
REPORT

Development and implementation of activities promoting human bonding and a care support system for children suffering from mental disturbance : observations made by nurses of children living in a care institution

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Abstract Activities that promote human bonding together with a care support system are very important for the mental and physical development of children suffering from mental disturbances and their quality of life. In the present study, we evaluated the effectiveness of performing activities that promote human bonding in 36 children living in a care institution in Prefecture A, and examined the possibility of incorporating these activities in a care support system for children with mental disturbances.

Physical well-being and mental well-being are both indispensable for the healthy development of children. We spent eight weeks developing a program of activities that promote human bonding for children living in a care institution. Adult care providers led the children in activities that promote the growth and development of children including attachment with an adult and puppet play. When the activities were first conducted with the children, the 36 children were indifferent, passive and depressed. After performing these activities with the children for 8 weeks, behavioral changes such as smiles and spontaneous actions were observed in the children, suggesting that the activities that promote human bonding led to emotional, behavioral and social growth. Moreover, a request for continuation of activities promoting human bonding was submitted by local inhabitants (volunteers, Local Social Welfare Agency, and the Director of care institution), and thus the necessity of a care system for children suffering from mental disturbances was confirmed. Access to specialists through local networks for children in institutions will allow regional social welfare agencies, members of the community, and health care professionals such as nurses, to help these children to overcome their mental disturbance. Our results suggest that activities that promote human bonding should be incorporated in the support system for children with mental disturbances.

Key words : mental disturbance, children, activities promoting human bonding, physical contact (attachment), care support system.

Introduction

The mental attitude of children has recently been changing. Some children today lack patience, have a short temper, and immediately execute violent actions. Regarding factors that led to the change in the mental

attitude of children, there are economic and social factors¹⁾ such as excess material wealth and changes in lifestyle. Other contributing factors include the indifference of adults to children, the poor relationship between adults and children²⁾, lower child-rearing ability of mothers due to their increased commitment to social responsibilities, fragmentation of the core family, and lower birth rate. Therefore, deterioration of the environment surrounding children may have caused this change in children's mental attitude. We hope that the regional society can strengthen the system of support for children³⁾.

The number of violent children has increased, and we cannot overlook children who are living in a care institution.

The number of children in Japan who require support from society has been increasing. The number of children living in a care institution was 26,679 in 1996⁴⁾, 27,733 in 2000⁵⁾, and 28,161 in 2001⁶⁾. The majority of children living in a care institution have parents, but their parents are unable to provide suitable care for their child for various reasons and thus the children are assigned to live in a care institution. The reasons why parents can not take care of their children include long-term hospitalization, desertion, separation, noninterference and abuse.

Children who are living in a care institution are mentally and economically disadvantaged, and healthy physical and mental development is difficult to achieve. These children may have a mental disturbance or a suffering mind. Coupled with insufficient social resources and imperfections in the welfare service, the quality of life (QOL) of children living in a care institution has not improved. The environment surrounding children who enter such an institution is very different from the richness that is shared by contemporary children who do not have any handicap. The current situation of care institutions in Japan is rather serious and a local newspaper reported that some institutions were segregated from the local community⁷⁾. Children who enter a care institution are still important. They will support and drive our nation in the future, and they are children of the community. We would like to emphasize the importance of supporting these children.

Some of these children living in a care institution are in a depressive state, characterized by absence of laughter, indifference to other people or events, restlessness, apathy, and repeated vocalization of the same word. Public health centers and child consultation centers sometimes provide consultation for these depressed children living in a care institution. However, these centers are not appropriate for consultation about trivial problems, and are not set up to help mothers cope with the stress of taking care of her infant⁸⁾. This implies that for children living in a care institution, it is necessary to construct a care support system that is designed to promote their healthy physical and mental development^{9,10)}. Also, as children will spend an increased amount of time at home and have more free time with the reduction from a six-day school week to a five-day school week, we think that it is important to establish a care support system that provides support for all children in the region¹¹⁾.

It is necessary to show children living in a care institution the possibility of a bright future. The environment surrounding these children including education must be improved, and nurses can play a key role¹²⁾. Nurses are at a superior standpoint in preventing and recognizing child abuse, and in counseling abused children¹³⁾. In the future, care facilities that are managed by nurses with deep knowledge and technique^{14,15)} will be required to supply information and advice to parents who are worried or anguished and to solve the problems of children in the local community. For children with mental disturbances, it is desirable to establish a care system that is composed of specialists in the fields of medicine, nursing, welfare and education and members of the community; to introduce nursing care into this system; and to allow it to operate to improve the community¹⁶⁾.

Communication between a mother and her child exerts a significant influence on the development of the body and mind of the child, on the formation of the personality of the child, and on the ability of the child to create human relationships. From this point of view, we considered that if children with a mental disturbance participate in activities that promote human bonding with adult caregivers, a support system for the children

would be created. Participating in activities that promote human bonding with adult caregivers may help to heal the mind and body of children living in a care institution.

Therefore, we developed a series of activities that promote human bonding for children living in a care institution. These activities were led by adult caregivers including a nursing instructor, nursing students, volunteers and staff members of the institution. We studied whether these activities led to the formation of tender feelings in the children and whether they improved the mental QOL of children living in a care institution. We also studied the function and necessity of these activities, as well as the possibility of using these activities as a basis for developing a care support system for children with mental disturbances.

Subjects and Methods

1. Study on the development of a care support system for children with mental disturbances

Subjects: Twenty adult care providers were subjects in the component of the study on the establishment of a care support system for children suffering from mental disturbances. One care provider was a member of the Regional Social Welfare Agency, and the remaining 19 care providers were affiliated with a junior college or the care institution, or were volunteers. The one instructor at a nursing school, two nurses, eight nursing students, and four volunteers conducted activities that promote human bonding with the children. The adult care providers also included the Director, one administrative staff member, and two staff members of the care institution where the activities that promote human bonding were implemented (Table 1).

Methods: In a preliminary study, adult care providers had carried out several different types of activities with children living in the care institution, and the researcher¹⁷⁾ studied the effects of these activities on the children (Ouchi, 2000). In this preliminary study, the researcher found that making one-to-one eye contact with the child, holding the child's hands, and talking to the child in a gentle voice had a calming effect on the child. Based on the results of the preliminary study, the

Table 1. Adult care providers who conducted activities that promote human bonding with the children

Occupation	Number of people
Instructor of Nursing School	1
Nurse	2
Nursing student	8
Volunteer	4
Director	1
Staff member	3
Regional Social Welfare Agency	1
	20

researchers of the present study developed a schedule of activities that promote human bonding for children with mental disturbances. The researchers made preparations for the activities, observed the children while the care providers conducted the activities with the children, and participated in the activities along with the care providers and children. Study meetings were led by the clinical psychologist. The researchers interviewed the children during the activities.

Prior to starting the activities with the children, we informed each care provider that the results of this study will not be used for any purpose other than the present study, and all 20 care providers gave informed consent. We had made an inquiry to the Ministry of Justice about ethical considerations and any restrictions on our study, and obtained the oral reply that there is no concrete restriction on the activities performed in our study and that the results of the study may be published in a journal if the names of the subjects are not disclosed.

2. Study on the effectiveness of conducting activities that promote human bonding with children suffering from mental disturbances.

Subjects: Thirty-six children out of the 80 children living in a care institution in Prefecture A were the subjects in the component of the study on the effectiveness of participating in activities that promote human bonding. Among the 36 children, 5 children were receiving psychotherapy and medications; these 5 children were considered to have a mental illness. The 36 children

ranged in age from 0 to 15 years (Table 2). There were 20 males and 16 females. For children whose parent(s) the staff member was able to contact, the staff member obtained consent from the parent for the child to participate in the study. For children whose parents the staff members were unable to contact, we obtained consent from the Director of the care institution for the child to participate in the study.

Table 2. Children living in the Institution who participated in this study

Age range	Number of children
Infants (0 - 2 yr)	2
Young children (3 - 5 yr)	19
Elementary school children	14
Junior high school students	1
	36

Methods : Phenomenological observation of the children who participated in activities that promote human bonding was performed in July 1999. Because it was assumed that the children who lived in the institution would be frightened by strangers, which had been observed when similar activities were performed by adult care providers with children at a different care institution, the researchers who had previous contact with the children, participated in the study as participants. Specific interactions between an adult care provider and a child that promote human bonding consisted of a care provider speaking with a child; a care provider and child playing together in recreation activities (see Fig. 2 for description of recreation activities); and a care provider and child watching a puppet play together. The constructive concept is shown in Fig. 1. In the activities that promote human bonding, the adult care providers were told that it is important to make physical contact with the children¹⁸⁾, to teach the children the structure of a basic relationship with another person, and to approach the creativity of the child¹⁹⁾.

The mental and developmental status of the children were assessed by referring to the book, "Piaget's Theory of Cognitive and Affective Development"²⁰⁾. In order to enhance the reliability of the data, the adult care providers

who conducted the activities with the children and the researchers discussed the changes in the children's expressions, actions, etc., after completion of the activities promoting human bonding each day. Each child's expressions and actions were assessed based on the observation record chart of the anticipated behaviors and movements of that child. The changes in a child's body movements and mind were confirmed by interviewing the other adult care providers. The Director of the care institution explained the purpose of the activities that promote human bonding to staff members, and obtained their cooperation and agreement to support the activities.

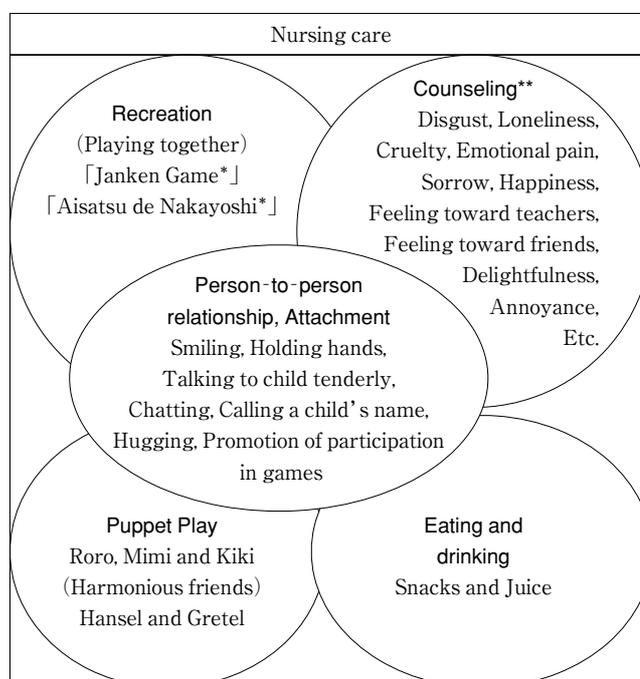


Figure 1. Overview of the activities that promote human bonding conducted by the adult care providers

*Japanese names of games

**Counseling for emotions felt by the child

Results

1. Development of a care support system for mentally disturbed children

(1) Steps in the planning of activities that promote human bonding (Table 3)

The researchers showed members of the Regional Social Welfare Agency the plan of activities that promote human bonding that would be conducted with children

Table 3. Steps in the planning of activities that promote human bonding

Steps	Meeting place	Participants	Details and Results
The First Step	First meeting/ Regional Social Welfare Agency	Nurse / Instructor of Nursing School Member of Regional Social Welfare Agency/	Proposed to develop a program of activities that promote human bonding for children living in the Institution. The necessity of these activities was explained. Requested member of the Regional Social Welfare Agency to remain in contact with us and provide assistance. Then, asked the Director of the Institution for permission to develop this program for children living in the Institution and for assistance from the staff of the Institution.
	Second meeting/ The Institution	Nurse / Member of Regional Social Welfare Agency/ Instructor of Nursing School / Director of the Institution	Discussed the purpose of each activity, place and time of each activity, and number of adult care providers. Obtained the number and characteristics (depression, etc.) of the children. Talked about the contents of each activity. Learned about the circumstances, background and the number of children. Next, decided the number of volunteers, and the length of time of each activity. Checked the location of each activity and to see which locations were dangerous.
The Second Step	Third meeting/ The Institution	Nurse / Instructor of Nursing School / Director and a staff member of the Institution	Recruited children living in the Institution to participate in the activities that promote human bonding. Confirmed the number of participating children, and the time and location of where the adult care providers should assemble for the program. Gathered information about the children's physical conditions, depression, etc. Moreover, discussed with the adult care providers a definite method and points to notice when leading the children with a mental disturbances in activities.
	Fourth meeting/ Nursing School	Nurse / Instructor and students of Nursing School / Volunteers	Recruited adult volunteers from the community to lead the children in activities that promote human bonding. Explained the content of the activities for Recreation and Puppet plays, the number of participating children, and when and where the adult care providers should assemble, and gave the volunteers information about how to interact with the children (embrace, keep company, chat, etc.). Moreover, the researchers, nurses, instructor, nursing students and volunteers studied how to gather data such as how to report the activity of daily living, and how to give advice and counseling to the children.
The Third Step	Fifth meeting/ Nursing School	Nurse / Instructor and students of Nursing School / Volunteers / Staff member of the Institution	We held study meetings on the mental care, method of communication and dealing with mentally disordered children, children's response to person-to-person relationship, method of physical contact with children (attachment), and method of instructing children. Confirmed the number of participating children, and gathered information on the children. Confirmed and notified each adult care provider, clearly addressing the Director, staff member or others, to transmit to the researchers information on the number of participating children, and length of time of each activity.
	Sixth meeting/ The Institution	Nurse / Instructor and students of Nursing School / Volunteers / Director and staff member of the Institution	Confirmed and gathered information on the children. Re-checked hazardous areas where extra supervision would be required and obtained consensus on these matters. Notified all persons concerned if there were changes in the schedule of activities for that day, changes in the number of children who will participate, and any other changes with regard to the activities promoting human bonding such as alternative content of "Puppet Play". Asked each adult care provider individually to share a common understanding and to sufficiently cooperate.

under the direction of nurses and an instructor of the nursing school. The researchers proposed that activities that promote human bonding could be the basis of a new care support system for children suffering from mental disturbances.

In the first step of planning, the researchers presented the definition, outline and evidence for the necessity of activities promoting human bonding in mentally disturbed children living in a care institution to members of the Regional Social Welfare Agency and we asked them to remain in contact with us and to assist us. The purpose and content of the activities, place and time of the activities, number of participants, and request for permission from the Director to use the care institution and to perform cooperative work with staff members of the care institution, were explained to the members of the Regional Social Welfare Agency.

The Director of this care institution, similar to the directors of several other care institutions, approved our proposal to conduct activities that promote human bonding with the children, with the highest enthusiasm. We discussed the environment surrounding the children. The Director asked us to conduct these activities without considering the cost if it would benefit the children. We talked about the support system that is constructed by the activities, the cooperation of the local inhabitants, the method of using volunteers, the future of these children in which we hoped they lived their lives confidently, etc., as subjects to be discussed in the future. In the second step, the researchers visited the care institution to grasp the atmosphere of the institution and to observe the living state and characteristics of the children. We then re-examined the content of the activities, because it was necessary to discuss the content of the activities with the care providers at the care institution including the Director and head staff members. During this discussion, the age of the children, mental state of the children such as depression, number of participating children, degree of interest in the activities, content of recreation and puppet play, and the number of volunteers were discussed.

In the third step, there was substantial discussion with the Director and staff members of the care

institution about how the activities that promote human bonding would be executed. We held study meetings with the 20 adult care providers to discuss the mental care provided to the children, methods of communicating and dealing with mentally disturbed children, children's response to person-to-person relationships, methods of physical contact with the children (attachment), and methods of instructing children, and gave them instructions about hazardous areas. During the meetings, we obtained consensus on these matters. Since some children were susceptible to depression, the researchers and adult care providers agreed not to use persuasion nor enforcement with the children²¹⁾, and we asked each adult care provider to share common understanding and to sufficiently cooperate.

(2) Training of adult care providers on how to interact with children with mental disturbance

We instructed the adult care providers to always try to be good counselors to the children while conducting the activities that promote human bonding with the children. For example, we discussed with the adult care providers to use only concrete words including matters²²⁾ or objects with the children such as "Let's play ___ ! ", and to use only words that are easy for children to understand without using confusing words or words with mixed meaning²³⁾. We emphasized to the adult care providers the need to listen to the children with a receptive attitude and to talk with the children. We also emphasized to the adult care providers the need to explain each activity to the children before coming into physical contact with them. The instructor of the nursing school and nurses focused on those children with a mental illness and children who were susceptible to depression; they talked with these children and tried to form attachments with them. The nursing students and volunteers focused on the other children; they talked with these children and tried to form attachments with them.

We had discussed with staff members of the institution the locations where we would conduct the activities promoting human bonding; ways of preventing dangerous behaviors; and the need to persuade children who usually try to avoid participating in activities, to participate in

the activities that promote human bonding. We then discussed these matters with the adult care providers. The volunteers and nursing students talked with each child, held the child's hands, and held the child in their arms. Thus, they tried to make physical and mental contact with the children while playing with them, and to form close relationships with the children by playing together with them²⁴. Two free times of about 10 minutes each were inserted into the schedule of activities that promote human bonding, during which the researchers interviewed the children²⁵. This was made possible by time-sharing (Fig. 2).

(3) Participation of children in activities promoting human bonding

We had recruited children living in the care institution to participate in the activities that promote human bonding. The researchers discussed ways in which children deal with the nurses. The instructor of the nursing school and nursing students played a central role in recruiting children for the study. Several nursing students had taken part in activities with the children at the institution prior to starting the activities that promote human bonding, in order to create solid relationships with the children²⁶. Additionally, posters were placed on bulletin boards to recruit children for the study. As a result, a total of 36 children participated in the activities that promote human bonding.

(4) Recognition that the activities promoting human bonding could serve as a care support system

The adult care providers conducted the activities that promote human bonding with the recognition that these activities could function as a social system. When the researchers originally proposed these activities, the member of the Regional Social Welfare Agency and the director and staff members of the institution all agreed that the activities would function as a social system. However, the degree of the effectiveness of the activities that promote human bonding was unclear, and some questions remained unanswered.

The researchers spent 8 weeks developing and preparing the schedule of activities promoting human bonding.

Then, the adult care providers conducted the activities that promote human bonding with the children once a week for 8 weeks. After conducting these activities with the children for 8 weeks, all of the care providers agreed that the activities functioned as a care support system because their beneficial effects on the emotional, behavioral and social responses of the children were obvious (see Results 2. Effectiveness of activities that promote human bonding for children suffering from mental disturbances). The activities that promote human bonding improved the children's behavior to such a degree that it drew the attention of the local inhabitants. Moreover, the local inhabitants (volunteers, Local Social Welfare Agency, and Director of the care institution) submitted a request for continuation of these activities, and the necessity of establishing a care support system for mentally disturbed children was confirmed. It was found that a care support system for mentally disturbed children can be constructed through the cooperation of individuals in various professions including medicine, nursing, social welfare and education. In the present study, the care support system was constructed by members of the Regional Social Welfare Agency, the director of the institution, nurses, instructors and students of a nursing school, and volunteers. The importance of nurses' viewpoints of these children²⁷ was confirmed.

2. Effectiveness of activities that promote human bonding for children suffering from mental disturbances

The occupations of the adult care providers who conducted the activities promoting human bonding with the children are shown in Table 1. The characteristics of the children are shown in Tables 2 and 4. Most of the children who participated in the activities that promoted human bonding, had suffered from child abuse, desertion, noninterference and/or separation from their parents, and had some family troubles. They were children who were suffering.

In the activities that promoted human bonding, the care providers played with the children. During the recreation activities and puppet play, the care providers talked with the children, held hands with them, and held

Content	Explanation of program	Arrangement	Recreation		Puppet Play	Time Schedule
			Aisatsu de Nakayoshi	Janken Game		
	Introduction of activities and Contents of Program	Introduction of members and arrangement of children		Janken Game	Introduction of content of presentation (by marionette) and delivery of snacks and drinks	
				Free	Roro, Mimi and Kiki (Harmonious friends)	
					Free	
					Hansel and Gretel	
					Free	
					Farewell greeting	
Time Schedule	Five minutes	Ten minutes	Thirty minutes	Ten minutes	Five minutes	Five minutes
Physical Contact*	↔ No →	↔ Yes →				

Figure 2 . Program Contents and Time schedule of activities

Aisatsu de Nakayoshi : This is a game that many people can join. In this game, a person introduces oneself by saying, "I am __ who likes (loves) __"; shakes hands with the other people ; places a hand on the shoulder of another person and says, "Please remember me ! " ; and then places both hands on the shoulders of the person and says, "Be my friend ! " . Finally, the person shakes hand with the person he/she was just talking to ; and they part from each other, saying "Good luck ! " .

Jyanken Game (Rock-Scissors-Paper game) : This is a game that many people can join. In this game, a person finds a partner, greets that person, and challenges the partner to a game of Rock-Scissors-Paper. The winner finds another partner, greets that person, and challenges that person to a game of toss. Each loser sits down at that spot and waits until the game is over. The final person who is standing is the winner, receives a declaration that he/she has won, and is praised.

*Physical contact between the adult care providers and the children

Table 4 . Reasons for placement of the children in the Institution

Reason for placement in the Institution	Number of children in the Institution	Number of Study Participants
Neglect and abuse	35	18
Separation*	17	9
Noninterference**	24	11
Long hospitalization***	12	7
Missing parents	22	12
Other	18	0
	128	57

* Parting from parents

** Neglect of child by the parents

*** Long-term hospitalization of parents

※Some children were placed in the Institution for multiple reasons.

Therefore, the total number in each column is greater than the number of children in the Institution and the number of children in the study, respectively.

the children in their arms. The behavioral changes in the children before and after participating in the activities that promote human bonding are shown in Table 5.

Through participation in the activities that promote human bonding, there were significant changes in the emotional reactions of the children. Children who had been indifferent to other people before participating in the activities, began to show interest in other people. For example, Child A who had never laughed, began to smile. Child B who had previously shown no interest in other people, became familiar with others. Child C who previously seemed to be depressed, showed a peaceful face. Child D who had been ill at ease became settled. Child E who had previously spoken only a few words, developed many facial expressions.

Table 5 . Changes in the behavior of the children before and after participating in the activities that promote human bonding

	Before	After		Guide to specific interactions with children that promote human bonding
		Behavioral transformation	Concept	
Emotional Reaction	Indifferent Never laughs Depressed Lack of ease Speaks few words Passive	Shows interest in others Cling to adult care provider Doesn't release adult provider's arm Smiles Speaks Becomes settled Speaks to others Shows a peaceful face Shows many facial expressions Has slightly increased activity	Familiarity Feel reassured Mental Stability Healing Expresses one's will Expresses one's wish Spontaneous behavior Controls impulsive behavior	(Acceptance) Smile Talk softly with child Be close to child (Eat snacks, play, appreciate) Person-to-person contact Praise Encourage Promote participation in recreation activities Give counseling Prohibition of persuasion and enforcement (physical contact) Hold hands Hug Keep company Give assistance Eat together Play together Appreciate together (Counseling) Give counseling Listen Call out child's name Talk with child face to face (Others assistance) Instruct about hazardous places
Behavioral and Social Reactions	Scared Never tries to make contact with others Tilts heads to the floor Shows violent behaviors Bites own arms Utters same word repeatedly Anorexic	Cling to adult care provider Asks to holds hands Shows a peaceful face Tries to make contact with others Bangs head less frequently Less violent Walks while holding hands with the adult care provider Waves hand when adult care provider leaves No change in bite arm Increased vocabulary Joyful voice Has slightly increase food intake		

There were also significant changes in the behavioral and social reactions of the children. Child F who had seldom spoken, started to speak with others. Child G who had never tried to communicate with others, started to speak to others. Child H who had previously banged his head on the floor, banged his head less frequently. Child I who had previously shown remarkably violent behavior, became less violent and showed violent behavior less frequently. Children J and K who had previously been passive, became very active and they actively spoke with others, asked to shake other people's hands, and asked to play together. Child L who previously repeatedly uttered the same word, increased his vocabulary. Child M who had tended to be anorexic, started to eat at afternoon tea together with the adult care providers. In addition, the children began to show such behaviors as asking to hold other people's hands, speaking with others, asking to be held in a care provider's arms, and not wanting to be released from the care provider's arms.

Discussion

1. Care support system for mentally disturbed children

The number of children requiring child protection consultation in Prefecture A has been increasing each year²⁸⁾ and it is inferred that the child protection services in this region are decreasing. From the viewpoint of the healthy development of children, mental health along with physical health is indispensable. The goals of nurses at a care institution include: (1) to establish a care support system for mentally disturbed children²⁹⁾; (2) to promote the growth and development of children³⁰⁾; and (3) to provide nursing care for mentally disturbed children and disabled children from an educational point of view.

In Japan, there are only a few care institutions in which adult care providers perform activities that promote human bonding with children, and support systems for mentally disturbed children are rare; moreover, there are very few care institutions that provide consultation for complicated problems. It is well known that child abuse is in fact occurring in dysfunctional

families, and it cannot be denied that the insufficient number of care institutions for children may result in child abuse death, which has been reported in Britain³¹⁾.

Williams³²⁾ mentioned that it is necessary for nurses and others who are involved in the medical treatment, nursing or welfare of children to understand the factors causing abuse and to help solve the problems. Williams stated that this is the most effective method of preventing the worst situation.

In order to meet the needs of patients, Orlando and Jean (1961) pointed out that nurse as health care professionals should provide assistance to fulfill patients' requests. They maintained that the purpose of nursing is to make sure that patients' needs are satisfied³³⁾. We must understand that this theory emphasizes the importance of medical treatment, nursing, welfare and education as well as cooperation by the local community in helping patients to heal. The duty of nurses at a care institution is to satisfy the needs that every child has. While observing the children during the activities that promote human bonding, we made the following judgments: (1) children with a mental disturbance potentially have sufficient physical strength and mental power to overcome their mental disturbance; and (2) nurses must recognize that it is necessary to assist the children in becoming independent. The observations and care provided by nurses through activities that promote human bonding can cure some of these children's disturbed mind and exert a significant influence on building their personality³⁴⁾.

Specialists in the medical profession, education and child welfare can effectively assist the healthy development of children living in a care institution through a regional network (Fig. 3). Playing with a child using a puppet provides an approach to the child's mind. The main goal of person-to-person contact between a nurse or nursing student and a child³⁵⁾, is for the child to experience a feeling of familiarity, and as nurses we observed the situation. Our goal was to relieve the depressive state of the children by attachment, by talking with the children, and by playing and eating together with them. That this approach improves the mental QOL was previously shown³⁶⁾. Nurses can grasp the physical and mental conditions of children through

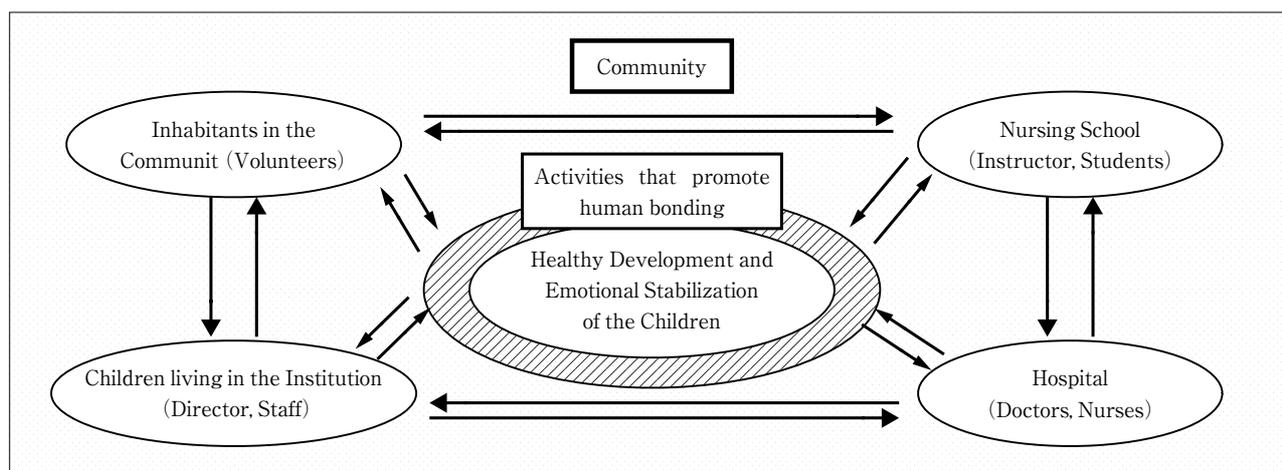


Figure 3 . Care support system for children living in a care institution

observation³⁷⁾. Providing encouragement to a child may have a large effect, depending on the child's condition. Grasping the physical and mental conditions of a child through mutual interaction with the child is itself a therapy for the child and the effectiveness of nurses as a remedy was previously demonstrated³⁸⁾. While we were developing specific activities that promote human bonding that would be performed with the children, we received expert advice from medical personnel including nurses on the children's health, and mutual assistance such as information exchange, offer and consultation from the local community. It is possible to construct a care support system for mentally disturbed children, but the cooperation of the adults who take care of the children including nurses is required for realization³⁹⁾.

At the stage in which we were planning the activities that promote human bonding, it was recognized that the activities could function as a social system, and their effects were confirmed. Furthermore, the participation of specialists in a regional network was shown to function as a care support system. It was also confirmed that a care support system for mentally disturbed children can be constructed by the cooperation of members of a regional social welfare agency, the director of the care institution, instructor at a nursing school, nurses, and nursing school students together with volunteers. The children wanted the activities that promote human bonding to continue, and it was inferred that it is necessary to establish a care support system for mentally disturbed children.

2 . Effectiveness of a care support system in healing the mind and body of children with mental disturbances

Various events for the children had been held at this care institution in the past, and the number of children who participated in these events was approximately ten. In contrast, the number of children who participated in the activities that promote human bonding of the present study was 36. It was inferred that the children were more interested in activities that promote human bonding than in ordinary events.

In the activities that promote human bonding, care was taken to maintain a ratio of adult care provider to child of 1:1 to allow the formation of an attachment, which is regarded as being important during infancy. This led to behavioral changes in the children including laughing, voice of joy, actively approaching the adult care provider to hold hands, and speaking to the care provider. These changes indicate that the activities that promote human bonding exerted a strong influence on the children's minds and that the children wanted to interact with people. Particularly, the recreation activities were regarded as most important in bringing forth a peaceful atmosphere, and we had chosen puppet plays with a content that emphasized pleasure and familiarity. Consequently, it was inferred that the children were delighted, and that the plays themselves drew out the children's emotions. Moreover, the activities that we had chosen evoked spontaneous actions⁴⁰⁾ in the children, which had never been observed prior to conducting the

activities. For instance, the children showed their desire by saying, “I want to be held in your arms much longer”. They asked, “Is it time to end the activities?” This question implies that they wanted to prolong that happy time much longer. When the activities ended, they said, “We want to play again !” or “We want to continue to perform activities !”

At the end of the activities, some children did not let go of the care provider’s arms and it was difficult to detach the child’s arms from the care provider. It is inferred from their behavior that the children enjoyed their time with the care providers and were wistful when the care providers left. Some children walked with his/her care provider, held his/her hand until the end of the activities, and waved his/her hand until the care provider could no longer be seen. From these observations of the children’s behaviors, it appears that a human attachment other than affection for one’s parents had formed in the children.

Recently, playing with a doll was used as a method for sick children to express fear and anxiety⁴¹. At institutions including hospitals, it is encouraged to place importance on allowing children to express themselves by introducing a puppet master for children, or by use of such toys as dolls by medical care workers⁴². The effectiveness of using a doll for children to express a melancholy feeling has also been demonstrated⁴³. Among the activities of the present study, the recreation activities centered around an adult care provider and a child playing together. The “puppet play” emphasized the importance of friendship, affection and courage; the puppet is a tool that is handmade and is used to create warm-hearted stories to teach the children to value life and to love, and to overcome their difficulties¹⁹. Moreover, the researchers stressed to the adult care providers the importance of spending time with the children, and emphasized to the nurses that they observe the children. These factors may have enhanced the effectiveness of the activities promoting human bonding in the present study.

It is not necessary to place a child in an institution if the child has the ability to form attachments with his/her parents or to individuals in the local community.

According to Marshall and Kennel⁴⁴, a disturbed parent/child relationship and excellent relations between parents and their child could each influence the attachment formation of parents for their child (Fig. 4). Factors that may lead to a disturbed parent-child relationship are vulnerable child syndrome, abuse, growth obstruction and obstruction of the relationship between the parents and child. Negative factors that influence the formation of one’s character such as extreme anxiety, aggressive behavior and anorexia, are considered to be obstacles in the formation of personal relationships. As a method of mitigating these negative factors in a child, it is said that the parents or medical staff should change their approach to the child or that an alternative counter-measure should be found⁴⁵.

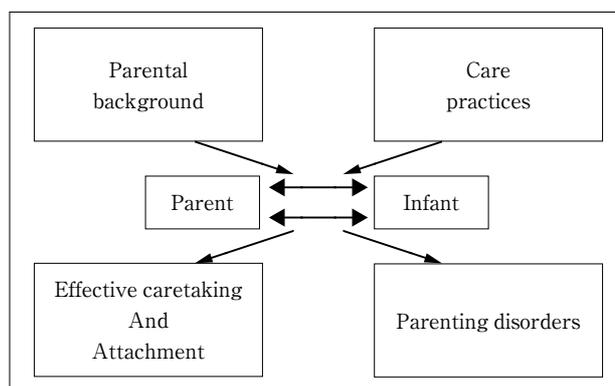


Figure 4. Diagram of the major influences on parent-infant attachment and the resulting outcomes²⁵

While performing the activities that promote human bonding, the nurses observed that interactions between the adult care provider and child, i.e., the adult care provider speaking with the child, holding his/her hands, hugging, eating together with the child, and having consultation with the child, enhanced the effectiveness of the activities that promote human bonding. During the activities that promote human bonding, the children in the current study must have felt that that period was enjoyable, resulting in expression of their will and hopes, improvement in spontaneity and initiation of a reliable relationship. A human attachment was formed and a deep impression was left in the child’s mind. It is preferable to allow children to straightforwardly express their emotions and to assist educating children’s capability

of both expression and self-determination⁴⁶⁾, because it is assumed that they had been raised without any promising, lasting human relationships⁴⁷⁾.

3. Educational effectiveness of activities that promote human bonding in children suffering from mental disturbance

It is considered that the activities that promote human bonding provided opportunities for each child to actually experience human relationships, to find out the inherent meaning of these matters for himself or herself, and to realize the “power to live“ during the process of clarifying the inherent meaning of these matters⁴⁸⁾. When an individual places importance on improvement and growth of self-consciousness⁴⁹⁾, it accelerates the finding of inherent meaning and character formation through experience. In addition, it accelerates physical growth such as self-supporting capability, emotional self-reliance such as positivity and non-reliance on others, acquisition of learning capability in the intellectual aspect, problem-solving capability, and acquisition of personal relationships and group role in social situations⁵⁰⁾. Therefore, an individual can learn many things about oneself by participating in activities that promote human bonding.

Henderson⁵¹⁾ mentioned that her own role as a nurse was to assist patients, so that the patient could perform various activities as soon as possible, could take care of himself/herself, and could perform actions without others' assistance when the patient acquired physical strength and will. The major role of nurses is to help patients gain independence⁵²⁾. To help patients gain independence, nurses must have the ability to perceive unusual changes in the patient while observing the patient's condition, and the ability to express his/her opinion as an expert to the patient⁵³⁾. Hence, nurses are in an educational position.

Furthermore, Pohl⁵⁴⁾ stated that the care given by nurses as practical care providers should be health care for people under clinical and other circumstances and should have an instructive function. The role of nurses is to educate patients who are suffering from a disease about their health and their disease or to apply this know-

ledge. Opportunities for nurses to provide instruction can be found not only in medical institutions such as a hospital, but also in all places where care service is provided such as a patient's home, school and work-place. The assistance given by nurses during the activities that promote human bonding was necessary from an educational point of view, in that the nurses learned about the concept of health education that includes society, cooperation and morality, and therefore such activity was considered to be more important.

In order to assist a child who has behavioral and emotional problems, the care provider must have deep insight to try to have a conversation with the child and to take actions to enhance familiarity and form an attachment⁵⁵⁾. Children of school age are in a period of acquiring sociability. They are turning to their surroundings from their parents and other people. They acquire language as a means of communication and their emotions develop through playing. The importance of playing has also been studied from the educational point of view, and it was found that playing is indispensable for human development⁵⁶⁾. For example, when an adult care provider talks with the child while they are playing, it promotes acquisition of sociality and knowledge by the child, and promotes the development of a healthy body as well as mental stability and growth. Its relationship with learning has been emphasized⁵⁷⁾. In this activity, the nurse speaks with the child for a long period of time; talking with patients is a specific method of care used by nurses and deepens the insight of the nurse as an instructor. During educational dealings with coping children, the children can learn to socially adjust or acquire a way of living²⁰⁾. Emotion influences all development and the children acquire enhanced language skills, motor ability and thought processes⁵⁸⁾. The basic components of nursing care such as listening and receiving information, observation of patients, and putting one's hand over the diseased part, were applied in the activities promoting human bonding. These components promoted behavioral changes in the mentally disturbed children.

In the present study, not all children showed beneficial changes in their behavior or emotional and social reactions

upon participating in the activities that promote human bonding, although all of the children could experience a feeling of familiarity and sense of safety when the adult care providers spoke with them or held their hands. The activities that promote human bonding led to the formation of a reliable relationship between the adult care provider and child, leading to healthy changes in the child's mind. Adult care providers need to have a better influence on mentally disturbed children by performing activities that promote human bonding with the children. Future studies should examine the beneficial effects of these activities quantitatively, and it is important to find more effective ways of supporting mentally disturbed children living in care institutions (Photograph 1).



Photograph 1

Conclusions

After conducting the activities that promote human bonding with the children living in the care institution, our relationships with the children have continued. They have invited us to events at the institution such as rice-cake making, Christmas party, etc., and the nurses and nursing students have visited the children to perform activities. Although the activities that promote human bonding were conducted over a short period of time, the children's minds are healing and the relationship between the adult care providers and children has strengthened since several adult care providers have continued to perform activities with the children. It is assumed that education and nursing played important roles in healing

the children's minds. It is desired that the regional society develop activities that promote human bonding for children living in care institutions⁵⁹⁾.

Currently, children living in care institutions do not face prejudice or discrimination, and we found that there is support for children living in care institutions from regional society. We also found the importance of pertinent organizations and nurses in improving the conditions of children living in care institutions. It is most important for nurses to think that it is their mission and duty to heal children by forming relationships with them and to help children muster hope and the courage to live, rather than being enthusiastic to cure them through medical technique. Activities between nurses and children will be the first step in creating a stable base and confidential relationship with such children. Therefore, the researchers reached the following conclusions. The activities that promote human bonding allowed the children to experience warm-hearted relationships and feel adults' affections. The activities provided an opening to the children's minds, and allowed the children to form human attachments. Next, the nurses observed that through these activities, the nurses could observe the injured minds of the children, and that the activities aroused hope and courage in the children. Our results indicate that activities that promote human bonding that are organized by people in the community, will play an important role in improving children's health and these activities can be easily arranged^{29,60)}. Aiming towards a society where all children can grow up in good health, supporting the care system so that the rights of all children are respected⁶¹⁾, and taking part in the realization of a mutually supporting society, nurses must strive so that the planning and operation of activities that promote human bonding can function as a social system for mentally disturbed children.

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