

## Views of Nursing Students about Reflection: A Qualitative Study

Moattari M ,PhD,Msc

Assistant professor, Shiraz University of Medical Sciences and Health services

### Abstract

**Background and purpose:** The phenomenon of knowledge explosion has led teachers to feel the necessity of training students so that they become reflective thinkers. This issue is particularly important for nursing students who are responsible for providing care for patients. The purpose of this study is exploration of nursing students' views on reflection on practice.

**Methods:** Twenty senior nursing students participated in this study. They were asked to reflect on their clinical experiences for 10 weeks of their final clinical course. They were also asked to write their reflection in their weekly journals. The journals were studied by the researcher and appropriate feedback was given to the student regarding their reflective writing. At the end of the clinical course, they were divided into 2 groups to participate in 2 separate focus group session and to discuss the issues regarding 9 proposed open – ended questions. The students' responses were tape – recorded and a transcript was made and analyzed qualitatively. The data were coded and categorized. Then each category was named to elicit the related constructs.

**Results:** Qualitative data analysis showed that reflection as a learning strategy has impact on 5 different elements of teaching learning process: caring, thinking, theory practice integration, self-regulatory mechanisms and motivation.

**Conclusion:** Nursing students evaluated their experience on reflection on practice as an effective and valuable strategy. They believe that reflection through 5 different but related elements make them to consolidate their learning and plan their future experiences. Four out of the five emerged constructs in this study are very similar to elements of cyclic learning proposed by Kolb (1984) and are capable of being integrated into experiential learning cycle. Motivation can be integrated into this cycle. Based on the result of this study reflection is suggested to be integrated in Iranian nursing curriculum.

**Key words:** REFLECTION ON ACTION, NURSING STUDENT, EXPERIENTIAL LEARNING ,EXPERIENCE

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### Introduction

The importance of thinking and the ways to improve relevant skills have been considered in the nursing literature under topics such as problem

solving (1) critical thinking (2)decision making (3) diagnostic reasoning (4) clinical judgment (5,6),creativity(7,8) and clinical judgment (9).

Regardless of their roles, nurses will be risk takers and costly experts who provide low quality care if they would not be able to solve their patient's problems. Considering the similarity of different models and processes of problem solving with nursing process, it is believed that most students does not have the necessary cognitive skills for problem solving(1). However it is stated that cognitive skills of a professional nurse more contribute to good care of the patients than their

**Corresponding author:** Dr Marrzieh Moattari, is an assistant professor working in Shiraz university of medical sciences She also has MSc in Medical education.

Address: Faculty of Nursing & Midwifery Shiraz University of Medical Sciences

Zip code: 71944

Po. Box 71935-13-14, Shiraz-Iran

Phone: Cell: 09177170856 Work: 0711 6266931

Fax: 0711 6279135

E-mail: [Moattari@yahoo.com](mailto:Moattari@yahoo.com)

psychomotor skills(9).

In the challenging environment of care, nurses need to think critically. They should be able to use a broad knowledge base in using resource, coordinating practice and evaluating outcomes in the new complex situations in which they have no backgrounds. What enables nurses to provide care in the situations of resource limitations and responsibility expansion is the well-developed critical thinking skills (10). Nurses are expected to think critically when they process the complex information and make decisions in planning, managing and evaluating health care. The main purpose of nursing is to learn how to think critically (11).

The nature of critical thinking is reflective thinking which is defined as active resistance and deliberate consideration of any belief or forms of knowledge in the light of its contexts and its future consequences (12). Bipolarity of nursing education (theory and practice) has been recognized as the reason for theory-practice gap (13) and the use of just scientific knowledge in practice has been criticized (14). Reflection as an effective strategy is emphasized in nursing literature as a means to achieve the specific and professional knowledge (15, 16, 17, 18, 19, 20, and 21).

Reflection in practice is a process of representing the distinguishing features of one's professional practice (22). To reflect the nurse should understand his/her definition of good practice and then should assess the different factors responsible for the increase or decline of his/her ability to fulfill good practice. Reflection in practice is a way of connecting and integrating practice with thinking and involves thinking and critically analyzing the actions to achieve the objectives of improvement of professional practice (23). Reflective process starts when the individual refers to the experience and gather what had been occurred and explicate and reevaluate the experience (15).

Although the merits of reflection has been identified by nurse investigators, the scarcity of the research using experimental design for evaluating the effects of reflection on learning is evident (24). The effect of reflection on

cognitive style ,critical thinking skills and thinking strategies has been investigated in Iran.(25). Nevertheless there is little evidence of using qualitative research to explore the experience of reflection .This qualitative study is aiming at exploration of the 4<sup>th</sup> year university nursing students' experience of reflection.

## Methods

This qualitative study was performed using grounded theory approach. .Grounded theory as a field research refers to qualitative research approaches that explore and describe phenomena in naturalistic setting such as hospitals, outpatient clinics, or nursing homes(26). Subjects of this study were twenty 4<sup>th</sup> year nursing students. They were asked to reflect on their clinical experiences using a guideline for ten weeks. During the first 4 weeks their weekly journals were studied by the researcher and appropriate feedback was provided to them based on the elements of reflective process including attending to feeling ,association, integration, validation, appropriation and outcome of reflection(15). They were asked to continue their reflection on practice based on nursing process for the 6 remaining weeks. Therefore they were instructed to reflect on patient problems, data related to the problems, nursing interventions and the patient outcome. Feedback was provided to their reflection based on the thinking strategies. (27). After 10 weeks of reflection the students were divided into 2 groups of 10 and participated in two separate semi structured focus group session. The purpose of the study was explained to them and the informed consent was signed by all students. Focus group interview was conducted in the last week of their clinical experience.

The focus groups were conducted by the researcher using the following stimulating questions:

How do you describe your experience of reflection?

How do you describe your feeling toward reflection?

How do you evaluate your experience of

reflection in comparison with your previous experience?

What effects you think did reflection have on your learning?

How do you describe the merits of reflection?

What factors can be considered as the limitations of reflection?

Each semi structured focus group session took 90 minutes. During the sessions all the discussions were tape-recorded and nonverbal behavior were recorded by an observer responsible to take notes of the discussion. The notes were checked immediately after the sessions to eliminate any ambiguity. Tapes were transcribed verbatim and then analyzed based on qualitative methods of analysis. All sentences or phrases examined line by line. At first stage of coding 317 codes were elicited from the transcribed text. In the second step all related statements categorized to cluster the codes emerged from the first stage. Forty three and later 16 categories were identified (data reduction). In the 3<sup>rd</sup> stage of data analysis each category was named so that to cover all subcategories. All transcripts were read and recorded several days later and the results were compared with the first coding to ensure the consistency of results. A second coder was asked to check the coded data for agreement and added reliability (28).

## Results

The purpose of this study was to explore the student's experience of reflection. Five constructs (core variable) emerged from data analysis: holistic care, thinking, theory practice

integration, self regulatory mechanisms and motivation (table1). A theoretical framework based on Kolb's experiential learning cycle was used to describe the findings and how its components were influenced by reflection resulting in the improvement of their clinical experiences.

As it is shown in the table 1 five constructs were emerged from data analysis:

**Holistic care:** This construct describes the influence of reflection on students' actions of patient care in clinical experiences. To students the actions of patient care involve assessment, the gathering and evaluation of information and making a nursing diagnosis, planning (determining objectives of care and planning the interventions), implementing the interventions and evaluating the care. These components of nursing process describe the concrete care experiences of students in clinical setting. Furthermore comprehensive nursing care was another theme related to this construct. Based on students' perspectives, reflection led them to have a broader insight towards care because they had to analyze their actions in patient care. This analysis made them better understand the meaning of comprehensive nursing care.

*"I was on the nursing care after diligent assessment of the patient condition. (This was accomplished) by reading the patient chart and , interviewing the patient and the personnel involved in patient care to meet the patient needs and to ensure the consistency of the care I provide."*

*"To analyze my clinical experience during reflection I needed to reflect on all patient problem related to nursing diagnosis .*

**Table1:** The constructs of reflection

**Holistic care:** Comprehensive care, nursing process

**Thinking:** Critical thinking skills, habits of mind

**Theory practice integration:** Deep learning, research in practice, explorative learning, experiential learning.

**Self regulatory mechanism:** Self evaluation, self monitoring, self awareness, self criticism and effort

**Motivation:** Feeling of empowerment, accountability, interest

therefore I allotted more time to develop the appropriate and precise nursing diagnoses.”  
“I used to see just the physiological problems of my patients, but during this course I tried to determine the effects of different factors associated with the patient problem. This made me be more comprehensive (in my approach) than before”.

“I frequently asked myself whether the interventions I am providing are appropriate or not. In fact I frequently evaluated the consequences of nursing interventions based on clinical evidence.”

“This experience brought me into a new world. I understood that the practice of nursing is to care rather than to give medication or check vital signs. Care is not fulfilled in our today’s practice. I think if we teach a graduate of high school to give medication and or check vital sign and let her to repeat and repeat in a short period of time she would be able to perform it, nursing is not this way of practice but coordinating educating ,supporting and directing the care of individuals”.

**Thinking:** This construct describes the critical thinking skills and habits of mind. Critical thinking skills are cognitive processes necessary for reflective observation such as: logical reasoning, analyzing, evaluation, validating and open-mindedness and habits of mind are those concepts such as contextualized critics, creativity and inquisitiveness.

“I learned to think deeply and provide reasoning for everything I hear. I learned to validate what I hear then justify and explore its meaning.

I understood that everything could be subjected to critique. This pondering takes you to a deep sea in which the nature has another color. If you see your environment from another angle you will be changed to another person who will benefit of each moment more than a moment . This doesn’t make sense. In fact you are the same person but you feel to be more empowered and competent.”

“To convince myself or to get ability to argue

with others I frequently reasoned. Sometimes I could discover my inability to give sound and correct reasoning, therefore I had to think, analyze and learn more.

**Theory-practice integration:** This construct describes the ways students learn in clinical experiences when reflection proceeds. In depth experiential learning, explorative learning, research in action leading to self-directed learning is the constitutive categories of theory practice integration.

“During the course of reflection I was responsible for my learning. It was me and the experience I had. If I didn’t retrieve the experience, I could not learn the theoretical basis of it.”

“During reflection I could find the gaps in my knowledge. I could find that I have forgotten many simple but important things. Therefore I tried to fill the gaps by studying and deliberating on information.”

“The clinical world is different from the class .By reflection I could find how the integration of theory to practice makes learning enjoyable. Through this integration theoretical concepts are explored in clinical world.”

“I used to do things habitually. Reflective writing provided me with the opportunity to challenge my habits and explore many things in them resulting in their refinement.”

**.Self regulatory mechanisms:** This construct describes the meta-cognitive processes necessary for students’ self governance. Self evaluation, self criticism, self monitoring and self awareness resulting in self directed learning are the main themes of this construct. The students came to the conclusion that through the process of reflection that they have acquired the ability to self-regulate. The following narratives are some examples in this respect:

“In addition to finding out my strengths and weaknesses when writing journals, I became able to supervise myself. For example I communicate with other health care team members more than before. I shared my decisions and asked question from physicians, nurses, my instructor and especially my group

*members. I actively engaged in my learning process more than before."*

*"I frequently evaluated myself and my clinical experience. I reviewed my writing frequently and I tried to consolidate my knowledge by referring to my notes, texts and other available resources."*

*"I learned not to completely rely on myself but to seek assistance when confronting the complex problem either in clinical or during reflection"*

**Motivation:** This construct involves emotional aspects of learning which lead to readiness for learning. It is comprised of three different concepts: feeling of empowerment, accountability and interest. Satisfaction, confidence and internal change are the categories related to empowerment. Taking responsibility, effort, prolongation of study time and being active in group comprise the concept of accountability. The concept of interest also consists of enthusiastic behavior, paying attention, eagerness and willingness to learn.

*"At first I found reflection on practice very difficult but gradually I found it very enjoyable and I became interested in practicing reflection."*

*"Reflection enhanced my willingness to learn because it made me to come to the world of uncertainty where I would like to answer my questions regarding my patient and my clinical experience. "*

*"By reflection I was satisfied with my clinical experience. I wish reflection could have been taught and practiced from the beginning of nursing training".*

*"I was encouraged to critique accurately and think about the patient problem and even my own daily problems."*

*"This reflection was very useful for those students like me who had low self esteem and were unable to argue with the physicians and instructors about the interventions. During reflection I could practice how to validate others opinions."*

*"Reflective experience has made a considerable change in me. Now I have more positive view on nursing and I am more eager*

*to improve myself by increasing my knowledge."*

Despite of the above mentioned benefits of reflection expressed by students, it is important to note that the students did identify some barriers to reflection: unfamiliarity with reflection as a strategy, time limitations and inappropriate educational and clinical learning environment in which reflection is not encouraged.

## Discussion

The result of this study will be discussed in the light of Kolb's experiential learning theory. The Kolb experiential learning cycle consists of four different stages: concrete experience, reflective observation, abstract conceptualization and active experimentation (29). Four out of the five constructs which emerged in this study (holistic caring, thinking, theory- practice integration and self regulatory mechanisms) are compatible with the Kolb experiential learning cycle. The fifth construct, motivation could be integrated in the center of Kolb experiential learning cycle.

Two previous studies of nursing educators described reflection based on this cycle (30,31).

The first construct, "the Holistic approach to care as an outcome of reflection", is a valuable result obtained in our traditional functional system of care. In this system, students are encouraged to provide fragmented care rather than meeting the patient's individual needs. Holistic care as experienced by students consists of all components of nursing process.

Holistic nursing process is a systematic live and dynamic framework to explore, describe and document specific health patterns of each individual. It is a continuous process consisting of 6 different stages of assessment, problems/needs identification, writing expected outcome, developing patient care and therapeutic plan, implementation and evaluation (32). The holistic approach to care helps nurses to better understand the attitudes/values of their own profession and other professions as well. Through this knowledge the students become empowered to apply effective strategies for

promoting comprehensive care. Therefore it is more than just the implementation of nursing activities (33) It provides an educational or learning instrument through which nurses can contextualize their knowledge to meet patients' needs (34). In one study it was confirmed that reflection results in consideration of the client as the central core in patient care(35).Flexible individualized and

holistic approach to care is identified as the advantage of reflection (36).

“Critical thinking” is the second construct that was identified in this study. This concept consists of critical thinking skills and habits of mind. A wide variety of definitions have been applied to the term “critical thinking”. Critical thinking is defined as a composite of attitudes, knowledge and skills (37) includes the cognitive styles of comprehension, application, analysis and evaluation (38), is a process and skills present in logical decision making about what to do and what to believe(39), is the art of thinking about our thinking while we are thinking in order to make it better. It has three essential components including elements of thinking, intellectual standards and emotional characteristics (40). But the results of our study are actually more compatible with Scheffer and Rubinfeld 's definition of critical thinking which was based on the consensus of a nursing panel of experts, despite not including all of the definition's components(41).

The third construct which emerged in this study is that of “theory practice integration”. The concept of theory practice integration is compatible with the 3<sup>rd</sup> phase of Kolb learning cycle: abstract conceptualization and with the research conducted by Severinsson (42) In this phase the experience is integrated with general principles underlying the situation. Experiential learning theory dictates that, learning is a process in which knowledge will be generated by transformation of experience. (43) It is asserted that learning is not the passive process of using knowledge directed from outside but rather it is an active, constructive and self directed process in which learners construct their knowledge representation in themselves and the way in

which they interpret their personal learning experiences. (44) Similarly, based on another belief, learning takes place by inference, expectations and through the creation of personal connections . In this process learner acquires the map and strategy of using prior knowledge (45). The relation of theory practice integration to reflection has been addressed previously in the nursing literature and it was shown that application of a supervision program (reflection) results in personal growth and integration of knowledge (42). The results of this study demonstrate that reflection makes students to integrate their clinical experience with underlying theoretical concepts.

“Self regulatory mechanism” is the forth construct found in this study. This concept which highlights the meta-cognitive aspect of experiential learning is consistent with the 4<sup>th</sup> phase of learning cycle: active experimentation. Based on the research findings self regulatory learners engage in academic tasks for personal interest and satisfaction and are meta cognitively and behaviorally active participants in their own learning (46).Students scoring in the top 1% on achievement test more frequently use certain self regulatory strategies that optimize (a) personal regulation(e.g., organizing and transforming information),(b) behavioral functioning (e.g., providing their own rewards and punishments based on performance),and (c) the immediate environment (e.g., reviewing notes, seeking peer assistance, and seeking adult assistance)(47). Self regulatory learning is an effort to deepen and manipulate the associative network in a particular area (which is not necessarily limited to academic content), and to monitor and improve that deepening process. (48).

Motivation is considered as the core variable of this research because it encompasses the motivation related concepts linked with patient care, thinking, theory practice integration and self regulatory mechanisms.

Motivation is a concept used to describe external conditions that stimulate specific behaviors. It is believed that internal responses are maintained by sources of energy (motives). Motives are described as needs, desires and

drives. All individuals have motives and motivation can be measured by observable behavior. Any deficit in the needs of people will stimulate them to achieve their objectives and to meet their needs (49). In another word; motivation is a mental state through which the individual identifies a specific objective and function. It is a term that describes the process of behavior activation. The phenomenon of motivation includes something that provides energy for behavior and directs, maintain and sustain the behavior. Motivation is a catalyst to move people toward their personal objectives (50)

In conclusion, our research found that, reflection has considerable effects on students' performance. Focus on patient care, improvement of thinking, theory practice integration and self regulatory mechanisms and motivation are very important elements of teaching learning process. As our traditional teaching programs lack organized ways of improving thinking strategies such as reflection, we suggest that such strategies be integrated into them as a means of improving student performance. Quantitative research design to measure the effect of reflection on motivation and self regulation is recommended.

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