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Psychological Preparation in Pediatric Settings:

How do child life specialists and nurses prepare children for medical procedures?

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Abstract

The focus of this comparative case study was to identify how child life specialists and nurses perceive and practice psychological preparation as a function of their roles and professional training. The child life specialists' primary role is to provide psychological preparation; nurses primary task is to perform medical procedures. This study was conducted with four Japanese participants, two child life specialists, and two nurses through interviews. The reality was that nurses do not have time to provide psychological preparation, and tend to use behaviorist language and technique. There is very little collaboration between child life specialists and nurses when providing psychological preparation. Implications for possible collaboration are proposed in order to maximize children's understandings and coping skills of medical procedures. Child life specialists can educate nurses on child development and related issues, and nurses can apply their professional medical knowledge. Child life specialists and nurses working collaboratively can provide the best support for the individual child and family in meeting their diverse needs.

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Introduction

Hospitals are one of the most important facilities in our lives to maintain our health and physical conditions. Children invariably have to go to hospitals because of their medical conditions, general check-ups, or other occasions.

According to Hagglof (1999), children had historically been protected from getting information about medical procedures or hospitalization when they were in the hospital. People had considered that children were cognitively not able to understand the information of medical procedures and treatment well, and children got scared more by the detailed information. However, this history has been changed with researches of relationships between children's cognitive development and psychological impacts affected by hospital experience. Many people today believe that children better adjust to their hospitalizations and get less anxiety when they obtain age-appropriate information of medical procedures and psychological support together.

The psychological support is called "psychological preparation," and it shows benefits of increased knowledge, enhanced coping strategies, decreased anxiety, lessened fears, facilitated cooperation, enhanced mastery of experiencing a potentially stressful event, and better trust between parents and health care providers (Justus, Wilson, Walther, Wyles, Rode, & Suilt, 2006). My research focuses on age group of preschoolers and school-age children and discusses why they need psychological preparation because of their developmental characteristics. Additionally, literature reviews illustrate the importance of the roles of child life specialists, nurses and parents in order to reduce children's feelings of fear and anxiety toward medical procedures. Finally, the literature reviews explore how the concept of psychological

preparation is coming into Japan from the United States and how Japanese nurses perceive it and practice it.

Finally, the detailed case study is presented to understand how Japanese child life specialists and Japanese nurses perceive and practice psychological preparation differently as a function of their roles and professional training. The case study focuses on particular psychological preparation for intravenous and venepuncture medical procedures because these are highly performed procedures in every unit. This case study will contribute to the limited literature on psychological preparation for children by adding the perspectives of different medical professionals. Data from the study has the potential to help child life specialists better understand their roles in order to collaborate with nurses on psychological preparation.

Literature Review

Child Life Practice

The child life profession has developed since the 1920's to improve health care experiences for hospitalized children by providing play, psychological preparation and educational programs (Child Life Council). Child life programs today are guided by two primary objectives regarding of providing psychosocial and developmental care for children in the hospital setting.

1) To help the child cope with the stress and anxiety of the hospital experience
2) To promote the child's normal growth and development while in the health care setting and after returning home (Thompson & Stanford, 1981, p.7).

The child life profession continues to grow rapidly, and cerebrated the 25th anniversary of the Child Life Council in 2007.

A child's hospitalization is typically an unpleasant and challenging experience for children and their parents (Mansson & Dvkes, 2004). The experience of hospitalization often causes negative physical and psychological impacts on both children and their family due to their extended stay in a stressful and unfamiliar hospital environment. There is no doubt that the negative impacts of the hospital experience can cause the children and their family to exhibit avoidance behaviors with future encounters in medical care (Justus et al., 2006).

The child life program is the primary means of systematically providing therapeutic and developmental play experiences for hospitalized children (Gaynard, Wolfer, Goldberger, Thompson, Redburn, & Laidley, 1998). It integrates emotional support, psychological preparation, and play into a comprehensive approach to psychosocial care (Gaynard et al.). Through the unique application of play as a healing modality, child life specialists deliver both group and individualized programs and interventions (Turner, 2005). Supervised play and activity rooms are designed to provide opportunities for normalization, autonomy, peer interaction, and exploration of health care equipment for at least a brief portion of the day (Turner).

Psychological Preparation for Medical Procedures

One of the most important roles of child life specialists is to provide psychological preparation. Psychological preparation includes the communication of accurate, developmentally appropriate information for upcoming procedures and for hospitalization itself (Gaynard et al., 1998). However, historically children have been protected from getting information regarding their illness and the treatments when they are in the hospital (Hagglof, 1999). Medical staff were concerned that children

would be worried by the new information or that they would not understand it (Hagglof).

This tradition has changed over the decades. A large number of researchers and medical professionals emphasize the importance and value of psychological preparation for children and families for children's upcoming medical procedures and hospitalization. Many people now believe that the success of psychological preparation decreases children and families' anxieties, promotes positive postoperative childhood adjustment, and fosters self-efficacy (Justus et al., 2006). Furthermore, benefits of psychological preparation programs include increased knowledge of illness and treatment, enhanced coping strategies, decreased anxiety, lessened fears, facilitated cooperation, enhanced mastery of experiencing a potentially stressful event, and better trust between parents and health care providers (Justus, et al.).

In order to provide developmentally appropriate psychological preparation for each individual child, child life specialists are trained to assess the developmental needs of children and plan appropriate interventions within the context of the children's abilities, family relationships and medical conditions (Rollins, Bolig, & Mahan, 2005). Psychological preparation and procedural support include interventions such as hospital tours, pre-operational preparation in a mock operating room, practicing procedures on medical dolls, learning and applying coping strategies, and expressive and exploratory health care play (Turner, 2005). Additionally, children should receive sensory information to help them an accurate understanding of what will happen to them during their medical treatment. Children need to know what they will see, hear, smell, feel, and taste (Gaynard et al., 1998; Droske & Francis, 1981).

Psychological preparation provides children and their families with information about hospital procedures and coping strategies, but they are also provided an opportunity to develop trust in the medical staff, including doctors, nurses, child life specialists and other professionals who interact with the children. (Thurgate & Heppell, 2005; Droske & Francis, 1981). It is important that the preparation and development of trust take place each time a child undergoes a medical procedure because in most cases a medical staff that is new to the child leads the invasive procedures. (Droske & Francis).

Developmentally Appropriate Psychological Preparation for Preschool Children

Piaget develops four stages of human intellectual development: sensorimotor, preoperational, concrete operational, and formal operational (Thompson & Stanford, 1981). According to this Piaget's theory, preschool children are in the preoperational stage. In this stage, children develop symbolic thinking that builds on their concept of object permanence developed in the previous sensorimotor stage (Feldman, 1998; Thompson & Stanford). Children at this point are able to hold and recall the image of objects and events in their minds (Thompson & Stanford). Mental images and language allow the child to represent objects and relationships in the surrounding world (Thompson, & Stanford). Hagglof (1999) states that preschool children have wishful and magical ideas as a function of their symbolic thinking. This means that children's fantasy is often worse than the reality (Hagglof). Preschool children create scary imaginary ideas of medical treatments and hospital experiences by using their magical and imaginary thinking.

Another characteristic of preschool children is that they at this age are highly

egocentric (Thompson, & Stanford, 1981). Egocentrism is described as the inability to view the world from perspective other than their own (Thompson, & Stanford). Preschool children think that everyone has the same view or the same feelings as they do.

According to Erikson, preschool children experience a distinct and pivotal crisis in their development of identity that centers on the feelings of initiative and guilt. Parents are important to the child, but preschool children are beginning to test their independence (Thompson, & Stanford, 1981). Feldman (1998) states that "preschoolers come to realize that they are a person in their own right and they begin to make decisions and to shape the kind of person that they will become," (p.285). A noted previously, parents are still important for children at this age as a secure base (Bowlby, 1988). However, in the hospital setting, parents are not able to be with their children all the time. Children are often separated from parents when they go in to a treatment room to undergo procedures. Although children in this preoperational stage are beginning to test their independence, there are a lot of limitations and restrictions in hospital care (Thompson & Stanford).

Research suggests that due to their egocentric thinking and crisis in identity with regard to their child-parent relationship, preschoolers are in the most vulnerable developmental stage to experience hospitalization (Thompson & Stanford, 1981). Preschool children tend to think that they are in the hospital for painful procedures because they have done something wrong. Preschool children also tend to think that when they are separated from their parents, which often happens during hospitalization, it is because their parents are mad at them. Preschoolers typically view their hospitalization as a form of punishment. Misconceptions about medical

equipment and procedures cause further anxiety (Thompson, & Stanford).

Petrillo and Sanger discuss that children need to be informed to help them cope with their imagination and to help distinguish reality from fantasy (as cited in Mansson, & Dykes, 2004). As noted previously, preschoolers are in preoperational stage according to the Piaget's theory, so that they need some visible and manipulatable materials when they receive new information. Medical information is often best imparted to this age group by role playing and game playing (Hagglof, 1999). Medical play with dolls, and doll-size equipment and actual equipment if appropriate is often recommended for preschoolers (Hagglof). Preschoolers need to experience rehearsing by manipulating actual medical equipments on a doll through symbolic play. They can feel a sense of control as they become familiar with medical equipment.

Research suggests that preschool children should be encouraged to use coping skills during medical procedures. Each child may have his or her own coping style and therefore, children should have an opportunity to choose their own coping strategies. Child life specialists can recommend coping strategies to preschoolers such as deep breathing, singing, playing, looking at "I spy" books and magic wands, counting, squeezing toys, and blowing bubbles (Rollins et al., 2005).

Developmentally Appropriate Psychological Preparation for School-age Children

According to the Piaget's four stages of human intellection development, school-age children are in the concrete operational stage. The concrete operational stage is characterized by children's activity and the ability to use logical ways of thinking (Feldman, 1998). School-age children are increasingly able to think logically

to solve problems, and to comprehend the series of actions (Thompson & Stanford, 1981; Feldman, 1998). Additionally, school-age children have typically developed the ability to understand rules, a concept of fairness and cooperation with others (Rollins et al., 2005).

According to Erikson, school-age children experience distinct and pivotal crisis in their development of identity that centers on the feelings of industry versus inferiority. Children focus on efforts to attain competence in meeting the challenges presented by parents, friends, schools, and other social groups where they belong (Feldman, 1998). Success in those efforts brings with it feelings of mastery and control and a growing sense of capability (Feldman). On the other hand, difficulties in this stage lead to feelings of failure and inadequacy in social settings (Feldman).

Some researchers suggest that school-age children have passed through the most vulnerable period for hospitalization (Thompson & Stanford, 1981) Their concrete operational thinking provides them with the ability to understand their hospitalization experience (Feldman, 1998). However, even though school-age children rely less on magical thinking in comparison to preschool children, they still have a significant amount of misconceptions with regard to their illness and medical treatments (Hagglof, 1999; Thompson & Stanford). Play and conversation can help school-age children clarify these beliefs (Hagglof; Thompson & Stanford).

School-age children should be thoughtfully prepared in advance for all surgeries and procedures. They are better able to understand through psychological preparation all of the steps entailed in the medical procedures (Thomas & Stanford, 1981). Children who are six and older are increasingly curious about how the body works and why (Rollins et al., 2005). They are able to understand more detailed

information concerning the way things work and how their bodies respond to different interventions. Information given to school-age children by hospital staff should include an explanation of the child's affected organ system and how their procedure and medicine will improve the condition (Rollins et al). Also, it is important to provide children with more sophisticated materials that they can visualize and manipulate to familiarize themselves with the medical procedures (Thompson & Stanford). Additionally, school-age children should be taught scientific terminology of body parts and medical procedures. This encourages them to demonstrate their knowledge and skills as they gain mastery and a sense of competence in relation to their illness (Rollins et al.). School-age children should be allowed to have time for questions and answers (Thompson & Stanford; Rollins et al.).

School-age children have their own coping styles and preferences. They should be encouraged to use that approach during hospital procedures. Recommended coping strategies and distractions for this age group are more complex than those used with preschoolers. For example, some school age children like listening to their favorite music or inspirational tapes and pretending to be in a favorite place (Rollins et al., 2005). Others like looking at "I spy" books, playing with electronic games and water toys, spelling and counting.

Nurses in Pediatric Settings

Nurses have performed important tasks in hospitals to take care of patients for a long time prior to child life specialists' entry in the pediatric hospital setting. Mansson and Dykes (2004) cite Mansson et al., "the literature strongly advocates the role and responsibility of health care workers, particularly nurses, to help children

through procedures," (p.182). Mansson and Dykes conducted a research study in Swedish pediatric wards concerning the practice of informing children and their parents about clinical examinations and procedures. The findings of this study suggest that registered pediatric nurses are most frequently the staff members who give information to children and parents about an upcoming intervention in the hospital (Mansson & Dykes). Yagge (2007) emphasizes that nurses should take a role as communicators with parents. Nurses have competence in recognizing not only medical needs of the child, but the equally important need for security and trust (Yagge).

Mansson and Dykes (2004) cite Brennan to emphasize that nurses perform medical procedures on children and give appropriate information regarding procedures. At the same time, nurses have a practical challenge to ensure that the information or procedures are explained to the child and the parent as effectively as possible (as cited in Masson & Dykes).

Parent Involvement in Hospital Care

Family-centered care is a popular model in the majority of hospital care today. Parents are supported and encouraged to be with their children during hospitalization (Hogglof, 1999). Research has indicated that the roles of the parent in supporting children during their hospitalization are critical and necessary. In terms of providing psychological preparation, parents need to be encouraged to take an active role in helping their child understand the upcoming medical procedures (Phillips, Watson & MacKinlay, 1998). Parents should be considered as the experts on the ways their child deals with stress and included in the child's psychological preparation (Justus et al.,

2006). Parents can reduce children's anxiety and stress level, and help children better adjust to hospital care. Hogglof's research: examining the psychological reaction of children of various ages to hospital care and invasive procedures, focused on the role of parents in medical care. It showed that children better adjust to their hospital experience when parents are active participants in their care (Hogglof).

Intravenous and Venepuncture Medical Procedures

Intravenous (IV) and venepunctuere medical procedures are one of the most common medical procedures for children. In medical term, intravenous means "within a vein," and it refers to giving medications or fluids through a tube inserted into a vein under the skin which gives the doctor immediate access to the blood supply. One example is IV drip used to slowly drip a bag of electrolyte solution into a dehydrated patient through a tiny plastic tube inserted directly into the patient's vein. Venepuncture is a surgical puncture of a vein used especially for blood draws or for administration of intravenous fluids or drugs. With advances in medical technology, more children are undergoing venepuncture as a part of the diagnostic process (Thrgate & Hoppell, 2005). Additionally, many children are exposed to venepunctures and injections for purposes of immunization, treatment of active disease and preoperative sedation (Routh, 1988).

Unfortunately, many children are not provided however sensitive planning and psychological preparation prior to the IV and venepuncture medical procedures. These procedures are often performed in urgent situations. Some researchers emphasize that children report injections and venepunctures as the most fear-provoking events occurring in the hospital. A variety of negative self-reports, facial expressions, and

behaviors occur in the context of injections (Routh, 1988). Reid (2007) points out that

> Children receive over 18 million needle sticks a year. At least 50% of children, and up to 83% of, toddlers experience moderate to severe levels of stress during simple blood draws. Additionally, 36% of 3 – 6 year old children report having moderate to severe pain during such procedures (Reid, 2007).

A case of one child, Lauren who was diagnosed with Wilms tumor stage 3 when she was 9 years old helps illustrate the trauma experienced when undergoing an IV. Lauren had a lump on her side, and started with radiation in a children's hospital. The first treatment prolonged for 8 months. After the treatment, she was on remission for 15 months. However, her lung function was down to 9 %. At that point, she had no other choice beside lung transplant. She had to get through various medical challenges throughout some years. In the video clip, Lauren expresses that

> IV was a big deal. I still think that was one of the worst procedures I have done I had to have needles every week, and every time when I went to the treatment, I had to have couple of sticks because they couldn't find my veins. They took few minutes to put the tourniquet around my arm everywhere to see if they can find. I was tense because they couldn't find anything. Nurses, they all tried to find somebody to do my needles. I was not the good one to get needles. I started to kicking stuff…it was not nice (Reid).

Lauren continued to talk about how the relationship with nurses was important for her to get through the procedures.

> Relationship I had with nurses was a big thing. They tell you step by step what is going to happen. Try to keep mind off of it made me happy and having a hope. Nurses knew how I was in personality, how to talk to me and what I liked, and what I didn't like it. Helped me a lot (Reid).

Clearly, IV was a traumatizing procedure. A relationship with the nurses helped Lauren to cope with this experience.

New Movement in Pediatrics in Japan

Pediatric care in Japan faces a serious problem. The pediatric units have been merged in to adult hospital facilities, or others have been eliminated. There are several reasons behind this problem. Doctors need more time and energy to examine children than they do examine adults (Suzuki, 2006). For example, when a young child needs an IV placement, several medical staff are often involved, and the situation is typically chaotic (Suzuki). When considering the time, effort and need for adequate salaries of the health care staff, it is easy to see that pediatrics is not financially profitable. In addition, children might not need as much medicine as adults because children's bodies are much smaller, so less money is made on medicine in pediatircs (Suzuki). This is the current situation of pediatrics in Japan.

In contrast to the deconstruction of pediatric hospitals, another movement in Japanese pediatrics has occurred over the last 15 years. The beginning of this movement was in 1994. In that year, Japan's support of *Kodomo no Kenrijyoyaku* (the "Children's Rights" law) was confirmed. More people started to advocate children's rights such as "Informed Consents" in hospital settings (Ryuugou, Kokabu, Higashi, & Onishi, 2008; Handa et al., 2000; Yanagisawa, Nomura, & Inoue, 2002). According to Grisso and Appelebaum (as cited in Rollins et al., 2005), informed Consents for children should include four elements to ensure the child has capacity to consent: a) understanding of the treatment-related information, b) appreciation of the significant of the information for the patient's situation, c) reasoning, which involves comparing alternatives and projecting what the impact could be on the patient's life, and d) expressing a choice (Rollins et al.).

Along with the passing of *Kodomo no Kenrijyoyaku* and the Informed

Consents, more researchers started to study how much psychological preparation for medical treatments and procedures can benefit and improve the treatment of pediatric patients. The literature shows beneficial results when children have an understanding of their treatments and procedures (Handa et al., 2000). On the other hand, children who do not have any chance to be informed about their treatments and procedures, or if the explanations about their treatments and procedures occur later than children expect, they tend to be more confused and anxious (Handa et al.).

One of the textbooks for nursing students, *Syhoni Kangogaku* ("Nursing in Pediatrics") written by Tsutsui et al. (1997) defines "*Shinriteki-jyunbi*" ("Psychological preparation") as a) the provision of accurate information to children and parents, b) the encouragement of emotional expression, and c) the formation of a trusting relationship between children, parents and health care professionals (Tsutsui et al.). In Japanese, "*Shinriteki-jyunbi*" specifies psychological preparation for medical treatments and procedures. This definition of "*Shinriteki-jyunbi*" in the textbook is similar to the one stated by the Child Life Council. The definition in the nursing textbook does not address children's developmental concerns.

In children's hospitals in western counties, the importance of "Informed Consents" and psychological preparation for children's upcoming medical treatments, procedures or diagnosis are well established (Yanagisawa et al., 2002). The authors mention that there are specialized people working to provide this preparation, and while they do not specify, child life specialists and hospital play specialists are no doubt included in this group. Yanagisawa et al. emphasize that children should always be told the truth about medical treatment, however, telling the truth does not require significant detail. Therefore, children need a professional person who knows exactly

what and how much to tell them and can support them about the illness in a stressful situation (Yanagisawa et al.).

In 2000, Yamazaki et al. (2002) conducted research by sending a survey to nurses who were working in pediatric settings in 2000, and asking them if they know the word "*Shinriteki-jyunbi*" (as cited in Ryuugou et al., 2006). The research showed that the concept of emotional preparation has not been established at all among nurses in pediatrics in Japan (Ryuugou et al.). Following Yamazaki's research, Ryuugou et al. conducted their own research on psychological preparation and related issues regarding children having blood drawn by sending a survey to nurses who worked for combined adults and pediatric facilities. Ryuugou et al. obtained 517 responses, and 492 responses out of 517 could be analyzed as valid data in this research.[1] 39.0 % (192) of those nurses knew the word "*Shinriteki-jyunbi*". This percentage is more than twice that shown by Yamazaki's research from five years ago. During the past five years, there must therefore have been improvement and changes in the field of pediatrics. 23.8% (117) of the second group of nurses actually had a learning experience about "*Shinritek-ijyunbi*" (Ryuugou et al.). Ryuugou et al. also asked the participants of the research what the source was from which they learned about preparation. In the 23.8% (117) of nurses who actually had learning experience about "*Shniriteki-jyunbi*", 65 of them learned about psychological preparation from books, 36 of them learned in a study group at their work place, 22 of them learned in a congress, and 17 of them learned at college they graduated from. This research reveals that only a small number of nurses learn about psychological preparation in their actual classes at schools, and the rest of them have to learn from other sources. While

[1] Unclear why 25 were not valid.

this research does not specify, it can be assumed that most of the nurses have to learn about psychological preparation after they get into the real working field.

The research conducted by Ryuugou et al. (2006) points out how nurses provide psychological preparation regarding of blood draw procedures for children. The results show that 96.8% of nurses reward children for their pains, 96.6 % of nurses relax children's feeling, and 94.7% of nurses touch children's bodies. On the other hand, the research also points out that only 3.2% of nurses use video or books when they explain about blood draws to children, 5.7% of nurses bring toys which are similar to real equipment and 41.1% of nurses provide coping strategies for children. Ryuugou et al. conclude their research with three main points.

1) In the case of providing psychological preparation for children having blood draws, nurses perceive it to be less important to provide explanation by using books, videos or actual medical equipment. Only about half of the nurses provide coping strategies for children. The research reveals that most of nurses do not have any specific skills with regard to how they can advise children about what to do during procedures.
2) The nurses who understand psychological preparation well perceive highly the necessity of children understanding the procedures of having blood drawn before the procedure takes place. They are also able to help children face it and distract themselves during the procedures. Therefore, the nurses understand that psychological preparation does not only involve explanation and encouragement, but also giving the child support so he or she can gain confidence and a sense of achievement.
3) 70 % of nurses who work in pediatric settings know about psychological

preparation, and 50% of them have actual learning experience for psychological preparation. In contrast in settings where nurses work with both children and adults patients, 30% of nurses know about psychological preparation, and 20 % of them had an actual learning experience. In addition, the majority of nurses who have been working in pediatrics for more than ten years know about psychological preparation where as majority of nurses who have been working in pediatrics for less than one year do not know about psychological preparation. This research points out the difficulty for nurses to enhance their specialties in pediatrics because nurses are required to work with patients of all ages. Ryuugou et al. (2006) emphasize the importance of providing opportunities to learn about preparation for nurses who work in hospitals which have a mixed age range of patients and for nurses who have less experience working in pediatrics (Ryuugou et al.).

Yanagisawa et al. (2002) state these same points as Ryuugou et al. (2006). Doctors can decide what kind of doctors they want to be when they graduate from medical schools. On the other hand, nurses' specialties are often decided by the hospital where they get a job. Nurses are in a difficult position to develop their specialties because of this institutional system. In addition, in some hospitals, nurses have to be rotated to different units periodically. That makes it more difficult for nurses to develop their specialties, particularly with regard to working with children.

Methodology

Participants

Convenience sampling was used to identify participants in this study (Yin,

2003). This case study was conducted with four Japanese participants. The first participant was "Child life specialist Emily," a 30 year-old Japanese female who started her professional work in 2007 after she graduated from a college in United States. The second participant was "Child life specialist Jill," a 32-year-old Japanese female who has the similar background as Emily to this profession. The third participant was "Nurse Mary," a 25-year-old Japanese female who started her professional work in 2007 after she graduated from a university in Japan. The last participant was "Nurse Anne," a 24-year-old Japanese female who started her professional work in 2005 after she graduated from a nursing school. All the participants' names are pseudonyms. The participants were assured confidentiality.

Instruments

Data collection instrument was interviews that were conducted in person. I asked some follow-up interview questions after the interviews via emails. Interviews were scheduled at times and locations most convenient to the participants and the researcher. Interviews were audio recorded and later transcribed.

Interviews for child life specialists and nurses were based on a series of open-ended questions intended to elicit information regarding their perceptions of their role in preparing children and families for intervenous (IV) placement and venepuncture medical procedures. I decided to focus on the psychological preparation for IV and venepunecure medical procedures since these are common and frequently performed for patients all hospital units.

Procedures

All the interviews were conducted in Japan during my Christmas break in 2007-2008. I decided to collect only Japanese data for two reasons. First, I hoped to learn about current Japanese practices by asking people who work directly in pediatric settings. I am going to go back to Japan after I graduate from Mills College, and will work in a situation similar to the one the interviewees work in. Secondly, data collected in my "native language" would be more detailed and rich in providing and understanding of the information for me. I definitely felt more comfortable asking detailed specific questions and probing sensitive issues in Japanese.

I contacted two child life specialists who graduated from Mills College, and currently work in hospitals in Japan. Also, I contacted two nurses through a personal connection with friends. After four participants agreed to participate for this case study, they were provided with an informed consent from prior to the start of any data collection.

Data Analysis

All interviews were translated from Japanese carefully by the researcher. Themes and patterns in the data emerged in the analysis and is provided in the tables and figures.

Validity and Reliability

The construct validity was provided in this case study by the two sources, including interviews and documents. The internal validity of the study was insured by continually checking the accuracy of the researcher's data analysis with research

colleagues. Research colleagues repeatedly reviewed the researcher's categorization of the data in order to ensure accuracy. Questions with regard to the researcher's interpretation of the data, and potential rival explanations for explaining the data were discussed until agreement was reached among researchers. The reliability was strengthened by documenting in detail all of the procedures involved the data collection and the data analyses (Yin, 2003).

Limitations

A limitation of this study is that in trying to understand the difference between nurses' and child life specialists' roles in preparing children, the hospital setting variable was not explored systematically although it certainly influences both the nurse and the child life specialist in their work. The reader should note that the participants in this study were drawn three different institutional settings. Another limitation of study was emerged when I collected data from nurses. Two nurse participants and I met together in a limited time frame because of their schedules. Therefore, the amount of the interview data from the nurses was limited compared with that of child life specialists.

Findings and Discussion

The findings and discussion are organized for the purpose of contrasting the roles of child life specialists and nurses in the psychological preparation worked with children. The hospital setting in which the child life specialists and nurses work and the challenges they face are presented in the following the five sections: a) hospital setting through reflections on interviews with child life specialists and nurses, b) a

model I developed of a comparative preparation cycle between child life specialists and nurses, c) the use of language to support children in psychological preparation, d) the tools to support children in psychological preparation and e) the opportunities for child life specialists and nurses to collaborate professionally.

Hospital Settings for Nurses and Child Life Specialist Interviewees

One of the most important roles of child life specialists is to provide psychological preparation. Table 1 below provides basic information concerning the contexts the four participants work in. The four interviewees were Child life specialists Emily and Jill and Nurses Mary and Anne. They work in three different: Hospital S, Hospital T, and Hospital M (see Table 1).

Table 1. *Hospital settings for nurses and child life specialists (CLS) interviewees*

Profession	Participants	Hospital name	Location	Type	Total number of beds	Number of Nurses in hospital	Number of CLS in hospital	Units partici-pants work in
CLSs	Emily	Hospital S	Tokyo	Children's Hospital	460	No data	1	Surgical ward
	Jill	Hospital T	Tokyo	Pediatric floor	38	No data	1	Pediatrics ward
Nurses	Mary	Hospital M	Sendai	Children's Hospital	160	Nurse: 212 Doctors: 46	0	Acute patients ward
	Anne							Oncology & Hema-tology ward

Child life specialist Emily works in children's Hospital S which has 460 beds, and is located in Tokyo. Child life specialist Jill works in Hospital T, which is a pediatric setting with 38 beds. It is located in Tokyo as well. Both Emily and Jill are the only

child life specialists in their hospitals. Because there are 460 beds, and she cannot work in all units. Emily had to choose one, and she chose the surgery unit. Child life specialist Jill works for all the 38 beds patients. She is not able to see all the patients every day, however, it is apparently manageable to support children and families in Hospital T.

Both Nurses Mary and Anne work in the same children's hospital located in the city of Sendai, which is in the north part of Japan. Hospital M has 160 beds. Mary works in the acute patients ward, and Anne works for chronic patients ward. Both typically provide primary care for four or five children. There is no child life specialist currently working in Hospital M.

The concept of psychological preparation is still new in Japan, and the number of child life specialists is extremely limited. Child life specialists Emily and Jill provide psychological preparation for as many children as possible. They explained that "*psychological preparation is providing age-appropriate information using the least threatening language possible to reduce stress and to encourage their understanding, at the same time, correcting children's misconceptions and encouraging children's expressions of feelings*" (child life interview, 2008). Psychological preparation helps children learn coping strategies. For example, some children want to look at their favorite picture books or toys; others want to squeeze someone's hands. Emily emphasized that "*children who received psychological preparation will have better reactions to procedures than those who did not, even though the procedures were identical*" (child life interview, 2008). Also, Emily emphasized that "*children might feel as if the actual procedures are shorter because they know what steps are included, and they know what the next step is*" (child life

interview, 2008). Children who receive psychological preparation are less likely to experience feelings of fear and anxiety concerning what happens next or when the procedures will finish.

According to Child life specialist Emily, there is another purpose for psychological preparation that addresses the child's broader hospitalization experience. She described this broader sense of psychological preparation as "*every necessary support for children throughout their hospitalization*" (child life interview 2008). According to the Child Life Council, the goal of psychological preparation is "to reduce the fear and anxiety experienced by a child who is undergoing a medical procedure and to promote his or her long-term coping and adjustment to future health care challenges" (Koller, 2007, p.3). Child life specialist Emily emphasized that "*everyone interacts with children, including doctors, nurses, preschool teachers, child life specialists, and even their parents have a responsibility to let children know what is happening to them*" (child life interview, 2008). Thompson and Stanford (1981) express the same point that "personnel throughout the hospital should be sensitive to the needs of parents and children to [let them know] what is going to happen, and [personnel should] intervene at the appropriate time" (p.118).

In contrast, Nurses Mary and Anne expressed the reality that they do not have time to provide children and families with psychological preparation. However, the interview revealed that their simply definition and purpose of psychological preparation is "*promoting children's understandings of procedures"* and *"enhancing children's coping skills*" (nurses interview, 2008). Nurses Mary and Anne both emphasized that psychological preparation is so critical for children and families. At the same time, they expressed that they have little or no time to provide psychological

preparation. The procedures Nurses Mary and Anne perform on children are often urgent. Nurses' main task is "*saving children's lives rather than providing age appropriate psychological preparation*" (nurse interview, 2008). Primary nurses normally have four or five patients to take care of as noted previously. There is no doubt that two or more procedures have to be performed on different children at the same time. Nurse Anne expressed "*I have attended a study group on psychological preparation. However, we just do not have time*" (nurse interview, 2008). She continued, "*the situation is like this even in the children's hospital that I work for. I assume that it is even harder in the pediatric units in other hospital*" (nurse interview, 2008).

The academic training and intern experience for nurses is certainly comparable to that of child life specialists since nurses' main work is on medical issues and their education focuses on this. On the other hand, child life specialists' training education focuses on child development and relationship-based/ emotion-based approaches for at least two years in the case of the child life master's degree. Nurse Anne actually told me that she hopes child life specialists can teach her how she can prepare children. Nurses have neither the time or knowledge of how to prepare children from a developmental perspective at this point, but they want to learn psychological preparation in their limited of time. Both Nurses Mary and Anne currently have no chance to work with child life specialists because there are no child life specialist working in Hospital M, as shown in Table 1.

As mentioned previously, the concept of psychological preparation is still new in Japan. Child life specialist Emily described the current situation in her surgical unit as "*The hospital staff are trying to find out how children react toward their procedures*

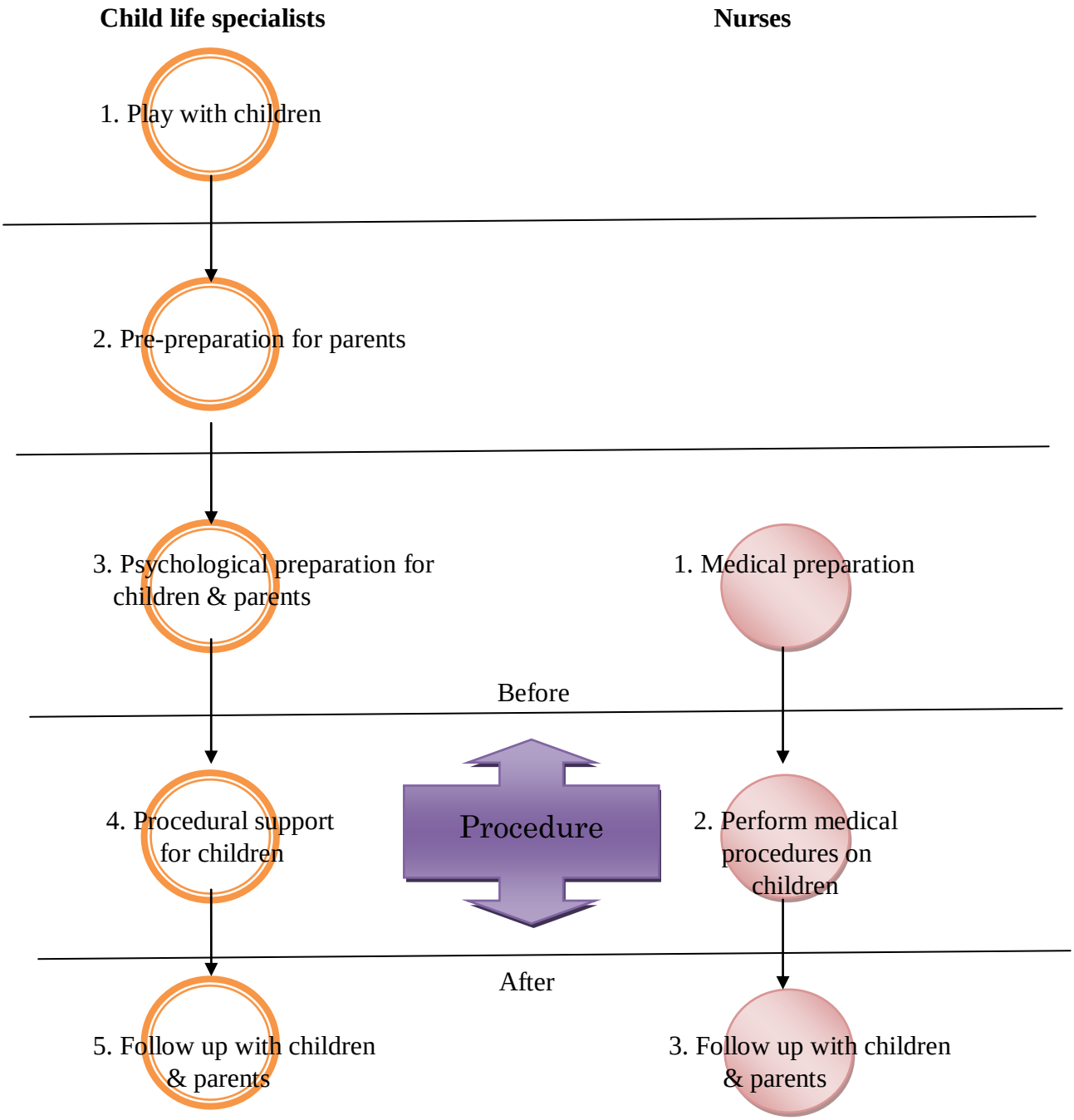
when they get information about it beforehand" (child life interview, 2008). At the same time, the hospital staff is worried "*what if children get shocked and scared by psychological preparation. How can we handle the situations?*" (child life interview, 2008). The researcher, Pertillo points out "a common belief is that the child will be overwhelmed [by the detailed information provided in psychological preparation] which in turn will trigger anger….[or] unmanageable behavior" (Thompson & Stanford, 1981, p.118).

Child life specialist Jill expressed the fact that "*we need more evidence-based practice in terms of what kind of children can benefit more and what kind of children benefit less from psychological preparation*" (child life interview, 2008). In contrast, Thompson and Stanford (1981) write "all children who are cognitively capable of understanding simple explanations of events and procedures should receive preparation" (p.116). Child life specialist Jill believes more evidence-based practice in this field needed because she experiences that there are some children who get scared from psychological preparation.

Comparative Preparation Cycle: Nurses and Child Life Specialists

The preparation cycle model detailed below in Figure 1 emerged from the analysis of the interview data conducted with child life specialists and nurses. The preparation cycle refers to sequential points of child life specialists and nurses interaction with children and parents in providing psychological preparation.

Figure 1. *Data-based preparation cycle model*



As noted in Figure 1, the preparation cycle child life specialists use involves five steps, which are 1) play with children, 2) pre-preparation for parents, 3) psychological preparation, 4) procedural support for children, and 5) follow up with children and parents. For the first step, Child life specialists Emily and Jill want to play with children before they provide actual psychological preparation. Through play, child life

specialists can assess children's stress levels and language use. Also, children can become familiar with a child life specialist by spending time with her. Playing with children is important in building a trusting relationship. Thompson and Stanford (1981) write, "by introducing play activities and letting the child decide what he or she wants to do, the child life worker will be able to build a relationship and gain the child's trust" (p.83).

For the second step, Child life specialist Emily introduced an unfamiliar word, "pre-preparation." What she meant by "pre-preparation" is the phase that explains psychological preparation to the parents. Psychological preparation is still an unfamiliar term and concept in Japan and parents often think, "*What are you going to do to my child*?" (child life interview, 2008). Therefore, Emily thinks that "*it is important to explain to parents what the purpose of psychological preparation is and what it is like*" (child life interview, 2008).

Step 3 is the actual psychological preparation for children and families. As noted previously, child life specialists perceive that every necessary support throughout hospitalization should be defined as psychological preparation. Therefore, the whole preparation cycle of child life specialists is a large, complex psychological preparation. However, step 3 includes specific technical psychological preparation such as "*providing age appropriate information, rehearsing, recognizing children's feelings, and learning coping strategies*" (child life interview, 2008).

Step 4 of the preparation cycle is procedural support for children during medical procedures. Child life specialists attempt to keep children's minds off the procedures by enhancing children's coping skills or by using distraction toys which children prefer. Also, child life specialists attempt to respond respectfully to children's

feelings and thoughts by minimizing their stress and anxiety during procedures. For example, Emily said that "*children tend to get scared more when they have to lay down on a bed for an IV placement. At that point, I help them to sit up to change their positions. The position of sitting up is often better than lying down, because children can feel more in control*" (child life interview, 2008).

Finally, step 5 is following up with children and parents after procedures. It is important to mention that in Japan parents often are not able to enter a treatment room. Doctors and nurses are not comfortable being with parents during procedures and communicate this perspective. Child life specialists also often do not encourage parents to be with their children during procedures because of the different reason of that from nurses. Child life specialists Emily and Jill expressed that they do not encourage parents to be with their children during procedures in consideration of the parents' feelings. Parents might have a hard time seeing their child cry. Emily explained to the parents how the procedures went, and Jill focused on communicating to their parents the children's feelings during and after procedures.

In contrast to the five steps in the preparation cycle by child life specialists, the nurses' preparation cycle involves only three steps: 1) medical preparation, 2) procedures on children, and 3) follow up with children and parents (see Figure 1). The first step of the cycle is nurses' professional preparation of medical equipment. It does not involve any psychological issues with children. As mentioned previously, the nurses' main tasks are providing medical treatments and procedures. Nurse Mary explained, "*I make sure to prepare all medical equipment before I bring a child into a treatment room*" (nurse interview, 2008). This is another type of professional "preparation" that nurses are in charge of.

Step 2 of the nurses' preparation cycle is performing medical procedures on children. It also does not involve any children's psychological issues, but the actual medical procedures nurses perform on them. When nurses have tasks to do such as performing medical procedures, they are not able simultaneously to pay attention to providing psychological support.

Finally, step 3 is following up with children and parents after procedures. Both Nurses Mary and Anne think that following up with the procedures is critical when considering good communication between children, parents and nurses.

Language Used in Preparation

Child life specialists and nurses talk differently to children before and during procedures in terms of IV and venepuncture medical treatments. Table 3 below gives examples of child life specialists and nurses in interactions with children throughout either their blood draw or the placement of an IV.

Table 2. *Comparison of language used by child life specialists and nurses in interactions with children*

Procedures	Child life specialists	Nurses
Blood draw	CLS: Did you know you are going to have something done today? You are going to have a blood draw, right? There is a vein here, and there is blood inside. A little bit blood has to be taken today. Your doctor needs to see your blood, and he will know about your body. Your doctor will touch your arm like this and tap, tap, tap. After that, the doctor will put a blue ribbon [tourniquet] on your arm. Do you know why the doctor has to do this? Child: Because I won't move. CLS: Actually, the blue ribbon helps to make your vein pop-up. The doctor will wipe your arm with alcohol pat to kill germs…	Nurses:(When putting the tourniquet on the child' arm) I'm not doing anything painful yet. I'm just looking at your arm. When you will feel pain, I will tell you.
IV	CLS: …This small catheter needs to be in your vein. Isn't it soft? Child: How does it get into the skin? There is no needle. CLS: Actually, there is a needle in it, so this can be inside of your skin. But after this is placed in your vein, the needle comes out. So the only small straw part stays. After placing this on your arm, you can move and you can even play.	Nurses:(When putting the tourniquet on the child' arm) I'm not doing anything painful yet. I'm just looking at your arm. When you will feel pain, I will tell you.

As noted, child life specialists provide age-appropriate information as they attempt to correct children' misconceptions about the procedure. At the same time, child life specialists answer any questions the children may have. For example, Child life specialist Emily asks children, "*Do you know why the doctor has to put a blue ribbon [tourniquet] on your arm?*" (child life interview, 2008). Then, the child says, "*Because I won't move*" (child life interview, 2008). From this conversation, it appears that the child thinks that the tourniquet is used as an effort to restrain him. Child life specialist Emily corrects this misconception by explaining, "*Actually, the blue ribbon [tourniquet] helps to make your vein pop-up.*" (child life interview, 2008).

Child life specialists ask what children know about the procedure, and based on this, give age-appropriate, accurate information. Vygotsky's theory of zone of proximal development, or the ZPD can be applied to this point. Berk and Winsler (1995) write that Vygotsky suggests analyzing what children can do with the help of another person. Looking of something child can do with help shows what a child is ready to learn as the next step. Berk and Winsler also emphasize, "the social environment is the necessary scaffold, or support system, that allows the child to move forward and continue to build new competencies" (p.26).

Child life specialists explain to children, "*why the procedure has to be done, and how*" (child life interview, 2008). Thompson and Stanford (1981) write, "the child needs to know how something will be done, why it will be done (to avoid misconceptions that the procedure is a punishment), and what it will feel like" (p.124). Children might create extra fear and anxiety by using their imaginative thinking with lack of information. According to Rolling et al. (2005), the fantasies of children can be much worse than reality. The interventions of Child life specialists focus on children's misconceptions and questions in order to encourage them to express their feelings. Therefore, this experience leads to children's further adjustment during hospitalization and even after returning home.

It was revealed that child life specialists speak to and with children more than four times as much as nurses (child life interview & nurse interview, 2008). Compared to child life specialists, the language used by Nurses Mary and Anne tends to be one-directional from nurse to child, such as "*I am just looking at your arm now*" (nurse interview, 2008). Also, Nurse Anne says that "*I don't want to tell a lie, so I would say to a child, when you will feel pain, I will tell you*" (nurse interview, 2008).

Nurses' interactions with children tend to be limited to handling the actions in the moment. From this perspective, children are not able to understand why they have to have procedures.

In comparing the use of language by child life specialists and nurses, I noticed one frequently repetitive word for each profession. Child life specialist Emily used the word, "calm" 13 times throughout the approximately one-hour interview. According to her, "*psychological preparation is needed because children should be encouraged to be calm throughout hospitalization as much as possible*" (child life interview, 2008). Compared to Emily's frequent use of the word, "calm," Nurses Mary and Anne often used the words "be brave" when talking about psychological preparation of children. The total number of times they used the words "be brave" was 12 in an approximately 40 minute interview. Nurse Mary explained, "*psychological preparation is needed because hospital staff should encourage children to be brave to get through the procedures*" (nurse interview 2008). Child life specialist Jill noted, "*we, child life specialists don't use the phrase 'be brave'*" (child life interview, 2008). Conversely, Nurses Mary and Anne never used the word "calm" in the interview.

Nurses tend to take a behavioral approach in working with children in order to just get the procedures done. From a child life perspective, the problem with this approach is that the children's experience is not used as an opportunity to encourage their learning, understanding, and use of coping strategies during medical procedures. This approach does not help further the children's psychosocial adjustment.

There is another example of nurses using "be brave" that occurs when they inform parents how procedures went. Based on the preparation cycle explained previously, nurses follow up with children and parents after the children go back to

their rooms and unify with their parents. Nurses say, "*your child was really brave. Your child should be praised for that*" (nurse interview, 2008). Children learn from the experience that they have to be brave because they want to be praised by parents. This is Skinner's stimulus-response learning, but not based on cognitive developmental learning (DeVries & Kohlberg, 1987). With this nurse's approach, children do not have chance to learn what has happened and why.

Preparation Materials

Below are some photos of preparation tools how child life specialists use to prepare children for IV and venepuncture medical procedures. Child life specialists Emily and Jill let children play with these preparation tools before and after procedures (see Figure 2).

Figure 2. *Child life specialist preparation materials*

IV catheter and a preparation doll

Preparation dolls

Alcohol wipes and tapes

A stethoscope

Doctor's play kits

IV catheter and a doll

A glove preparation puppet

I was not able to get any photos of preparation tools from Nurses Mary and Anne. There are two reasons for this, a) Mary and Anne do not provide psychological preparation such as like in the way child life specialists provide, and b) Mary, Anne and I met outside of the hospital for this interview. However, in order to compare with preparation tools used by child life specialists, Figure 3 shows general medical equipment nurses use for blood draws and IV placements.

Figure 3. *Nurses procedure tools*

Medical equipment for blood draws

Medical equipment for IV placements

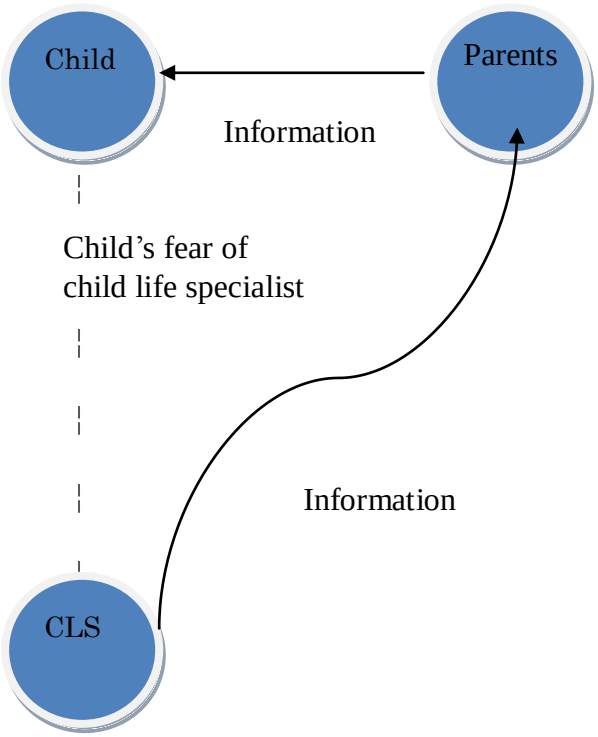
Both Child life specialists Emily and Jill use actual medical equipment such as an IV catheter without a needle, a tourniquet, tapes, alcohol wipes and more. Emily and Jill explain to children what will happen by using these preparation tools on dolls. Children can use the preparation tools on a doll or on a stuffed animal to be familiar with the medical tools. Playing definitely helps children to process new information about procedures. Child life specialists Emily and Jill consider that in particular younger children and younger school-age children need actual manipulatable visible materials to process information. Children are in the preoperational or concrete operational stage respectively based on Piaget's developmental stages. Thompson and Stanford (1981) describe, "Young children learn by doing. They handle objects, tip them over, pull them apart and reassemble them to learn about the unique properties of each" (p.124). Also, by using preparation tools on a doll or stuffed animal, children a feel a sense of control and mastery for the situation. During the children's play, child life specialists follow children's leads to enhance their feelings of control.

For using a doll or a stuffed animal, Child life specialist Emily made the critical point of how she chose a doll or a stuffed animal depending on each individual child. Emily said, "*I would start with a little stuffed animal if a child shows a lot of anxiety*

and fear because small things are more under the control of the child. The child is able to feel a sense of mastery for this situation" (child life interview, 2008). Emily continued, "*I will bring a little bigger doll after the child is able to get used to the situation. When I use a doll, because that is a human shape, psychological preparation goes into the child's reality*" (child life interview, 2008). Rolling et al. (2005) write, "Child life specialists are trained to assess the developmental needs of children and to plan appropriate interventions, including preparation, within the context of the children's abilities, family relationships, and medical conditions" (p.55). Moreover, child life specialists are able to assess children's characteristics, tolerance, stress level and anxiety level to meet their diverse needs.

Beside the actual preparation tools, it appeared that child life specialist use parents as communication tools with children. From responses by Child life specialists Emily and Jill, it became clear that involving the family and taking parents' positions seriously are critical. Child life specialists always believe that parents experts in terms of their children, and they attempt to involve parents as much as possible. If children are nervous or unfamiliar with child life specialists, child life specialists use parents as a bridge to bring information, or to listen to children's words (see Figure 4).

Figure 4. *Parents as an information bridge between child and child life specialists*



At the same time, it seems child life specialists are sensitive to parents' feelings, too. Child life specialist Jill emphasized that she checks parents' facial expression to see if they feel uncomfortable or anxious from psychological preparation. If the parents are nervous, the feelings directly reflect on the children. Thompson and Stanford (1981) write, "young children are sensitive to the parents, reacting to mother of father's anxiety. By providing information and emotional support to parents, hospital personnel can reduce parental anxiety, thereby, indirectly benefiting the children" (p.124).

Current Professional Collaboration

In terms of providing psychological preparation for the IV and venepuncture medical procedures, current collaboration between child life specialists and nurses was revealed from the interviews (see Figure 5).

Figure 5. *Data-based of current collaboration between child life specialists and nurses*

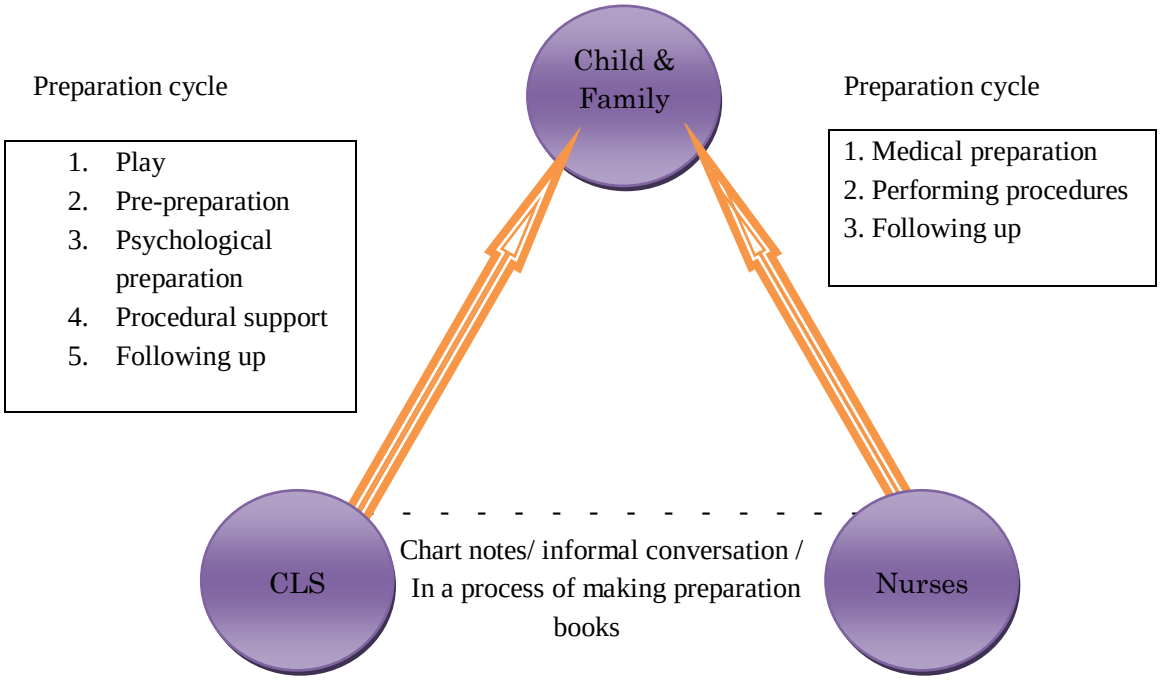


Figure 5 shows that child life specialists provide psychological preparation, and nurses perform medical procedures based on the comparative preparation cycle (see Figure 1). Child life specialist Jill emphasized that there is not much current collaboration between herself and nurses in terms of psychological preparation for IV and venepuncture medical procedures (child life interview, 2008). It seems that Jill writes chart notes about issues which caught her attention after she prepares a child. On the other hand, Child life specialist Emily explained that she currently is in a process making some preparation books as she collaborates with nurses. Emily hopes that nurses will be able to prepare children by using the preparation books, which include age-appropriate language and information. The preparation books help nurses to prepare children appropriately, so that more children are able to receive psychological preparation from nurses. Thompson and Stanford (1981) write, "the member of the health care team conducting preparation sessions may be a child life worker, nurse, or other individual with adequate knowledge of medical procedures

and a through understanding of child development and the emotional needs of hospitalized children and their families" (p.118).

I have to emphasize again that Child life specialist Emily is the only child life specialist in a children's hospital with 460 beds. Emily believed that nurses need a picture-type preparation book with language they can use to prepare children because providing psychological preparation is not nurses' specialties. Child life specialists are trained to provide psychological support for individual children depending on his or her development, emotion and family dynamic. Nurses are not trained for that. I was able to capture that Child life specialist Emily was in a process of educating and training nurses in how important psychological preparation is, and how nurses can prepare children. Thompson and Stanford (1981) describe that "often the primary responsibility for conducting major preparation sessions lies with the nursing staff. Under such an arrangement, the role of the child life worker shifts to support the efforts of that group" (p.131). Thompson and Stanford continue, "the child life staff, within knowledge of child development, can assess the teaching methods and materials utilized by the nursing staff, providing suggestions for change when appropriate" (p.131).

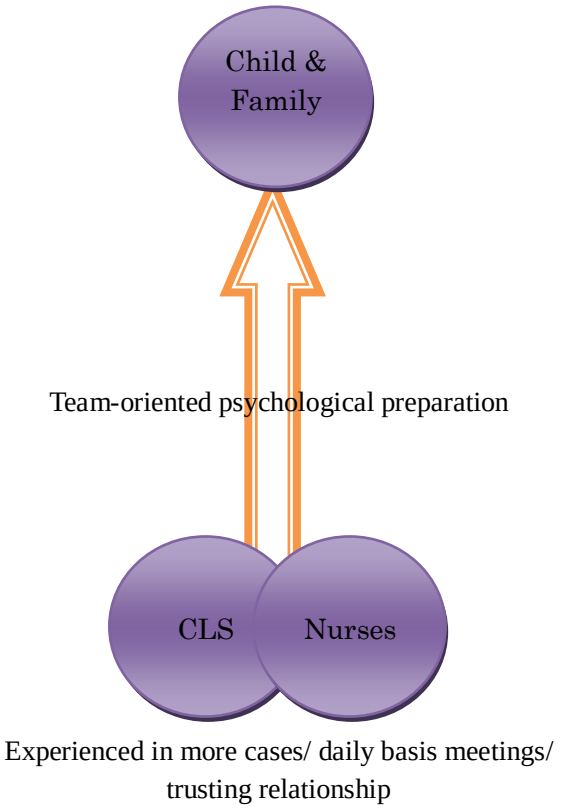
As all the interview participants emphasized, close communication and frequent daily-basis meetings between child life specialists and nurses are key points to providing the best psychological support for children and families. Child life specialist Emily pointed out that "*nurses and child life specialists should have meetings, talking about how we support each individual child's case, and try what we discussed*" (child life interview, 2008). She continued "*the more experiences nurses and child life specialists get, the more we will know how we can handle a various*

situations" (child life interview, 2008).

Conclusion and Implication

Throughout this case study, I have seen that child life specialists are in a process of exploring their roles in the hospital, and they seek ways to collaborate with nurses to provide the best support for individual children and families. At the same time, nurses hope to learn how to provide psychological preparation in addition to their main focus on performing medical procedures and treatment. It is important to know that psychological preparation includes all support that help to make children and families calm and that helps to minimize their stress and anxiety as much as possible. I created the model of ideal collaboration between child life specialists and nurses from the data in this study.

Figure 6. *Ideal collaboration model between child life specialists and nurses*



In the ideal collaboration model, (Figure 6), nurses' focus is performing medical procedures, which will not be changed from the current role. However, nurses will be able to provide psychological preparation for upcoming medical procedures with or without professional development preparation books. Nurses will know what kind of language and information they use and provide for individual children because of the collaboration with child life professionals. In contrast, child life professionals will know more accurate medical information by exchanging information with nurses. The results of this model are team-oriented psychological preparation for an increased number of children and families.

Additionally, Child life specialist Emily expressed "*working together as*

having the same goal between nurses and child life specialists really helps to develop trusting relationships in a team" (child life interview 2008). There is no doubt that this trusting relationship as a team enhances the support for all children and families and provides much higher quality care. Child life specialists Emily and Jill expressed that "*family-oriented care and child-oriented care will be focused more because of the growth in the awareness of the concepts of psychological preparation*" (child life interview, 2008). They also said, "*hospital staff will recognize children's perspectives and questions more, and will be able to approach children and families' needs knowing that every child is different*" (child life interview, 2008).

Child life professionals are just getting started in Japan, so child life specialists and nurses definitely need more experience in various kinds of situations as they discuss how they can support each individual child. Child life specialists and nurses will be able to accept and support children however they express themselves professionally. Nurse Anne expressed that "*This might be an exaggeration, but children will find something fun in hospitals because they can learn about procedures,*" (nurse interview, 2008). Child life specialists Emily and Jill emphasized, "*children will be able to obtain a feeling that they are told the truth, and they are respected as an individual*" because of psychological preparation (child life interview, 2008). Developing positive impressions of medical procedures, medical staff, and the hospital will help children's future reactions to hospitalization. Through psychological preparation, children learn coping strategies, and they will be encouraged to express misconceptions with their feelings. This cognitive and psychological learning definitely helps to make their experience as positive as possible during hospitalization and even after returning home. Children can understand that hospitals are not only the

place where they have to get painful procedures, but also it is where children can learn something and have a positive experience. Child life specialists and nurses support children's experience by using their professional skills and knowledge in such a collaborative team.

Appendixes

Appendix A. *Letter to interview participants and institutions*

To

My name is Tomoko Hirata, I am a graduate student completing a Master of Arts in Education with an emphasis on child life in hospital. I am currently conducting a research project in Japan to understand the perspective of Japanese child life specialists and Japanese Nurses in preparing children and family. This case study will also examine Japanese children and families' experience of this medical preparation. I assume that the concept of preparation to children is now growing in Japan. This study will help to learn how nurses, child life specialists, and children and families perceive the way to prepare children and the purpose of preparation, and how they feel about it. This data will be important information when nurses and child life specialists provide preparation as emotional and developmental care in the future by collaborating each other.

This study will contribute to the limited literature on medical preparation for children by adding the perspectives of different medical professionals with regard to IV and venepuncture preparation. In addition, data from the study has the potential to help child life specialists better understanding their role that of the Nurses how children and families perceive preparation provided by nurses and child life specialists. This study will give nurses and child life specialists important idea about how preparation should be implemented in the future in Japan.

All data collected will be used solely for the study and all documents, tapes, and transcripts will be kept in a locked file cabinet accessible only to the researcher. Pseudchyms will be used to ensure privacy confidentiality.

Thank you for your time and consideration. If you have questions, please contact me (email: thirata@mills.edu), my advisor, Linda Perez (email: lmperez@mills.edu; phone: 510.430.2328) or a professor Jane Boyer (email: jane@mills.edu; phone: 510.430.3251).

Sincerely,

Mills College Education Department, Graduate Student,
Tomoko Hirata

Appendix B. *Sample questions for interviews*

- Do you provide psychological preparation to preschoolers and school-age children when they get intravenous (IV) and venepuncture medical procedures?
- What is the definition of psychological preparation for you?
- How do you prepare parents for these medical procedures?
- What steps do you take to provide psychological preparation for IV and venepuncture medical procedures to children?
- What steps do you take to provide psychological preparation for IV and venepuncture medical procedures to parents?
- How do you interact with children when you prepare them? What do you concern about?
- How do you interact with parents when you prepare their children? What do you concern about?
- What equipments do you use when you provide psychological preparation for IV and venepuncture medical procedures?
- Do you have any episodes that psychological preparation is beneficial?
- Do you have any episodes that psychological preparation is not so beneficial?
- What is your next future step in terms of psychological preparation?
- What do you find the difficulties to provide psychological preparation?
- What do you think how situation of pediatrics will be changed because of psychological preparation?
- How do you collaborate with nurses (child life specialists) in order to provide psychological preparation?

Appendix C. *Sample responses from interviews*

Child life specialists:

- Psychological preparation is providing age-appropriate information using the least threatening language possible to reduce stress and to encourage their understanding.
- Psychological preparation is correcting children's misconceptions and encouraging their expressions of feelings.
- Technical psychological preparation includes providing age-appropriate information, rehearsing, recognizing children's feelings, and learning coping strategies.
- Child life specialists explain to children why the procedure has to be done and how.
- Psychological preparation is needed because children should be encouraged to be calm throughout hospitalization as much as possible.
- I would start with a little stuffed animal if a child shows a lot of anxiety and fear because small things are more under the control of the child. The child is able to feel a sense of mastery for this situation.
- Nurses and child life specialists should have meetings, talking about how we support each individual child's case, and try what we discussed.
- The more experiences nurses and child life specialists get, the more we will know how we can handle a various situations.
- Children who received psychological preparation will have better reactions to procedures than those who did not, even though the procedures were identical.

Nurses:

- Psychological preparation is needed because hospital staff should encourage children to be brave to get through the procedures.
- Psychological preparation promoting children's understandings of procedures and enhancing their coping skills.
- I have attended a study group on psychological preparation. However, we just do not have time.
- The situation is like this even in the children's hospital that I work for. I assume that it is even harder in the pediatric units in other hospital.
- This might be an exaggeration, but children will find something fun in hospitals because they can learn about procedures.
- I don't want to tell a lie, so I would say to a child, when you will feel pain, I will tell you.

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