

Psychological Preparation of Children for Medical Procedures: An Awareness Survey Targeting Nurses in Japan

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Abstract

Preparation is a means to support the psychological readiness and autonomy of children undergoing medical treatment. In this study, to understand the current practice and application of psychological preparation, using “explaining medical information to a child” as an indicator of respect for children’s rights, we investigated the effect of psychological preparation since 2002. The present study aimed to clarify the current status and awareness of psychological preparation for children undergoing medical procedures in pediatric nursing in Japan. An original questionnaire regarding psychological preparation for children in hospitals was sent by mail to nurses who were working in Japanese pediatric wards in 2010. Based on results from a previous study, nurses’ awareness of psychological preparation for children undergoing medical procedures seems to have improved. However, it was evident that nursing staff working in mixed wards require more specialized knowledge regarding child care, especially in terms of preparation. Furthermore, Japanese nurses recognized a need for improvement concerning their duties. It was also clear that the meaning of preparation remains ambiguous for many nurses. These results suggest that preparation has both psychological and ethical meanings.

Keywords

Psychological Preparation, Children Undergoing Medical Procedures, Pediatric Nursing, Japan

1. Introduction

Preparation is a means to support the psychological readiness and autonomy of children undergoing medical

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treatment. In this study, to understand the current practice and application of psychological preparation, using “explaining medical information to a child” as an indicator of respect for children’s rights, we investigated the effect of psychological preparation since 2002 [1]. We conducted a previous study in Japan to clarify the status and awareness of psychological preparation for children in child health nursing [2]. In that study, an original questionnaire regarding the current status and awareness of psychological preparation for children in child health nursing was distributed to all 716 nurses working in pediatric wards in Japan in 2005 and 2006. A total of 350 questionnaires were returned (response rate, 48.7%). Almost all respondents indicated that psychological preparation for children in hospitals was “always” necessary or “dependent on the child’s status”. Among the respondents, 20% indicated that they provided preparation for “all children”, 50% indicated that preparation was “dependent on the child’s status”, 20% indicated that they provided preparation “for the parents in the presence of the child”, and 5% indicated that they provided preparation “for the parents only”. Regarding reasons why preparation was not conducted, 45% indicated that they “have no good opportunity to provide psychological preparation”, 40% indicated that “children become anxious when presented with medical information”, and 27% indicated that they “have no time to provide psychological preparation for children”. In order to promote psychological preparation, 70% of the respondents suggested “having a workshop to learn the meaning, methods, and effects of psychological preparation”, 48% suggested “modifying nursing duties”, and 41% suggested “increasing the number of nurses”. These results indicated the need for improvement in both the current status and awareness of psychological preparation as a skill in child health nursing in Japan.

Physicians and nurses in Japan are thought to be aware of the need to provide age-appropriate psychological preparation for children undergoing surgical procedures. Therefore, in 2009, we conducted a similar study to clarify the status and awareness of psychological preparation for children undergoing surgical procedures [3]. We found that surgical orientations were given solely to parents in the absence of the child in about 30% of cases. While about 60% of the respondents felt that the use of “children’s picture books and booklets” was a good method for delivering such explanations to children, only about 20% were implementing psychological preparation specific to each age group, and about half were only providing verbal explanations. Meanwhile, 77% responded that preparation was “time consuming”, and 48% felt that “on the contrary, it may heighten the child’s anxiety”. In addition, 34.3% said that they “did not know how to explain surgical procedures to a child”. Among the medical professionals who responded, 54.8% worked in mixed wards. These results suggested the presence of a gap between ideal requirements and current practices. In view of these results, we argued that the following steps were essential: 1) to organize training sessions for knowledge acquisition; 2) to consciously strive to be informed of the actual post-surgical conditions and outcomes of the children; and 3) to acquire physical and financial support.

To clarify the current status and awareness of psychological preparation for children undergoing medical procedures in Japan, we added new queries to the questionnaire from our previous study in 2005 and compared the results.

Terminology

In this study, “psychological preparation” refers to the mental and emotional preparedness of a child undergoing a medical procedure. This study focused on respecting the “right of a child to know”; therefore, psychological preparation was investigated from the perspective of “providing an explanation to the child”.

2. Study Objective

The objective of this study was to clarify the current status and awareness of psychological preparation for children by comparing results from an updated questionnaire survey with those from our previous study. We also aimed to identify additional related issues that need to be addressed.

3. Methods and Participants

A total of 2168 questionnaires regarding the current status and awareness of psychological preparation for children in hospitals were distributed by mail to nurses working in pediatric wards in Japan in 2010.

3.1. Questionnaire Design

The questionnaire was designed specifically for the present study. It was based upon topics identified in our pre-

vious study of Japanese nursing in 2005 [2]. The content of the questionnaire, which included open-ended questions, was designed to address the following issues:

- What are the background characteristics of the participants?
- Who is responsible for psychologically preparing parents or children?
- Is it necessary to provide psychological preparation to children before examinations, procedures, and operations?
- Why is psychological preparation provided (or not provided) to children?
- What is the best strategy for promoting psychological preparation in nursing?

3.2. Data Analysis

The data were compiled using Microsoft Excel (Microsoft Corporation, Santa Rosa, CA). Chi-square tests were performed using SPSS statistical analysis software (SPSS Statistics Ver. 19; IBM, Chicago, IL). Numerical values were rounded to the nearest hundredth for analysis.

The responses to the open-ended questions received from the nurses were categorized based on content, and are presented in brackets in this report. Within each category, some representative responses were quoted directly.

3.3. Ethical Considerations

A letter of invitation outlining the research aims and providing further details of the study accompanied each questionnaire. Participants were informed that their anonymity would be protected and that their participation was voluntary. Questionnaires did not contain any personal information that could identify the respondents.

4. Results

4.1. Participants

A total of 696 questionnaires were returned (response rate, 32.1%). The participants worked in the following types of care institutions: general hospitals (79.9%); pediatric hospitals (2.3%); and university hospitals or clinics with pediatric departments or centers (9.6%). As for affiliations, 32.9% of the respondents worked on strictly pediatric wards, while 49.0% worked on mixed wards alongside adult patients. The number of beds in each department were as follows: >40 beds (39.8%); 31 - 40 beds (25.9%); and 21 - 30 beds (14.4%) (**Table 1**).

4.2. Responses to Questions

Regarding responses, 58.6% of the nurses felt that psychological preparation is “always necessary” for children in hospitals, 40.1% felt that preparation is “dependent on the child’s status”, 84.8% strongly agreed that preparation reduces a child’s anxiety, and 74.0% strongly agreed that a child’s right to informed consent is a valid reason to provide psychological preparation. In addition, 62.6% of the respondents strongly agreed that psychological preparation is important for the promotion of emotional development, and 54.0% strongly agreed that the reason why nurses conduct psychological preparation is to improve nursing quality. Concerning reasons why preparation is not provided, 80.9% of the respondents indicated they “have no good opportunity to provide psychological preparation”, 59.7% indicated they “have no time to provide psychological preparation for children”, and 92.0% indicated that they “need more nurses”. In addition, 54.3% indicated that “children become anxious when presented with medical information”, and 57.4% indicated that “it is better to explain procedures to parents than to children”. To better promote psychological preparation, 61.4% of the respondents strongly agreed that “holding seminars and workshops for training regarding psychological preparation” was a good strategy, 96.2% suggested “improving nursing duties”, and 91.6% suggested “increasing cooperation and support from coworkers”. In addition, 33.2% of the respondents indicated that they “do not know how to provide psychological preparation”, over half of whom worked in mixed wards. However, 80.2% of the respondents agreed that “preparation is a nursing duty”.

4.3. Open-Ended Responses

We received 121 responses to the open-ended questions, which we subsequently divided into 20 categories

Table 1. Participant characteristics.

	n	%
Qualification		
Nurse	696	100
Other occupation	0	0
Institute		
General hospital	556	79.9
Purely pediatric hospital (children's hospital)	16	2.3
University or clinic with pediatric department or center	67	9.6
Other	41	5.9
Not stated	16	2.3
Department		
Mixed wards alongside adult patients	341	49
Hospital wards exclusively for children	229	32.9
Outpatient department	64	9.2
Others	62	8.9
Position		
Station management/management of department	116	16.7
Acting station management/acting management	114	20.7
Health and (children) nurses in the care area	420	60.3
Other	13	1.9
Not stated	3	0.4
Years of experience in healthcare		
<3 years	56	8
3 to 5 years	76	10.9
6 to 10 years	122	17.5
11 to 20 years	234	33.6
>20 years	176	25.3
Not stated	32	4.6
Number of beds in each department		
<10	42	6
10 - 20	52	7.5
21 - 30	100	14.4
31 - 40	180	25.9
>40	277	39.8
Not stated	45	6.5

(Table 2). The majority of the responses fell into the following three categories: [Difficulties in providing psychological preparation to children]; [Problems associated with providing psychological preparation]; and [Concerns about providing psychological preparation].

The following were considered causes of problems encountered when attempting to provide psychological preparation to children: [Short on time]; [Short on staff]; and [Short on knowledge]. Nurses indicated that they perceived the [Necessity of preparation for children] and the [Efficacy of preparation], and that they conducted the following: [Preparation in the current state]; [Preparation through play], and [Research on preparation]; however, some nurses indicated that they provided [Preparation at the pace of the medical staff]. One of the problems identified was [Ambiguity regarding the meaning of preparation], and accordingly, nurses expressed awareness regarding the [Necessity of preparation seminars] and a [Demand for the increased application of preparation]. To promote the application of psychological preparation, nurses perceived the [Necessity of good preparation methods] and the [Necessity of cooperation with coworkers]. Nurses also indicated that they needed [Parental cooperation], and identified issues concerning a [Lack of comprehension among parents regarding information provision to their children] and the [Necessity of education for parents].

5. Discussion

Among all nurses who responded to questionnaires in 2005, 35.2% felt that psychological preparation was “always necessary” and 64.6% felt that it was “dependent on the child’s status” [2]. In contrast, in 2010, 58.6% felt that psychological preparation was “always necessary” and 40.1% felt that it was “dependent on the child’s status”. These results suggest that nurses gained a heightened sense of awareness regarding the necessity of providing psychological preparation to children (Figure 1).

Regarding reasons why preparation was not provided, 45% of the nurses surveyed in 2005 indicated that they “had no good opportunities to provide psychological preparation”; this increased to 80.9% in 2010. Furthermore, the percentage of nurses who indicated that they “had no time to provide psychological preparation for children” increased from 27% in 2005 to 59.7% in 2010. In addition, 41% indicated the need for more nurses in 2005; this increased to 92.0% in 2010. In 2005, 40% felt that “children become anxious when presented with medical information”, compared with 54.3% in 2010. Although the response options for some items on the questionnaires changed from multiple choice in 2005 to a Likert-scale in 2010, no improvements in the situation were observed in responses to these items.

Table 2. Categories derived from open-ended responses.

<i>Difficulties in providing psychological preparation to children</i>	<i>Problems associated with providing psychological preparation</i>
<p>There are difficulties regarding age and individual differences. It is difficult to provide preparation to children with disabilities. It is difficult to employ specialists for financial reasons. It is difficult to explain slowly for children. It is impossible to provide preparation every time. It is difficult to involve every child. It is difficult to find a good opportunity. It is difficult for emergency cases. It is difficult for briefly admitted cases. It is difficult for children to understand without experience or visual media. Children become anxious without giving any particular information. I feel sad when the child does not assent to undergo a procedure when I conduct preparation. It is unclear whether a child consents.</p>	<p>It depends on the nurse. It is difficult to educate nurses. The staff believe that preparation is difficult. It is difficult to conduct by verbal explanation only. It is difficult to explain to parents. It cannot be conducted alone. It is difficult to reach consensus among the staff. I do not understand the necessity. Few nurses recognize the importance. It is difficult to appreciate. A good tool is expensive and hard to obtain. I am not good at drawing, I have no time for making a good tool. It is better for parents than for children. Doctors have no interest. We do not have the cooperation of a doctor. I do not know how to do it.</p>
	<i>Concerns about providing psychological preparation</i>
	<p>We have no time to wait after providing an explanation to children. I have no chance to follow-up after the explanation for children; this is a problem. I feel irritated that all staff cannot do it. I am pressed by other duties and feel impatient. I cannot make progress while I am providing preparation. I suffer in my daily life from not knowing the best way or in whom to conduct preparation. I conduct preparation but worry about arousing fear. In spite of getting in trouble every day, I have no time to spare. I understand the need, but I am irritated because I still cannot do it.</p> <p>On the contrary, it may frighten children. I am worried that children may become anxious. Because I sit astride children to restrain them while performing a medical procedure, the children have a sense of fear. The explanation for children arouses their anxiety and is nonsense. I have to confirm with the parent beforehand that the explanation will not arouse anxiety. If a family member does not attend, the nurse will be more comfortable, but the child may become uneasy.</p>

Continued

<i>Short on time</i>	<i>Short on staff</i>
<p>Training and ingenuity take time; not able to spend time on this every day. I cannot make a doll to aid the explanation because I am too busy. Hospitalization is short. I am pressed by other duties. I do not have sufficient time while working in a mixed ward, and neither do a lot of urgent cases. Time, tools, and a proper environment are necessary.</p>	<p>Properly trained staff are necessary. There is no time to spare; the department is understaffed. Burden depends on increases and decreases in the number of available staff. It is insufficient that preparation is only conducted by nurses.</p>
<i>Short on knowledge</i>	<i>Necessity of preparation for children</i>
<p>There is a lack of learning and experience among the staff. I am lacking in training. I did not learn how to provide preparation during basic nursing education.</p>	<p>Situation- and age-based explanations are necessary. Explanations are necessary for every child. Preparation is very important. A website with information for preparations should be established.</p>
<i>Efficacy of preparation</i>	<i>Preparation in the current state</i>
<p>I am surprised at the potential of infants to understand. I realize the effectiveness of preparation. I think that children understand what I am telling them. Parents are a little anxious. It has a good effect on the staff.</p>	<p>We presently conduct preparation because it is a necessary aspect of care. I provide preparation in a conversational manner. I understand preparation and carry it out.</p>
<i>Preparation through play</i>	<i>Preparation at the pace of the medical staff</i>
<p>I introduce play and carry it out, but I need additional support. I provide preparation using handicrafts. I make them based on the favorite character of the child.</p>	<p>I may carry it out without confirming the feelings of the child or parents due to the selfishness of the medical staff.</p>
<i>Demand for the increased application of preparation</i>	<i>Ambiguity regarding the meaning of preparation</i>
<p>I hope that its application spreads. It is already nationwide, and a proper method should promote its further application. All medical professionals should learn how to provide it. Knowledge of preparation needs to be disseminated among the entire staff.</p>	<p>Because I am short on time, I only provide verbal explanations. Some people think that using a tool is sufficient preparation. I provided an explanation, but I do not consider it to be psychological preparation. Will the explanation to the family be different from psychological preparations?</p>
<i>Research on preparation</i>	<i>Necessity of preparation seminars</i>
<p>Anxiety is reduced if the family attends. A group explanation is more effective. Preparation tools need to be studied and improved.</p>	<p>Training is needed, and personnel should be assigned to such a position. I want to learn about preparation so that children are not psychologically damaged.</p>
<i>Necessity of good preparation methods</i>	<i>Necessity of cooperation with coworkers</i>
<p>I want to learn good methods for both practice and provision. I want to know how to do it because I do not have the cooperation of a doctor. I think that a good method is needed to prevent children from experiencing trauma. I want to learn a joint method that all staff can use. I want to learn a good method for providing preparation to children with intellectual disabilities. I want to find a durable, low-cost tool.</p>	<p>It is necessary to cooperate with a child care/play specialist. There is a lack of child care/child life specialists. Child psychiatrists are needed. The cooperation of medical teams is necessary. I am interested in cooperating with a play specialist.</p>
<i>Lack of comprehension among parents regarding information provision to their children</i>	<i>Parental cooperation</i>
<p>A parent said, "Please do not say that to my child". Not all parents understand. The parent does not explain anything to their child. Some parents tell their children that we will not do anything to them.</p>	<p>I carry it out with the cooperation of the guardian. I choose a method with the cooperation of the parent.</p>
	<i>Necessity of education for parents</i>
	<p>Education that includes the guardian is necessary.</p>

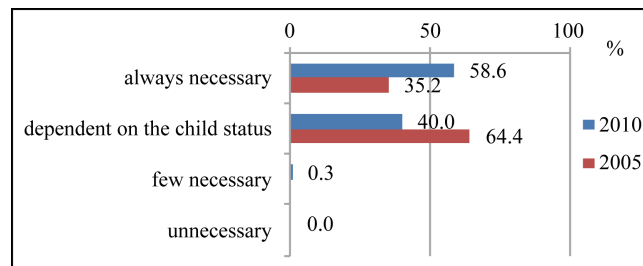


Figure 1. Awareness among nurses regarding the necessity of providing psychological preparation to children.

In addition, in 2010, 57.4% felt that “it is better to explain procedures to parents than to children”. Compared with German nurses [4], Japanese nurses tended to more frequently agree with reasons for not providing preparation, such as “it is better to explain procedures to parents than to children” and “children become anxious when presented with medical information”. William Li, *et al.* (2007) reported that both children and their parents in the experimental group reported lower state anxiety scores in pre- and postoperative periods [5]. Perry, *et al.* (2012) reviewed the literature on preoperative interventional teaching strategies to reduce preoperative anxiety in children [6]. 84.8% of the respondents strongly agreed that psychological preparation reduces a child’s anxiety.

Ziegler D.B. (1994) said that numerous studies have demonstrated that preoperative programs designed to psychologically and emotionally prepare the child for admission and surgery help reduce the severity of anxiety and subsequent behavioral changes. The successful implementation of these program is dependent on the collaboration of managers, clinicians, and educators. Despite the clear benefit of preoperative programs, their effective implementation is often hampered by low patient census and staffing shortages. The guidelines point out being honest, being aware of the importance of timing when giving information, direct information and questions to the child as well as to the parents, ascertain the child’s level of understanding and correct misconceptions [7].

To promote the application of psychological preparation, 70% of the respondents suggested “having a workshop to learn the meaning, methods, and effects of psychological preparation” in 2005, while in 2010, 61.4% strongly agreed that “holding seminars and workshops for training of psychological preparation” was necessary. In 2005, 48% of the respondents suggested “modifying nursing duties”, while in 2010, 96.2% suggested “improving nursing duties”. Almost all respondents agreed that psychological preparation is a nursing duty; however, they also reported numerous difficulties and problems associated with its provision. Therefore, seminars and workshops regarding the improvement of nursing duties and the provision of psychological preparation are needed.

Nearly half (49%) of the respondents worked in mixed wards, while 32.9% worked in strictly pediatric wards. A total of 33.2% of the respondents indicated that “I do not know how to provide preparation”; among these respondents, more than half worked in mixed wards. Moreover, a study in 2009 reported that 34.3% of medical professionals “do not know how to explain medical procedures to children”; among these respondents, 54.8% worked in mixed wards [3]. With the current trend of admitting pediatric patients to the adult ICU, many nurses faced with the new challenges posed by these patients. Nurses must be very professional in working with hospital administration, presenting plan that indicates what they need to provide quality care for children and families. Administrators respond better if there are the conditions under which nurses could care for children properly, and they need the support in ensuring this amount of training, experience, equipment and physician support [8]. Almost all the nurses in our survey become nursing generalists after completing the Japanese basic nursing education program and graduating from nursing school. Unlike nurses who work on strictly pediatric wards, a majority of those who work in mixed wards need to learn more specialized knowledge regarding child care, especially in terms of preparation.

Furthermore, 74.0% strongly agreed that a child’s right to informed consent is a valid reason to provide psychological preparation. Based on the open-ended responses, it was evident that the [Ambiguity regarding the meaning of preparation] needs to be clarified. In 1994, resulting from the ratification of the Convention of the Rights of the Child in Japan, psychological preparation was introduced in numerous books and journals as one

method of protecting the rights of children in Japanese medical settings. In 1999, the Japanese Nursing Association included in its Standards of Practice for Pediatric Nursing the following needs: 1) to explain testing, treatment, medical conditions and procedures to the child and the child's guardians in a timely manner; and 2) to strive to obtain consent, approval, and understanding from the child and the child's guardians [4]. The American Academy of Pediatrics Committee on Bioethics stated in 1995 that in all situations involving pediatric patients who have no appropriate decisional capacity or legal empowerment, parents or other surrogates must provide informed permission for diagnosis and treatment, with the consent of the child whenever appropriate. Furthermore, patients must be provided with explanations concerning the nature of the child's ailment or condition in understandable language. It is important to assess both the patient's understanding of the above information, even if only tacit, and the capacity of the patient or surrogate to make the necessary decisions [9]. However, training for these assessment skills must be provided to medical professionals. To be really successful preparing children, the individual nurse with a sensitive and open mind, observing the child's play, drawings, verbal and non-verbal communications for signs of confusion and upset. Successful preparation depends on the use of our imagination to creatively display information, our knowledge of the child's developmental characteristics and our sensitivity to the child's responses. We must exercise caution about the extent and enthusiasm of the preparation so as not to overwhelm the child. We need multitude of resources that we can use to spare the hospitalized child an episode of needless fear and anxiety [10]. Therefore, these results suggest that preparation has not only a psychological, but also an ethical meaning.

6. Conclusion

The results of this survey suggest that although awareness of psychological preparation for children undergoing medical procedures in Japan has improved among nurses, it seems that the current status regarding its provision has not. To promote the application of psychological preparation, seminars and workshops regarding the improvement of nursing duties are needed. Furthermore, a large majority of nursing staff working on mixed wards need to learn more specialized knowledge regarding child care, especially in terms of preparation. The actual meaning of preparation also needs to be clarified among nurses for whom it remains ambiguous. In 1994, resulting from the ratification of the Convention of the Rights of the Child in Japan, numerous books and journals introduced psychological preparation as a method to protect the rights of children in Japanese medical settings. This suggests that both the psychological and ethical meanings of preparation need to be considered.

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References

- [1] Matsumori, N., *et al.* (2006) A Study of Practice and Expansion of Preparation for Children Undergoing Surgery—Using a Kiwanis Doll and Wooden Model of the Medical Procedure. *Humanity and Science Journal of Faculty of Health and Welfare*, Prefectural University of Hiroshima, **6**, 71-82.
- [2] Matsumori, N. (2009) Child Health Nursing Issues Regarding Psychological Preparation Practices for Children Undergoing Medical Procedures in Japan. *The 1st International Nursing Research Conference of World Academy of Nursing Science, Program & Abstracts*, 19 September 2009, 112.
- [3] Matsumori, N. (2014) Psychological Preparation of Children for Surgery: Awareness Survey Targeting Medical Professionals. *Open Journal of Nursing*, **4**, 564-575. <http://dx.doi.org/10.4236/ojn.2014.47059>
- [4] Matsumori, N. and Isfort, M. (2013) Psychological Preparation Practices for Children Undergoing Medical Procedures in Japan and Germany. *Open Journal of Nursing*, **3**, 281-286. <http://dx.doi.org/10.4236/ojn.2013.32038>
- [5] William Li, H.C., Lopez, V. and Lee, T.L.I. (2007) Psychoeducational Preparation of Children for Surgery: The Importance of Parental Involvement. *Patient Education and Counseling*, **65**, 34-41. <http://dx.doi.org/10.1016/j.pec.2006.04.009>
- [6] Perry, J.N., Hooper, V.D. and Masiongale, J. (2012) Reduction of Preoperative Anxiety in Pediatric Surgery Patients Using Age-Appropriate Teaching Interventions. *Journal of PeriAnesthesia Nursing*, **27**, 69-81. <http://dx.doi.org/10.1016/j.jopan.2012.01.003>
- [7] Ziegler, D.B. (1994) Preparation for Surgery and Adjustment to Hospitalization. *Nursing clinics of North America*, **29**,

655-669.

- [8] Paladichuk, A. and Hazinski, M.F. (1998) Children in the Adult ICU: Preparation and Practice. *Critical Care Nurse*, **18**, 82-87.
- [9] American Academy of Pediatrics (1995) Informed Consent, Parental Permission, and Assent in Pediatric Practice. Committee on Bioethics, American Academy of Pediatrics, *Pediatrics*, **95**, 314-317.
- [10] Ritchie, J.A. (1979) Preparation of Toddlers and Preschool Children for Hospital Procedures. *Canadian Nurses' Association*, **75**, 30-32.