Chapter 1. Problem presentation

In Japan, the average length of employment for nurses is increasing, and in the future, the number of mid and senior level nurses is expected to increase.

Mid-career nurses are the foundation of nursing organizations, and in order for them to play their roles, it is essential to allow continuous professional development. However, systems promoting continuous professional development are lacking in Japan. Furthermore, most existing institutional education programs that complement such systems require a lot of resources, and their effects on nursing practice have not been clarified.

Hence, it is necessary to develop a professional development program for mid-career nurses that can be used at all hospitals irrespective of the availability of educational resources and can bring about changes in clinical practice. After conducting a literature review, it was concluded that a critical reflection program would be suitable for the professional development of mid-career nurses and the development of such a program was undertaken.

Chapter 2. Objective

The objective of the present study is to prepare an institutional professional development program for mid-career nurses and ascertain its effects on learners and nursing practice.

The aims of the present study are as follows:
1. To prepare and implement a "critical reflection program based on narratives of nursing practice" for mid-career nurses based on a literature review and a preliminary study.
2. To use case study research procedures, the learning experience of program participants, and its effects on nursing practice in order to ascertain whether or not expected changes occur.
3. To fine-tuned the program in order to correct any problems and improve its practical feasibility and versatility.

Terms are defined as follows:
1. Mid-career nurse
   Staff nurses with 5 to 15 years of clinical experience.
2. Narratives of nursing practice
   Clinical nursing experiences that are narrated by mid-career nurses. Narratives dealing with clinical and ethical issues facing nurses (Benner et al., 1999). Nurses may modify their
reports by talking with others. For convenience, the program uses the term "case".

3. Critical reflection and reflection

Critical reflection refers to a process in which the truth and validity of issues are reviewed and calmly assessed by taking into account the possibility of errors and limits. Reflection refers to a process in which certain issues are reviewed without questioning truth and validity. In Japan, the word "reflection" is often translated as "naisei", "hansei", or "syosatsu". The present study uses "naisei", the word used in the Japanese translation of Benner and colleagues' study (1999).

Chapter 3. Literature review

Mid-career nurses were defined and characterized by reviewing Japanese studies on mid-career nurses. Furthermore, by evaluating existing institutional professional development techniques, we clarified the following: 1) through experiential learning based on clinical practice, these techniques allow nurses to acquire and improve skills and improve their willingness to learn, and 2) these techniques provide nurses with opportunities to reflect.

However, the effects of these techniques have not been verified, and implementing and maintaining most institutional professional development techniques requires a great deal of effort and resources. By focusing on critical reflection, we investigated theoretical and social background factors, the characteristics of critical reflection, and the current status of professional development programs incorporating critical reflection.

The results showed that while many nursing professional development programs have incorporated critical reflection, the design of most of these programs is not appropriate for use by small- and medium-sized hospitals with insufficient educational systems. In addition, as few studies have investigated the efficacy of such programs, it will be necessary to conduct more research.

Chapter 4. Preliminary study, and development of the critical reflection program

1. Preliminary study

A preliminary study was conducted in order to ascertain the experiences of participants of past reflection programs and gather data for the development of a critical reflection program. Participants progressed through a career development ladder comprised of nurses' narratives and were interviewed and examined by participatory observation. The following results were obtained.

Group discussions based on narratives of nursing practice allowed all participants to reflect critically; however, in order for the results to bring about changes in nursing practice, it is necessary to identify assumptions as the target of critical reflection. Moreover, assessments might hinder critical reflection.

Therefore, while maintaining the framework of narrations and group discussions, it
was considered that an effective critical reflection program for mid-career nurses could be prepared by minimizing assessments and facilitating critical reflection on assumptions.

2. Preparation of a critical reflection program

Mezirow's transformation theory (2000) was used as the theoretical basis for program development. Also, based on the results of the literature review and preliminary study, the program was prepared based on the work of Benner and colleagues (1999).

The program was designed to facilitate learners’ recognition of their own practice and assumptions and values regarding nursing practice and encourage them to question truth and validity in order to expand their self-image.

The study methods were as follows:

Based on narratives (cases) of practice described by participants, expertise of nursing practice were analyzed by group discussions, and each participant was instructed to critically reflect on his or her own assumptions using a worksheet. Each group consisted of six individuals (five participants and one facilitator), and each group met once per week over a period of seven weeks, with each meeting lasting 60 to 90 minutes. Mid-career nurses were recruited from three hospitals, and facilitators were also recruited from the same hospitals and underwent training to improve their facilitation skills.

Chapter 5. Methods

Using Mezirow's transformation theory (2000) as the theoretical basis, a qualitative descriptive design was employed according to Yin's case study technique (2003).

Subjects were 15 staff nurses (3 groups of 5 nurses each) with 5- to 15-years of experience who were working at one of three participating hospitals. Subjects were selected by the convenient sampling method. In addition, a total of three facilitators, one at each hospital, participated in this study.

Regarding data collection, semi-structured interviews, work sheets, and participatory observations were used to ascertain the experience of mid-career nurses and the implementation of group works.

Mid-career nurses' experiences were ascertained through a total of three semi-structured interviews (before the program, immediate after the program, and one month after the program), work sheets completed at the end of each group work, and participatory observations of group works.

Group works were evaluated through semi-structured interviews with the facilitators after the program and through participatory observations of group works.

Data were analyzed as follows:

(1) Data from each mid-career nurse were coded from the viewpoint of the effects of the critical reflection program on the nurse.
(2) Using the explanation building technique, one of the analysis methods of case study research proposed by Yin, mid-career nurses' experiences were integrated at each participating hospital.

(3) The integrated mid-career nurses' experiences at three hospitals were integrated again using the explanation building technique to ascertain the effects of the critical reflection program on the participants.

To confirm the truth and validity of data and analyses, such techniques as, supervision and member check, were used based on Merriam's study (1998).

Regarding ethical considerations, subjects were recruited at the participating hospitals based on voluntary participation. Moreover, it was explained to the subjects that they had the right to withdraw at any time without suffering any negative consequences and could refuse to provide data even after participating in study activities.

Furthermore, mental health professionals were available to respond to any mental distress or disorders occurring during program participation.

Chapter 6. Results
1. Study summary
1) Summary of participating institutions

The number of beds at three participating hospitals (Hospitals A, B, and C) was 348, 176, and 404, respectively. All three hospitals were general hospitals with an emergency medicine department. The patient-to-nurse ratio at each hospital was 7:1, 10:1, and 7:1, respectively. Regarding institutional education systems, Hospitals A and C had an education director and had institutional education plans. Hospital B had just assigned an education director the year the study was conducted and was in the process of developing an institutional education system.

2) Summary of subjects

Of the 15 mid-career nurses, one nurse at Hospital A withdrew her consent to participate, and as a result, a total of 14 nurses served as subjects. At Hospital B, two facilitators were assigned at the request of the nursing director.

The mean age of the mid-career nurses at Hospitals A, B, and C was 33.3, 35.4, and 32.4 years, respectively. At Hospital B, four of the five mid-career nurses had worked as assistant nurses. Also, two of the five nurses were scheduled to retire after the program, and one retired as planned.

While the subjects at Hospital A volunteered to participate, those at Hospitals B and C were ordered to participate by their supervisors.

3) Program implementation

At Hospital A, as one nurse withdrew from the study, a total of six group works were
held, not seven. At least one member was missing in four of the six meetings due to such reasons as sickness, participation in other training, and consent withdrawal. All five members were present in two of the six meetings. At Hospital B, one facilitator missed one meeting, but all mid-career nurses attended all seven meetings. At Hospital C, one nurse missed one meeting, but all others attended all seven meetings.

2. Mid-career nurses’ program participation experiences and the effects on nursing practice

1) Participant’s experiences and the effects on practice at Hospital A

Participant’s experiences and the effects on practice at Hospital A were integrated as follows:

At Hospital A, the mid-career nurses wrote a narrative of their nursing experience and discussed it in comfortable environments which enable them to learn mutually. The discussion aimed to deepen their understanding of the experience, their own nursing skills and their own values, but participants’ reflection of their own values was limited. Through these activities, the mid-career nurses became aware of and accepted their own practice. In addition, the nurses learned excellent nursing practice from other members and the program's components. Furthermore, through these processes and worksheets, the nurses critically reflected on frames of reference that formed their own practice. However, nurses did not critically reflect if they did not have an opportunity to question the validity of their own frames of reference. Also, the nurses did not even recognize their own frames of reference if they did not have an adequate opportunity to reflect through discussions and worksheets.

Through these experiences, mid-career nurses discovered goals to develop as nurses and modified their practice by making behavior plans. Through the process of implementing plans, the nurses modified their own frames of reference and expanded their self-image. The modification of frames of reference and the expansion of the self-image were facilitated by events in clinical practice.

2) Participant’s experiences and the effects on practice at Hospital B

Participant’s experiences and the effects on practice at Hospital B were integrated as follows:

At Hospital B, the mid-career nurses wrote a narrative of their nursing experience and discussed it in comfortable environments which enable them to learn mutually. The discussion aimed to deepen their understanding of the experience, their own nursing skills and their own values, but they rarely discussed their frame of references.

Through these activities, the mid-career nurses became aware of their own practice and learned from other members' worries and excellent nursing practice. Also by receiving feedback from other perspectives or noticing values that could not be shared by others, the mid-career nurses occasionally recognized their own frames of reference.
Recognized frames of reference were sometimes modified by critically assessing the current state, learning to widen views, and reflecting on past experiences and values through worksheets. And modifying frames of reference brought about expansion of the self-image.

In contrast, frames of reference could not be modified if different values could not be shared with others or if reflection using work sheets was insufficient.

Even when frames of reference were not modified, some nurses expanded their self-image by identifying developmental goals as nurses through the program and applying the goals to nursing practice.

The changes in the workplace environment worked as promoters and inhibitors for the above-mentioned modifications.

3) Participant’s experiences and the effects on practice at Hospital C

Participant’s experiences and the effects on practice at Hospital C were integrated as follows:

At Hospital C, the mid-career nurses wrote a narrative of their nursing experience and discussed it in comfortable environments which enable them to learn mutually. The discussion aimed to deepen their understanding of the experience, their own nursing skills and their own values. Through these activities, the mid-career nurses became aware of and accepted their own practice. Also, they learned from other members' excellent nursing practice.

Furthermore, through these processes and worksheets, the nurses noticed and critically reflected on frames of reference that formed their own practice. However, the nurses sometimes could not notice frames of reference if group works were highly stressful, reflection through work sheets was insufficient or nurses participated to fulfill organizational roles, not as individuals. Also, frames of reference could not be critically reflected or modified if nurses did not grappling with worksheets nor recognize frames of reference to be critically reflected.

Mid-career nurses discovered goals to develop as nurses or carry out their roles through the program. Also, the nurses made plans to achieve goals, thus modifying practice. Furthermore, through this process, the nurses expanded their self-image.

These series of changes were sometimes facilitated by such external factors as, work environment changes and failures.

However, when the nurses were not motivated to solve issues, they did not necessarily modify practice, thus failing to expand their self-image. Also, even if practice was modified, if practice was related to role fulfillment, then the self-image did not expand.

4) Integration of experiences of program participation at the three hospitals

Participant’s experiences and the effects on practice at the three hospitals were integrated as follows:

The mid-career nurses wrote a narrative of their nursing experience and discussed it in
comfortable environments which enable them to learn mutually. The discussion aimed to deepen their understanding of the experience, their own nursing skills and their own values, but they rarely discussed their frame of references.

Through these activities, the mid-career nurses became aware of and accepted their own practice. However, if cases were not successful experiences, the nurses did not necessarily accept practice positively that they recognized.

Also, the mid-career nurse learned from other members' excellent nursing practice, program components, and other members' worries and concerns.

Furthermore, through these activities, the nurses recognized frames of reference that formed their own practice and critically reflected them through discussions and worksheets. However, the nurses did not recognize frames of reference if they did not have a sufficient opportunity to reflect, such as when they did not meet different value, filled in work sheets without understanding their intent, participated to fulfill organization roles, nor group works were stressful. Also, critical reflection on frames of reference did not occur if the nurses did not have an opportunity for questioning their validity.

Through these experiences, the mid-career nurses identified goals to develop as nurses and modified practice by devising activity plans. However, when the nurses were not motivated, their practice did not change.

Furthermore mid-career nurses expanded their self-image and modified frames of references if they had critically reflected it during the process of implementing activity plans. For the modification of frames of reference and the expansion of the self-image, events occurring in clinical practice served as both promoters and inhibitors.

Chapter 7 Discussion

I. Examination of program effectiveness
   1. Comparison of learning experience of mid-career nurses with expected results

      The comparison of expected results (the initial theoretical statement) with the learning experiences that the program brought to mid-career nurses indicated that their experiences were equal to the initial theoretical statement.

      However, not all the members had the expected results and hence based on the aim of the program, which was to transform learners frame of reference, the effect of the program was judged as weak.

      Therefore the author analyzed the factors that promoted and hindered transformation of the frame of reference of mid-career nurses in order to revise the program to increase effectiveness.

2. Factors which promote transformation of frame of reference

      The author analyzed experiences of two nurses, A1 of the A hospital and B4 of the B hospital, who experienced transformation of their frame of reference. Three factors were
extracted found to promote the transformation of their frame of reference. The author also compared their transformational experiences with a reflective experience of A3 who reported a similar clinical experience but did not transform her frame of reference. This comparison added one more factor. Those four factors were:

1) A desire to reflect on and to change themselves, which came from personal factors.
2) A comfortable group that provided many opportunities for self expression. It was compounded of group factors and personal factors.
3) Grappling with worksheets that engaged them in a deeply reflective process about themselves. This factor came from personal characteristics and program design.
4) Passing through some experiences that compelled them to question their frame of reference throughout the program.

3. Factors that hinder transformation of the frame of reference

Analyzed also were the reflective experiences of five learners who did not recognize their frame of reference. Extracted were three factors that hindered transformation of their frame of reference. Those factors were:

1) Lack of proper facilitation which was caused by the program design.
2) Poor utilization of worksheets which did not urge learners to reflect on themselves. It was due to the program design.
3) Lack of learner’s readiness to focus on or engage in critical reflection. It could be understood as a personal factor, but it actually resulted from the program design which could not enable various learners to reflect.

II Modification of the critical reflection program

Based on the aforementioned analyses of critical reflection outcomes, it became clear that the critical reflection program needed modification.

This program targeted mid-career nurses who were supposed to have proficient nursing skills, poor self-recognition and many inner conflicts as presented in chapter two. The program aims were to increase their sense of self-affirmation while promoting frame of reference transformation.

Therefore, a basic frame of the program which is analyzing positive experiences using the Benner’s theory is to be retained. Moreover, the numbers of group-work, interval and duration of a group-work, and number of members are retained because of the participant’s positive appraisal.

On the basis of these conditions, three components were identified for modification.

First of all, there should be more opportunity for learners to question their frame of reference. The facilitators training program needs to be improved to increase facilitators’ skill level and the worksheet needs to be improved by restating questions and making its usage more flexible.
Next, the seventh group-work needs to be more structured to enable learners to reflect on their future plans so that they are motivated to implement their plans.

And the last component was to clarify learners’ points of view, related to program participation, at the first meeting, to minimize misunderstanding and confusion and the subsequent impact on learners’ attitudes.

Chapter 8 Conclusion

A narrative-based critical reflection program for mid-career nurses was developed which was expected to be feasible in clinical settings. The program was carried out in three hospitals and evaluated its outcomes using a case study research method.

The study indicated that the program made opportunities for mid-career nurses to become aware of and accepted their own practice, learn from other members' excellent nursing practice and program components, and learn from other members' worries and concerns. Through these activities, the nurses critically reflected on frames of reference. Furthermore mid-career nurses expanded their self-image and modified frames of references during the process of implementing activity plans.

However, only two nurses transformed their frames of reference and it was discussed that the program needed to be improved to have more opportunity for nurses to question their frame of reference, to reflect on their future plans, and to clarify nurses’ points of view related to program participation.