflection triggers were identified (as meaning units), condensed, and coded with labels. Codes with conceptual similarities were grouped into subcategories. Similarly, subcategories with conceptual similarities were grouped with each other to form main categories. The data were handled using the MAXQDA software (v. 10.0).

2.5. Trustworthiness of the Data and the Findings

Credibility was ensured through prolonged engagement with data collection and analysis, maximum variation sampling, peer debriefing, and member checking. For establishing dependability, the data were collected from multiple sources, i.e. instructors, hospital nurses, and students. Moreover, confirmability was established through documenting research-related analytical activities. In addition, transferability was maintained through sampling with maximum variation and providing thick descriptions and straightforward examples of the data and the findings.

2.6. Ethical Considerations

The protocol of this study was approved by the Ethics Committee of a local university. Participants received adequate explanations about the study, its aim and methods, voluntariness of participation in the study, and confidential management and reporting of the data. Finally, those who provided informed consent were included in the study.

3. Findings

In total, 32 students, seventeen clinical instructors, and nine newly graduated nurses were studied. Students were mainly female (60%) and aged 22–24. Clinical instructors aged 33–61 and had a work experience of 4–29 years in clinical nursing education. Newly graduated nurses aged 23–27 and had a clinical work experience of 5–30 months in medical-surgical care wards.

Participants' experiences of reflection triggers fell into four main categories, namely conscious comparison of actions, confrontation with influential realities, emotional and moral involvement in patient care, and demanding accountability. These categories contained fourteen subcategories (Table 1) which are explained in the following.

Table 1
Participants' experiences of reflection triggers in clinical nursing education.

Category	Subcategory
Conscious comparison of actions	● comparison of the current situation with a hypothetical challenge in the future ● differentiation of the current experience from past experiences ● comparison of the outcomes of the current actions with the outcomes of the other actions
Confrontation with influential realities	● identification of deficiencies in others' practice ● encouraging to describe the situation ● guiding to knowledge acquisition in case of knowledge deficit ● actively involving students in the situation.
Emotional and moral involvement in patient care	● sharing similar experiences ● involving emotions in practice. ● the use of spirituality
Demanding accountability	● focusing on the humanistic aspects of practice ● feeling personal accountability for one's own actions ● reminding the divine supervision of actions ● reminding accountability to the profession

3.1. Conscious Comparison of Actions

One of the principal triggers for reflection in the present study was the encouragement of students through spoken dialogues to perform conscious comparisons. It is noteworthy that students may consider most situations similar and leave an experience without adequate reflection; thus, requiring them to consciously compare experiences and situations can trigger their reflection in clinical settings. The four subcategories of this main category were comparison of the current situation with a hypothetical challenge in the future, differentiation of the current experience from past experiences, comparison of the outcomes of the current actions with the outcomes of the other actions, and identification of deficiencies in others' practice.

Instructor's request from students to compare the current situation with other situations in the past or future can trigger reflection. Such comparison may be associated with imagination about more complex and more challenging hypothetical situations which have not yet happened. Imagination about a new situation can be challenging and surprising for students, can require them to differentiate the current situation from the others, and can help them reflect on their practice.

We were going to test a patient's blood glucose level...Our instructor asked how we can perform the procedure for a patient with amputated hands. I hadn't thought about that situation yet. That was a challenge and a start for me to reflect on my actions and now, as a practicing nurse, I ask myself, whenever I'm doing a task, about what I should do if the situation was different from the current situation (a newly graduated nurse).

Instructors in the present study used Socratic questioning in their spoken dialogues with their students in order to guide them towards differentiating the current experience from past experiences. Participants noted that students may find some new experiences similar to past experiences. In such situations, the differentiation between the new and past experiences could trigger reflection.

After the surgery, the drainage system of my patient was at bed level. I wanted to put it below the bed level based on previous experiences. My instructor asked me the reason and thus, I felt doubtful about the accuracy of my intervention and decided to perform my actions after careful assessment (a last-year student).

Such differentiation is facilitated through asking students to compare the outcomes of the current action/experiences with the outcomes of past actions/experiences

There were two patients with similar conditions in the ward. One of them was discharged sooner than the other. I encouraged the student to compare and think about the cause for such sooner discharge. Such comparison helped the student understand the differences between the outcomes of his actions and the outcomes of

others' actions (a clinical instructor with a work experience of 25 years).

Comparison of others' or peers' actions with practice standards was another trigger for reflection. Some instructors expected their students to assess peers' or hospital nurses' practice in order to identify problems in their practice.

My instructor asked me about the reasons behind hospital nurses' actions. Thereby, I started to think about the reasons behind events and actions (a last-year student).

3.2. Confrontation with Influential Realities

Confrontation with influential realities can trigger students' reflection. Of course, not all clinical realities can result in reflection; rather, only those realities or situations that are influential and significant enough to draw attention can trigger reflection. Given the limited professional experience of baccalaureate nursing students, instructors' guidance and supervision are needed to trigger reflection in such situations. This main category had four subcategories, i.e. encouraging to describe the situation, guiding to knowledge acquisition in case of knowledge deficit, actively involving students in the situation, and sharing similar experiences.

According to the participants, direct confrontation with influential realities or situations in clinical settings can trigger students' reflection. Students' honest and accurate description of realities or situations for their instructors or peers as well as their dialogues about realities or situations facilitate the trigger of reflection.

I ask the student to explain the problem, its phases, and his/her actions. Then, we talk with each other to identify where and how the problem was started. In this way, I attempt to trigger student's reflection (a clinical instructor with a work experience of 25 years).

Moreover, confrontation with patients' problems, doubtful situations, or uncertainties helps students understand their lack of knowledge and the outcomes of such a lack. In such situations, their instructors can guide them to reflect and acquire knowledge. Besides, students' understanding of the fact that they can potentially affect realities and situations can trigger their reflection. In other words, direct confrontation with a challenging situation as well as the necessity to manage negative feelings associated with that situation or prevent its adverse outcomes can require students to reflect.

Sometimes, I cannot manage a situation based on the education I have received. In these situations, I ask my instructor to help me think more carefully. When I personally experience a problem, I think more carefully about how to correct my practice (a last-year student).

In addition, students' awareness of their instructors' personal experiences in similar situations can make the situation influential and meaningful for them, promote their learning, and trigger their reflection. In fact, identification with instructors and their experiences can give students a feeling of influence and thereby, encourage them to reflect on the things they can do to manage the situation.

Sometimes, I confronted a challenge and asked my instructor to help me. The instructor shared his/her experiences and told that he/she had been in a similar situation and had had some feelings which had required him/her to reflect on his/her practice. His/her experiences helped me to manage the situation more easily. I even use his/her experiences now (a newly graduated nurse).

3.3. Emotional and Moral Involvement in Patient Care

Emotional and moral involvement in patient care was one of the most striking reflection triggers in clinical settings in the present study. This main category consisted of three subcategories, namely involving emotions in practice, the use of spirituality, and focusing on the humanistic aspects of practice. Students' self-dialogues or their dialogues with their instructors or peers about the emotional or moral issues associated with patient care improve their self-awareness and help trigger their reflection. Instructors' questions during dialogues can strongly encourage students to reflect on their practice and its outcomes. Such reflection not only can improve students' practice, but also can modify their personal beliefs and attitudes about patient care.

Through questioning, I attempt to encourage students to reflect on their emotions and feelings. For instance, I ask them, "What feelings did you have in that situation?" Through such dialogues, students finally conclude that a patient might have been treated unfairly. Then, I encourage them to act in a different way to improve patient outcomes (a clinical instructor with a work experience of 29 years).

Some instructors resorted to spirituality in order to trigger students' reflection.

Emotions are difficult to be aroused. Therefore, I use spirituality to arouse them and trigger reflection. For instance, after a student performs his/her task, I ask him/her, "In your opinion, what did you do that the patient was so satisfied with you? Always remember what you have done that resulted in this. You will certainly find the [positive] effects of your good care later in your life" (a clinical instructor with a work experience of 25 years).

I attempt to preoccupy students with the notion that everyone will see the negative and positive effects of all his/her actions [a verse from Holy Quran]. This is a reality of life and we cannot escape it (a clinical instructor with a work experience of 10 years).

Moreover, some participating instructors deliberately held dialogues with their students about the humanistic aspects of practice in order to emotionally and morally involve them in patient care and thereby, trigger their reflection. For instance, they encouraged students to view patients as their own family members or beloved ones.

Students have no clear understanding of some experiences; therefore, I ask them to provide quality care to their patients as if they are their own family members. In this way, I attempt to show them the importance of humanistic care in order to trigger their reflection (a clinical instructor with a work experience of 10 years).

3.4. Demanding Accountability

Accountability in this study was to require students to be responsible for the outcomes of their actions. The three subcategories of this category included feeling personal accountability for one's own

actions, reminding the divine supervision of actions, and reminding accountability to the profession.

Some participating students personally felt accountable to their conscience for their own actions; consequently, they attempted to reflect on their actions to satisfactorily perform their tasks and provide safe and quality care.

My motivation for reflection is my conscience. I like to reflect on my actions in order to protect patients from injuries (a last-year student).

Instructors also reminded students of their accountability to their profession and hence, required them to reflect on their actions. Responsibilities assigned by instructors to students made them deliberately enter reflection and helped them place themselves in the shoes of hospital nurses.

Our instructor said, "Don't underestimate these important things. Listen carefully. Think about how to manage situations in which you are alone". His behaviors sensitized us to our actions and required us to think about how to ensure patient safety in such situations (a last-year student).

Participating instructors also attempted to remind students of the divine supervision and penalty or reward for their actions. Such practice encouraged students to reflect on their actions.

You may commit an error and nobody may notice; however, God, you, and your conscience know what you have done (a clinical instructor with a work experience of 25 years).

Thereby, instructors' spoken dialogues with students may be associated with feelings of accountability to one's own conscience, God, and profession. Such accountability can require students to reflect on their actions in order to provide quality care and enhance patient safety. Of course, such type of accountability is unique to each student and depends on his/her sociocultural context, religious beliefs, and thinking style.

4. Discussion

This study aimed to explore reflection triggers in undergraduate clinical nursing education with a specific focus on verbalized reflection in spoken dialogues. One of the findings of the study was that comparison of situations, experiences, and outcomes under the supervision and the guidance of instructors can trigger reflection. Generally, instructor-assisted comparison facilitates critical analysis of phenomena and reflection on them. This type of reflection is called comparative reflection which points to reconstructing an experience or problem based on other evidence and viewpoints (Bulman and Schutz, 2013). Instructor can guide students in identifying and comparing experiences to differentiate them from each other and thereby, prepare them for actual practice in the future (Braine, 2009; Bulman and Schutz, 2013; Scheel et al., 2017). Spoken dialogues between instructors and students can uncover presumptions and mentalities and provide a free flow of meanings (Johns, 2017), which ultimately help students independently create meanings in professional dialogues (Boud, 1999).

Another main trigger for reflection in the present study was students' confrontation with realities and challenges. Instructors encouraged students to describe such situations to improve their understanding of them, make situations meaningful and influential for them, and trigger their reflection. The process of reflection is initiated through describing the intended situation (Oosterbaan et al., 2010). We also found that actively involving students in clinical practice and instructors' sharing of their experiences can trigger and promote students' reflection. Reflective learning depends on using real-world experiences of both students and instructors (Carroll et al., 2002). In clinical settings, students confront the complex challenges of real-world practice. Such confrontation can require them to reflect on the effects of the

situations and the outcomes of their actions (Scheel et al., 2017). As meaningful reflection does not occur in the absence of real-world experiences (Boud, 1999), instructors should create an authentic context for reflection in order to prevent students from getting confused or feeling disappointed in their practice (Turner and Beddoes, 2007). Of course, real-world experiences and influential realities cannot per se trigger reflection; rather, instructors need to set clear learning objectives, use effective instructional strategies, provide adequate support to students, and give them constructive feedbacks in order to trigger and promote their reflection (Parrish and Crookes, 2014; Braine, 2009). It is noteworthy that the teaching-learning process, is a combination of the instructor's facilitation and students' active participation in order to promote students' learning and reflection (Scheel et al., 2017).

Study findings also revealed emotional and moral involvement in patient care as another main trigger for reflection. Participants noted that students' feelings and emotions can trigger their reflection. Therefore, participating instructors attempted to use students' emotions during spoken dialogues to trigger and promote their reflection. Emotions and feelings are so important to reflection that inattention to them can hinder it (Boud, 1999). In other words, the starting point of the reflection process is usually an emotional response, which can be due to a positive or a negative experience (Bulman and Schutz, 2013; Howatson-Jones, 2016; Rees, 2013). Reflection helps students identify their negative or unpleasant experiences, obtain better understanding of their emotions and their responses to them, more deeply think about themselves and their actions, and achieve higher levels of adaptation (Rees, 2013; Caldwell, 2013). We also found that focusing on the humanistic and spiritual aspects of practice, considering divine supervision of actions, and feeling personal accountability for one's own actions were the other triggers for reflection. Nursing care delivery in Iran roots to some extent in religious, spiritual, and altruistic feelings and helping others is considered as a faith booster and a way to receive God's reward (Nikbakht Nasrabadi et al., 2003). Consistently, two earlier studies reported that students reflect on the humanistic aspects of care (Turner and Beddoes, 2007; Chretien et al., 2008). Another study in Iran also indicated that personal values, self-actualizing tendency, and religious beliefs were among the most important motives for reflection (Karimi et al., 2017). Human dignity and altruism are the most important moral values in nursing (Fagermoen, 1997); thus, they can be used to trigger reflection among nursing students.

4.1. Limitations

Participants were recruited from four universities and two hospitals in Iran and the study focused on medical-surgical clinical practice. As reflection is context-bound and depends on students' learning and thinking styles, further investigations are needed to explore reflection triggers in other settings and contexts. Moreover, this study was confined to spoken dialogues, while reflection dialogues can also be created using written materials.

5. Conclusion

This study suggests that the triggers for reflection in clinical settings include explicit and implicit comparisons of actions and situations, students' confrontation with influential realities, involving them emotionally and morally in patient care, and reminding them of their accountability to conscience, God, and profession. Instructors have significant roles in facilitating all these triggers for reflection. Reflection triggers identified in this study can be used during reflection dialogues between instructors and students in order to trigger nursing students' reflection. Further studies are needed to assess the effects of the characteristics of the immediate environment, students, and instructors on reflection triggers in clinical settings.

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	Contributor 1	Contributor 2	Contributor 3	Contributor 4
Concepts	*	*		
Design	*	*	*	*
Literature search	*			
Data acquisition	*			
Data analysis	*	*	*	*
Manuscript preparation	*	*	*	*
Manuscript editing	*	*	*	*
Manuscript review	*	*	*	*

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