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The use of literature and dramatic play as a method of preparing preschool children for hospitalization

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THE
USE OF LITERATURE AND DRAMATIC
PLAY AS A METHOD OF PREPARING
PRESCHOOL CHILDREN FOR HOSPITALIZATION

by

Joyce A. Knowles

(B.S. Brown University, 1960)

and

Janet A. Nielson

(B.S. Nursing, Alfred University, 1960)

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Reader: Martha L. Adams
Martha L. Adams

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TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	
Statement of Problem	3
Importance of Problem	4
Scope and Limitations	4
Definition of Terms	5
Preview of Methodology	6
II. THEORETICAL FRAMEWORK OF THE STUDY	
Review of Literature	8
Assumptions	15
III. METHODOLOGY	
Time and Place of Study	16
Selection and Description of Sample	17
Methods Used to Collect Data	18
IV. PRESENTATION AND DISCUSSION OF DATA	
Children's Responses to Play Interviews	23
Discussion of Variables Affecting the Play Interviews	24
Regressive Changes in Children Meeting Specifications	26
Regressive Changes in Children Not Meeting Specifications	28
Regressive Changes of All Children in the Study	30
Discussion of Variables Affecting Regressive Behavior	32
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	
Summary	35
Conclusions	36
Recommendations	36
APPENDIX A	
Guide for Pre-Admission Interview with Mother	39
APPENDIX B	
Guide for Play Interview with Child	41

TABLE OF CONTENTS
(continued)

CHAPTER	PAGE
APPENDIX C	
Guide for Post-Hospitalization Interview with Mother.	42
APPENDIX D	
Interviews	
Denise.	44
Derek	46
Frank	49
Karen	51
Janice and Carol.	53
BIBLIOGRAPHY.	57

TABLES

TABLE	PAGE
1. Individual Regressive Behavior Changes After Hospitalization for Children Meeting Specifications.	27
2. Individual Regressive Behavior Changes After Hospitalization for Children Not Meeting Specifications.	29
3. Total Number of Regressive Behavior Changes Observed with Twelve Children	31

CHAPTER I
INTRODUCTION

Many studies have been conducted to determine the effects of hospitalization on young children. These studies show that an abundance of children undergo behavioral changes after hospitalization. Regression is one common reaction to the experience. Children tend to regress to earlier modes of behavior when their present security is threatened. When they return home they sometimes appear anxious and difficult. They sleep poorly, revert to bedwetting, or show excessive clinging. Changes in eating habits, speech disturbances, and habits such as thumb sucking have been seen. Not all behavioral changes are regressive in character. Some children may exhibit such changes as rejection of mother, aggressiveness, or fear of people in white. The way in which children handle stressful situations depends upon such factors as past ways of dealing with situations, parent-child relationship, attitude of the family towards illness, and amount of preparation given prior to the experience. Hospital policies and attitude of the medical staff can affect children either positively or adversely. Understanding nurses and doctors coupled with liberal visiting policies can do much to lessen ill effects of the experience. Other preventive measures can be taken to allay undue emotional trauma. Modification of the hospital experience and parent-child preparation are such preventive areas.

The way children perceive the hospital experience is one of the most powerful factors that influence adjustment. Children generally will show better adjustment to something for which they have been prepared. This preparation should be geared to the child's level of understanding and must, above all, be truthful. Children have a right to know what to expect just as adults do. Preparation should be done by the parents, however many are unable to do this because of their own anxiety or ignorance of what will happen. For this reason parents, also, need preparation. When their own anxiety is lessened they can better help their children. When preparation by the parents is impossible it should be done by some other person such as a nurse, doctor, or even a teacher.

Several children's books are available which are reliable and accurate.¹ Children like to see pictures and hear stories about something new. These books can be a valuable

¹ Some of these books are:

Ludwig Bemelman, Madeline, (New York: Viking, 1939)

Francine Chase, A Visit to the Hospital (New York: Grosset and Dunlap, 1957)

Nancy Dadey, Linda Goes to the Hospital (New York: Howard McCann, 1953)

Josephine Sever, Johnny Goes to the Hospital (Boston: Houghton Mifflin Co., 1953)

Pauline Vinson, Willy Goes to the Hospital (New York: Mac Millan & Co., 1956)

asset to parents attempting to prepare a child for hospitalization. Play is another valuable way of accomplishing the same end. Children live through experiences in dramatic play. They enact situations they have undergone or have experienced. With the proper basis of simple explanations they can play doctor, nurse, and patient. Through this play they can be better prepared for the future experience of hospitalization.

Statement of the Problem

The primary purpose of this study was to evaluate the use of literature and dramatic play, utilizing selected hospital equipment and toys as a method of preparing pre-school children for hospitalization. The effectiveness of this preparation was determined by the amount of regression manifested following discharge in a group of children who had been prepared in such a manner as compared with a group who had not had this method of preparation. The areas studied for regressive changes included eating habits, sleep patterns, play patterns, speech development, mannerisms and habits, toileting behavior, and family relationships.

In the design of this study the writers conducted play interviews prior to and following hospitalization for one group of children; whereas, only a play interview after hospitalization was held with a second group of children. The writers compared the differences in behavior of the two groups of children after they had experienced hospitalization.

Importance of the Problem

Many children experience anxieties and fears in relation to a hospital experience. Even though some children give the appearance of acceptance there has been evidence of behavior changes exhibited following their discharge. In order to help children so they will be better equipped to cope with such an experience, they should be truthfully prepared for what is to take place. Ideally this preparation should be done by the parents, however, some parents are unable to carry on this preparation because of their own emotional involvement. Thus the nurse has a responsibility in helping the child and the parents by offering this preparation to the child and/or to the parents.

Scope and Limitations

This study, conducted with the assistance of two large metropolitan hospitals and a smaller suburban hospital, is limited to a selected number of children between the ages of three and one-half through five years. All of the children have had tonsillectomies and adenoidectomies without medical complications. The reason for selecting pre-school children as opposed to younger children was suggested by Florence Erickson's study, Play Interviews for Four-Year Old Hospitalized Children. She stated that attempts had been made to hold play interviews with younger children but they were unsuccessful.

ful because of the emotional immaturity of the toddler age group.² Children undergoing tonsillectomies were chosen because they were readily accessible and only require a short-term hospitalization.

The families in the study represent various socio-economic levels, however the majority are from the lower economic group. All children are of normal intelligence and are not emotionally disturbed.

The authors recognize that there are several uncontrolled variables which might have influenced the children's reactions. The parent-child relationship and the child's previous exposure to the meaning of hospitalization could not be determined. No attempt was made to control the child's relationship to the hospital personnel or his experiences while hospitalized; however, the actual hospital experience should be considered as an important variable. The sample was not chosen at random because of the time factor and availability of subjects. As the sample has not been selected the findings should not be generalized elsewhere.

Definition of Terms

Literature and Dramatic play are used in this study to designate the use of children's literature and play materials

² Florence Erickson, Play Interviews for Four-Year Old Hospitalized Children (Monographs of the Society for Research in Child Development, Inc., Indiana: Child Development Publications, Purdue University, 1958) p. 6.

which can be utilized in the enactment of real life situations. Literature in this case means A Visit to the Hospital by Francine Chase. Dramatic play refers to the enactment of hospital role playing.

Regression is the "adjustment technic whereby the personality returns to earlier modes of behavior"³ such as the reappearance of bedwetting, thumbucking, excessive clinging or returning to bottle feeding.

Pre-school age child refers to any child between the ages of three and one-half through five years of age.

Preview of Methodology

The sample was divided into an experimental group and a control group. The design of the study for the experimental group is outlined as follows:

- a. Pre-admission interview with the mother to obtain a pattern of the child's usual behavior
- b. Play interview with the child to be hospitalized as a means of preparing him for the coming experience
- c. Post-hospitalization interview with the mother in order to ascertain whether or not the child manifested any regressive behavior since hospitalization
- d. Post-hospitalization play interview with the child which was conducted as a method of comparing the play prior to hospitalization with the nature of the child's play following hospitalization.

³ Charles Hofling and Madeline Leininger, Basic Psychiatric Concepts in Nursing (Philadelphia: J.B. Lippincott Co., 1960) p. 168.

For the control group the design proceeds as follows:

- a. Pre-admission interview with the mother for the purpose of obtaining a pattern of the child's usual behavior
- b. Post-hospitalization interview with the mother in order to determine whether or not the child who had not been prepared by the nurse manifested any regressive behavior since hospitalization
- c. Post-hospitalization play interview with the child which was conducted for the purpose of comparing the play behavior of the control group with the experimental group.

All interviews were conducted in the homes.

CHAPTER II

THEORETICAL FRAMEWORK OF THE STUDY

Review of the Literature

The literature which was reviewed in preparation for this study pertained primarily to the importance of preparing young children for a hospital experience. The emotional impact of hospitalization has been of concern to researchers in the behavioral sciences in recent years. In order to understand what constitutes emotional trauma for young children it is first necessary to know what they may fear about a situation. Lucie Jessner and Samuel Kaplan, in a study involving the emotional reactions of children to tonsillectomies, revealed that the child under three years of age is primarily fearful of separation from the mother figure which the child often interprets as desertion or punishment. It was also pointed out that although the pre-school child may still retain a separation anxiety, the primary focus of fear within this age group concerns fear of bodily mutilation.¹ Another study conducted by Dane Prugh at a later date also substantiates the above findings.²

¹Lucie Jessner and Samuel Kaplan, "Observations of the Emotional Reactions of Children to Tonsillectomy and Adenoidectomy", Problems in Infancy and Childhood, (ed. Senn, Josiah Macy Foundation, 1949) pp. 97-156.

²Dane Prugh, "Investigations Dealing with the Reactions of Children and Families to Hospitalization and Illness: Problems and Potentialities", Emotional Problems of Early Childhood (Ed. G. Caplan: London, Tavistock Pub., 1955) p. 510.

Lester Coleman has written:

. . . Youngsters can take in their stride an harassing experience if they have been honestly told ahead of time every-thing that will happen to them. Children who are so prepared feel no undue terror, take their anesthesia easily and rarely show any lasting emotional after-effects.³

To quote Florence Erickson, "Children tend to respond positively to any experience for which they have been prepared."⁴

These statements are generally recognized as supporting the need for preparing children for the experience of hospitalization. If the child has been told simply and truthfully what to expect then he will still be able to retain trust and confidence in his parents; and, in addition, his adjustment to the hospital will be less traumatizing.

The child's level of understanding, however, will certainly have a bearing on his capacity to grasp the concept of hospitalization. At the toddler age level, immaturity and the inability to communicate verbally leaves the child vulnerable because he is unable to understand that his mother really is going to leave him. This is vividly portrayed by James Robertson in his book, Young Children in Hospitals. As a solution he advocates keeping the mother with the child as

³ Lester Coleman, Freedom From Fear (New York: Hawthorne Books, Inc., 1954) pp. 153-154.

⁴ Florence Erickson, Play Interviews for Four-Year Old Hospitalized Children (Monographs of the Society for Research in Child Development, Inc., Indiana: Child Development Publication, Purdue Univeristy, 1958) p. 7.

much as possible in the hospital setting.⁵ Marlow and Sellew in their Textbook of Pediatric Nursing, feel that pre-school children are less traumatized by separation anxiety because of the child's increased understanding of language as well as the increased nature of his social experiences. Because the greatest fear in the child of this age is that of bodily mutilation, he should be given the true reason for hospitalization. Although the positive aspects of this experience should be highlighted, the child should also be told that some of the experiences will not be pleasant. In lieu of the unpleasant side of hospitalization the child needs to be reassured, by his parents preferably, that his pain is not punishment but a necessary part of getting well.⁶

Many changes in children's behavior have been noted following hospitalization. Anna Freud,⁷ William Langford,⁸

⁵ James Robertson, Young Children in Hospitals (New York: Basic Books, Inc., 1958).

⁶ Dorothy Marlow and Gladys Sellew, Textbook of Pediatric Nursing (Philadelphia: W.B. Saunders Co., 1961) p.534.

⁷ Anna Freud, "The Role of Bodily Illness in the Mental Life of Children", (The Psychoanalytic Study of the Child, New York: International Universities Press, Inc., 1952) pp. 69-81.

⁸ William Langford, "The Child in the Pediatric Hospital: Adaptation to Illness and Hospitalization", American Journal of Orthopsychiatry, (Vol. XXXI, No. 4, October 1961) pp. 667-684.

Gaston Blom,⁹ Lucie Jessner and Samuel Waldfogel¹⁰ have all mentioned that regression in the young child has been a common reaction to illness or to a hospital experience. These authors have cited regression in the areas of eating, toileting, dependence, speech, mannerisms, habits, sleep and in other areas of development. Over-eating, or under-eating, nightmares or difficulty in going to sleep, refusal to talk, bedwetting and numerous fears are some of the reactions children show in these areas. The hospital situation is unfamiliar, "similar to a state in infancy where the unknown is perceived as threatening."¹¹ Regression is usually the result of a forced dependence on the child, a dependence he inevitably feels as his needs must be met by a nurse.

Jackson, Winkley et al have attempted to analyze regression in a study of children who had tonsillectomies. A disturbance in eating habits may be an expression of resentment or a need to control mother. Dependency, a common regressive reaction, usually indicates a feeling of inadequacy.

⁹ Gaston Blom, "Reactions of Hospitalized Children to Illness," Pediatrics (No. 22, Vol. 3 1958) p. 590.

¹⁰ Lucie Jessner, Gaston Blom, and Samuel Waldfogel, "Emotional Implications of Tonsillectomy and Adenoidectomy on Children", (Psychological Study of the Child, N.Y. International University Press Inc., 1952) p. 142.

¹¹ Blom, p. 590.

The child's disposition may change considerably after the hospital experience. According to the above authors this change may be an expression of retaliatory feelings, a resentment against parents who have been the cause of the child's experience. There may also be increased self-comforting devices, an area of regression which shows evidences of unconscious anxiety.¹² In general, the younger the child the more quickly the regression appears. Langford has also stated that regression seems to be lessening as the result of shortened hospitalization.

To summarize from the previous discussion, the ways in which a child handles stress situations often depends upon the following factors: past ways of dealing with situations, the emotional surroundings of the illness itself (eg. its nature and acuteness), the meaning of illness to the child (eg. specific fears and fantasies), the attitude of the family toward illness, the child's relationship with hospital personnel, the hospital policy, and the type of preparation the child received.¹³ These studies do not mean to infer that all hospital experiences result in emotional trauma for all children; however, young children are more susceptible to an

¹²

K. Jackson and R. Winkley, et al: "Behavior Changes Indicating Emotional Trauma in Tonsillectomized Patients," Pediatrics (December, 1953) pp. 23-28.

¹³

Langford, pp. 667-684.

emotional impact unless preventive measures are taken. Such measures which may prevent emotional trauma are listed by Dane Prugh in his study. They included adequate parent-child relationship, proper preparation of both parent and child, and modification of the hospital experience.¹⁴

The next portion of the literature which was reviewed involved the various methods which could be utilized in preparing children for a hospital experience. Ross Laboratories has published a series of pamphlets, Developments in Infant and Child Care, of which Number II is entitled "Preparing the Child for Hospitalization". It outlines steps which can be taken by parents in introducing the hospital to the child. Also mentioned in this article are various aids such as books and records which are available to help parents in communicating this situation to their children.¹⁵ To quote Marlow and Selles:

The uniforms of nurses and physicians often frighten children because uniforms make the people about him look different from the adults he knows at home or sees elsewhere. Much of the anxiety over these details of hospital life can be eliminated if a picture book showing the physical and social environment is given the child. Such books can be obtained from a children's library and are often routinely shown to well children by librarians or by nursery school teachers.¹⁶

¹⁴ Prugh, p. 311.

¹⁵ "Preparing the Child for Hospitalization", Developments in Infant and Child Care (Prepared by the Medical Department of Ross Labs., No. 11, April-May, 1960).

¹⁶ Marlow and Selles, p. 535.

Pauline Barton in an article written for Nursing Outlook, "Play as a Tool of Nursing", suggests the use of play to prepare the child for the experience of surgery. Through play the child learns to trust the situation. He will be able to accept explanations and procedures more readily once he has already been exposed to them.¹⁷

The procedure undertaken to prepare the child often depends on parental attitudes. Marlow and Sellev have stated that:

All too often parents are unable to carry out such preparation because of their own anxiety over the hospitalization of the child. They may not prepare him at all, or perhaps through their own ignorance they may give him a misleading impression of what he may expect. These parents might be helped if some member of the health team - the pediatrician, head nurse, supervisor, social worker or psychologist - were to explain both the life of the children in the particular area where he would be placed and the treatment necessitated by the child's condition. A little time spent in this way might save much anxiety on the part of the parents, the child, and also time of the nursing personnel.¹⁸

Jeans, Wright and Blake in Essentials of Pediatrics also cite the lack of parental preparation as the result of the parents own inability to cope with the situation.¹⁹ To quote Dane Prugh, "The lack of adequate preparation of the children for

¹⁷ Pauline Barton, "Play as the Tool of Nursing", Nursing Outlook, (March, 1962) pp. 162-164.

¹⁸ Marlow and Sellev, p. 535.

¹⁹ Philip Jeans, F. Howell Wright and Florence G. Blake, Essentials of Pediatrics, (6th ed., Philadelphia: J.B. Lippincott Co., 1958).

hospitalization shown in this study support the need for wide-spread measures to bring about this end."²⁰

ASSUMPTIONS

The following assumptions are being made by the authors:

1. Literature and dramatic play can be utilized as an educational tool.
2. Children express their attitudes and feelings in their play world.
3. Play is the language of children.
4. Play is a media through which children can grow, both mentally and physically.

²⁰

Frugh, p. 311.

CHAPTER III

METHODOLOGY

Time and Place of the Study

The study was conducted in a large metropolitan area in Eastern Massachusetts with the assistance of a general hospital, a specialized hospital and a smaller suburban hospital. Permission for conducting the study was obtained from the Director of Nursing in each of the hospitals.

The general hospital admits children for tonsillectomies and adenoidectomies on the morning of surgery. The parents return the next day when the child is discharged. In this hospital the writers received the names of children to be admitted through the Admitting Office and the Outpatient Department. In the specialized hospital the children are admitted the day before surgery and remain until the day following surgery. Through the assistance of the admitting department the writer's obtained the names of several children. Children are admitted to the suburban hospital the day before surgery and stay for two days and three nights. A private physician on the staff of this hospital consented to the writers' contact with his private patients.

The hospitals involved in the study supplied to the investigators the names and addresses of children who seemed to fit the criteria for the study. The writers called each of the mothers, introduced themselves and explained their purpose.

They asked permission to interview the mothers and their children in the home before and after surgery. At this time they set an appointment and left their phone numbers in event the mother's plans changed. During the first interview the writers made an appointment for the second, again leaving their phone numbers. All interviews were conducted in the homes.

Selection and Description of the Sample

Between April and June, 1963, eleven mothers and thirteen children were interviewed. In the total number of children studied, two brothers and a set of twins were included. The original criteria for selection of children to participate in the study specified that the children were to (1) be between the ages of three and one-half through five years (2) have had no previous hospitalizations, (3) be admitted for a tonsillectomy and adenoidectomy without medical complications and (4) have had no family crisis such as the birth of a sibling, serious illness or death in the family within the last six months. In order to obtain an adequate number of children within the time limit of the study the limitations of no previous hospitalization as well as that of no family crisis were forfeited. The original criteria of age and surgical diagnosis were retained. In the analysis of findings, however, only those children meeting the original specifications, a total of six will be compared. The remaining seven children will be discussed later and compared to the group meeting the original

criteria.

Methods Used to Collect Data

For purposes of this study, as previously mentioned, the children were assigned to either an experimental group or a control group. Every other family visited was placed into the experimental group while the same number participated in the control group. The total number of children in the experimental group was seven, three girls and four boys. The control group consisted of five children, three boys and two girls.

Mothers were interviewed in their homes within the week prior to the scheduled hospitalization of all the children. An interview was designed and administered by the investigators for the purpose of obtaining information from the mother pertaining to each child's pattern of daily behavior. (See Appendix A for pre-admission interview guide). Specific questions were asked in each of the following areas to be studied: eating, sleep, play, speech, mannerisms and habits, toileting, and family relationships. At the time of the first interview with the authors a play interview was conducted with the children in the experimental group. The play interview was conducted within the week prior to admission to prevent undue apprehension if the child was approached too far ahead of time. Literature and dramatic play were the instruments utilized in conducting the play period. Literature

was used as a means of exposing the children to unfamiliar material to give them a basis for dramatic play. The book, A Visit to the Hospital, by Francine Chase was used. This book was written under the supervision of Lester Coleman, M.D., who is known for his interest in preparing children for tonsillectomies. The book explains, on a child's level of understanding, what will happen to him when he goes to the hospital to have his tonsils removed.¹

Dramatic play was used to introduce the children to the concepts of hospitalization in their play world and to prepare them for the coming experience. The following selected hospital equipment and toys were utilized in this preparation:

A small doll dressed in pajamas
A toy nurse's kit which contained an imitation stethoscope, a toy thermometer, candy pills, an actual syringe (without the needle), a tongue depressor, cotton balls, gauze, and bandage scissors.

Whenever a play interview was conducted, the authors wore their uniforms to the home. The purpose for wearing the white uniform was to relay to the child that people who wear uniforms are friendly and helpful and not to be feared. It should be noted that the interviews were designed so that it was possible for them to be conducted by one person. However, if both writers did make the visit to the home, one would

¹ Francine Chase, A Visit to the Hospital. (New York: Grosset & Dunlap, 1957).

interview the mother while the other conducted the play interview with the child. Upon entry into the home the writers introduced themselves to the mother and the child. At this time they told the child that they would like to read to him a story and would play with him after talking with his mother. The actual play period was conducted in the following manner: the author read the story to the child interrupting to clarify questions when asked, following the story the coming experience was discussed with the child, and then the hospital equipment was utilized in dramatic play. The doll was used to depict the role of the child and the instruments were shown in their proper use. Temperatures were taken, heart-beats listened to, injections given, throats looked at, and bandages applied to the neck region. During the discussion the child was given information as to the type of bed he would sleep in, the use of restraints, the trip to the operating room, and the induction of anesthesia. (See Appendix B for play interview guide). The child was also told he would be away from his mother over-night or for two nights depending on hospital policy but that she would return to take him home. It was mentioned that he would have a sore throat following the operation. Then the child was allowed a free play period to handle and use the equipment as he desired. The method used to collect information concerning the period was that of observation. These observations were recorded immediately following the visit in which a play interview was conducted.

Approximately two weeks following each hospitalization the mothers in both groups were again interviewed. (See Appendix C for interview guide). The reason for selecting the time interval of two weeks was to allow for a period of recuperation. Also behavioral changes are still evident within this time span. During this post-hospitalization interview, the authors attempted to elicit any behavior changes exhibited by the child in the seven areas being studied. At the time of the post-hospitalization interview a play interview was held for the children in both groups. This play period was unstructured, utilized the same equipment, and the children were allowed to handle and use the equipment in whatever manner they desired. The purpose of this play period was to compare what changes, if any, occurred in the nature of the children's dramatic play prior to, and following hospitalization. Also the authors were interested in observing whether there would be any difference in the play of children who had been prepared for the hospital experience as compared with children who had not received this method of preparation. Again observation was utilized as the method of recording the play behavior.

CHAPTER IV

PRESENTATION AND DISCUSSION OF DATA

The data was collected from interviews with ten mothers and twelve children. The writers assigned the children to two groups, an experimental group and a control group. The difference in treatment of the two groups was that the experimental group was prepared for hospitalization with the use of a play interview and appropriate literature. As a means of measuring the effectiveness of this method of preparation the authors focused their attention upon regressive behavior changes in the children in seven areas after hospitalization. In order to detect changes in the following areas: eating habits, sleep patterns, play patterns, speech development, mannerisms and habits, toileting behavior and family relationships, the authors compared the post-hospitalization interviews with the pre-admission interviews which were conducted with the mothers. Play interviews were conducted following hospitalization with both groups of children for the purpose of comparing the differences in play behavior.

The experimental group consisted of seven children, three girls and four boys. Five children, two boys and three girls, comprised the control group. Of these twelve children five fulfilled the original criteria as specified in Chapter III. In the presentation of the findings the play behavior of the five children meeting the specifications will be

discussed first followed by a discussion of the remaining seven children who did not meet the criteria. The last section of Chapter IV contains a presentation of the regressive behavior changes found.

The authors had intended for the sample to include a larger number of children. However, the deadline for collecting data limited the number of children available who met the original criteria for selection. Also, one mother withdrew following the first interview stating she "could not be bothered". Her child was to have been included in the control group. Two children did not have their tonsils removed after the first interview which necessitated their withdrawal from the study. One was to have been in the experimental group; whereas, the other had been assigned to the control group. See Appendix D for a representation of interviews.

Children's Responses to Play Interviews

The authors coded the children's responses to the play interviews into the following categories: interest, ability to verbalize, spontaneity, ability to dramatize feelings and experiences, accuracy in use of equipment, apprehension, aggressiveness, and refusal to play. All the children in the group who met the specifications and received the play preparation interview exhibited some changes in the nature of their play behavior following hospitalization. Two out of the three children in this group showed more changes. They had less

interest, were less spontaneous and dramatic, and were less verbal. One demonstrated a decrease in apprehension, while, the other showed an increase in apprehension. This apprehensive child refused to play during the second interview; while he had been friendly and outgoing during the first. The third child, although the nature of her play remained essentially the same, was somewhat more aggressive. For example she gave repeated injections to the doll in a dart-like manner.

The children in the control group meeting specifications were less verbal, less spontaneous, less dramatic, and less accurate in their play than the experimental group. One of these children refused to play rejecting the interviewers completely.

In the experimental group not meeting specifications only one child showed any change in the nature of his play following hospitalization. He became more aggressive in his use of the play equipment. He took the doll's temperature in a twisting motion and gave injections into its abdomen.

One child out of three in the control group refused to play. This child hid behind her mother, would not touch any of the equipment, and seemed relieved when the interviewers left.

Discussion of Variables Affecting the Play Interviews

There were many variables which might have influenced

the children's play activities during the interviews. The children's past experiences with nurses as well as their experience with nurses during the hospitalization might have affected their ability to play. Since the interviewers were in uniform, a frightening experience in the hospital or a fear of nurses might have been a causative factor in the three children who later refused to play with hospital equipment. The children in the experimental group had an original contact with the interviewers before hospitalization and, therefore, may have reacted more positively after discharge. Some children are naturally shy with strangers and this shyness might have affected their ability to verbalize and play with a strange person.

Personality factors could have had a bearing on the results. A quiet, inhibited, undramatic child would show less dramatization and spontaneity during the play interview. The interviewers' personalities and their ability to establish rapport with the child are variables which were not controlled.

Many of the children had played with doctor and nurse kits at home and were familiar with the equipment. The twins had a grandmother who was a diabetic and they frequently watched her give injections. Several of the children had been hospitalized in the past and came in contact with the hospital equipment. Many were frequent clinic visitors thus coming in contact with hospital personnel and supplies. Almost all the children had been exposed to medical equipment in one form or

another. Their familiarity with the materials used might have influenced the results.

Regressive Changes in Children Meeting Specifications

The five children in the group meeting the specifications ranged between the ages of three and one-half and four and one-half years. In comparing the pre-admission interview with the post-hospitalization interview, regressive changes were noted with two children in the experimental group and one child in the control group. The table on the following page (Table 1) depicts these changes according to the seven areas studied. It can be seen that regressive changes occurred in both groups; however, on the basis of just five children, and as there was not an equal number in each group, it is difficult to compare the two further than to look at areas in which regressive behavior occurred. These changes occurred in sleep patterns, speech development, and family relationships. More children regressed in sleep and family relationships than in any of the other categories. Some examples of regression in areas of sleep as cited by three mothers are:

He awakens almost every night since he has been home with nightmares.

I thought it best for him to sleep in my room for a while and when I tried to put him back into his own room he cried and didn't want to go.

Like the first night he woke up terrified and asked to sleep with his father and wouldn't go to sleep unless his father were with him.

Only one regressive change was noted in speech development.

Table 1

Individual Regressive Behavior
Changes After Hospitalization for Children Meeting Specifications¹

Child	Age	Eat- ing Habits	Sleep Pat- terns	Play Pat- terns	Speech Develop- ment	Mannerisms and Habits	Toileting Behavior	Family Relation- ships
Experimental								
Karen	4	-	-	-	-	-	-	-
Derek	4½	-	X	-	X	-	-	X
Jim	3½	-	X	-	-	-	-	X
Control								
Frank	4½	-	X	-	-	-	-	X
Matt	4	-	-	-	-	-	-	-

¹The "x" denotes a regressive change in the category

This mother said:

At first he didn't want to talk so I gave him a spoon and a pan which he banged whenever he wanted me.

Three children regressed in their family relationships. As noted by the mothers:

He seems to cling to me more now, cries more, and is babyish. He's petrified of people in white.

He's been afraid to leave me ever since he came home and at first I couldn't leave the room without his screaming and banging.

He asked to be picked up and carried places his first few days home.

There were no regressive changes noted in the categories of play, mannerisms and habits, or toileting behavior.

Regressive Changes in Children Not Meeting Specifications

The seven children in the group not meeting specifications ranged between three and one-half through five years of age. Three children did not meet the original criteria because they had had previous hospitalizations. Four children in the experimental group did not meet specifications because two were twins and two were brothers. Being in the hospital at the same time, these siblings could offer additional support to one another. As can be seen in Table II, the regressive changes occurred only in the group without play preparation. These regressive changes exhibited by three children were in the areas of eating, sleep, play, speech, and family relationships. There were no changes noted in mannerisms and habits or toileting behavior. It was noticed by the

Table 2

Individual Regressive Behavior
Changes After Hospitalization for Children Not Meeting Specifications¹

Child	Age	Eat- ing Habits	Sleep Pat- terns	Play Pat- terns	Speech Develop- ment	Mannerisms and Habits	Toileting Behavior	Family Relation- ships
Experimental								
Carol	5	-	-	-	-	-	-	-
Janice	5	-	-	-	-	-	-	-
Nike	4	-	-	-	-	-	-	-
Steve	5	-	-	-	-	-	-	-
Control								
Debbie	5	X	-	-	-	-	-	-
Denise	3 ^{1/2}	-	X	X	X	-	-	X
Liz	4	-	-	-	X	-	-	X

¹ The "x" denotes a regressive change in the category

mother of the one child who regressed in eating that:

For several days she would eat only baby food. I thought this was because of her sore throat but she said she didn't have one.

The mother of the child who regressed in sleep said:

Her first week home she had nightmares. I heard her cry and when I went in she was grabbing at the crib side saying, 'I want to go home'.

Two children regressed in their play activities. Their mothers reported:

When she was outside she ran in the house screaming, 'Mommy, Mommy, I was looking for you'.

She is more possessive of her toys now.

Two children regressed in the area of speech. These mothers said:

She whined for the first few days.

She seems to whine more than she did before.

Two children regressed in their relationships with their families:

She was more cuddly when it was time for her to go to sleep and she wanted her father to give her a piggy-back ride all of the time....

She is more jealous of her sister now.

It should be noted that no regressive changes occurred in the experimental group.

Regressive Changes of All the Children in the Study

The table on the following page (Table 3) presents the total number of regressive changes in all of the children. This comparison shows that the control group contained four

Table 3

Total Number of Regressive Behavior Changes Observed
With Twelve Children

Group	Eat- ing Habits	Sleep Pat- terns	Play Pat- terns	Speech Develop- ment	Mannerisms and Habits	Toileting Behavior	Family Relation- ship	Total Areas
Experimental *	1	2	2	2	0	0	3	10
Control **	1	2	0	1	0	0	2	6

*Experimental N = 7 children

**Control N = 5 children

more regressive changes in behavior than the experimental group.

Discussion of the Variables Affecting
Regressive Behavior

The authors recognize that many variables may have affected the results of this study. The parent-child relationship is one important factor which influences the manner in which a child might react to a situation. Some parents are extremely over-protective of their children which may lead to dependency on the part of the child. This situation may become exaggerated during a forced separation such as a hospitalization. The authors believe that one mother in this study exhibited such tendencies. There were other family situations which may have had an effect on the results. One child who regressed in many areas did not have a father present in the home.

Just prior to the study one of the city's newspapers carried an article related to unnecessary tonsillectomies in children. The article was quite dramatic and seemed to cause increased apprehension on the part of three of the mothers. In turn this apprehension by the mothers could have been conveyed to the children which might have affected their attitude about the coming experience. Some of the children in the control group had been exposed to the meaning of hospitalization by their parents and/or siblings. These parents seemed to be aware of the importance of preparing their chil-

dren for the experience. Some of the siblings had been previously hospitalized and relayed their feelings to the child about to enter the hospital. This could have had a positive or negative effect. The authors, also discovered, that with the increased interest in medical programs on television almost all of the children in the study had received exposure to the hospital in this manner. Consequently, many of the parents had purchased doctor and nurse kits with which their children had played before the study.

The children studied varied in age from three and one-half through five years. As indicated in the literature, the authors observed that all the regressive changes occurred in the areas of eating habits, sleep patterns, play patterns, and family relationships. No regressive changes occurred in mannerisms and habits or toileting behavior. Since it is the younger children who are in the process of mastering toilet training, the authors expected to find regression in toileting behavior in the children between three and four being studied. The results may have been affected by the mothers' failure to recognize changes or reluctance to divulge any regression in toileting behavior, however, this was not seen by the authors.

The children who were exposed to the play preparation but did not meet the original criteria exhibited no regressive behavior changes. There are several factors which may have influenced the results. In the case of the two brothers they

were in the hospital together and thus did not experience complete family separation and may have been able to support one another. Also one of the brothers had been previously hospitalized and as a result may have been more familiar with the situation. The twins, besides being in together in the hospital, had a grandmother living with them who was a diabetic. In this manner they were exposed to the meaning of injections.

The hospital situation is an important variable to be considered, particularly since several hospitals were utilized. Hospital policies, play provisions, and atmosphere might have had a bearing on the results. The nurse-child relationship is an intangible variable. Questions such as how the nurse reacted with the child, how the child perceived the nurse, and what effect the quality of nursing care had upon the child must be left unanswered. These factors might have had a profound effect on the child's adjustment to the hospital and his consequent behavior after discharge.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of the study was to evaluate the use of literature and dramatic play utilizing selected hospital equipment and toys as a method of preparing pre-school children for hospitalization. The effectiveness of this preparation was determined by the amount of regression manifested following discharge in a group of children who had been prepared in such a manner as compared with a group of children who had not had this preparation. The areas studied for regressive changes included: eating habits, sleep patterns, play patterns, speech development, mannerisms and habits, toileting behavior and family relationships.

In the design of the study, children were assigned to an experimental and a control group to allow for a comparison of regressive changes and play activities. Every other family was assigned to the experimental group. Interviews were used as the method of collecting the data. Play interviews were conducted prior to hospitalization for the purpose of preparing the experimental group. Post-hospitalization interviews were conducted with both groups of children to enable a comparison of the nature of their play.

The study was conducted with the assistance of a large metropolitan hospital, a specialized hospital, and a smaller

surburban hospital in eastern Massachusetts. Twelve children were studied with five in the control group and seven in the experimental group. Two of these children were twins and two were brothers. All interviews were conducted in the homes.

Conclusions

The following seem to summarize the findings of this study:

1. Children between the ages of three and one-half through five years do exhibit regressive behavior changes following hospitalization in eating, sleeping, speech, play, and family relationships.
2. The experimental group exhibited fewer regressive changes than the control group. It is difficult to measure the significance of these results because many variables could not be controlled. The sample was small and the study was not conducted randomly.
3. Children express attitudes and feelings about their hospitalization through play.
4. Children may refuse to engage in play activities with a person representative of a hospital after discharge.
5. Several mothers noted an increase in anxiety in their children before hospitalization as exhibited by increased nail-biting, more demanding behavior, and difficulty in speech. On the basis of this it may be concluded that children of this age, when they receive knowledge about an impending hospitalization, begin to show symptoms of increased anxiety.

Recommendations

Because of many uncontrolled variables and the small sample the findings are not conclusive. However, on the basis of the limited results the authors recommend the following:

1. For further research:

A. A similar study should be conducted with a larger random sample and carefully controlled variables. The variables which should be controlled include: age, previous hospitalization, parent-child relationship, and nature of the hospital situation. This would offer further clues as to the influence of these variables and the method of sampling would make further inference possible.

B. A study should be designed to assess the nature and degree of anxiety shown by children after they are told they are to be admitted to a hospital.

2. Implications for Nursing:

A. Literature and dramatic play seems to contribute to children's preparation and acceptance of hospitalization. Nurses, in order to be able to use play effectively should have experience in understanding children's play in basic programs of nursing or through in-service education.

B. Whenever parental preparation for a child's hospitalization is impossible or seems inadequate the nurse should assume the responsibility for this preparation.

C. Nurses should be aware of areas in which regression may occur following a child's hospitalization such as the areas indicated in this study. Nurses can then prepare mothers in understanding their children's behavior changes after discharge. With such understanding mothers would be more accepting of changes in behavior and better able to support their child to re-adjust upon return home.

D. Nurses in doctor's offices and clinics should be aware that children may exhibit increased anxiety prior to hospitalization. Recognizing the symptoms of anxiety the nurse can help the parent to cope with this problem. The nurse could suggest play as a means of relieving the anxiety as well as to help prepare the child for the experience.

APPENDIX

APPENDIX A

GUIDE FOR PRE-ADMISSION INTERVIEW WITH MOTHER

1. Name of child
2. Has your child been told anything about his coming hospitalization?

Has your child had a previous hospitalization?
3. Has the child ever been away from home over-night?
4. Is your child ever away from home during the day such as with a babysitter or at a school?
5. Other sibling? Ages? Sexes?
Have they ever been hospitalized?
6. Discuss with mother child's behavior during a typical day. The following areas to be included:
 - A. Eating Habits:
Has your child any favorite foods?
How does your child eat?
Is his appetite good?
 - B. Sleep Patterns:
What is his bedtime routine?
Does he sleep with anything?
Does he sleep through the night?
 - C. Play Patterns:
What are his favorite toys?
Who are his playmates?
Has he ever played doctor or nurse?
Does he share his playthings?
 - D. Speech Development:
Does he ask for what he wants?
How does he talk. (Favorite words, repeating, etc.)
 - E. Mannerisms and Habits:
Does your child have habits such as thumbsucking?
Bedwetting? Temper tantrums, Etc.?
Does your child have any mannerisms such as unusual facial expressions?

F. Toileting Behavior:

Is your child toilet-trained?
Does he ever have any accidents?

G. Relationships with parents and siblings:

Does he cry when you leave him?
Is he jealous of his brothers and sisters?
How do they act toward him?
Does he like to be held?
Does he go to strangers easily?
Does he seem afraid of people in white?

APPENDIX B

GUIDE FOR PLAY INTERVIEW WITH CHILD
PRIOR TO HOSPITALIZATION

1. Introduction
 - A. Purpose
 - B. Explanation of impending hospitalization
2. Story time
 - A Visit to the Hospital by Francine Chase
3. Dramatic play period utilizing actual equipment and toys
 - A. Explanation of hospital equipment, its purpose and use.
 - B. Guided play period using equipment:
 - a. taking temperature
 - b. examination by doctor
 - c. act out parents leaving
 - d. preoperative hypodermic injection
 - e. trip to operating room
 - f. induction of anesthesia
 - g. return to room
 - h. discharge - parents return to take him home
4. Free Play period
5. Observation of behavior

GUIDE TO PLAY INTERVIEW FOLLOWING HOSPITALIZATION

1. Introduction
2. Unstructured free play period utilizing equipment and doll
3. Observation and recording of child's behavior

APPENDIX C

GUIDE FOR POST-HOSPITALIZATION
INTERVIEW WITH MOTHER

1. Start discussion with mother around the child's typical behavior day, including the following areas:
 - A. Eating Habits:
 - Is there any change in your child's eating habits?
 - Is his appetite decreased or increased?
 - B. Sleep Patterns:
 - Is there any change with his bedtime routine?
 - Does he sleep soundly?
 - Does he wake up?
 - C. Play Patterns:
 - Has there been any change in his play activities?
 - Have his companions changed?
 - Does he share his playthings?
 - Does he now play doctor, nurse or hospital?
 - D. Speech Development:
 - Does he talk as much as he did before going to the hospital?
 - Has there been any change in his manner of speech?
 - Has he talked about the hospital?
 - E. Mannerisms and Habits:
 - Does he still have the same habits?
 - Does he have any new habits?
 - F. Toileting Behavior:
 - Has there been any increase in bedwetting or toilet accidents since he was in the hospital?
 - G. Relationships to Parents and Siblings:
 - Does he seem afraid to leave you now?
 - Does he like to be held or "babied" anymore than before?
 - Is he jealous of his brothers or sisters now?
 - Are they jealous of him?
 - What happens now when he meets strangers?
 - Does he react to someone in a white coat or dress?

2. Have you noticed any other changes?
3. Do you have any comments you wish to make?

APPENDIX D

Interviews

DENISE

PRE-ADMISSION INTERVIEW WITH MOTHER

Denise is a three and one half year old child in the control group. She was hospitalized a year ago for thirteen days with coffee burns. Her mother reports there was no regression after her discharge from this previous hospitalization. She has also been away from home before when her younger sister, now nine months old, was born. Her mother says that she has told her daughter she is to have her tonsils removed in the hospital; but this is all the information she has given her. The child has a poor appetite, however she does like sweets. Before going to sleep she has a piggyback ride with her father. She sleeps with a blanket and a doll. She usually awakens for milk once during the night but this is lessening. She plays with the neighbors who are the same age as she. She has no favorite toys and plays with many. She occasionally plays nurse but prefers to play the role of mommy and daddy. Her speech is fair but her mother contributes some slowness in this area to her tonsils causing her to have difficulty in hearing. She is completely toilet-trained. She does not cry when her parents leave her provided she knows the people she is staying with. She is strange with older people and does not go to them. She likes to be held, particularly when she is tired or after she has been punished. She has no apparent fear of people dressed in white.

POST-HOSPITALIZATION INTERVIEW WITH MOTHER

In the post-hospitalization interview her mother states that Denise's appetite has increased, in fact, she asks for more food. Her first week home she had several nightmares. Her mother reports having heard her cry. When she went in to her room she found her grabbing at the crib sides and crying, "I want to go home." Her speech was very whiney for the first few days. She was also more demanding. When she was out playing she would suddenly come into the house screaming, "Mommy, Mommy, I was looking for you." At bedtime she is now more cuddley. She wants her father to be giving her a piggyback ride constantly. Her mother has not been aware of any other behavior changes.

POST-HOSPITALIZATION PLAY INTERVIEW

Denise seemed quite apprehensive upon seeing the interviewers dressed in uniforms. She clung to her mother and during the entire interview she refused to leave her mother's side. She buried her head in her mother's lap or stood behind her mother peaking out at the interviewers. If caught peaking she

turned to her mother, closing her eyes. In an attempt to have her verbalise, her mother asked her questions about the pictures in the book. In response to the questions she whispered very softly to her mother, "I don't know." She refused to look at the play equipment which the interviewers offered to show her. When the interviewers left, she came outside with her mother and watched until they were in the car.

DEREK

PRE-ADMISSION INTERVIEW WITH MOTHER

Derek is a four and one half year old youngster in the experimental group. His mother says that he knows he is going to have his tonsils removed and that he will have to stay for two nights in the hospital. He has not been hospitalized previously. He underwent the clinic examination with little apprehension; however, his mother was with him for the entire time during the examination. He has been away from home overnight before, staying with relatives. He attended nursery school during the afternoon for about three months until a month ago when his mother removed him from school because of his recurrent tonsillitis. His mother states that he usually becomes very upset when he knows she is going to leave him for a period of time and he does not go to strangers easily. In this family constellation there is an older brother who is fourteen and a sister who is twelve. His sister has told him what she can remember about her hospital experience. His mother says that since he is the youngest she has noticed some jealousy toward him from the older siblings. As for his daily pattern of behavior, his mother states that in general he has a poor appetite. She has not noticed anything in particular about his bedtime routine. He sleeps with the comfort of a stuffed rabbit which is to go to the hospital with him. He usually sleeps through the night but will awaken and go to the bathroom by himself if necessary. He does share the same room with his brother. His speech is well developed for his age. According to his mother he is not very verbal with strangers although this was not evidence during the play interview when he talked constantly with the interviewer. His mother states that to her knowledge he has no unusual habits or mannerisms. He has had no toileting accidents since he was trained. In his play patterns, his mother says that his favorite toys are a moving van and a bicycle. His playmates are neighborhood children who are slightly older than himself. He does share his toys fairly well. His mother knows of several incidents when he has played doctor and nurse.

POST-HOSPITALIZATION WITH MOTHER

In talking with this mother following her son's hospitalization, she spoke readily of the difficulty she has had with him since the experience. The first problem she encountered was during his admission into the hospital. He demonstrated excessive clinging to the point where it was difficult for the nurse to carry out the admission routine. When the nurse in the hospital suggested that Derek's mother leave the room, he only became more upset and the nurse re-

called his mother to help calm him. For approximately three days following discharge from the hospital he was quite difficult, according to his mother. When he first came home she thought it best for him to sleep in her room and when she attempted to return him to the room he shared with his brother he cried and did not want to go. He was also afraid to talk, so his mother gave him a spoon and a pan which he banged whenever he wanted her. She said that at first she could not leave the room without his screaming and banging. This behavior lasted for three days. His mother says that his appetite has improved slowly and is now back to normal. He has resumed play activities with his playmates. His mother has not noticed any change in this area. To her knowledge he has not played doctor and nurse since his hospitalization. There were no other changes that his mother noticed.

PRE-ADMISSION PLAY INTERVIEW

Derek is a friendly little boy who came into the room with the interviewer without fear. He readily left his mother to come and play with the interviewer. When asked why he was going to the hospital he said, "For his tonsils". The interviewer questioned him further but this seemed to be all he knew or would divulge. He listened to the story and frequently interjected comments about the pictures. He played with the equipment readily and easily. He immediately picked up the stethoscope which he called heartbeat and listened to his chest and then his toy rabbit. He then examined the other items and ate a candy pill. He gave a shot to the rabbit in the anal area. Then he filled the syringe with pills and wondered why the medicine would not come out. The interviewer put a small amount of water in the syringe and Derek shot this into the rabbit. He then picked up the thermometer and examined it but did not use it. The interviewer asked him if his mother took his temperature. He said, "Yes, in my bottom". He then took the animal's temperature in the proper place. He took the stethoscope outside to show his friends. He came in, examined the equipment once more, and looked at the pictures in the book. He said he had never slept in a crib and would not sleep in one in the hospital. The nurse explained the necessity of this and he seemed resigned to the fact. He then said the hospital would be fun. The interviewer had him help put the equipment away. When they were finished he said, "Bye, I'll see you after my tonsils are fixed."

POST-HOSPITALIZATION PLAY INTERVIEW

When the interviewer arrived for the second interview, Derek hesitated to come into the house. When he finally did he went over to his mother and climbed on to her lap. He

refused to speak to the interviewer. His mother mentioned a new bicycle he had received and the interviewer asked to see this. She went outside with him hoping to establish rapport. After showing his bike, Derek went immediately into the house and then again refused to speak of his hospitalization. After several minutes he did answer a few questions about gifts he had received, and who had come to see him. The interviewer then asked questions pertaining to his hospital experience such as, "Did you have your temperature taken?". Although he answered the questions truthfully, he did so only in monosyllables. He refused to play with the hospital toys which were placed in front of him. When attention was shifted from him to his mother, he gingerly picked up the equipment. He handled the syringe carefully but did not use it. He threw the thermometer away. For several minutes he put candy pills into the open syringe, and then poured them out and started over again. Beyond this, he did not use any of the equipment nor would he look at the pictures in the book. The interviewer, after half an hour, decided not to force him to do something he refused and prepared to leave. Before the interviewer had a chance to put on her coat, Derek disappeared out of the house.

FRANK

PRE-ADMISSION INTERVIEW WITH MOTHER

Frank, a child in the experimental group, is a four and one half year old youngster whose mother states that she has told him very little about his impending hospitalization. According to his mother he is petrified of doctors and nurses and she is anticipating a separation problem when he is admitted to the hospital. His mother says that he has been away from home overnight only once and this was when his sister was born, sixteen months ago. He seems somewhat jealous of his sister. He has always been a whiney child who cries constantly. His mother says that he does not go to relatives and shys away from strangers completely. As for his eating habits he has been a fussy and a slow eater. In the evening he has a glass of milk and then falls asleep while watching television. He usually sleeps through the night but if he awakens he is afraid of the dark. When he is tired his mother says that he has the habit of rubbing his lower lip. In his play activities he does not share his toys very well. He likes to play outdoors with his friends. When he is inside the house he spends his time watching television. To his mother's knowledge he has never played doctor or nurse. His toileting behavior is normal as well as his speech development.

POST-HOSPITALIZATION INTERVIEW WITH MOTHER

When the interviewers arrived Frank's mother greeted them saying, "Oh, what a time I've had with him!" Both parents brought Frank into the hospital. The time was 9 A.M. when they arrived; however, because Frank was so distraught they were unable to leave him until 7 P.M. that evening. His mother states that since he has been home from the hospital he frequently awakens during the night screaming, "Mommy, Mommy!" He refuses to talk about the hospital and he will not even answer his mother's questions concerning the experience. Four days following discharge he was taken back to the hospital to have his ears incised. His mother says that although his ears must have been painful he denied any earache and she did not suspect this until she noticed he kept putting his hands over his ears and pulling them. His mother attributes his negative response to his fear of the hospital. He is now even more frightened of people wearing white and he dislikes anyone who gives needles. He has accused his mother of lying to him as she had told him he would not have any needles in the hospital and he did have injections while there. Although he still has nightmares they have been less frequent. There have been no changes in his eating or toileting behavior. He has retained the same mannerism of rubbing his lower lip when he is tired. Although he has always been a clinging child he now cries more

and seems "babyish".

POST-HOSPITALIZATION PLAY INTERVIEW

When the interviewers arrived wearing uniforms, his mother called Frank inside. He came up the steps, opened the door and looked in. He promptly turned pale, grimaced, and cried, "Mommy, Mommy!" in a high squeaky voice. He hid behind the door with only his eyes peering out. The interviewers explained that they just wanted to talk with him and would not take him back to the hospital. He screamed hysterically, "Mommy," and slammed the door. The interviewers decided this boy was too frightened and did not pursue the subject further.

KAREN

PRE-ADMISSION INTERVIEW WITH MOTHER

Karen, a child in the experimental group, is a four year old girl who has had no previous hospitalizations. She has two older brothers, one five and one eight. The oldest has had his tonsils out and has told his sister what he remembers. Mother has told her she would be away overnight in the hospital. A newspaper article concerned with unnecessary T&A'S with the dangers involved has caused increased apprehension in the mother. The child has stayed with babysitters in the past.

The child has a good appetite and feeds herself well. She plays quietly before she goes to bed and then sleeps soundly. She does not sleep with anything. Her favorite toys are dolls and she occasionally plays nurse to the dolls. She plays with the neighborhood children and shares her toys well. Her speech is good and she has no favorite words. Mother says she has no habits but for the past five weeks has begun to bite her nails. She is toilet-trained but has an occasional accident at night.

Last year the child cried when left with a babysitter but mother states she does not do this now. She shows no jealousy towards her brothers nor they of her. She loves to be held and cuddled. She does not go to strangers easily and remains shy for a time before she can talk to them. She does not seem afraid of people in white who might represent doctors and nurses.

POST-HOSPITALIZATION INTERVIEW WITH MOTHER

Karen's mother states that her daughter did not exhibit any changes in behavior following discharge from the hospital. The only difficulty she seemed to experience was separating from her mother at the time of admission. Her mother was allowed to stay with Karen for a while until she seemed to be settled. Then she said good-bye without tears. An aunt went to visit on Karen's second day in the hospital. Her mother states that she did not go to visit because, "I was afraid it would upset her too much." Since Karen's return home her mother says that she has talked about the hospital to her brothers, but to her knowledge she has not enacted the experience in play. She still wears the identification wristlet which was put on in the hospital. Her mother says that she refuses to remove it and shows it proudly to friends and visitors.

PRE-ADMISSION PLAY INTERVIEW

Karen is a friendly and out-going youngster who came to the interviewer readily and did not seem apprehensive of the white uniform which the interviewer wore. She listened to the story and occasionally commented on the pictures pointing out the activities of the doctor, nurse, and the little boy. She handled all of the instruments in the nurses's kit and asked how they were used. When asked if she would like to use them on the doll she immediately proceeded with this activity. She took the doll's temperature in its mouth. The interviewer told her that in the hospital she may have her temperature taken elsewhere to which she responded, "In my bottom?" Then she gave the doll a shot and listened to its heart with the stethoscope. She seemed quite interested in this play activity until her brother arrived at which time they became involved in rough and tumble play. When the interviewers were ready to leave, she was interrupted from playing with her brother by her mother who reminded her to say good-bye.

POST-HOSPITALIZATION PLAY INTERVIEW

When the interviewer arrived for the post-hospitalization interview, Karen came into the house promptly when called by her mother. Upon seeing the interviewer she exclaimed, "Where were you, I didn't see you in the hospital?" She immediately took the nurses's kit from the interviewer and proceeded to play with it while her mother was being questioned. It was observed by the interviewer that she handled the equipment with apparent aggression. First she undressed the doll completely. She used a twisting, pushing motion as she took the doll's temperature in the anal area. A shot was given to the doll in a dart-like manner. Next she brought the candy to the interviewer and asked what they were. She went back to the doll and attempted to push a pill into the doll's mouth. Then she interrupted her play, looked at the interviewer and said with deliberation, "And I'm not going back to the hospital either!" When she was shown the pictures in the book she pointed out that she slept in a crib. When her older brother came into the room, she told him that he would have to sleep in a crib, too, if he went to the hospital. Upon seeing the stretcher she called it a bed on wheels and said she had had a ride on it when she was in the hospital. As for the pictures of the operating room, she did not remember this at all. Then she became interested in what her brother was doing and refused to come back to her mother or the interviewer. When the interviewer left, she was reminded by her mother once again to say good-bye which she did.

JANICE AND CAROL

PRE-ADMISSION INTERVIEW WITH MOTHER

Janice and Carol, a set of five year old female twins, are in the experimental group. They have never been previously hospitalized. Their mother states that they know about their coming experience. They have been told that they are going to the hospital to have their tonsils removed and that they will have to stay there overnight. They have been away from home overnight before and recently started kindergarten. Their mother states that they are both fairly good eaters with Janice being a better eater than Carol. As for their bedtime routine Carol is very particular and almost ritualistic. Her shoes have a special place which cannot be changed. They both sleep with stuffed rabbits which are going to the hospital with them. Their mother says that the girls talk to one another before going to sleep. Occasionally Janice will awaken in fright and need to be comforted before she returns to sleep. In their play their favorite activity is dolls. Both have played doctor and nurse repeatedly. They have their own nurse kits. Their mother says that their grandmother is a diabetic and the girls have often imitated giving injections in their play. Their mother has noticed that Janice is more selfish than Carol. Both girls talk alike and their mother says that since they have had tonsillitis there has been a nasal quality to their voices. Their mother has also noticed that Carol has recently had difficulty in getting her words out. Their mother attributes this to increased apprehension over going to the hospital. The only habit they both have is nail-biting. However, Carol does appear to be more tense than her sister. There has been no toileting accidents since they were trained. There are no other siblings in this family. Their mother states that both girls are very affectionate. They usually are quite friendly and go to strangers easily.

POST-HOSPITALIZATION WITH MOTHER

The twins' mother states that they have done very well following their hospital experience. She has not noticed any changes in their behavior. There has been a slight increase in their appetites and both are sleeping better. She does not hear them snoring any more. Their play is the same. Both girls have verbalized a great deal about their hospital experience since coming home. When they returned to the clinic for their post-hospitalization check-up, their mother noted that they did not seem to be afraid of the doctors or nurses. Janice still appears to be as tense as she was before entering the hospital. Carol no longer has any speech difficulty.

PRE-ADMISSION PLAY INTERVIEW

When the interviewer met the twins, they were very friendly and went to the interviewer readily. They exhibited a great deal of interest in the story and interrupted frequently to ask questions. As the story was being read Carol climbed on to the interviewer's lap, while Janice sat cuddled by the interviewer's side. Following the story they wanted to look at the nurse's kit. Seeing that the kit was like her own, Carol went to the closet and found her nurse's kit and brought it to the interviewer. Both girls handled and used the equipment quite accurately. It was evident that they had seen injections given before and had acted out the procedure prior to the interview. In their play they did appear to be more fascinated with the syringes than with the other equipment. When the interviewer questioned them as to where they had learned to give shots, Janice said they had watched their grandmother.

POST-HOSPITALIZATION PLAY INTERVIEW

Both girls greeted the interviewer in a friendly manner. Janice started talking immediately about the equipment the interviewer had brought. They wanted to see the toys but decided, instead, to look at the book first. While looking at the book Janice kept a running commentary on the pictures, "We slept in a big bed like that but we had to be tied in.", "That thing put us to sleep. I didn't like it.". Then Janice looked at the toys the interviewer had brought. She picked up the thermometer first, looked at it, and dropped it saying, "I never had a temperature taken." She then picked up the syringes and said, "Look, a shot thing! Can I give you a shot?" To the interviewer's positive reply she ran into the kitchen, put a tiny bit of water into the syringe and came back. She asked for a piece of cotton and proceeded to give the interviewer a shot in the forearm gently and without apparent hostility. She repeated this action several times. Then she picked up the stethoscope which she called a heart-thing and listened to the doll's chest. A little girl who was visiting in the home with her mother came over and wanted the doll. Janice said, "No, you can't have her, I am playing with her 'cause the nurse brought her." To the interviewer she said, "Can I tell you a secret? I didn't cry when I had a shot but my sister did", at which point Carol interrupted and said, "We both cried." Janice gave several shots to the doll and then took several candy pills and put them on to the spoon. She picked up a tongue blade, put it into her mouth and said, "Ah," and then dropped it.

Carol seemed a little more shy and reticent than her sister. She looked quietly at the pictures until she came to the face mask for anesthesia and said, "The oxygen thing, we

used it." When she saw the last picture which was of a boy alone she asked, "Is the boy going home without his mother?" She picked up a thermometer and said she had had her's taken in her bottom and she proceeded to take the doll's temperature. She next went into the kitchen and came out with a small cup of water and gave this to the interviewer with a candy pill to take. She then put a pill into the doll's mouth. She decided she wanted to give a shot to someone as her sister had done but she wished to wait until the other interviewer was finished talking with her mother. She then proceeded to give the other interviewer several shots in both arms. This she did quite accurately and without apparent aggression. When it was time for the interviewers to leave both girls helped to put away the equipment. They also asked if the interviewers would come back and play with them again sometime.

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