Changes Resulting from Reflection Dialogues on Nursing Practice

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ABSTRACT

Background Reflection is defined here as a process by which, through self-conversation, one's self and one's behavior acquire meaning. However, people have limitations in terms of what they can express and be aware of during reflection. This finding points to the importance of facilitators. The purpose of this study was to determine what changes can be brought about through reflection dialogues on nursing practice.

Methods The Participants were 9 nurses who worked at three institutions in City A, each with about 200 beds. Workplace topics were examined through self-reflections and reflection dialogues. The depth of reflection was assessed using the three levels of reflection described by Mezirow—{reflecting on the content}, {reflecting on the process} and {reflecting on the assumptions}.

Results In reflecting on nursing practice, the participants were also divided into those who had already reached the highest level, {reflecting on assumptions}, via self-reflection, and those who remained at the level of {reflecting on processes}, despite the use of reflection dialogues.

Conclusion The development of reflective thinking on nursing practice was connected not only to the participants' desire to explore ways of accepting their individual experiences, but may also be connected to whether or not they are able to question themselves about their thoughts and preconceptions about nursing work.

Key words dialogue; nursing; practice; reflection; reflection dialogue

Nursing demands professionalism, and the ability to practice nursing accurately requires decision-making skills based on specialized knowledge appropriate to the circumstances. According to Benner,[1] quality of experience is an important part of attaining mastery in nursing practices. According to the educational philosopher John Dewey,[2] reflection is an important way of fostering individual growth and learning to increase the quality of one's experiences. Dewey argued that reflection is important for learning and individual growth,[2] improving the value and quality of experiences. Mezirow (1991) looked at the meaning and possibilities of learning during adulthood from an epistemological perspective.[3] She questioned the frameworks composed by habitually conforming to assumptions, values, and beliefs, and stressed the importance of critical reflection for adult learners. Reflection is defined here as a process by which, through self-conversation and critical reflection, one's self and one's behavior acquire meaning. Repetition of the reflection process fosters a mental state in which one can learn from experience. For this reason, educational methods that use the concept of reflection to confer experiential learning have become increasingly common in basic nursing training and continuing education.[4, 5, 6, 7, 8]

Reflection requires one to re-examine experiences in detail, directly facing all facts and emotions. According to Ota[4] and Nakamura,[9] people have limitations in terms of what they can express and be aware of during reflection. This finding points to the importance of facilitators. The roles of reflection dialogues and facilitators in promoting learning in clinical nurse training have been investigated,[10] with results suggesting that reflection not only promotes conversation and helps one to express emotions, but helps draw out profound thoughts and underlying factors. Reflection also encourages nurses to use different values and perspectives to understand events differently. Muramatsu and Watanabe[11] investigated reflection dialogues as used in the workplace for public health nurses. They reported that newly appointed public health nurses achieved growth through conversations with experienced public health nurses, who played the role of mentors. However, to date there has been little research in the use of reflection dialogues in the medical workplace with nurses. Therefore, this study will explore what changes can be brought about in nursing practice using reflection dialogues.

These dialogues are compared with self-reflection, which is conducted alone by the individual. This study does not aim to merely hypothesize about individual reflection abilities, but to establish an approach that supports nurses' growth. It also provides suggestions for supporting workplace learning among nurses.

SUBJECTS AND METHODS

Subjects

This study was qualitative, descriptive, and exploratory in nature. Participants were nurses who worked at 3 insti-

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tutions in City A (about 150 thousand people), each with about 200 beds. After the researchers explained the intent of the study to the head nurses at the participating medical institutions, they were introduced to 3 or 5 nurses at each institution who were recommended as participants by the head nurses. In order to observe the differences in reflective thinking in participants of differing experience and ability, there were no limits placed on the number of years of nursing experience or practical nursing ability. The nurses who agreed to participate in the study received a written explanation of the purpose of the study and confirmed their willingness to participate.

Definition of terms

Reflection dialogue: reflecting on day-to-day nursing practice while talking with another registered nurse.
Reflection on the practice of nursing: thinking reflectively; looking back on one's nursing practice to uncover new knowledge that one had not realized at the time.

Interview protocol

Participants completed a preliminary survey on their age, years of nursing experience and highest level of education to obtain a nursing license. Then, 2 interviews were conducted in which participants were encouraged to reflect on the practice of nursing. Interviews focused on situations in which participants felt concerned, overwhelmed or unconvinced when dealing directly with patients. In the first interview, the researcher did not provide any follow-up questions or comments after initial prompts, allowing the participants to engage in self-reflection. In the second interview, the researcher asked follow-up questions to encourage participants to talk. This resulted in a reflection dialogue with the researcher. The reflection dialogues examined the same workplace topics as the self-reflections.

Data collection

The data collection period was between February and March 2010. Two interviews were conducted, with the 2nd interview being conducted within 2 weeks of the 1st so that the content of the 1st interview was still fresh in the participant's mind during the reflection dialogue. During interviews, researchers communicated sincere interest in what the participants were talking about, affirming the participants' thoughts and feelings without judging or imposing their own values. Interviews were conducted in private rooms and recorded using voice recorders with the participants' consent. Interviews were then transcribed for data analysis.

Participants were asked to prepare notes before their interviews to help them recall the nursing situations they wished to reflect on and to follow a reflective guide based on Gibbs' reflective cycle.[12] The following 6 points were suggested as a path for reflective thinking:

i) What were the specific circumstances of the situation?
ii) When the situation occurred, how did you feel and what were you thinking?
iii) What was good and what was bad about the situation?
iv) How did your feelings and thoughts at that time affect your behavior?
v) How did your values and beliefs regarding nursing affect your behavior?
vi) If you encounter similar circumstances again, what would you do?

During the reflection dialogues, the researchers acted as facilitators and reflected on nursing practice together with the participants (Table 1).

Analysis

First, the transcribed data from the 2 interviews self-reflection and reflection dialogue were read for general content. The data were then organized into the components of the reflection process: [reconstruction of the scene], [hidden intentions behind the conduct] and [new self-realizations in the circumstances].[10]

Then, the depth of reflection on the practice of nursing was assessed using the three levels of reflection described by Mezirow[3]—{reflecting on the content}, {reflecting on the process} and {reflecting on the assumptions}. Level I, {reflecting on the content}, involves reflecting on the content of the problem and the specific circumstances through [reconstruction of the scene] and [hidden intentions behind the conduct]. Level II, {reflecting on the process}, entails a search for problem-solving methods, through <specific points of reflection regarding nursing conduct, a search for specific solutions and a transition from theoretical to practical knowledge>. These three elements are all part of [new self-realizations in the circumstances]. Level III, {reflecting on assumptions}, is the questioning of the assumptions, beliefs and values behind the problem. This comprises <realizations about one's tendencies, new appreciation of the role of nurse, reexamining one's attitude toward work and clarifying one's nursing perspective> under the larger category of [new self-realizations in the circumstances]. Level III can be differentiated from Level II in that it involves the investigation of fundamental thoughts about oneself. The depth of reflection on the practice of nursing during self-reflection and in the reflection dialogue were compared and categorized.

We showed the participant the data in which the contents of self-reflection verbalized the external validity of data. We then got the contents of the narration to

Table 1. Facilitator questions

Question	Operational definitions	Aim
Verification challenges	Ask what participants thought propelled the scene	To understand the emotional effects that happened throughout this scene; to consider what made them aware of challenges
Recall the situation	Ask about events and situations	To relive the thoughts and emotions of the situation at the time; to notice the intentions of their behavior patterns and actions
Narrative feedback		
Iterative	Repeat words and phrases used by participant	To encourage a detailed narrative through the repetition of words and phrases
Summary	Grasp the summary of the contents of what participants said	To listen carefully to others; to encourage participants to objectively examine their actions.
Interpretation	Offer one's own thoughts and understanding of participants' stories	To encourage an expansion of thoughts and feelings; to grasp the situation as understood by others
Focused questions	To discuss difficult situations that the nurses find challenging	To encourage noticing additional facts about the issues; to organize thoughts
Offer another point of view	Offer another perspective to explore the challenges faced by others	To encourage different frameworks for understanding and examining the core issues based on the opinions and advice of others
Validation of results	To seek a new level of awareness through critique	To promote the expression of noticing changes in one's self as a nurse or changes regarding the view of the situation

check whether it matches with the data. When analyzing, the verbatim record of the data was read from one certain viewpoint to interpret the deepening of reflection on many sides. Repeating this process each time, we returned to the data on the component of reflection and checked its validity. While receiving an instructor's supervision in the analytical process, we inquired repeatedly until a common view was acquired.

Ethical considerations

This study was approved (No. 1340) by the Ethics Committee of Tottori University and, when necessary, by the ethics committees at the subject institutions. Participants were assured that participation was voluntary, that they could withdraw at any time without facing negative consequences, that their anonymity would be protected and that the data obtained would not be used for purposes other than research. Participants gave written informed consent.

RESULTS

Summary of participants and interviews

Self-reflection and reflection dialogues were conducted with 14 participants. Five participants were excluded from the final analysis because of lack of specific episodes to discuss, no direct interactions with patients, etc. The final sample comprised 9 female participants, henceforth referred to as Nurses A to I. Their mean age (SD) was 30.33 years (5.52 years) (range: 22.0–39.0 years). All had gone through a 3-year basic nursing course at vocational school. The mean number (SD) of years of experience was 8.56 years (4.61 years) (range: 1.0–13.0 years).

Nurses A, G and H reflected on incidents in which their nursing resulted in a favorable change in the patient's condition and some kind of solution was reached. Nurses C, E, F and I reflected on incidents in which their nursing exacerbated patient pain or anxiety, and shared their continuing regret over such an unsuccessful outcome. Nurses B and D reflected on incidents in which they responded appropriately to a challenging situation, but around which some uncomfortable self-directed feelings remained (Table 2).

Characteristics of reflections on the practice of nursing

The feedback that participants received on their narratives in the form of researchers' repetitions, summaries, and interpretations during the reflection dialogues encouraged participants to relive the emotions and thoughts that they experienced during these situations and helped them to generate detailed narratives. Researcher questions focusing on the practical experience of nursing and their perspectives from other viewpoints not only encouraged the participants to be aware of their own patterns of behavior and the intentions underlying their actions, but to discover their own issues and generate new meaning associated with the practice of nursing. The interview data reflecting on the practice of nursing were analyzed with an eye to whether reflection had deepened. Results showed that dialogue deepened reflection level in Nurses D, H and I, with each of these participants advancing from Level I or II to level III during the second interview. For the remaining six participants, dialogue did not result in a deeper level of reflection. Of them, Nurses B, E, F and G remained at Level II, the same level that they had reached during self-reflection. Nurses A and C remained at Level III, the level that they had reached during self-reflection (Table 3).

Table 2. Case summaries and interview duration

Subject	Interview time*	Case information	Case summary
A	18/40	Male Diabetes	The Outpatient seemed to constantly ask "Is it time yet? Is it time yet?" One day, Nurse A went out of her way to speak to him in the waiting room; after that his words and behavior changed, and his attitude became more positive.
B	10/33	Male Amyloid arthropathy	The patient was due to be discharged from the hospital. During the entire evening, he pressed the call button frequently. Nurse B attended to him each time, but he always said, "I'm telling you I'm in pain but you don't do anything about it!" which troubled and confused her.
C	30/60	Male Swallowing dysfunction	The patient had been moved from surgery in preparation for at-home care, and had fallen into a low nutritional state after digestive surgery. A variety of methods were attempted to deal with his swallowing disorder, but he did not recover. Eventually he underwent an enterostomy.
D	12/20	Male Liver biopsy	A discrepancy arose between the doctor's explanation of the examination and the patient's understanding, and the patient's facial expression became more and more sullen. In the intensive care ward, Nurse D was unable to simultaneously sympathize with the patient and mediate for the doctor.
E	16/50	Female Terminal-stage breast cancer	The patient had been receiving outpatient treatment, but when her condition became terminal and she began experiencing distressing symptoms such as difficulty breathing and she was admitted to the hospital. At the time of admission, the doctor believed that the patient's family understood the seriousness of her condition. Do Not Resuscitate (DNR) procedures were explained and the family appeared to agree, but when the moment of death came they opted for resuscitation.
F	7/40	Male Terminal-stage lung cancer	The patient was given 4 L of oxygen via cannula, but the level of oxygen saturation was still low (around 80%). The patient did not appear to be suffering difficulty in breathing but he agreed to be fitted with an oxygen mask. Afterward, he said with tears in his eyes, "I put up with the mask at first, but I can't take it anymore!"
G	6/34	Female Mood disorder	A former inpatient called the ward after coming for an outpatient examination, saying, "I'm thinking about dying. I'm going into the water." The staff found out where she was and went to search for her. Afterward, the staff discussed how to deal with similar situations and eventually came up with a standard procedure.
H	6/35	Male Schizophrenia Cerebral infarction	Nurse H wondered about how to deal with a patient who was able to engage in rehabilitation on his own but had become dependent on the hospital ward. Nurse H participated in a review of patient procedures and worked to unify patient support methods. Then, the patient developed a desire to rehabilitate.
I	3/28	Female Dementia	The patient suddenly took off all her clothes and entered a neighboring room. She mistakenly thought it was the bath and could not be convinced to go back to her room. Eventually she was forced back into her room and locked inside.

*Self-reflection/dialogue (min).

The 3 features of reflecting on nursing practices are explained below. Within the nurses' narratives, meaningful sections were extracted, with the relevant type of reference presented. The component for the relevant reflection is shown within parenthesis at the end of the narration (Tables 4-1, 4-2 and 4-3).

Cases in which reflection was deepened to Stage III through conversation

Nurse D, in her self-reflection, described only the patient's words and actions, and gave a purely factual account of her own behavior. However, by investigating the basis for the thoughts that had affected her conduct in the reflection dialogue, she was able to clarify issues concerning her role as a nurse through reflecting on her attitude toward patients.

Nurse H, in her self-reflection, described a transformation from theoretical to practical knowledge by investigating factors linked to what happens when a patient's reactions change. During the reflection dialogue, she showed a new appreciation for her role as a nurse while evaluating how nursing practices could be performed in a more timely matter, and expressed how she wanted to conduct herself as a nurse in the future.

Nurse I, in her self-reflection, gave only a brief summary of the situation and reflected vaguely on a few points. During the reflection dialogue, she realized some behavioral tendencies she had that she had taken for granted when asked about thoughts that formed the basis of her behavior in the aforementioned situation.

Cases in which reflection was not deepened through dialogue

Pattern in which Level III was already attained in self-reflection: Nurse A, in her self-reflection, discussed thinking about the meaning behind the patient's words and actions in a certain situation, and wondered how her thinking had affected her conduct. She also re-examined her attitude toward work, looking back on things that stood out from her everyday routine. During the reflec-

Table 3. Reflection components and reflection level observed in each case

		Pattern	Deepening occurred in reflective dialogue			No deepening in reflective dialogue					
			Level III in dialogue			Level III in self-reflection		Stayed at Level II from self-reflection			
		Nurse	D	H	I	A	C	B	E	F	G
		Experience*	10	1	13	13	13	5	6	4	13
Process	Component	Level of reflection†	Components contained in talk‡								
Reconstruction of scene											
	Facts about what happened as a result	I	○	○	○	○	○	○	○	○	○
	Evaluation of subject's nursing conduct		○	○	○	○	○	○	○	○	○
	Extraction of issues concerning the circumstances		○	○	○	○	○	○	○	○	○
Intentions hidden behind the conduct											
	Subject's feelings at the time		○	●	○	○	○	○	○	○	○
	Background of circumstances that influenced subject's emotions		○	●	○	○	○	○	○	○	○
	Thoughts that influenced subject's conduct		○		○	○	○	○	○	○	○
New self-realizations toward self in the circumstances											
	Specific points of reflection regarding subject's nursing conduct	II	●	○	○	○	○	○	○	○	○
	Investigation of specific solutions		●	○	○	○	●	○	●	●	●
	Transition from theoretical to practical knowledge			○		○		○	○		●
	Realizations about subject's tendencies	III	●	●	●	○	○				
	New appreciation of subject's role as a nurse		●	●		○	●				
	Reexamination of subject's attitude toward work			●		○					
	Clarification of subject's nursing point of view			●		○					

*year(s).
†I, reflection on contents; II, reflection on process; III, reflection on assumptions.
‡○, self-reflection; ●, reflective dialogue.

tion dialogue, she not only came up with specific points to reflect on concerning the situation but also thought constructively about why certain events occurred, thereby attaching further significance to her experiences on the basis of her self-reflection.

Nurse C's self-reflection mainly consisted of an explanation of the patient's condition, along with a vague reflection on what had occurred and some realizations regarding her tendencies. A detailed review of her conduct as a nurse during the reflection dialogue allowed her to analyze the factors involved in what had happened, which led to specific realizations regarding her cognitive and behavioral tendencies.

Pattern of no change from Level II, which was attained during self-reflection: The situation Nurse B selected for self-reflection was one that had been discussed in a previous group-training session. Her self-reflection described how, by understanding the feelings that underlie patients' words and actions, a nurse can deepen his or her reflection regarding his or her conduct during a problematic situation. While her self-reflection was abstract, she did discuss a possible solution. She also described how, by listening to the many patients she encounters in her daily work, she came to understand the importance of care in bringing about not only physical but also psychological change. This is an example of theoretical knowledge being transformed into practical knowledge.

Nurse E, in her self-reflection, mainly talked in detail about the patient's condition and her conduct in the situation; however, she also mentioned the confusion that she felt when looking for a solution. During the reflection dialogue, she went over the process of her thoughts and feelings during the situation with the researcher, and described specific points to reflect upon regarding her conduct. Further, when another point of view was sug-

Table 4-1. Nurse D: case example in which reflection was deepened through dialogue

Self-reflection	"Though, if the doctor's feelings had been hurt, it could have further destroyed (doctor-patient) trust. There was such a conflict." **<Thoughts that affected one's conduct>**
Reflection dialogue	**Overview** Discussed the feelings of patients, and confirmed thoughts about the relationship between the patient and health care provider. Looked back at the incident and discussed interest in patients, to perceive the thoughts of the patients. Talked about the role of nurses as a bridge between the doctor and the patient to represent the feelings of the patient. Discussed that intervention procedures would be more appropriate that the derived reflection time. Discussed how to acquire assertiveness skills to solve future problems. "I have trouble grasping what patients aren't understanding, and to what extent they are understanding. There might be a more fundamental problem where the patient doesn't even know what to ask. Therefore, I thought I had to sense very carefully whether patients could really understand." **<Specific point to reflect on about nursing conduct>** "I've thought about how I couldn't intervene between the doctor and the patient for a long time, but thinking about what I could have said and how I could have said it; I think I could have said something." <Investigation of specific solutions> "When anger gets involved, I always feel uneasy. If I want to have a calm conversation, I think I should avoid inflaming angry emotions." **<Realizations about one's tendencies>** "The relationship of trust between a patient and a nurse is also important, but when there is misunderstanding or some [trouble] between the doctor and the patient, it's difficult to know how not to harm that relationship, how to express myself, and how to say everything kindly." **<New appreciation for the nurse's role>**

* Text in pointy brackets denotes the corresponding factor or component from the assessments.

Table 4-2. Nurse A: case example in which reflection was already at Level III, attained though self-reflection

Self-reflection	"We have preconceptions about difficult patients, patients that need special attention—we judge them in a glance with the perceptions we've built up over years. But these are just images, and I don't think one should go about creating images of people through them. So I reflected." **<Investigation of specific solutions>** "I want patients in the diabetes treatment center to tell me about themselves. When I wonder if there's anything I can do, I think that at least I can think tenderly about each person. So, even when I'm busy, I want to make time to get more involved with patients." **<Reviewing the attitude toward work>** "Kan of watchful/attentive/mindful Kango (Nursing) means to touch by hand, to see carefully and to get rid of preconceptions. If the nurse has in her mind and knows what is truly important, I think she can connect with any patient." **<Clarification of the nursing point of view>**
Reflection dialogue	**Overview** Nurse A said there were patients who said "I'm still waiting" for a period of one or two years. Nurse A has confirmed the feeling of looking at the patients in the waiting area. She reflected this feeling in her way of dealing with the patients as a nurse. Nurses should re-examine the relationship between patients and their understanding of patients in order to get rid of any bias. Individual treatment and how to face major events was discussed, as well as self-reflection and conclusions. Nurse A realized that serving patients every day and cultivating nursing values has led to growth as a nurse. "I now think my awareness of the patient as a 'person who can't wait' or a 'nagging person' took precedence, and I wasn't able to respond to him. In this case, the constant 'Is it time yet?' maybe programmed me into just wanting to get him treated and out of the office as soon as possible." **<Specific point to reflect on about nursing conduct>** "I think patients are mirrors. If I try to connect with someone with a closed heart, he or she will respond with a closed heart. Instead of thinking, 'Why won't that person open up to me?' I need to realize that their heart is closed because mine is, too." **<Transition from theoretical to practical knowledge>** "I realized that even though this is something I have always placed a lot of importance on, after hearing that time and again, my preconceptions got in the way of my nursing work." **<Realization about one's tendencies>** "Of course, you have to get rid of all of them (preconceptions) and talk to each individual (patient). Even patients with the same disease who have gone through the same process, each individual is different, so the intervention needs to vary." **<Clarification of the nursing point of view>**

* Text in pointy brackets denotes the corresponding factor or component from the assessments.

gested, she came up with several plans to solve the problem by thinking about professionalism in nursing.

Nurse F, in her self-reflection, only gave a simple description of the event and a vague reflection. In the reflection dialogue, through a discussion of her thinking and awareness of problems in certain situations, she described some specific points to reflect on.

Nurse G, in her self-reflection, only gave a simple

Table 4-3. Nurse F: case example in which reflection remained at Level II, attained through self-reflection

Self-reflection	"I'm not good at about forcing patients to do things and I don't think it's a good thing, but only in that instance I had recommended considerably (forced the patient)." **<Specific point to reflect on about nursing conduct>**
	"He wasn't having trouble breathing, and I couldn't think about what was a good thing from his standpoint. Since he was a terminal patient, I couldn't think about what the most important thing to pay attention to was." **<Specific point to reflect on about nursing conduct>**
Reflection dialogue	**Overview** Even though the patients had not complained of difficulty in breathing, Nurse F confirmed the instructions for treatment and oxygen administration. The patients wondered why they are made to forcibly wear the oxygen masks. There were also some patients who believed that wearing oxygen masks to be end of life. Nurse F discussed the measures taken to solve the problem, such as consulting with a doctor. The patient's feelings were mainly considered only as an afterthought. However, it has not been described to be coming and to treasure as a way of dealing with the terminally.
	"At the time, I was mostly occupied with things like examination data, prioritizing that over the patient's feelings, and thinking about how I couldn't send him to the next shift [quasi-night staff] in that state. The patient's feelings were secondary." **<Specific point to reflect on about nursing conduct>**
	"I didn't realize how much the patient disliked the mask or that the mask was causing him to suffer. Patients seemed to have had a part that he have to put up with a lot, and for me could not realize that point or I wasn't able to read him from his reactions. I feel like I just pushed my own point of view." **<Specific point to reflect on about nursing conduct>**
	"If I had thought a little more about his feelings, I think I could have figured out another method that didn't require using the mask at that point. I could have reported it to the doctor in charge and discussed what to do." **<Investigation of specific solutions>**

* Text in pointy brackets denotes the corresponding factor or component from the assessments.

description of the event and a vague reflection. Since a manual had been created that provided a solution for her example, she mainly focused on that. During the reflection dialogue, suggestion of another viewpoint allowed her to think about the meaning of the patient's words and deeds, and connect this to theoretical knowledge.

DISCUSSION

Nurses D and H, who advanced to {reflecting on assumptions} through conversations, and Nurses A and C, who had already reached {reflecting on assumptions} through self-reflection, asked themselves if there were no solutions for the anxiety they became aware of after reflecting on their situations. These nurses were observed to behave in a manner so as to play their roles as nurses based on their own beliefs. Whether nurses can act autonomously hinges on how they perceive their role while working with other professionals as part of a medical team, and is deeply related to patient care. According to Matsuo,[13] feelings and desires about being a certain kind of professional manifest in one's attitude and behavior during nursing practice. In addition to reflecting on one's practice, these also influence one's psychological growth as a professional aiming to become a reflective nurse. The ability to question oneself to bring about even better results develops out of one's feelings and particularities about the job of a nurse. A person who can deepen reflection uses repeated self-questioning to work towards the level of nursing that he or she aspires towards; such persons appear to have high professionalism.

In the cases of Nurses B and G, who remained at {reflecting on processes}, which had reached through self-reflection, it is hypothesized that their reflection did not deepen because the discontent they had felt regarding the situations had, to at least to some extent, been reduced. A new point of view was obtained through exchanging opinions with others, and the guideline for the way to deal with a problem situation was clarified through the creation of a manual. Thus, when the reflective thinking occurred, these nurses appeared to think that they do not need to reexamine their conduct. However, Nurses E and F did not attain deeper levels of reflection, despite having ill feelings over having contributed to patients' pain or anxiety. A possible reason could be that they are likely to continue to experience a state in which they explore how nurses should conduct themselves at work. When people experience the benefits of a belief as a decision-making tool, they discover the value in that belief and act to maintain it.[14] It is thought that the sharing of beliefs with others can subsequently result in these beliefs being converted into something of one's own; these beliefs are the results of one's own actions arising from one's own experiences, and, as a useful tool for directing attitudes and actions, they lead to the discovery of value. In particular, for young nurses, it is vitally important that experienced nurses communicate their beliefs in terms of their thoughts and preoccupations about work in addition to recounting specific stories about their experiences.

According to Benner,[15] the ability to recognize when one is having problems with patients involves possessing ideas related to good practice. This plays a key role in professional autonomy in nursing, giving nurses interest and confidence in their inner selves, as manifested through their thoughts and conduct during work. This reflection also influences how they display their nursing expertise.[16] People who spare no effort in the pursuit of professionalism are thought to be able to ask themselves how they can be better nurses for the sake of their patients, to ascertain what decisions are appropriate in certain situations by reflecting on their nursing activities, and to give meaning to their experiences. The thoughts that guide nurses' work and the ability to discover meaning and significance in work while questioning oneself are matters that allow professionals to play their roles well.

The professional growth of reflective practitioners occurs on the job through mutual reflection and deliberation among practitioners.[17] According to Seibert,[18] work environments that enable reflection in the midst of action have the following characteristics: autonomy; feedback from others; information and psychological support from superiors, colleagues and mentors; and the means to encounter new ideas or different viewpoints. Candid advice from the seniors and feedback from juniors and colleagues is valuable for growth at workplace. In doing so, not only does it produce growth among individual nurses, but it can also have a major effect on the quality of nursing throughout the entire workplace. To cultivate professionalism in nursing, it is important that reflective learning takes place in workplaces in which practice and reflection are consistent parts of day-to-day activities.

The research participants were limited to nurses who were willing to actively engage in scrutiny of their past nursing practice. The psychological type of individuals, their past experiences of reflection and whether or not they have received training on reflection may have affected the deepening of their reflection. This study indicated that the deepening of reflection is related to one's ability to examine one's feelings and desires about nursing. However, the beliefs one values about work appear to grow not only on one's own, but are formed through relationships with others at the workplace. We would like to pursue this area in the future.

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REFERENCES

1 Benner P. From novice to expert excellence and in clinical nursing practice: the Dreyfus model of skill acquisition applied to nursing—the meaning of experience. Menlo Park: Addison-Wesle; 1984. p. 36-8.
2 Dewey J. How we think: Logical considerations. New York: Courier Dover Publications; 1933.
3 Mezirow J. Transformative dimensions of adult learning. San Francisco: Jossey-Bass; 1991.
4 Ota Y. Meaning and significance of reflection dialogues for bringing about growth in nursing teachers. Qual Nurs. 2001;7:668-74. Japanese.
5 Tamura Y, Nakata Y, Hirano Y, Ishikawa Y, Tsuda N. [The realities of fostering reflection skills as a practical thinking ability; Using reflective journals]. Kango Kyoiku. 2002;44: 452-56. Japanese. NAID: 40005823732.
6 Aoki Y. [The realities of reflection; Using Gibbs' reflective cycle]. Quality Nursing. 2003; 9: p. 147–57. Japanese. NAID: 80015766929.
7 Sakuma H. [The effectiveness of using the concept of reflection in nursing; A discussion based on analysis using Rodgers' conceptual analysis and observational examples]. Nihon Kango Kagaku Gakkai Gakujyutu Syukai Koensyu. 2004; 24:p. 350. Japanese.
8 Ikenishi E, Gregg M, Kurita T, Hayashi Y. [The reflection process of nursing professionals; Aiming for use in continuing education]. Nihon Kango Kyoiku Gakkaishi. 2005;15:225. Japanese. NAID: 10016635582.
9 Nakamura M. [How to help learn from the experiences of new graduate nurses; Reflection and dialogue relations]. Kango Kanri. 2011; 21. P. 900–04. Japanese. NAID: 40018969713.
10 Okuda R. [Components of learning through reflection dialogues in clinical nurses and the involvement of facilitators to promote learning]. Kokuritu Byoin Kango Kenkyu Gakkaishi. 2012;8:2-13. Japanese. NAID: 40019302923.
11 Muramatsu T, Watanabe Y. [Effects of the reflection by the new and skilled public health nurses. Yamanashi Kenrithu Daigaku Kango Gakubu Kiyo. 2008;10:49-58. Japanese. NAID: 110007045338.
12 Learning by doing; A guide to teaching and learning methods. [Internet], United Kingdom: The Geography Discipline Network. Inc.; c 1994 [updated 2001 January 10; cited 2013 June 22]. Available form: http://www2.glos.ac.uk/gdn/gibbs/index.htm.
13 Matsuo M. [Learning from Experience; Growth process worker]. 6th ed. Tokyo: Dobunkan; 2009. Japanese. NCID: BA77470102.
14 Abelson RP. Beliefs are like possessions. J Theory Soc Behav. 1986;16:223-50. DOI: 10.1111/j.1468-5914.1986.tb00078.x
15 Benner P. Taking a stand on experiential learning and good practice. Am J Crit Care. 2001;10:60-2. PMID: 11153186.
16 Kikuchi A, Harada T. [A research related to the measurement of professional autonomy in nurses]. Shizuoka Daigaku Kyoiku Gakubu Kenkyu Hokoku. 1997;47:241-54. Japanese. NAID: 110000458217.
17 Sato M. [The aporia of the instructor: Toward reflective practice]. Kanagawa: Seorishobo; 1997. Japanese. NCID: BA32975853.
18 Seibert KW. Reflection-in-action; Tools for cultivating on-the-job learning conditions. Organ Dyn. 1999; 27:54-65. DOI: 10.1016/S0090-2616(99)90021-9.