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LOMA LINDA UNIVERSITY

Graduate School

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THE EFFECT OF PREADMISSION ORIENTATION  
ON POST HOSPITAL BEHAVIOR IN CHILDREN

by

Alice Loo

---

A Thesis in Partial Fulfillment  
of the Requirements for the Degree  
Master of Science in the Field of Nursing

---

May 1974

192276

Each person whose signature appears below certifies that he has read this thesis and that in his opinion it is adequate, in scope and quality, as a thesis for the degree of Master of Science.

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## Chapter 1

### INTRODUCTION TO THE STUDY

#### THE RATIONALE

In the last several decades the effects of hospitalization on the behavior of children have been studied extensively. As shown in the review of literature, the possible stress relationship with the child and his hospitalization is related to the child's separation from his family and his unfamiliarity with new settings and procedures. The stress from being hospitalized can lead to negative behavioral changes in a child. Some of the negative behavioral changes that a child may have after brief hospitalization are (1) general anxiety and regression, (2) separation anxiety, (3) anxiety about sleep, (4) eating disturbances, (5) aggression toward authority, and (6) apathy withdrawal (Vernon et al., 1966).

Results of several studies suggest that a brief hospitalization may have no effect on the child or even result in a positive effect (Cassell, 1967; Davenport, 1970). Therefore, the rationale of this study is in investigating two types of orientation programs to see which will help the most in decreasing the negative effects or increasing the positive effects of hospitalization of children.

Nursing has helped to institute measures such as extended visiting hours, rooming-in policies, mother substitutes, better play facilities, and preadmission orientation programs for children. There

is a need for these measures to be evaluated, improved, and implemented more widely.

A planned preadmission orientation can be an educative and preparative measure that nurses can use to help decrease the trauma of hospital experience for a child as noted by a decrease in frequency of negative behaviors. Some of the ways which it can help a child is by decreasing the unfamiliarity of the hospital setting, helping the child understand the separation from his parents, clarifying his fantasies of hospitalization, and building a trust relationship between him and his parents and between him and the hospital personnel.

In this study pre hospitalization preparation was implemented and its effects were observed on post hospital behavior. Vernon found that unfamiliarity and separation were the two main variables which were shown to be affecting emotional trauma in the post hospital period; whereas, separation and age were the two main variables affecting disturbances during hospitalization (Vernon et al., 1966; Davenport, 1970).

Parents are generally the persons closest to the child; and how they respond will have an effect on the child. If the parents are to help prepare their child for hospitalization and surgery they must be prepared themselves. Many parents are not prepared and do not know how to prepare their child. This gives the nurse an opportunity to assist with a planned preadmission orientation for both the child and his parents.

The rationale of this study was seen not only in its possible effects of decreasing negative behavior in the immediate post

hospitalization period but also in helping the child to use the hospital experience as an opportunity to grow emotionally. It is hoped that the child may grow in having better parent-child relationships and more healthful reactions to future hospitalizations.

#### THE PURPOSE

The purpose of this study was to evaluate the effect of two planned preadmission orientations. The effect was shown by a decrease in the immediate post hospital negative behaviors in the children.

#### THE PROBLEM

##### Hypotheses

1.  $E_1 + E_2 < C$ . Children receiving preadmission orientation types I and II before their brief hospitalization for minor surgery will have less negative post hospital behaviors than children with similar diagnosis receiving no preadmission orientation.
2.  $E_1 < C$ . Children receiving preadmission orientation type I before their brief hospitalization for minor surgery will have less negative post hospital behaviors than children with similar diagnosis receiving no preadmission orientation.
3.  $E_2 < C$ . Children receiving preadmission orientation type II before their brief hospitalization for minor surgery will have less negative post hospital behaviors than children with similar diagnosis receiving no preadmission orientation.
4.  $E_2 < E_1$ . Children receiving preadmission orientation type

II before their brief hospitalization for minor surgery will have less negative post hospital behaviors than children with similar diagnosis receiving preadmission orientation type I.

### Definitions

Preadmission orientation was a planned program designed to decrease negative responses of the child to the hospital. It was conducted in the hospital by a nurse for a child and his parents. In this study, one subject and his parents (occasionally siblings attended) were oriented at one time. The program was administered approximately 2-7 days before the child's hospitalization and lasted 1½ hours. This study used two types of preadmission orientation.

1. Preadmission Orientation Type I included a puppet show and a hospital tour designed to familiarize the child and his parents to the hospital setting and routines.

2. Preadmission Orientation Type II included the same puppet show and hospital tour as type I. In addition the nurse discussed with the parents about preparation of their child for hospitalization. The parents were given a booklet prepared by Ross Laboratories (1969) called Your Child Goes to the Hospital.

Post hospital behaviors were those responses and activities of a child two weeks after hospitalization that were observed by his parents.

Negative post hospital behavior indicated an increase in frequency of the following responses and activities after hospitalization as compared with before hospitalization: (1) general anxiety and

regression, (2) separation anxiety, (3) anxiety about sleep, (4) eating disturbances, (5) aggression toward authority, and (6) apathy withdrawal (Vernon et al., 1966).

Positive post hospital behavior indicated a decrease in frequency of the above responses and activities after hospitalization as compared with pre hospitalization.

1. General anxiety was a state of apprehension or uneasiness due to real or imagined danger such as being afraid of leaving the house and being afraid of new things.

Regression was a return to a more infantile or less mature mode of response such as a need for a pacifier, nail biting, and thumb sucking.

2. Separation anxiety was a state of apprehension or fear of not being able to be near familiar adults such as being upset when left alone, following parents more frequently, and trying to get attention.

3. Anxiety about sleep was a state of apprehension or fear in relation to going to bed such as making a fuss about going to bed, complaining about the dark, or having trouble getting to sleep.

4. Eating disturbance was a state of interference with normal meal patterns such as making a fuss about eating or having a poor appetite.

5. Aggression toward authority was a feeling or action that was self asserting. It was manifested by destructive activities imposed on persons with power over the child such as temper tantrums and a tendency to disobey.

6. Apathy withdrawal was a state of indifference, listlessness, and retraction into oneself such as difficulty in obtaining interest in doing things, needing help doing things, and difficulty of others in trying to get child to talk.

Assumptions

1. It was assumed that parents would accurately report the behavior of their child before and after hospitalization.
2. It was also assumed that separation from parents and unfamiliarity imposed by the hospital experience would cause some change in the behavior of all the children.



## Chapter 2

### REVIEW OF LITERATURE

The main emphasis of this chapter was to show the relationship of this study to previous investigations. Attention was directed towards reports in the literature of effects of preparation of a child for hospitalization on his post hospital behavior and the effects of short term hospitalization. The literature related to this study was organized into the following topical sequence: (1) the effect of hospitalization on a child, (2) the effect that parents and the hospitalization of a child have on each other, and (3) the effect of preparation for hospitalization on a child.

#### THE EFFECT OF HOSPITALIZATION ON A CHILD

##### Historical Perspective

Scientific awareness of the adverse effects of hospitalization was initiated by studies of institutionalized young children where there was a lack of maternal stimulation. As early as 1908, Chapin published his observations on the "atrophic" effects of institutionalized infants. This was where the child's body wasted away due to lack of maternal and environmental stimulation (Chapin, 1908). But it was not until the late 1930's that studies on the psychological effects of illness and hospitalization on a child began to appear in the literature (Prugh and Harlow, 1962, p. 9).

During the war years of the early 1940's there were many

significant studies on the effects of separation of children from their parents. Spitz (1945) concluded from his studies on institutionalized young children that there must be a continuous warm loving relationship with a mother or mother substitute in order to have a normal psychological and physical development. Bowlby (1952, p. 11) also came to the same conclusions from his studies.

Studies in the later 1940's and early 1950's dealt mainly with brief separations of a child from his mother or family. This usually included hospitalization for physical illnesses and operations requiring a short term stay in the hospital.

In 1951 Bowlby made a comprehensive review of world literature for the World Health Organization on the effects of deprivation on a child. He showed that separation anxiety may lead to long term after effects (Bowlby, 1952, p. 12). Bowlby's compilation of findings has stimulated more focus and better controlled research in this area (Yarrow, 1964, p. 94).

It is interesting to note that many important concepts came from these early findings but they were not clinically implemented until the late 1950's and 1960's.

In 1956 the Central Health Service of the Ministry of Health in England appointed the Platt Committee to make recommendations on the welfare of children in hospitals. It dealt with children up to 16 years of age. Although these recommendations involved British hospitals, it also influenced a change in the care system for children in America. The two main recommendations that the Platt Report dealt with

were:

- (a) that all visiting to children should be unrestricted,
- (b) that provision should be made for mothers of children under 5 yrs. of age to accompany them to the hospital to help in their care and prevent the distress of separation (Robertson, 1962, p. 19).

In America, frequent visiting by mothers of hospitalized children did not become a common practice until the early 1960's (Roy, 1968; Mason, 1965; Geppert, 1963). The major efforts of research in the early 1960's to decrease hospitalization trauma seemed to be one of creating an environment where the mother and child could stay together in the hospital situation.

Arneson (1968) poses this question in the rationale of her study. "But what of the child whose mother is unable to stay?" An implication of her study was that a child whose mother cannot stay should have one or two hospital personnel with whom the child can develop a relationship to help him work through the hospital experience.

The study by Branstetter (1969) compared groups of young hospitalized children with the mean frequencies of behavior according to condition of mothering (mother present, substitute mother, or mother absent). The results supported the concept of the benefit of having the mother present and substitute mother groups by manifesting much less "disturbed behavior". It has been suggested that the emotional distress of young hospitalized children is not only from the anxiety due to the loss of the mother as a special irreplaceable love object but it originates from a deprivation of mothering care.

Many studies around 1970 seemed to focus on measures other than

providing a mother or mother substitute for the child to decrease the adverse effects of hospitalization. For example, Lockwood (1970) studied the effects of situational doll play upon the preoperative reactions of hospitalized children. She found that it did not affect preoperative level of stress but broke down the anxiety defense of the children. It helped them to utilize their defense mechanism in coping with the crisis situation.

Studies were done on parent participation in the hospital (Seidl, 1969; MacDonald, 1969; Roy, 1968). More recently research seems more concerned with helping the child work through his feelings and being prepared for the hospital situation.

The historical perspective seems to have begun with an awareness of possible adverse effects of hospitalization, followed by a period of concept formation. There seemed to be a time lag between concept formation and the implementation of measures to decrease hospital trauma in children. Now various aspects of implementation are being researched.

### Separation Anxiety

A major disturbance that a child encounters in hospitalization is separation. He is separated from his parents and from his familiar environment of things, activities, and people. Haller (1967, p. 6) divides the anxiety into separation from parents and separation from things.

Separation from parents. A young child, especially if he is under three years of age, is greatly dependent on the love and care

given by his mother.

Dr. Harlow (1959) studied the development of young monkeys who were taken away from their real mothers. Two laboratory mothers were provided, one of wire and the other of wire covered with terry cloth. No matter which mother was the source of food the monkeys preferred the terry cloth or cuddly mother which served as a source of warmth and security. This study shows the need of the young to be fondled and be close to a mother or mother substitute.

In relating to human research, Skard (1965) concluded from his studies on child separation that imprinting in a human infant occurs at age 5-7 months. During this time it is important for the child to have one particular adult provide warm continuous care.

Schaffer and Callender (1959) observed 76 infants less than 12 months of age and proposed that "separation upset does not arise gradually during the early infancy nor is it present from the beginning; instead it appears relatively suddenly and at full force around 7 months of age." They found that separation for infants under 7 months did not evoke any significant disturbance. Those above 7 months exhibited considerable upset over the admission to the hospital and also after returning home.

The young child is dependent on his parents for warmth, comfort, and protection. A hospitalization experience causes a separation from parents, thus taking away his means of support (Blom, 1958). It is therefore important in the development of the young child's personality to have a relationship with certain love objects such as his

mother or mother substitute. This emotional security during early years is a foundation for emotional security in adult years (Bowlby et al., 1952).

Yarrow (1964, p. 121) states that maternal separation involves a break in the continuity of relationship with a mother-figure. This occurs after an established meaningful relationship. He summarizes the variables that must be considered when evaluating the effect of separation on a child as the developmental stage of the child, the type of relationship the child has had with his mother, previous separation experiences, and individual vulnerability to separation.

Faust and others (1952) found from their study that the children who were most adversely affected were those who had previously had traumatic separation experiences and those who had a poor relationship with their parents before they were hospitalized.

Millar (1970) states:

Separation anxiety is mastered by experiences of successful separation--that is, experiences of separation that are long enough to produce a degree of anxiety in the child, but not so long as to overwhelm the child's present adaptive capacity.

Prugh et al. (1953) found from their follow-up studies three months after discharge that the most common symptoms of those with disturbed behavior were expressions of anxiety over the separation from their parents. This was more frequent among the younger children.

Separation from familiar environment. Younger children, 7 months to 3 years, are more affected by the separation anxiety of being away from their parents; while older children suffer from the anxiety of not knowing what to expect from an unfamiliar environment (Belmont,

1970).

The older age child is more disturbed by not being able to control his instinctual impulses in his new environment. Cooke relates hospitalization with separation as being complicated with illness. Not only is anxiety formed by being in a strange and new environment but where there is limitation to normal movement and activity (Haller, 1967, p. 7). "Separation usually results in significant changes in the total environment for the child in the kinds and patterns of sensory and social stimulation, in scheduling, in the sequences of gratification, and so on" (Yarrow, 1964, p. 98).

Therefore, separation from an unfamiliar situation or environment can be perceived as threatening.

#### Meaning of Hospitalization to a Child

Illness. As early as 1936, Beverly recognized that the fear of illness can be greatly increased if it is associated with badness and punishment. Common means of punishing a child at home are: sending him to bed, confining him to his room, and depriving him of his meals (Freud, 1952). A child can easily interpret illness and hospitalization as means of punishment (Prugh, 1953; Blom, 1958; Langford, 1961; Belmont, 1970).

Anna Freud (1952) describes the ill child who is being nursed as having to become passive in allowing his body to be cared for. He has to give up his independent functions of washing, eliminating, dressing, and feeding himself. This loss of abilities is a loss of ego control and a regression in his development.

A child is unable to distinguish between suffering caused by being ill and suffering imposed on him for treatment to cure (Freud, 1952; Blom, 1958).

The meaning of illness and hospitalization to a child varies with age. When a child is under 3 years old he cannot communicate or comprehend adequately what is going on around him. Up to this age he is primarily concerned with fears of separation and loss of love. He tends to focus on his physical integrity. The child from 3-6 years is occupied with comparing his body with that of his parents. Illness means a punishment of forbidden activities punishable by physical mutilation, body damage, and castration. School age children take illness to mean a threat of losing the feeling of control imposed by the conditions of entering the hospital (Belmont, 1970).

Children in late preschool and pubescent periods are more prone to fears of mutilation or disfigurement. School age children are threatened by any disease process which may inhibit their capacity to compete with other children (Langford, 1961).

The organs of the body that may be most significant in representing threats of death and loss of integrity to the child are his heart, brain, genitals, and eyes (Langford, 1961; Blom, 1958).

Robinson states that parents who often are the only ones who prepare children for hospitalization should know what it means to a child to be hospitalized to better prepare him (Stacey et al., 1970).

Surgery. Whether it is a minor or major surgery a child may interpret the operation according to his own fantasies (Belmont, 1970;



Freud, 1952).

Surgery means an injury to the child and this is the worst time for a child to relate to new things (Haller, 1967, p. 19). Therefore surgery should not be contemplated when a child is going through a period of particular stress, such as an addition of a new sibling into the family, recent death of family or friend, or disruption in family relationship (Pillsbury, 1951; Jackson et al., 1953).

In contrast, surgery may be a benefiting experience if the child receives warm continuous care and is well prepared.

#### Responses of a Child to Hospitalization

The responses of a child to hospitalization may be as many and varied as its meaning. There is more likely a chance of increased distress for a hospitalized child who is going to have surgery than one who is not (Skipper, 1966).

The distress of having a tonsillectomy can cause feelings of loneliness, abandonment, grief, imprisonment, threat of physical injury, and loss of love (Jessner, 1952).

"Some stress is essential to normal psychological growth: the right amount at the right time stimulates the maturation of the child" (Millar, 1970). Stress can be minimized or utilized for maturation. If it is not, it may become distress. The meaning of hospitalization will manifest itself in the responses of a child during and after hospitalization.

During hospitalization. "The amount of a child's crying cannot be regarded as the only indication of his distress. A child who cries

when distressed may make a better adjustment than one who reacts by withdrawal" (Stacey, 1970, p. 76).

Plank (1959) studied children in a tuberculosis ward with a mean hospital stay of 6.3-8 months and found that the children reacted to their hospitalization with despair and withdrawal. A child who responds to hospitalization this way is not necessarily lacking in anxiety. Instead, he may be absorbed with the frightening fantasies of the hospitalization (Belmont, 1970).

Bowlby et al. (1952) observed responses of a two-year-old girl going for a short term hospitalization. This study showed the sequences of behavior commonly occurring in toddlers and preschool children when separated from their mothers and care given to them by strangers. The first phase is protest. The child reacts by clinging intensely to his mother. When his mother leaves he calls for her constantly. He may reject the nurse taking care of him. The second phase is despair. The child is depressed and is quieter and withdrawn. He mourns deeply for his mother. He becomes greatly upset when his mother comes to visit. The third phase is detachment. The child seems to show interest in his surroundings and represses feelings of his mother. He may barely notice her when she comes to visit.

Bowlby (1960) examines these three phases further and discusses theoretical problems associated with each of the phases. "Protest raises the problem especially of separation anxiety; despair that of grief and mourning; and detachment that of defense."

Tisza et al. (1970) observed hospitalized children in a play

program. Children 4-6 years old suffer from heightened anxiety. They were much more controlled, responsible, and outwardly oriented than the younger children. They were able to cope with separation and hospitalization by using inanimate objects and people. In the 6-8 year old children, the anxieties of hospitalization and illness brought about regression of the adaptive functions of the ego. Frequent general neuromuscular regression was a symptom observed in this group. They needed to play actively to master their anxiety and interact with their peer group.

Burling and Collip (1969) conducted a pulse monitor study on thirteen children 15 months to 10 years of age. The results revealed that procedures with needles were the most common cause for increased heart rate. But scheduled procedures were the least. It was interesting to note that doctors' and nurses' rounds caused no significant rise in pulse rate.

After hospitalization. Millar (1970) feels that symptoms of emotional trauma from hospitalization often do not appear until after hospitalization when the child returns home. Vaughn (1957) found in his study that some of the children with mild disturbance in the hospital ward became severely disturbed at home. Some of the very disturbed in the ward were the least disturbed at home. Similar findings were found by Prugh (1953).

Children hospitalized for severe illness who showed deviant reaction patterns manifested psychic trauma with regression, aggression, and negativism. There were mood swings, lack of self confidence,

bedwetting, problems in sleeping and eating, and problems at school. Yet there were those who seemed to be matured from being hospitalized (Haller, 1961, p. 15; Freud, 1952; Dimock, 1960, p. 8).

In looking at nonacute short-term illness, Sipowicz and Vernon (1965) studied 24 pairs of twins. One of each pair was subjected to hospitalization. The results supported that hospitalization and illness was psychologically upsetting to children with brief hospitalization.

Davenport et al. (1970) studied 145 children in the U.S. and Canada, 1-15 years old, who were hospitalized for tonsillectomy. It was found that the status of the child at the time of induction not only affected the responses to hospitalization but also reflected the child's level of adjustment. A majority of these patients did not appear to suffer any residual behavior effects after this brief hospitalization. Similar findings were reported by Cassell (1967) on patients with cardiac catheterizations who showed a trend of less emotional disturbance following hospitalization.

Brain and Maclay (1968) made a study on 197 children who were admitted for tonsillectomy and/or adenoidectomy. This study indicated not only a much lower incidence of emotional trauma but also a lower incidence of infective complications in the experimental group of 101 who were admitted with their mothers than the control group of 97 unaccompanied children.

Jessner et al. (1952) found in their study that the majority of the children exhibited mild reactions for 7-10 days after the operation (demanding, irritable, depressed, had occasional nightmares,

or other sleep disturbances). These were regarded as a normal process of assimilating the experience (Levy, 1945; Jessner, 1952).

The children who had severe post op reactions were chiefly those with neurotic trends and evidences of a disturbed emotional adjustment prior to operation (Blom, 1958; Jessner et al., 1952). "Emotional response is the product of the interpersonal relationship and experience to which the child has been exposed during his lifetime prior to hospitalization" (Lee and Green, 1969).

James (1960) studied 60 normal children under 10 years old who were admitted for common operations. He followed them for six months and assessed their behavior reactions. Seventy percent showed no abnormal behavior reactions and three percent showed severe reactions.

Prugh (1953) studied 200 children 2-12 years old requiring medical care in a hospital. Ninety-two percent of the control group who were unsupported showed immediate reactions that indicated difficulties in adaptation. The figure for the supported group was 68 percent. After three months 58 percent of the control group still showed disturbance while 42 percent of the supported group showed disturbance. Prugh also found that the incidence of severe reactions was not significantly different from other age groups. There was little difference between sexes. Somewhat contrary to this Mechanic (1964) found that the health attitudes of children were dependent on their age and sex status.

Hospitalized children under three years of age generally show the highest incidence of severe reaction and tend to regress more

quickly. The severity of reaction of a child after hospitalization appears to depend on the age of the child and the duration of the illness (Langford, 1961; Levy, 1945; Vernon et al., 1966; Vernon and Schulman, 1964.

THE EFFECT THAT PARENTS AND THE HOSPITALIZATION  
OF A CHILD HAVE ON EACH OTHER

Effect of Parents on the Hospitalization of a Child

If a mother is anxious about the hospitalization, a child may sense and reflect her anxiety (Pillsbury, 1951). Roy (1968) conducted a study on 30 mothers. The purpose of this study was one of restoring the child's source of security by providing cues the mother needs to function adequately. To provide role cues, the nurse simply pays attention, informs, and permits participation by the mother. The security and adequacy were reflected from parent to child.

The mother acts as her child's ego until he is able to control his instinctual desires. If the mother is honest in telling the child about anticipated separation experiences such as hospitalization, this will give ego support and maintain the child's relationship with his mother. It fosters a trust relationship (Smith, 1963).

The way a child sees himself and how he copes with the hospitalization experience is strongly influenced by how his family handles their anxiety (Plank, 1965). One of the resources utilized by children who were able to cope with the hospital experience as studied by Blom (1958) was the ability to transfer positive feelings

to the hospital personnel. "Responses of fear to specific situations may be learned from a parent without the child having any upsetting experiences personally. . . . a child is a mirror in which his parents can see themselves" (Dimock, 1960, p. 20).

Mechanic studied the influence of 350 mothers on their children's health attitudes and behavior. It was found that a mother plays an influential role in helping her child acquire health attitude behavior patterns expected of him. But it was suggested from the data that other variables in the child's life experiences had more bearing in influencing the child's pattern of health and illness than his mother's attentiveness to his illness. "The overprotective, hypochondriacal mother does not necessarily beget a child with similar (or opposite) traits" (Mechanic, 1964, p. 453).

Roseberg (1971) found that the general attitudes of parents in hospitals were favorable, 91.2 percent. There was also a correlation between overprotectiveness and psychological factors in the family. Those in the higher income group seemed to be more overprotective and those in the lowest income group had more negative attitudes.

In another study there was no correlation between the mother's anxiety and the child's maladaptive behavior after hospitalization. Half of the children of anxious mothers appeared to be normal after hospitalization. Those who showed anxiety and ambivalence were mostly mothers of normal children. The anxiety of the mothers in this study did not transfer to the child (Stacey et al., 1970, p. 82). ". . . the subtlety of childhood learning is dependent more on what the

parents do and how they react than the attitudes they manifest" (Mechanic, 1964).

Fagin (1966) compared the effects of maternal attendance during hospitalization on post hospital behavior of 60 children 1½-3 years. This study showed that children who were attended by their mothers did not show significant regressive behaviors either one week or one month post hospitalization. Those who were not attended showed significant regression.

MacDonald (1969) conducted a study in Toronto by interviewing and observing 76 parents of hospitalized children. The results showed that most parents seemed unaware of the effect of their participation in their child's hospital care. The amount of care that parents were willing to give depended on the age of the child and the nurse's attitude towards the parents helping.

#### Effect of Hospitalization of a Child on the Parents

The type of reaction of parents depends on many factors such as their feelings and relationship to their child and their character structure. Well adjusted parents usually participate in the ward care of their child. It was observed in some of the parents who were less adequately adjusted that they used their child's illness as a punishment of their own guilt. This was observed to be combined with isolation and denial in the parents. When there was behavioral regression in the child either during or after hospitalization, both ill and adequately adjusted parents displayed marked ambivalence (Prugh, 1953).

Kennell and Bergen (1966) observed reactions of young children



to ordinary separation in 21 families. They found that a mother is often hurt by the child ignoring her after the separation experience. The mother may retaliate with anger but this only increases the child's fear of loss.

Lidz et al. (1958) found that the parents' internal family relations, attitude to parental roles, and social and religious background were factors in relating to their child whether he was physically ill or healthy.

It was found that if the mother's level of fear of being hospitalized herself was high her concern was on her child's emotional reaction to the hospitalization instead of on her child's illness (Stacey et al., 1970, p. 46). This supports Feshback and Singer's (1957) experiment that people who are aroused of fear have a tendency to see others as fearful and anxious. Mechanic (1964) found that mothers under more stress tended to report more personal illness and to recognize more illness in their children.

Freiberg (1972) studied 25 mothers' reactions of their child during the first few days after discharge. Parents who stayed with their child often had feelings of fear and anxiety. According to the interview with the mothers it was found that the hospitalization of one child disrupted the family life considerably, especially when there were other children in the family. Lack of information was the reason that most mothers gave for their anxiety.

The hospitalization of a child can be stressful for many mothers. If mothers are given information in advance about their

children's hospitalizations they will adapt more easily to the situation and be less distressed than mothers who have little or no information (Skipper, 1966).

By reducing the mother's distress and anxiety the stress of the child can then be indirectly reduced.

#### THE EFFECT OF PREPARATION FOR HOSPITALIZATION ON A CHILD

##### Intellectual Preparation

One important means of reducing distress from potentially threatening events is through the communication of accurate information about the event in advance. When an individual faces a distressful event, he often becomes anxious, fearful, and tense. Perception narrows, and behavior becomes more rigid and inflexible. When this occurs, ability to act rationally is seriously hampered. Thoughts become disorganized, and actions lack structure and purpose. This makes the event even more distressful. Supplying advance information allows the individual time to organize his thoughts, actions, and relationship to the event (Skipper, 1966).

Jessner et al. (1952) observed the emotional implications of 143 children undergoing tonsillectomies and adenoidectomies. In this study the parents were urged to prepare their children and given a pamphlet to help them. It was found that preparation was not a decisive factor for the post operative reactions. In a number of these cases the preparation was misleading when parents deliberately misinformed the child and inadequate when no or incomplete information was given. This usually occurred where the parents were anxious and ambivalent about the child and his operation.

Based partially on the Platt Report, a pilot study was

conducted in London. The 95 subjects were four-year-olds who had never been hospitalized. Parents were asked about the preparation for hospitalization that children had had, such as watching TV programs, reading books, and playing hospital games. Many of the mothers considered their children to be too young for this kind of preparation. Fifty-eight of the 95 children received some form of preparation before hospitalization. A comparison was made between the preparation of emergency and nonemergency cases. The study showed that parents prepare their children more if they know definitely that their children are going to be hospitalized. It was also found that there was no correlation between the amount of preparation and distress exhibited in the ward. Verbal preparation appeared to be unrelated to the ability to adapt to hospitalization (Stacey, 1970, pp. 11, 12, 17, 18, 76, 77).

Levy (1945) studied the effect of operation in 124 children 2-20 years of age. He found that the children who did not have emotional difficulties after the operation were those who had been told the reason for their surgery and how it was to be performed.

McCaffery (1971) studied children's responses to rectal temperatures after cognitively specific preparation. Those without preparation had a slightly higher mean negative behavior while those with preparation had moderately higher positive behavior.

Sauer (1968) conducted a study on the effects of preadmission orientation on 100 patients. He showed that those with preparation were significantly more manageable on the ward than those without the orientation.

### Emotional Preparation

Preparation involves more than simply imparting information to the child. The parent's own feelings can color the presentation of the facts so that the child's apprehensiveness might be heightened rather than diminished. While intellectual preparedness helps maintain a proper reality orientation, it is inner preparedness, i.e., the extent to which the child has been able to master his anxiety and marshal his defenses to cope with the impending danger that affects the final outcome.

The manner in which this inner preparedness is achieved varies from one child to the next, with some maintaining their own misconceptions and fantasies about the operation, despite their having accurate information (Jessner et al., 1952).

Vaughn (1957) compared the responses of two groups of children admitted for eye surgery in a British hospital for five days. The experimental group was given a systematic explanation of their surgery and an opportunity to express their feelings by special interviews with a psychiatrist. The control group was dealt routinely and 40 percent showed ward disturbance, 65 percent showed disturbance a week later, and 55 percent six months later. Whereas in the experimental group, 55 percent showed ward disturbance, 30 percent showed disturbances a week after discharge, and 15 percent six months later. It is interesting to observe that the 15 percent included all the children in the group under four. Vaughn concludes that preparation for the very young child may have no value, but those over four years benefited considerably.

Children under four years have limited memory span and verbalization skills. Preparation can have an adverse effect if made too specific. There needs to be a proper balance between general and specific preparation for each child (Mason, 1965).

It is more likely that an older child can be prepared for hospitalization than a younger child (Robertson, 1958, p. 102).

Faust et al. (1952) studied 140 children who were hospitalized for tonsillectomies. A variety of prophylactic measures such as preparation for hospitalization by discussion with parents about how to prepare their children, careful timing of elective hospitalization, arrangements for mother to stay with child in hospital, and minimizing potentially traumatic procedures. The study revealed that the changes in behavior immediately and three months post operatively were either benefitted or scarcely affected. Only a small number of children showed emotional trauma and these were younger children.

Schwartz's (1972) study supports the theory that children should be informed of the nature and purpose of a planned hospitalization. It allows the child an opportunity to work through his hospital experience which results in manageable levels of anxiety enabling the child to cope with the event.

Preparation for surgery may have varying degrees of success and may produce different results with different children. We must not think that any child who has been properly prepared will go into surgery like a lamb, while an unprepared child will not. The very opposite may be true; the unprepared child not knowing what to expect, in fact, not expecting anything--may show little outward excitement or may be frozen into obedience. But this later reaction may be severe. The value of good preparation for an operation appears afterwards, in the speed of recuperation and in freedom from neurotic symptoms (Plank, 1971, p. 24).

#### Use of Puppets

Cassell (1965) used puppets as therapy to help children work through their emotional problems before and following cardiac

catheterization. The results showed that those given puppet therapy showed less emotional disturbance during the cardiac catheterization. They did not show benefit following this or the hospitalization but expressed significantly more willingness to return to the hospital for further treatment.

The use of puppets has many advantages in helping prepare the child for hospitalization. It is often easier for a child to express his feelings through a third person than to deal with the situation directly. The child may then dispel some of his fears and fantasies through the puppets. The mobility that the puppets have makes them more realistic to a child than the use of dolls. Also older boys are more apt to consider dolls to be "sissy" whereas they are more willing to use puppets (Cassell, 1967).

## Chapter 3

### METHOD OF STUDY AND COLLECTION OF DATA

#### METHOD OF STUDY

##### Setting

Only one hospital was used in order that the surroundings, routine, and staff would be similar for the children and their parents who comprised the sample. The children were admitted to Loma Linda University Medical Center which is located in Southern California near San Bernardino. It is a modern hospital operating as a private institution for purposes of service, teaching, and research.

The pediatric unit with approximately thirty beds has both medical and surgical patients. It is circular in structure so that the patient rooms are equally distant from the nurses' station. There are no overnight accommodations for parents to stay with their child. Visiting is encouraged during visiting hours (11:00 a.m. to 8:00 p.m.).

##### Criteria for Patient Selection

The study sample was selected using the following criteria from the information contained in the patients' charts. Parents were questioned to adequately answer the criteria if necessary.

| <u>Criteria</u>       | <u>Rationale</u>   |
|-----------------------|--|
| 1. Age:<br>3-11 years | Children under the age of 3 yrs. would probably benefit little from a formal preparation due to limited memory and attention span. |

## Criteria

## Rationale

- 
- Gofmann et al. (1957) concluded from their study that most children from the ages of 3 or 4 years can gain an understanding of their illness and treatment if simple explanations and terms are used. School-age children are affected by the hospital experience as well as the younger age children.
2. Sex:  
Both male and female were used.  
The study by Mechanic (1964) supported that boys up to 4 years are more adversely affected by hospitalization than young girls, but the opposite is true for older children. Other studies have shown that the behavior difference for sex during and after hospitalization did not have statistical significance (Vernon et al., 1966; Lee and Greene, 1969; Jessner et al., 1952).
  3. Diagnosis:  
Scheduled minor surgery requiring general anesthesia as: tonsillectomy, adenoidectomy, myringotomy, hernia repair, and removal of external scar.  
Since it was difficult to orient children with emergency admissions, the study was restricted to patients undergoing planned minor surgery. Having general anesthesia was one unifying experience that would be similar for all subjects. The study excluded those surgeries involving the eyes or genitals since these have been found to represent a greater threat of death and loss of integrity to the child (Langford, 1961; Blom, 1958).
  4. Length of hospital stay:  
3 days or less  
The focus of this study was on brief hospitalizations. Children hospitalized for long durations (2-3 weeks or longer) showed more changes toward negative behavior than those hospitalized for a shorter period (Vernon et al., 1966).
  5. Previous hospitalizations:  
Limited to less than 3 hospitalizations with no hospitalization within the last six months.  
It would have been ideal if the study would have omitted all those children who had had previous hospitalizations. Since this was not possible due to the small sample it was decided that the study include children with minimal and brief (less than 10 days) hospitalizations. Prior hospitalizations have no



## Criteria

## Rationale

- | Criteria  | Rationale  |
|---|--|
| 6. Language:<br>English spoken and understood by parents and child.   | <p>consistent effect on change in children's behavior following hospitalization (Vernon <u>et al.</u>, 1966).</p> <p>"Fear is not necessarily diminished if a child has already previously experienced surgery or anesthesia" (Plank, 1971, p. 14).</p>  |
| 7. Racial or ethnic group:<br>not controlled.   | <p>No effort was made to control the racial or ethnic group in this study. The sample was classified according to appearance. If there was a question, the parents indicated the classification (see Appendix G).</p>  |
| <p>8. Physical, mental, and emotional state of child:<br/>No obvious handicaps as noted in records such as:</p> <ol style="list-style-type: none"> <li>1. physical - diabetes, cerebral palsy, and debilitating heart disease.</li> <li>2. mental - mental retardation or uncontrolled convulsive disorders.</li> <li>3. emotional - severe asthma, ulcerative colitis, hyperactivity, and other emotional and behavioral disorders.</li> </ol> | <p>Having a preexisting physical, mental, or emotional problem could influence the outcome of behavior after hospitalization.</p> <p>Findings show that children who were emotionally maladjusted before admission were more likely to show further disturbance as a result (Jessner <u>et al.</u>, 1952; Brain and Maclay, 1968).</p> |
| 9. Social class:<br>not controlled.   | <p>Although no attempt was made to control social class, a record was kept of both parents' occupation and the highest grade attended in school (see Appendix G). A majority of the families were expected to belong to the middle class.</p>  |

| Criteria  | Rationale   |
|---|---|
| 10. Residence:<br>not more than 30<br>miles from the<br>hospital. | It was felt that if the subject lived<br>too far away the parents might not want<br>to come for an orientation program. |

A convenience sample of 15 children who met the above criteria were chosen during the months of April through July of 1973. The children were then randomly assigned to control or experimental groups. They were assigned in intervals of three. Every first child was placed in the control group. Every second child was placed in experimental group I. Every third child was placed in experimental group II.

#### Limitations

1. Data on amount and type of behavior that the children exhibited was limited to a questionnaire completed by the parents before and after hospitalization.

2. The children were only followed for two weeks after hospitalization.

3. The sample size was limited to fifteen subjects.

4. The amount and type of preparation given by parents to their child at home in the control and experimental groups was not controlled.

5. The study included more than one type of surgery.

There were forty-seven children during the four months of the study that met the criteria of age, diagnosis, and length of hospital stay. Fifteen children met the rest of the criteria.

### Type and Design of Study

This was an experimental study with a randomized group design.

|           | C | E <sub>1</sub> | E <sub>2</sub> |
|-----------|---|----------------|----------------|
| Pre test  | x | x              | x              |
| Stimulus  | - | 1              | 2              |
| Post test | x | x              | x              |

The control group (C) consisted of five children and their parents who did not have any formal preadmission orientation at the hospital.

Experimental group one (E<sub>1</sub>) consisted of five children and their parents. Both received stimulus 1 which included a puppet show (see Appendix A) and a tour of the hospital (see Appendix B). This preadmission orientation was designed to familiarize them with the hospital setting and routines.

Experimental group two (E<sub>2</sub>) consisted of five children and their parents. Stimulus 2 included the same puppet show and hospital tour as stimulus 1. It also included a session where the nurse discussed with the parents how they could prepare their child for hospitalization (see Appendix C).

In all three groups the parents were asked to answer a questionnaire about their child's behavior before and two weeks after hospitalization.

### Preadmission Orientation Program

The preadmission orientation was given by the nurse researcher two to seven days before hospitalization. Each child and his parents

were oriented individually. The format of the program was as follows:

| <u>Time</u>   | <u>Activity</u>  |
|---------------|--|
| 5 minutes     | Introduction and welcome. Cookies and punch were served.   |
| 10 minutes    | Questionnaires filled out by parents.  |
| 30 minutes    | Puppet show (see Appendix A).  |
| 15 minutes    | Children allowed to play with puppets and use hospital equipment (stethoscope and anesthesia mask) and clothing (green surgical gown, mask, cap, O R shoes, and patient gown).<br><br>(for E <sub>2</sub> only) While the children were playing, the nurse discussed with the parents on the preparation of the child for hospitalization (see Appendix C).<br><br>The Ross booklet <u>Your Child Goes to the Hospital</u> was given to the parents. |
| 10-15 minutes | Tour of hospital (see Appendix B). The booklet on hospital routines was given to the parents (see Appendix D).   |

Objectives for Preadmission Orientation

## A. Central Objective:

After attending the planned preadmission orientation the child and parents will become more familiar with and accepting of the child's hospitalization as demonstrated by the child having less frequency of negative post hospital behavioral changes.

## B. Puppet Show: (see Appendix A)

## Objectives for Working with Child:

1. To present the orientation in a manner that will attract the attention of the child by using simple concrete terms.

2. To help prepare the child for the hospital experiences by presenting relevant things that the child will see, hear, or feel pre or post operatively.

3. To present the orientation in a nonthreatening manner by using puppets, toys, and picture slides.

4. To foster a trusting relationship between child and hospital personnel by being truthful in explanations such as telling the child it hurts when it does and giving him support at the same time.

5. To assess the child's understanding before and during orientation by allowing the child to tell why he is going to the hospital, what kind of operation he is going to have, or what is going to happen to him.

6. To help dispel some of the fears and fantasies of hospitalization that the child may have by allowing the child to ask questions and giving him clarification.

7. To present the hospital experience in a sequential form by showing that the child will (a) leave home to go to hospital, (b) stay in the hospital, and (c) go back home.

Objectives for Working with Parents:

1. To help parents become more familiar with the hospital setting and routines.

2. To help parents respond to their child therapeutically during hospitalization.

C. Tour Objective: (see Appendix B)

To familiarize parents and child to the hospital setting by touring different departments of the hospital and answering questions or offering explanation about hospital routines.

D. Discussion--Objectives for Helping Parents Prepare their Child for Hospitalization: (see Appendix C)

1. To help parents deal with their fears:

a. by allowing parents to express feelings and ask questions.

b. by telling them what to expect.

c. by referring them to sources where further help can be obtained.

2. To help parents know how to relate to prepare the child by discussing with the parents the importance of:

a. listening to their child.

b. being brief.

c. using simple terms at the child's level.

- d. explaining only relevant experiences
  - e. being truthful
  - f. being positive
3. To help parents deal with fears that their child may have by discussing feelings of the child in the following areas that apply:
- a. fear of death
  - b. fear of bodily harm
  - c. fear of abandonment
  - d. fear of punishment
  - e. fear of the unknown

#### COLLECTION OF DATA

##### Selection and Consent of Sample

The subjects were selected from the surgical log in the operating suite. Patients' records were obtained from the medical records department in the hospital and from the outpatient departments of general surgery and ENT (ear, nose, and throat). The subjects who were finally accepted were those who met the criteria of this study.

A consent form (Appendix E) was provided for the attending physician to sign if he would permit the patient to participate in this study. A consent form was signed by all parents who participated in the study (see Appendix F).

The parents of the children in the experimental groups were contacted by telephone to gain verbal consent and to schedule the pre

test and the preadmission orientation program which was usually two to seven days before the child's hospitalization. The pre test for the control group was administered after the child was admitted but before surgery. With the experimental groups, the pre test was given at the beginning of the preadmission orientation program in the hospital.

### Pre Test

The pre test consisted of two parts, an assessment sheet and a behavioral questionnaire.

1. The assessment sheet briefly asked the parents about their child's grade in school, previous hospitalization, recent stressful experiences, special fears about the hospital, and birth order in family. It also asked the number of siblings, what the child had been told of his hospitalization, who planned to be with the child when admitted and discharged, who planned to care for the child after hospitalization, and who would answer the post hospital questionnaire. It asked about the parent's occupation and the level of education of the most highly educated parent. The researcher assessed from the parents by indirect questioning whether if both parents were in the home. The racial or ethnic group was assessed by the researcher according to appearance and when in doubt the parents were questioned as to how they were classified.

This information gained was not only used for data analysis but to help the researcher to know the child and parents better and to help present the program at their level.

2. The behavioral questionnaire was developed by D. T. A.



Vernon (1964). It asks the parents about the frequency of 23 behavioral symptoms occurring most frequently in children after hospitalization.

Vernon et al. (1966) factor analyzed the questions and found that they fell in six categories. See Appendix H for the form of questionnaire used in this study. Factor I--general anxiety and regression included questions 4, 5, 6, 10, 17, and 23; factor II--separation anxiety included questions 7, 13, 14, and 16; factor III--anxiety about sleep included questions 1, 15, and 18; factor IV--eating disturbances included questions 2, 3, and 20; factor V--aggression toward authority included questions 11 and 21; and factor VI--apathy withdrawal included questions 8, 9, 12, 19, and 22.

Others using this questionnaire in their research have been Cassell (1967) and Davenport (1970).

#### Post Test

The post test used the same behavioral questionnaire that was used for the pre test and an evaluation sheet (see Appendix I). The parents were informed at the time the pre test was given that a questionnaire was to be given about two weeks (14-16 days) after hospitalization by telephone.

#### Pilot Study

A pilot study was performed on four subjects and their parents to test if the questionnaires gave adequate information and to refine the orientation program. Several problems were identified and minor changes were made. Three of the subjects in the pilot group were not

included in the final study due to the changes.

### Statistical Treatment

The data obtained from the pre and post behavioral questionnaires was analyzed in two ways. First, the f-ratio (Spence, 1968, p. 166) was used to see if there was any significant difference in scores among the three groups (C, E<sub>1</sub>, and E<sub>2</sub>). The .05 level of significance was used. Second, the general linear model (Dixon, 1969) was used to analyze the data accounting for the variables of age, sex, number of previous hospitalizations, and the highest level of education of the child's parents. More variables were discouraged from being used since they would lower the degrees of freedom in this study.

The data was analyzed at the Scientific Computation Facility at Loma Linda University.

## Chapter 4

### ANALYSIS AND INTERPRETATION OF DATA

This chapter contains the analysis and interpretation of the data on the sample of fifteen children who were admitted to Loma Linda University Medical Center for minor elective surgery. The first section of this chapter describes the subjects in their respective groups. The second section analyzes the data according to the f-ratio and the general linear model to see if there is any significant difference among the groups at .05 level of significance. Finally, the third section discusses the interpretation of the findings.

#### I. DESCRIPTION OF DATA

The following descriptive data was obtained from the patient's hospital chart and from the assessment questionnaire given as part of the pre test (see Appendix G).

##### Sex

There were seven males (47 percent) and eight females (53 percent). Groups  $E_1$  and  $E_2$  were similar in proportion; both had three males (60 percent) and two females (40 percent). The control groups had more females (80 percent) than males (20 percent) (see Table 1).

##### Age

The age range for the total sample was 3.8 years to 10.6 years, or 6.8 years. The mean age for the control group was 5.5 years; for

Table 1  
Description of Groups by Sex

| Sex    | Group C  |           | Group E <sub>1</sub> |           | Group E <sub>2</sub> |           | Total    |           |
|--------|----------|-----------|----------------------|-----------|----------------------|-----------|----------|-----------|
|        | No.      | %         | No.                  | %         | No.                  | %         | No.      | %         |
| Male   | 1        | 20        | 3                    | 60        | 3                    | 60        | 7        | 47        |
| Female | <u>4</u> | <u>80</u> | <u>2</u>             | <u>40</u> | <u>2</u>             | <u>40</u> | <u>8</u> | <u>53</u> |
| Total  | 5        | 100       | 5                    | 100       | 5                    | 100       | 15       | 100       |

E<sub>1</sub> it was 6.0 years; and for E<sub>2</sub> it was 6.2 years. The analysis of the variance using the f-ratio showed that there was no significant difference in age among the three groups (see Tables 2 and 3).

Table 2  
Description of Groups by Age

|           | Group C<br>Years | Group E <sub>1</sub><br>Years | Group E <sub>2</sub><br>Years |
|-----------|------------------|-------------------------------|-------------------------------|
|           | 6.8              | 5.7                           | 5.0                           |
|           | 7.3              | 4.6                           | 7.0                           |
|           | 5.3              | 4.4                           | 6.4                           |
|           | 4.3              | 10.6                          | 8.2                           |
|           | <u>3.8</u>       | <u>4.8</u>                    | <u>4.3</u>                    |
| Total Age | 27.5             | 30.1                          | 30.9                          |
| Mean Age  | 5.5              | 6.0                           | 6.2                           |

Table 3  
 Analysis of Variance for Age  
 Among Groups

| Source of Variation | Sum of Squares | Degrees of Freedom | Mean Square | F   |
|---------------------|----------------|--------------------|-------------|-----|
| Between groups      | .26            | 2                  | .13         | .03 |
| Within groups       | <u>45.94</u>   | <u>12</u>          | <u>3.83</u> |     |
| Total               | 46.20          | 14                 | 3.96        |     |
| p > .05             |                |                    |             |     |

#### School Experiences

The groups were classified according to previous school experiences. It was found that 26.7 percent of the total sample had not been admitted to school. Forty percent of group C and group E<sub>1</sub> had no school experience. All of group E<sub>2</sub> had some school experience. Twenty percent of groups E<sub>1</sub> and E<sub>2</sub> had up to grade 2 or more; while none in group C had more than the first grade (see Table 4).

#### Number of Siblings

All children in the sample had one or more siblings. There were 66.7 percent that had one sibling and 26.6 percent that had two siblings. Group E<sub>2</sub> was the only group with a subject who had four siblings. It was interesting to note that the five children were all boys and the whole family attended the preadmission orientation (see Table V).

#### Birth Order of Child

There were 73.3 percent of the total sample that were the

Table 4

## Description of Groups by School Experience

| School Experience       | Group C  |          | Group E <sub>1</sub> |           | Group E <sub>2</sub> |           | Total    |             |
|-------------------------|----------|----------|----------------------|-----------|----------------------|-----------|----------|-------------|
|                         | No.      | %        | No.                  | %         | No.                  | %         | No.      | %           |
| None                    | 2        | 40       | 2                    | 40        | 0                    | 0         | 4        | 26.7        |
| Nursery school          | 1        | 20       | 1                    | 20        | 2                    | 40        | 4        | 26.7        |
| Kindergarten            | 0        | 0        | 1                    | 20        | 1                    | 20        | 2        | 13.3        |
| First grade             | 2        | 40       | 0                    | 0         | 1                    | 20        | 3        | 20.0        |
| Second grade<br>or more | <u>0</u> | <u>0</u> | <u>1</u>             | <u>20</u> | <u>1</u>             | <u>20</u> | <u>2</u> | <u>13.3</u> |
| Total                   | 5        | 100      | 5                    | 100       | 5                    | 100       | 15       | 100.0       |

Table 5

## Description of Groups by Number of Siblings

| Number of Siblings | Group C  |          | Group E <sub>1</sub> |          | Group E <sub>2</sub> |           | Total    |            |
|--------------------|----------|----------|----------------------|----------|----------------------|-----------|----------|------------|
|                    | No.      | %        | No.                  | %        | No.                  | %         | No.      | %          |
| One                | 3        | 60       | 4                    | 80       | 3                    | 60        | 10       | 66.7       |
| Two                | 2        | 40       | 1                    | 20       | 1                    | 20        | 4        | 26.6       |
| Four               | <u>0</u> | <u>0</u> | <u>0</u>             | <u>0</u> | <u>1</u>             | <u>20</u> | <u>1</u> | <u>6.7</u> |
| Total              | 5        | 100      | 5                    | 100      | 5                    | 100       | 15       | 100.0      |

oldest child in the family. Twenty percent of each of the three groups were second to the oldest in families with more than two children. There was only one child that was the youngest in the family. This child was in group  $E_2$  (see Table 6).

Table 6

## Description of Groups by Birth Order of Child

| Birth Order   | Group C |     | Group $E_1$ |     | Group $E_2$ |     | Total |       |
|---|---------|-----|-------------|-----|-------------|-----|-------|-------|
|   | No.     | %   | No.         | %   | No.         | %   | No.   | %     |
| Oldest  | 4       | 80  | 4           | 80  | 3           | 60  | 11    | 73.3  |
| Second to the<br>oldest if more<br>than two<br>children | 1       | 20  | 1           | 20  | 1           | 20  | 3     | 20.0  |
| Youngest  | 0       | 0   | 0           | 0   | 1           | 20  | 1     | 6.7   |
| Total   | 5       | 100 | 5           | 100 | 5           | 100 | 15    | 100.0 |

Highest Level of Education of Parents

All of the parents in the sample had completed at least the twelfth grade in school. Forty percent of each of the groups completed up to the twelfth grade. Sixty percent of group C had some college or business school but none completed college. Group  $E_1$  had 20 percent who completed college or more and group  $E_2$  had 40 percent who completed college or more (see Table 7).

Social Position

The social position of the family was determined in this study by two essential items: (1) the occupation of the major wage earner in

Table 7

Description of Groups by the Highest  
Level of Education of Parents

| Highest Level<br>of Education<br>of Parents | Group C  |          | Group E <sub>1</sub> |           | Group E <sub>2</sub> |           | Total    |           |
|---|----------|----------|----------------------|-----------|----------------------|-----------|----------|-----------|
|   | No.      | %        | No.                  | %         | No.                  | %         | No.      | %         |
| Completed<br>grade 12                       | 2        | 40       | 2                    | 40        | 2                    | 40        | 2        | 40        |
| Some college<br>or business<br>school       | 3        | 60       | 2                    | 40        | 1                    | 20        | 6        | 40        |
| Completed<br>college or<br>more             | <u>0</u> | <u>0</u> | <u>1</u>             | <u>20</u> | <u>2</u>             | <u>40</u> | <u>3</u> | <u>20</u> |
| Total                                       | 5        | 100      | 5                    | 100       | 5                    | 100       | 15       | 100       |

the family, and (2) the highest level of education of the parents (Hodges, 1964, p. 100). The classification of positions was derived from Hollingshead's (1958) economic orientation in class status.

The social position of the sample was found in classes II, III, and IV; 53.5 percent were in class III. All of group C was in class III or above. Whereas, 40 percent of group E<sub>1</sub> and 20 percent of group E<sub>2</sub> were in class IV. Forty percent of group E<sub>2</sub> was in class II (see Table 8).

#### Previous Hospitalization

All of group E<sub>2</sub> and 73.3 percent of the total sample had no previous hospitalization. Twenty percent of group C and group E<sub>1</sub> had one previous hospitalization. Forty percent of groups E<sub>1</sub> had two previous hospitalizations (see Table 9).



Table 8  
Description of Groups by Social Position

| Social Position | Group C  |          | Group E <sub>1</sub> |           | Group E <sub>2</sub> |           | Total    |             |
|-----------------|----------|----------|----------------------|-----------|----------------------|-----------|----------|-------------|
|                 | No.      | %        | No.                  | %         | No.                  | %         | No.      | %           |
| Class II        | 1        | 20       | 1                    | 20        | 2                    | 40        | 4        | 26.7        |
| Class III       | 4        | 80       | 2                    | 40        | 2                    | 40        | 8        | 53.3        |
| Class IV        | <u>0</u> | <u>0</u> | <u>2</u>             | <u>40</u> | <u>1</u>             | <u>20</u> | <u>3</u> | <u>20.0</u> |
| Total           | 5        | 100      | 5                    | 100       | 5                    | 100       | 15       | 100.0       |

Table 9  
Description of Groups by Number of Previous Hospitalizations

| Number of Previous Hospitalizations | Group C  |          | Group E <sub>1</sub> |           | Group E <sub>2</sub> |          | Total    |             |
|-------------------------------------|----------|----------|----------------------|-----------|----------------------|----------|----------|-------------|
|                                     | No.      | %        | No.                  | %         | No.                  | %        | No.      | %           |
| None                                | 4        | 80       | 2                    | 40        | 5                    | 100      | 11       | 73.4        |
| One                                 | 1        | 20       | 1                    | 20        | 0                    | 0        | 2        | 13.3        |
| Two                                 | <u>0</u> | <u>0</u> | <u>2</u>             | <u>40</u> | <u>0</u>             | <u>0</u> | <u>2</u> | <u>13.3</u> |
| Total                               | 5        | 100      | 5                    | 100       | 5                    | 100      | 15       | 100.0       |

#### Length of Hospital Stay

All of group C and 80 percent of the total sample stayed in the hospital for two days. Twenty percent of groups E<sub>1</sub> and E<sub>2</sub> stayed for one day. These subjects were admitted in the morning of surgery and discharged the next morning. One subject on group E<sub>2</sub> stayed for three

days; she had a left inguinal hernia repair (see Table 10).

Table 10  
Description of Groups by Length of Hospital Stay

| Length of<br>Hospital<br>Stay | Group C  |          | Group E <sub>1</sub> |          | Group E <sub>2</sub> |           | Total    |            |
|-------------------------------|----------|----------|----------------------|----------|----------------------|-----------|----------|------------|
|                               | No.      | %        | No.                  | %        | No.                  | %         | No.      | %          |
| One day                       | 0        | 0        | 1                    | 20       | 1                    | 20        | 2        | 13.3       |
| Two days                      | 5        | 100      | 4                    | 80       | 3                    | 60        | 12       | 80.0       |
| Three days                    | <u>0</u> | <u>0</u> | <u>0</u>             | <u>0</u> | <u>1</u>             | <u>20</u> | <u>1</u> | <u>6.7</u> |
| Total                         | 5        | 100      | 6                    | 100      | 5                    | 100       | 15       | 100.0      |

#### Fear of Hospital or Hospital Personnel

Eighty percent of each of the groups did not appear to have any special fears of the hospital or hospital personnel as evaluated by their parents. Of those who expressed fears, needles, shots, and drawing blood were mentioned.

#### Stressful Experiences

The parents of group E<sub>2</sub> reported that their children had no stressful experiences during the last six months. Twenty percent of group C and 40 percent of Group E<sub>1</sub> were reported to have had stressful experiences in the last six months. The following are stressful experiences as expressed by parents:

Group C. "Grandfather died four months ago and she was a little upset."

Group E<sub>1</sub>. "We had a favorite horse she loved but she was

allergic to it. So we had to get rid of it."

"We recently moved into a new home. Also his father was just promoted to be regional manager for a sporting goods store and has to go away on business for several days at a time."

#### Racial or Ethnic Group

All of groups C and E<sub>1</sub> were in the White group. Three (60 percent) of the children in Group E<sub>2</sub> were White, one was Black and one was Mexican-American.

#### Both Parents in the Home

All of the subjects in the sample had both parents in the home except for one subject in group E<sub>1</sub> where the parents were separated and the child was living with the mother.

#### Type of Preparation Before Pre Test

The following table is a list of what parents stated they had told their children in preparation for hospitalization before the pre test was given. This information does not necessarily reflect what the children knew but it is an indication of what parents thought was important (see Table 11).

Group C received more explanation about the hospital and hospital personnel than the other two groups. Subject #4 age 4 years (group C) called the hospital a castle. Subject #13 age 3.8 years (group C) associated the hospital with a motel because this was staying away from home.

Groups E<sub>1</sub> and E<sub>2</sub> received more preparation for staying

Table 11

## Preparation Before Pre Test

| Number of Responses |                |                |                 | Type of Preparation                                       |
|---------------------|----------------|----------------|-----------------|---|
| C                   | E <sub>1</sub> | E <sub>2</sub> | Total           |   |
|                     |                |                |                 | A. Explanation about the hospital and hospital personnel. |
|                     | 1              | 1              | 2               | 1. Will be treated good.                                  |
| 1                   |                |                | 1               | 2. Rules of hospital explained.                           |
| 2                   |                |                | 2               | 3. Not to be afraid.                                      |
| 1                   |                |                | 1               | 4. Be with other children.                                |
|                     |                | 1              | 1               | 5. Has a playroom.  |
|                     | 1              |                | 1               | 6. Will be fun.   |
| 1                   | 1              |                | 2               | 7. Read a book about going to the doctor or the hospital. |
| $\frac{1}{6}$       | $\frac{3}{3}$  | $\frac{2}{2}$  | $\frac{1}{11}$  | 8. May have blood tests.                                  |
|                     |                |                |                 | Totals  |
|                     |                |                |                 | B. Explanation about staying in the hospital.             |
|                     | 1              | 1              | 2               | 1. Will have own bed.                                     |
| 2                   | 4              | 4              | 10              | 2. May be staying overnight for one or two nights.        |
| 2                   |                |                | 2               | 3. Mother and/or Father will visit as often as possible.  |
| $\frac{4}{4}$       | $\frac{5}{5}$  | $\frac{5}{5}$  | $\frac{14}{14}$ | Totals  |
|                     |                |                |                 | C. Explanation about the operation.                       |
| 1                   | 2              | 3              | 6               | 1. Site of operation.                                     |
| 3                   | 5              | 5              | 13              | 2. Kind of operation.                                     |
| $\frac{1}{5}$       | $\frac{7}{7}$  | $\frac{2}{10}$ | $\frac{3}{22}$  | 3. Why the operation was needed.                          |
|                     |                |                |                 | Totals  |

Table 11 (continued)

| Number of Responses    |                |                |            | Type of Preparation                                 |
|------------------------|----------------|----------------|------------|---|
| C                      | E <sub>1</sub> | E <sub>2</sub> | Total      |   |
| D. Anesthesia          |                |                |            |   |
| 3                      | 3              | 2              | 8          | 1. Asleep during operation.                         |
|                        |                |                | 0          | 2. Mask for anesthesia.                             |
| $\bar{3}$              | $\bar{3}$      | $\bar{2}$      | $\bar{8}$  | Totals  |
| E. After the operation |                |                |            |   |
| 4                      | 4              | 2              | 10         | 1. May have discomfort after the operation.         |
|                        |                |                | 0          | 2. Will have something to help ease the discomfort. |
|                        | 1              |                | 1          | 3. Cannot eat for a while after surgery.            |
| 3                      | 1              | 2              | 6          | 4. Will get ice cream or jello.                     |
| 1                      |                |                | 1          | 5. Will get gifts.                                  |
|                        | 1              |                | 1          | 6. Need to be quiet after getting home.             |
| $\bar{8}$              | $\bar{7}$      | $\bar{4}$      | $\bar{19}$ | Totals  |

overnight in the hospital than group C. But group C had more reassurance from their parents that they would visit them.

Almost all of the children knew where and what kind of surgery they were going to have. An interesting expression from a 3.8 year-old scheduled for tonsillectomy and adnoidectomy (subject #13 group C) was the association of sore throats with "bugs." She explained that the doctor was going to "take the bugs out" of her throat and she was going to "step on them" so she would not to have sore throats anymore.

A 6-4 year-old admitted for left inguinal hernia repair (subject #9 group E<sub>2</sub>) was told, "The doctor will cut a little bit and take the ball out and sew you back up again."

About half of the children in each of the three groups were told by their parents that they were going to be asleep during the operation. None were familiar with an anesthetic mask. Three parents stated that they did not explain anything about anesthesia to their child because they did not know very much about it themselves.

Eighty percent of groups C and E<sub>1</sub> were told that they might have some discomfort after surgery; while 60 percent of group E<sub>2</sub> was not told anything about discomforts. Six of the thirteen tonsillectomy and adenoidectomy subjects were told that they would probably get ice cream and jello to eat after surgery.

#### Type of Surgery

There were 86.7 percent of the sample that had some form of tonsillectomy and adenoidectomy. One subject from each group had this type of surgery plus a myringotomy. Only two subjects had a different type of surgery. Subject #9 group E<sub>2</sub> had a left inguinal hernia repair and subject #11 group E<sub>1</sub> had a revision of a right forearm scar (see Table 12).

Table 12  
Description of Groups by Type of Surgery

| Type of Surgery   | Group C  |          | Group E <sub>1</sub> |           | Group E <sub>2</sub> |           | Total    |             |
|---|----------|----------|----------------------|-----------|----------------------|-----------|----------|-------------|
|   | No.      | %        | No.                  | %         | No.                  | %         | No.      | %           |
| Tonsillectomy<br>and<br>adnoideotomy                        | 4        | 80       | 3                    | 60        | 3                    | 60        | 10       | 66.7        |
| Tonsillectomy<br>and<br>adnoideotomy<br>with<br>myringotomy | 1        | 20       | 1                    | 20        | 1                    | 20        | 3        | 20.0        |
| Other   | <u>0</u> | <u>0</u> | <u>1</u>             | <u>20</u> | <u>1</u>             | <u>20</u> | <u>2</u> | <u>13.3</u> |
| Total   | 5        | 100      | 5                    | 100       | 5                    | 100       | 15       | 100.0       |

## ANALYSIS OF HYPOTHESES

The behavioral questionnaires answered by the parents before and after hospitalization, provided the data for testing the hypotheses. Each question was stated in a negative form and had a scale of selection from always to never. An increase in frequency of a behavior would indicate a more negative outcome (always = 0, often = 1, sometimes = 2, seldom = 3, never = 4). See Appendix H for questionnaire. The larger the sum of scores the more positive the behavior.

### Summary of Hypotheses

1. Groups  $E_1$  and  $E_2$  will have less negative post hospital behaviors than group C.
2. Group  $E_1$  will have less negative post hospital behaviors than group C.
3. Group  $E_2$  will have less negative post hospital behaviors than group C.
4. Group  $E_2$  will have less negative post hospital behaviors than group  $E_1$ .

### Testing the Hypotheses

The amount of behavioral score change was determined by taking the difference between the pre and post test scores (see Table 13).

Using the f-ratio, there was no statistical significance in the differences of behavioral score change among the three groups. Therefore, none of the hypotheses were supported statistically (see Table 14).



Table 13

## Behavioral Score Change in Three Groups

| Group          | Subject No. | Pre test Score | Post test Score | Behavioral Score Change |
|----------------|-------------|----------------|-----------------|-------------------------|
| Control        | 1           | 65             | 70              | 5                       |
|                | 4           | 69             | 71              | 2                       |
|                | 7           | 55             | 61              | 6                       |
|                | 10          | 73             | 64              | -9                      |
|                | 13          | <u>75</u>      | <u>75</u>       | <u>0</u>                |
| Total          |             | 337            | 341             | <u>4</u>                |
| Mean           |             | 67.4           | 68.2            | .8                      |
| E <sub>1</sub> | 2           | 61             | 45              | -16                     |
|                | 5           | 69             | 68              | -1                      |
|                | 8           | 64             | 68              | 4                       |
|                | 11          | 76             | 74              | -2                      |
|                | 14          | <u>69</u>      | <u>68</u>       | <u>-1</u>               |
| Total          |             | 339            | 323             | -16                     |
| Mean           |             | 67.8           | 64.6            | -3.2                    |
| E <sub>2</sub> | 3           | 68             | 66              | -2                      |
|                | 6           | 85             | 87              | 2                       |
|                | 9           | 73             | 80              | 7                       |
|                | 12          | 75             | 78              | 3                       |
|                | 15          | <u>66</u>      | <u>70</u>       | <u>4</u>                |
| Total          |             | 366            | 381             | 14                      |
| Mean           |             | 73.2           | 76.2            | 2.8                     |

Table 14

One-way Analysis of Variance of Behavioral  
Score Change Among Groups

| Source of Variation | Sum of Squares | Degrees of Freedom | Mean Squares | F-ratio (p-value) |
|---------------------|----------------|--------------------|--------------|-------------------|
| Between groups      | 93.3           | 12                 | 46.7         | 1.4               |
| Within groups       | <u>412.4</u>   | <u>2</u>           | 34.4         |                   |
| Total               | 505.7          | 14                 |              | p > .05           |

Having a small sample size, which lowered the degrees of freedom, contributed to the lack of statistical significance of this study. Also, there was a large variability in scores within the groups (see Table 13). Group E<sub>1</sub> had the largest variability. Its most positive behavioral score change was 4 and the most negative was -16; thus making a variability of 20. The control group and E<sub>2</sub> had variabilities of 14 and 9 respectively.

It is interesting to note that group E<sub>1</sub> had the largest amount of negative mean behavioral score change of -3.2; whereas, group E<sub>2</sub> had the largest amount of positive change of 2.8, a difference of 6. Although this difference was not statistically significant, the children, whose parents were most involved with preparing their child for hospitalization, tended to show more positive behavior after hospitalization.

There were four subjects in group E<sub>1</sub> with a negative behavioral score change. In the control group there was one subject with a

negative behavioral score change and one with no change. Finally, in group E<sub>2</sub> there was only one subject with a negative change.

The results of this study suggested that those with type I preparation, where the responsibility of orienting the child for hospitalization was by the hospital and little from parents, showed the most negative score. This was even more than the control group where there was no formal orientation to the hospital.

The data was further analyzed using the general linear model (Dixon, 1969) to compare the groups which took into account the effect of sex, age, number of previous hospitalizations, and education of parents. It also analyzed the data according to the six behavioral factors. There were no significant statistical differences among the groups when looking at separate factors or the whole test (see Table 15).

#### Analysis of Behavioral Factors

Factor I - general anxiety and regression. The effect of previous hospitalization on general anxiety and regression was statistically significant at .05 level ( $f = 6.48$ ). Those who had previous hospitalization tended to show more general anxiety and regression after hospitalization than those who had not. Although not statistically significant, it is interesting to note that group C improved most in general anxiety and regression behavior than the two experimental groups (see Table 16). A question may be raised, does a preadmission orientation tend to contribute to the child's anxiety? See Figure I for a comparison.

Table 15

Analysis of Variance  
Summary Table

| Source of Variation      | Degrees of Freedom | F - Ratios of Factors |       |      |       |       |       | Total |
|--------------------------|--------------------|-----------------------|-------|------|-------|-------|-------|-------|
|                          |                    | I                     | II    | III  | IV    | V     | VI    |       |
| $E_1 + E_2 < C$          | 1/7                | .006                  | .036  | .533 | .121  | 1.025 | .610  | .023  |
| $E_1 < C$                | 1/7                | .754                  | .026  | .183 | .075  | 1.581 | .012  | .009  |
| $E_2 < C$                | 1/7                | 1.468                 | .326  | .783 | .107  | .086  | 2.045 | .031  |
| $E_2 < E_1$              | 1/7                | 3.566                 | .394  | .063 | .001  | 1.282 | 1.302 | .001  |
| Sex                      | 1/7                | .025                  | .267  | .027 | .017  | .007  | .009  | .000  |
| Age                      | 1/7                | 3.653                 | 1.154 | .095 | 1.307 | 1.941 | 5.317 | 3.189 |
| Previous Hospitalization | 1/7                | *6.476                | 1.873 | .465 | 1.882 | .711  | .067  | 3.303 |
| Education of Parents     | 1/7                | 1.862                 | .305  | .458 | .342  | .461  | .002  | .603  |

\*  $p < .05$

Table 16

Summary of Data

| Group sub. | Sex | Age (yr.) | Previous Hospitalizations | Education of Parents* | Behavioral Factor Scores |    |     |    |    |    | Total |
|------------|-----|-----------|---------------------------|-----------------------|--------------------------|----|-----|----|----|----|-------|
|            |     |           |                           |                       | I                        | II | III | IV | V  | VI |       |
| C 1        | F   | 6.8       | 0                         | 1                     | 3                        | 0  | 2   | 0  | -1 | 1  | 5     |
| 4          | M   | 7.3       | 0                         | 1                     | 0                        | -1 | -1  | -1 | 1  | 4  | 2     |
| 7          | F   | 5.3       | 1                         | 2                     | 0                        | 0  | 2   | 1  | 0  | 3  | 6     |
| 10         | F   | 4.3       | 0                         | 2                     | 2                        | -1 | -4  | -2 | -1 | -3 | -9    |
| 13         | F   | 3.8       | 0                         | 2                     | 0                        | -2 | -1  | 2  | 1  | 0  | 0     |
| Total      |     | 27.5      | 1                         | 8                     | 5                        | -4 | -2  | 0  | 0  | 5  | 4     |
| <hr/>      |     |           |                           |                       |                          |    |     |    |    |    |       |
| E1 2       | F   | 5.7       | 2                         | 2                     | -6                       | -3 | 0   | -4 | -3 | 0  | -16   |
| 5          | M   | 4.6       | 0                         | 1                     | -1                       | -1 | 0   | 2  | -1 | 0  | -1    |
| 8          | M   | 4.4       | 0                         | 3                     | 5                        | -1 | 3   | -1 | -1 | -1 | 4     |
| 11         | F   | 10.6      | 2                         | 2                     | 1                        | -1 | -2  | 0  | 0  | 0  | -2    |
| 14         | M   | 4.8       | 1                         | 1                     | 1                        | -2 | 0   | 0  | -2 | 2  | -1    |
| Total      |     | 30.1      | 5                         | 9                     | 0                        | -8 | 1   | -3 | -7 | 1  | -16   |
| <hr/>      |     |           |                           |                       |                          |    |     |    |    |    |       |
| E2 3       | M   | 5.0       | 0                         | 1                     | -2                       | 1  | 1   | -1 | 0  | -1 | -2    |
| 6          | M   | 7.0       | 0                         | 3                     | 0                        | 0  | 1   | 1  | 0  | 0  | 2     |
| 9          | F   | 6.4       | 0                         | 2                     | 1                        | 1  | 1   | 1  | 1  | 2  | 7     |
| 12         | M   | 8.2       | 0                         | 1                     | -1                       | -2 | 2   | 2  | 0  | 2  | 3     |
| 15         | F   | 4.3       | 0                         | 3                     | 0                        | 0  | 1   | 1  | 0  | 2  | 4     |
| Total      |     | 30.9      | 0                         | 10                    | -2                       | 0  | 6   | 4  | 1  | 5  | 14    |

\*1 = completed grade 12, 2 = some college, 3 = completed college or more

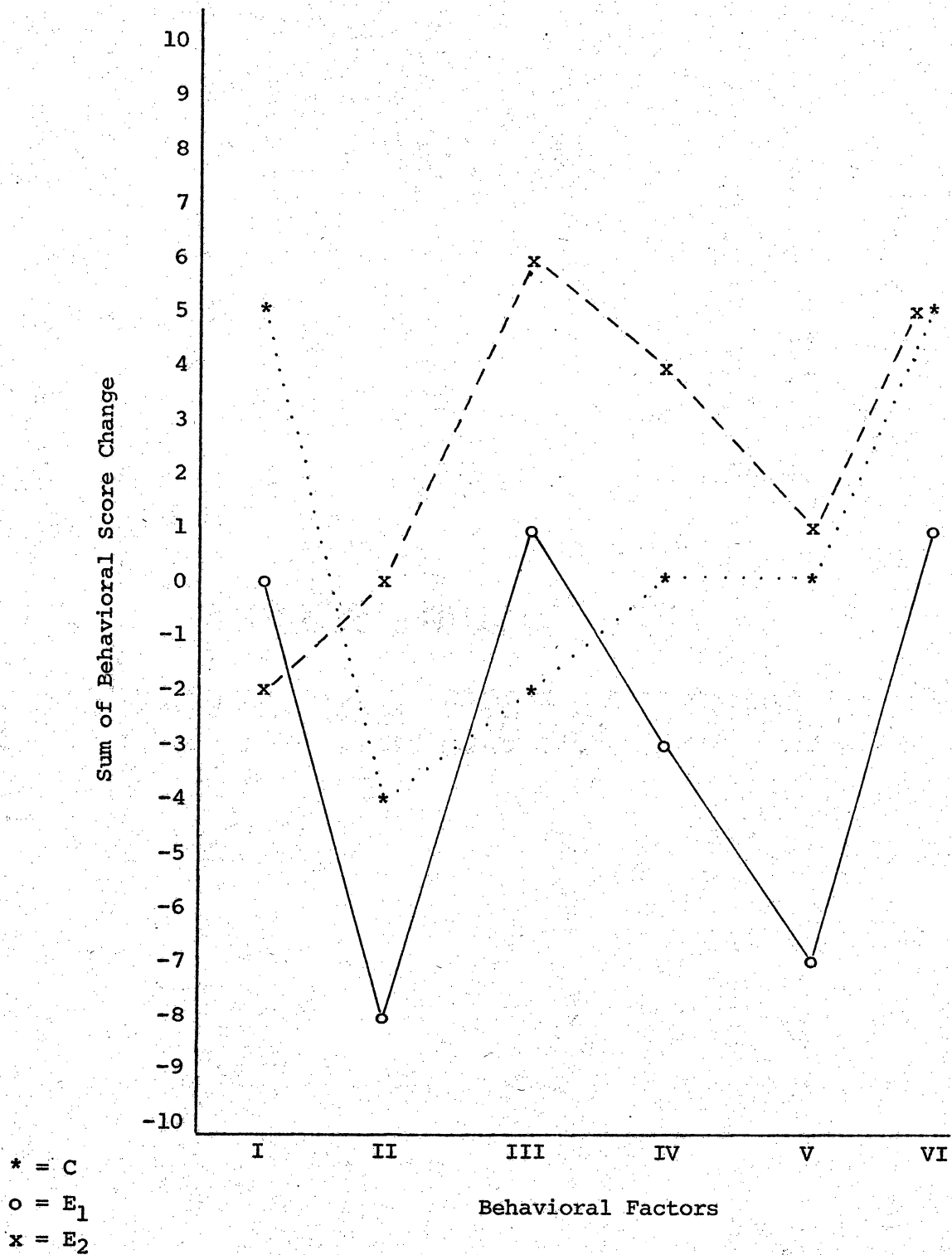


Figure I

Comparison of Groups in Behavioral Score Change and Factors

Factor II - separation anxiety. The data did not reveal any significant differences. Group E<sub>1</sub> had the most separation anxiety post hospitalization (-8); group C had some (-4); and group E<sub>2</sub> had no change.

Factor III - sleep anxiety. Also not statistically significant, the sum of behavioral score change for group E<sub>2</sub> showed the least sleep anxiety (+6) while the control group, without a planned orientation, had the most (-2).

Factor IV - eating disturbances. Group C showed no change while group E<sub>2</sub> had (+4) the least eating disturbances and group E<sub>1</sub> had (-3) the most. It was not statistically significant.

Factor V - aggression to authority. Groups E<sub>2</sub> and C showed little or no change in aggression to authority. Group E<sub>1</sub> showed more aggression, but this was not statistically significant.

Factor VI - apathy withdrawal. All groups showed a positive change in sum of scores. Group E<sub>1</sub> had (+1) the least change and was not statistically significant. The f value for the variable age was almost statistically significant (f = 5.32). Those who were younger tended to show more apathy and withdrawal after hospitalization.

#### Analysis of Variables Among Factors

Sex. Although there was a close proximity of scores between males and females within groups, the females in all groups scored slightly higher than males in all factors except factor III - sleep anxiety. This was not statistically significant.

Age. There were no statistically significant f values in any of the factors of age. The highest f value was in factor VI - apathy

withdrawal ( $f = 5.317$ ) and the least in factor III - eating disturbances ( $f = .095$ ). Older children tended to score higher.

Previous hospitalizations. Having had one or more previous hospitalizations significantly increased the general anxiety and regression after hospitalization. It did not affect the other factors significantly. Apathy withdrawal was affected the least ( $f = .067$ ).

Education of parents. This did not significantly affect any of the factors. Separation anxiety was affected the most ( $f = 1.862$ ) and apathy withdrawal ( $f = .002$ ) the least.

#### Evaluation by Parents

None of the subjects had any postoperative complications which affected the parents' evaluation of their child's hospital stay (see Appendix I and Table 17).

Treatment in hospital. Parents who attended a preadmission orientation program tended to rate the hospital experience higher than those without an orientation.

Benefit of orientation. Parents in group  $E_1$  gave higher ratings than group  $E_2$  on the benefit of the orientation program for them and for their child. This was possibly due to the orientation for group  $E_2$  being a little longer and thus tiresome for the child.

It is interesting to note that parents whose children had most negative behavior on the questionnaires rated the benefit of the orientation program the highest.



Table 17  
 Parents' Evaluation of Hospitalization  
 and Orientation

| Group          | Rating    | Treatment<br>in<br>Hospital | Benefit of<br>Orientation<br>to Parents | Benefit of<br>Orientation<br>to Child |
|----------------|-----------|-----------------------------|---|---------------------------------------|
| C              | excellent | 3                           |   |                                       |
|                | good      | 1                           |   |                                       |
|                | average   | 1                           |   |                                       |
|                | poor      |                             |   |                                       |
| E <sub>1</sub> | excellent | 4                           | 5                                       | 5                                     |
|                | good      | 1                           |   |                                       |
|                | average   |                             |   |                                       |
|                | poor      |                             |   |                                       |
| E <sub>2</sub> | excellent | 5                           | 4                                       | 3                                     |
|                | good      |                             | 1                                       | 2                                     |
|                | average   |                             |   |                                       |
|                | poor      |                             |   |                                       |

## DISCUSSION

The hypotheses were not supported statistically but the results may have some implications for nurses in preparing children for hospitalization.

One of the factors influencing the lack of statistical significance of this study was the very small sample size. Another factor may be that a brief hospitalization of this type did not cause sufficient behavioral change. Also, the preparation for hospitalization given to the child by the parents before the pre test was not controlled and may have been adequate. The subjects were from the middle class and did not have obvious physical, mental, or emotional handicaps. How this may have influenced the behavioral outcome is not known.

Group E<sub>2</sub>

Group E<sub>2</sub> had the most positive behavioral score change. They were slightly older than the other two groups. Age differences in the study was not statistically significant but there was a tendency for older children to score better, especially in the area of apathy withdrawal. Older children (7-11 yrs.) may be better able to cope with separation and hospitalization. This group had no children who had experienced a previous hospitalization. Having previous hospitalization was found to be statistically significant in increasing general anxiety and regression after hospitalization. It is interesting to note that group E<sub>2</sub> scored better than the other groups in all factors except in general anxiety and regression.

### Control Group

The children in the control group who had no orientation tended to have more sleep anxiety after hospitalization. This group had a high percentage of girls and girls tended to score slightly better than boys in all factors except sleep anxiety. The control group showed little or no change in eating disturbances or aggression to authority. They showed some separation anxiety but had less apathy withdrawal and less general anxiety and regression than the other groups. The orientation program may have contributed to the development of general anxiety. The parents in the experimental groups may have been more aware of the child's needs and more solicitous, thus encouraging regression after hospitalization.

### Group E<sub>1</sub>

Group E<sub>1</sub> scored the lowest in four out of six factors (separation anxiety, eating disturbances, aggression to authority, and apathy withdrawal). Sleep anxiety was slightly improved and general anxiety and regression was unchanged. This group had more previous hospitalizations than the other groups which may have been a contributing factor.

The major difference between this group's orientation program with group E<sub>2</sub> was that it did not include measures of helping the parents prepare their child for hospitalization. This appeared to be an important factor in helping the child to cope with the stress imposed by hospitalization. A child may relate better with the person closer to him than with a stranger about fears and concerns he may have.

Intellectual preparation of the child by familiarization with the hospital may not be adequate.

The high risk group identified in this study were those who were younger with previous hospitalization and inadequate preparation.

## Chapter 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### SUMMARY

In reviewing the literature, it was assessed that hospitalization can affect the child's behavior. Earlier studies revealed more negative behavior changes after hospitalization than later studies with briefer hospital stays. The problem of stress imposed by hospitalization and its effects still exists. More measures to lessen the stress need to be investigated and implemented. In this study, pre hospital preparation was identified as an intervention which could decrease negative post hospital behavior. Because parents have an important role in preparing the child for hospitalization and because the parents' reaction to the hospitalization may affect the child's attitude toward his hospitalization, parents were included in the preparation.

Therefore, the purpose of this study was to evaluate the effect of a planned preadmission orientation or post hospital behavior. It was hypothesized that an orientation which included measures to familiarize both child and his parents to the hospital and to help parents prepare their child for hospitalization would be more helpful than a program which did not include measures to help prepare the parents. The hypotheses compared the effect of the two types of orientation with a group who received no orientation.

The sample consisted of fifteen subjects ages 3.8 to 10.6 years who had a planned admission to Loma Linda University Medical Center for a minor surgery and brief hospital stay. They were randomly assigned to groups control,  $E_1$ , and  $E_2$ . The parents of all subjects answered a questionnaire before hospitalization asking about the child's current behavior. The experimental groups were given the specified type of preadmission orientation a few days before admission. Two weeks after hospitalization the parents in all groups were asked to complete the same questionnaire reporting behavior after discharge from the hospital.

Group  $E_2$ , where the parents were helped to prepare their child for hospitalization, showed less negative behavior than the other two groups. Statistical analysis using a f-ratio and general linear model revealed no significant change in behavior among the three groups. However, having had one or more previous hospitalizations significantly increased the general anxiety and regression of the children after hospitalization.

#### CONCLUSIONS

The following conclusions drawn from this study were tentative and cannot be generalized to a larger population due to the small size of the sample.

1. The preadmission orientations did not significantly decrease negative behavior in children after a brief hospitalization. It could be concluded that children who do not have obvious physical, mental, or emotional handicaps from middle class families may not require

additional preparation for hospitalization. The preparation that parents are giving may be adequate. This type of hospitalization may not be causing sufficient amount of stress to influence significant behavioral change.

2. Although not statistically significant, the children in group  $E_2$  had less negative behavioral changes than the other two groups. It could be concluded that having a preadmission orientation which just includes familiarization of hospital setting and routines is not as beneficial as one which also includes helping parents to prepare their child.

3. Group  $E_1$  had more negative behavioral changes than the other two groups. It could be concluded that intellectual preparation of the child by familiarization is not always adequate. If parents are given more adequate preparation they could give the needed emotional preparation. An inadequate orientation may lead to more negative behavioral changes.

4. Having had one or more previous hospitalizations was statistically significant in increasing general anxiety and regression after hospitalization in children.

5. Parents in the groups which received the preadmission orientations tended to feel more positively toward the hospital experience. This suggests that an orientation program could be influential in improving the parents' relationship with the hospital staff.

6. Even though the changes in behavioral scores were not

significant the responses that parents gave on how the program helped their child during the hospitalization seemed to indicate a need for such a program.

#### RECOMMENDATIONS

As a result of this study the following recommendations were made.

1. A similar study be conducted utilizing a larger sample with the following changes:
  - a. using type II preadmission orientation
  - b. having a follow-up time of more than two weeks post hospitalization
  - c. orienting a group of children to save professional time
  - d. having a study with only children who had previous hospitalization
2. A similar study be done using a questionnaire asking questions stated in a positive form. For example, instead of asking "Does your child tend to disobey you?", it could ask "Does your child tend to obey you?"
3. A similar study be done comparing children from families in varied social classes.
4. A similar study be done on the effect on parents receiving help to prepare the child for hospitalization.
5. With further study, a preadmission orientation preparing



both child and parents to be a part of the routine admission program in pediatric hospital units particularly for children who have had previous hospital experiences.

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**APPENDIX A**

PUPPET SHOW

| Principle or Objective   | Script   | Activity   |
|--|--|--|
| To assess the understanding of the child and give clarification if needed.                             | <p>Narrator:<br/>I am going to tell you a story about a little boy/girl who is going to the hospital.</p> <p>A hospital is a place where children and grown-ups get care, medicines, and operations to help them get well.</p> | <p>Ask: What is a hospital?</p> <p>Show: slide of LLJMC outside view</p>   |
| By allowing the child to name some of the puppets he is able to participate and relate with the story. | <p>Let us meet some of the puppets that we will be using in our story.</p>   | <p>Ask: Can you tell me who this puppet is?<br/>child<br/>mother<br/>father<br/>(Allow child to give a name for the child puppet; if not use Joey for the boy and Cinda for the girl.)</p> |
| To help child understand that he/she is going to stay overnight in the hospital.                       | <p>Looks like Mommy is helping _____ pack his/her suitcase to get ready to stay overnight in the hospital and to come back home.</p>   | <p>Scene: at home</p>  |

| Principle or Objective  | Script  | Activity  |
|---|---|---|
| <p>Packing to go to the hospital can be useful in letting the child know that he will be coming home again by making preparations for his return home (Robertson, 1958, p. 11).</p> | <p>Mommy:<br/>Do we have everything we need?</p> <p>Child:<br/>Let me check.</p>  | <p>Allow child to look in toy suitcase and name the articles contained such as: PJ's, slippers, favorite toy, hair brush, and comb.</p> <p>Ask: What are you going to take to the hospital?</p> |
| <p>Find out from assessment sheet which parent is going to admit the child to personalize the story.</p>  | <p>Narrator:<br/>So _____ went to the hospital with his/her Mommy and/or Daddy.</p>   | <p>Show: slides of entrance to hospital.</p> <p>Ask: Why did _____ need to go to the hospital?</p>  |
| <p>Ask questions to assess understanding and give clarification of distorted information or give simple explanation to reinforce child's knowledge (Petrillo, 1972, p. 159).</p>    | <p>The first place they went to was the admitting department where Mommy and/or Daddy had to fill out some forms.</p> <p>Admission Lady:<br/>What is your name?</p> | <p>Why are you going to the hospital?</p> <p>Show: slides of admitting.</p>   |
|   |   | <p>Allow child to respond with puppet.</p>  |

Principle or Objective

Script

Activity

Allow child to ask questions.

I have a bracelet for you with your name on it. Let's put it on your right wrist.

Place: paper bracelet with name on puppet.

Child:

What is it for?

Admission Lady:

So the people in the hospital will know who you are.

Narrator:

The next place \_\_\_\_\_ and his/her Mommy/Daddy went was to the lab on second floor.

A lady dressed in pink showed them to the elevator and took them to the lab.

Show: slide of pink lady

At the lab, \_\_\_\_\_ saw someone dressed in white. He told \_\_\_\_\_ to roll up his/her sleeve so he could get some blood for some tests.

Show: slide of lab

Lab man:

Present in non frightening manner.

It will only be a little prick and soon it will be done. You can help by being still.

Child:

I'll try!

Ouch!

Show: slide of blood being drawn from arm.

Principle or Objective

Script

Activity

Lab man:

Now that this is done, look what I have for you!

Blow up balloon.

Narrator:

Pretty soon the ouch went away and \_\_\_\_\_ and his/her mommy/daddy went to unit 5300 where the children stayed in the hospital.

Show: slide of 5300 nurses' station

Nurse:

Hello, my name is Miss Jones. What is your name?

Child:

My name is \_\_\_\_\_.

Let child respond with puppet.

Nurse:

I want to welcome you to your room that you will be staying in. There will be another child that will be staying in the same room too.

Show: slide of patient's room.

I have a surprise for you that we give to children when they come to the hospital.

Have child open an admission pack.

Child:

Thank you! There's a toothbrush, toothpaste, coloring book, crayons, puzzle, and hand lotion.

Principle or Objective

Script

Activity

|   |   |   |
|---|---|---|
|   | Nurse: What do you see in the room?   | Show: slide of bed with telephone   |
|   | Child: A telephone . . . and a portable TV set!   | slide of telephone<br>slide of TV set.  |
|   | Nurse: Yes, a TV can be rented if you like but there is one in the play room that is free.  |   |
| Explanation for parents re: TV.   | Child: Oh, look at the bed. It has rails on it. Do I get to stay in one like that?  | Show: slide of bed with rails.<br>Allow child to put the rails down on toy bed. |
| To dispel the child's notion that side rails are for baby beds (Abbot, 1970). | Nurse: Yes, we put the rails up when you go to sleep to help keep you from falling out of bed. Even grown-ups like Mommy and Daddy have them on their beds in the hospital. |   |
| Give positive explanation for why things are done.                            | Now I want you to change into some pajamas. If you want you can wear the ones you brought from home or you can wear the ones we have in the hospital.                       | Show: blank slide   |
|   | Child: I would like to try on the hospital pajamas.   | Let child choose which kind of pajamas he would like to wear.                   |

Nurse: OK! Here we are.

Child: Look, it opens in the back!

Nurse: Yes, this is the kind of gown you will wear when you go to have your operation in the morning.

Now I am going to take your temperature by putting this in your mouth. This is the machine that sees how warm you are. Watch the numbers change in the box. It does it very quickly.

Child: That was fun. What else do you have?

Nurse: I have this thing called a stethoscope. It is to listen to your chest with.

Child: Can I try it?

Nurse: What do you hear?

Allow child to dress puppet.

Ask: When will you have your operation?

Place toy thermometer in puppet's mouth.

Show: toy IVAC  
(An IVAC is a battery operated device used to measure body temperature using a probe in the mouth or rectum. It records the temperature automatically in the box-like device.)

Ask: Have you seen this before?

To help the child to become more familiar with some of the hospital equipment.

Principle or Objective

Script

Activity

Child:

I hear a lub dub lub dub. That's my heart! Let child use a real stethoscope on self.

What is that gray thing?

Nurse:

That's a blood pressure cuff. It goes around your arm like this and I pump it up to find out how hard your heart is pumping.

Child:

It feels a little tight but that didn't hurt at all. Place cuff around arm of puppet and pretend to pump up cuff.

Nurse:

Let's see how much you weigh. Have puppet get on toy scale.

Mommy:

What is that box on the bed with a cord?

Nurse:

Oh, that's a call light. If cannot get out of bed and would like the nurse to help him/her then all he/she has to do is to press the button. You only need to press it once because it makes a light go on at the top of the door to your room until someone comes in to help you and turn the light off.

Allow for opportunity for clarification.



Principle or Objective

Script

Activity

Now let's go over to the playroom.  
This is Thelma, the playroom lady.

Show: slide of Thelma in  
playroom.

Child:  
Oh boy! May I play here now?

Nurse:  
Yes. What do you see?

Child:  
All kinds of toys--clown, dolls,  
tricycle, and books. Look at the fish  
swimming in the fish tank!

Show: slide of playroom  
with toys

I see some children painting with  
some water colors.

slide of fish tank

Nurse:  
Thelma helps children with games  
and making things. I think you'll  
like Thelma. Let's help her by  
picking up the toys after we finish  
playing with them.

slide of children  
painting.

Narrator:  
While \_\_\_\_\_ was on 5300 he/she  
saw many people.

Show: slides of doctor on  
phone, nurse on phone,  
nurses with colored  
uniforms, student  
nurse, people who  
clean the hospital,  
child in crib, nurse  
taking child out of  
crib.

Principle or Objective

Script

Activity

Some of the things that \_\_\_\_\_  
saw on 5300 were:

Child: What is that machine for?

Show: slide of portable  
x-ray machine

Nurse: This machine is to take pictures  
and it can go into the room. You  
probably won't have your picture  
taken while you are in the hospital  
but you may see a machine like this.

Gear to child's age  
level in explanations.

Child: Does it hurt to have your  
picture taken?

Nurse: No, the machine only makes a  
buzz click sound and makes pictures  
that look like this.

Show: Allow child to feel a real  
x-ray film.

Child: What is that thing over the bed?

Show: slide of croup tent  
on bed.

Nurse: It's to help the little boy  
breathe easier. When he feels  
better he can come out. You pro-  
bably will not use one of these  
when you are in the hospital but  
you may see one.

Show: slide of croup tent  
and IV pole.

Child:

Why does that girl have to have a bottle hanging by her?

Show: slide of a child with an IV,

Nurse:

It is called an IV. That's how she gets water and medicines into her body. She won't need it when she feels better.

slide of IV bottle,

The water goes down from the bottle through a tubing and passes a machine which tells how fast it is to go. Then it goes into the child's arm and into the body.

slide of IV bottle metriset (chamber),

slide of IV IVAC,

slide of hand with an IV.

Child:

I'm getting hungry.

Daddy:

Here comes your food on a tray.

Bring out toy tray of food.

Child:

Yummy!

Narrator:

Then a new doctor came to see \_\_\_\_\_ . He looked in \_\_\_\_\_ mouth and listened to his/her chest.

Show: slide of a doctor standing.

Anesthesiologist:

I'm the one to give you the sleepy air during your operation.

Principle or Objective

Script

Activity

To reassure the child that he will wake up.

I also make sure you wake up all right after your operation.

Preparation for separation from parents.

**Narrator:**  
Pretty soon it was time for Mommy and Daddy to go home.

Tell the truth and give promises only if you know you can keep them.

**Child:**  
Can't you stay a little longer?

**Mommy:**  
We will have to leave now but we will be back in the morning.

Have puppets wave goodbye.

**Narrator:**  
\_\_\_\_\_ tried to be brave as he/she said goodbye to his/her parents, but he/she knew that they would be back in the morning.

**Nurse:**  
Good morning \_\_\_\_\_. It's almost time for your operation.

**Ask:** What kind of operation are you going to have?

Elicit the child's understanding of his operation and give clarification if needed. Reassure that no other part of his body will be operated on (Pettrillo, 1972, p. 160).

**Child:**  
And I remembered not to eat or drink anything all morning.

**Nurse:**  
Yes, this is to help your stomach not to get upset during the operation.  
Do you have the gown on that opens in the back.

Have child change the puppet's gown if not already on.

Principle or Objective

Script

Activity

Child:

Yes!

Nurse:

Now it is time to have a shot to help you during your operation.

Child:

I'm scared. Will it hurt?

Nurse:

It will hurt only for a little while. If you are still it will hurt less.

Child:

Ouch!

Nurse:

Thank you for keeping still.

Child:

It doesn't hurt very much any more.

Narrator:

In a little while someone dressed in green came to take \_\_\_\_\_ to the operating room. He came with a cart that looked like a bed on wheels.

Green man:

Hop on!

Let's fasten the safety belt.

Telling the truth that it will hurt.

Offer a means whereby the child can help lessen the hurt.

Allow the child to give puppet a shot.

Emphasize safety.

Place child puppet on toy guerny. Fasten safety belt.

Narrator:

So down the hall and down the elevator they went. \_\_\_\_\_ was pretty sleepy from the shot the nurse gave him/her.

In the operating room \_\_\_\_\_ could see the bright lights his doctor needed to take out his tonsils by. He could see people in green gowns, caps and masks.

Show: slide of the operating room.

Ask: Why do you suppose they wear all this?

example:

Masks are worn to keep germs away from \_\_\_\_\_ while he/she is having an operation.

The doctor who came to see \_\_\_\_\_ last night asked him/her to breathe some sleepy air through a black mask like this one.

Show: black mask.

\_\_\_\_\_ pretended that he/she was wearing a space mask and before his/her rocket fired he/she counted: 5-4-3-2-1-\_\_\_\_\_ was fast asleep.

While \_\_\_\_\_ was asleep the doctor fixed his/her throat by taking out his/her tonsils.

Child:

Yawns . . . Where am I?

Puppet rubs eyes.

Nurse:

You are in the recovery room. This is where nurses watch you closely and care for you before sending you back to your room in 5300. You will stay here about two hours.

Show: slide of recovery room nurses.

Child:

Where's my mommy?

Nurse:

She is waiting in the lobby until you go back to your room. I'll telephone them when you are ready to go back to your room.

Child:

My throat hurts.

Nurse:

Here is a nice cool ice collar to put around your neck to make you feel better. Place toy ice collar on puppet's neck.

Narrator:

           rode back to his/her room on the bed with wheels. Soon Mommy and Daddy were there. Show: slide of guerny, slide of room.

Child:

I still feel sleepy.

Principle or Objective

Parents have a role in helping their child understand his hospitalization.

Script

Mommy:

Yes, your stomach is still sleepy too. The nurse who brought you some ice chips brought you something clear and cool to drink. Take it slowly now.

You will feel better tomorrow. If you still feel uncomfortable the nurse will bring you some medicine to help make you feel better.

Narrator:

The next day \_\_\_\_\_ felt much better. He/she even got up to play in the playroom. Then his/her doctor came to check him/her.

Show: slide of Thelma, nurse, and children.

Doctor:

How are you feeling today?

Child:

My throat doesn't hurt so much anymore. I even ate my breakfast.

Doctor:

Let me see. Say aah.

Child:

Aah.

Activity



Doctor:

Looks good. You can go home when your mommy or daddy comes today.

Narrator:

Soon Mommy was there to take \_\_\_\_\_ home. Daddy was at work.

Mommy:

Let's pack your suit case.

Have child replace objects in suit case.

Child:

Let me say goodbye to all my friends in the hospital. Goodbye!

Have puppets wave.

Show: slide of wheel chair, slide of lobby looking outside.

Have child puppet ride out in toy wheel chair.

**APPENDIX B**

## TOUR OF HOSPITAL

| Place             | Questions                               | Explanation   |
|-------------------|---|---|
| I. Lobby Level    | When do we arrive?                      | Day before surgery. Call admitting office before 11 a.m. to verify time of admission.   |
| A. Admitting      | Where is the first place we go?         | Admitting, across from the information desk in main lobby.  |
| B. Gift shop      |   |   |
| C. Chapel         | When is it open?                        | Nonsectarian, open at all times for your use.   |
| D. Waiting area   | Where do parents wait during surgery?   | In the lobby, to the right of the information desk. A pink lady will inform you when your child returns from surgery and recovery room. |
| E. Cafeteria      | Where do parents eat in the hospital?   | On the lobby level we have a cafeteria serving vegetarian foods.  |
|                   | When is the cafeteria open?             | Refer to booklet on routines given to parents.  |
| II. 2nd Floor     |   |   |
| A. Clinical lab   | What are they going to do here? (child) | They are going to take some tests that you need before your operation.  |
|                   | What kind of tests?                     | Urine and blood tests.  |
| B. Operating room | Why do they wear masks? (child)         | To keep germs from getting on you during your operation.  |
|                   | How long does the operation last?       | It lasts approximately 1-2 hours depending on the type of operation.  |
|                   | What kind of anesthesia do they give?   | It varies greatly but they usually use nitrous oxide with ethane. You may want to discuss   |

| Place            | Questions  | Explanation  |
|------------------|--|--|
|                  |  | this with the anesthesiologist when he comes to check your child the night before his operation.   |
|                  | When can we talk to the doctor after surgery?      | The doctor may come to see you after the surgery in the lobby where you wait if he does not have a surgery following your child's.   |
| C. Recovery room | How long do I stay here? (child)                   | About two hours, sometimes longer.   |
|                  | When does my child wake up?                        | Children are usually awake about ten minutes after arriving in the recovery room.  |
| III. 5th Floor   |  |  |
| A. Day room      | Where can we wait besides in the lobby downstairs? | Show day room.   |
| B. Rest rooms    | Where are the rest rooms for visitors?             | To the right as you get out of the elevator on each floor.   |
| C. 5300          | How many patients are there in a room?             | There are from 2-5 depending on which room your child is in. Occasionally we transfer children to different rooms in order to keep them of similar age and condition together. |
|                  | When can I go play in the playroom? (child)        | In the evening before surgery and when you feel like it after your operation--you may play in the playroom.  |
|                  | Can parents stay overnight?                        | Generally no because we do not have facilities   |

Place

Questions

Explanation

When do I get to go home? (child)

to accommodate parents.

You can go home when your doctor thinks you are well enough to go home. It is usually the morning after your operation.

**APPENDIX C**

## DISCUSSION WITH PARENTS

Outline of ObjectivesSample

I. To help parents to deal with their own fears:

A. By allowing parents to express and ask questions

Nurse:

Now, while your child plays with the puppets, I would like to discuss with you how you can help prepare your child for hospitalization.

A lot of times there are things that concern the parents when their child goes to the hospital. Mrs. Brown, how do you feel about your child going to the hospital?

Mrs. Brown:

I'm really worried that Joey will not go to sleep at night in the hospital. The only other place that he has slept away from home is at his grandparents. He sat up and rocked himself most of the night.

Nurse:

Was this an unexpected stay?

Mrs. Brown:

Yes.

Nurse:

What happened?

Mrs. Brown:

Our car broke down and my husband was worried he wasn't going to make it back to work on time in the morning.

Nurse:

Many times when adults are anxious and worried the child will quickly sense this and become also.

Mrs. Brown:

We were quite upset that evening. I guess this may have reflected in Joey's sleep.

Nurse:

If we prepare Joey for his stay in the hospital and give him an explanation that you will see him in the morning, maybe this may give him some reassurance to go to sleep.

Mrs. Brown:

I think my being less anxious will help too.

Nurse:

If Joey still has problems going to sleep that first evening the anesthesiologist may leave a sedative order.

Mrs. Brown:

That makes me feel better to know this.

Nurse:

What type of surgery is Joey going to have?

Mrs. Brown:

He is going to have his tonsils out.

Nurse:

What do you expect Joey will most likely feel like after surgery?

Mrs. Brown:

I guess he will probably only have a sore throat for a while.

Nurse:

Yes, he will have a sore throat for a while. But we will try to keep him comfortable as much as possible.

Usually after anesthesia a child is very sleepy and may not want to play or even visit. Some children sleep most of day of surgery.

Occasionally children may get sick to their stomachs and vomit old blood. Sometimes they feel better after this. This is one of the reasons why we try to give fluids gradually after surgery.

B. By informing  
what to expect.



Don't be too alarmed if your child oozes dark brown drainage from his mouth or nose. This often happens.

There probably will be some changes in Joey's behavior after his surgery. He may be more demanding, baby like, or fearful. These changes are usually temporary, lasting for a few weeks.

- C. By referring them to sources where they can obtain further help if needed.

Mrs. Brown:

Where can I go for help if Joey continues to be fearful of everything?

Nurse:

You could consult your physician. He may refer you to a child specialist who deals with these problems.

A lot of times we just need to be patient and encourage the child to work out his feelings and fears.

- II. To help parents know what to say to child by discussing with the parents the importance of:

Nurse:

Visiting the hospital and seeing the puppet show is just part of the preparation your child needs. The most important preparation is given by you his parent. It is because you know him much better than we do.

Mrs. Brown:

What is our part as parents? The puppet show seemed to explain almost everything he needs to know.

Nurse:

He needs your reassurance. During the next few days before his hospitalization he will have questions and may need clarification. You and your husband are the ones he will most likely ask.

- A. Listening to their child

First of all, listen to your child. Give him an opportunity to ask you questions about his hospitalization. Sometimes it is helpful to ask him simple questions to find out if he understands --such as "What kind of operation are you going to have?"

Mrs. Brown:

But how do I answer his questions?

Nurse:

It is important that you answer briefly and to the point.

- B. Being brief
- C. Using simple terms at child's age level
- D. Explaining only relevant experiences

You do not need to go into detail; use simple terms at his age level.

Tell him only those things that he will actually see, hear, smell, or feel.

Mrs. Brown:

Can you give me an example?

Nurse:

Yes. Suppose Joey asks you, "What are tonsils and why does the doctor have to take them out?"

You can explain that tonsils are two little lumps in the back of the throat that need to be removed because they have been giving him trouble such as sore throats and ear aches. That is why he needs to stay in the hospital a couple of days to have his operation to get it fixed.

Mrs. Brown:

What if he asks "Will it hurt?"

Nurse:

- E. Being truthful

It is very important that you tell him the truth. If you are honest he will trust you.

You can tell him that it will not hurt while he is having the operation because of the sweet smelling sleepy gas that the doctor gives. After surgery he will have a sore throat. Remind him of the ice collar and medicines that the nurses have to help him feel better. Reassure him that in a few days he will feel better.

Another point I would like to bring out is that you should not make promises if you don't know if you can keep them--such as "You are only going to have one shot."

## F. Being positive

Mrs. Brown:

What if he just doesn't want to go to the hospital?

Nurse:

Tell him you understand that he doesn't want to go but that it is necessary to have the operation. Reassure him that you love him and you want him to be well. He may also need reassurance that you are not sending him away or punishing him.

Mrs. Brown:

I think I will have problems sneaking away when visiting hours are over at 8 p.m.

Nurse:

Suppose you told Joey that you were --just going out for a drink of water but --you went home instead. What would Joey think?

Mrs. Brown:

I guess he would probably be upset and maybe think that I left him.

Nurse:

Or he could keep himself up waiting for you to return. It is better to tell him when you are leaving. I know it will be hard. He may cry or call for you but if he knows it must be so he will try to understand. It is important to reassure him when you are returning.

Mrs. Brown:

I will try to remember to do this.

Nurse:

Your coming to visit as often as you can will also reassure him that you have not "left him".

III. To help parents deal with some fears their child may have by

Is there anything that you have noticed in your child being afraid of in connection with coming to the hospital?

Outline of ObjectivesSample

discussing:

- A. Fear of death  
(common at ages  
7-13 years,  
Petrillo, 1972,  
p. 100)

Mrs. Brown:

Joey seems to think if he stays in the hospital a long time like my Uncle Tom, he is not coming back home.

Nurse:

Why do you suppose he said this?

Mrs. Brown:

My Uncle Tom passed away in the hospital. Is Joey afraid he is going to die at his young age?

Nurse:

Children may sense a connection of being hospitalized and dying. It was good that you were able to pick up this clue. Other clues you can listen for are questions like:

"Am I ever going to see you again?  
Will I die?"

Or your child may have questions about people or pets who have died.

What would you tell Joey if he asked you if he was going to die?

Mrs. Brown:

Well, to be truthful and to the point--no, he is not going to die.

Nurse:

Why? Somehow, children like to have reasons for things.

Mrs. Brown:

I could tell him that Uncle Tom was old and sick and people don't die from what he (Joey) has.

Nurse:

Very good. You can also reassure him that the doctor and nurses will take very good care of him so he can go home with you very soon.

Mrs. Brown:

What are some of the fears that children have that I should be aware of?

(Petrillo, 1972,  
p. 144)

B. Fear of bodily  
harm

Nurse:

Children between the ages of 3-7 years are especially fearful of having their body harmed. Some clues you can listen for are questions about needles, shots, and being cut. Listen for questions about if the doctor is going to operate on any other part of the body.

Children have a vivid imagination and we need to substitute fantasy with reality by explaining in simple and honest terms.

Reassure him that the doctor is only going to operate on that one part.

Other fears we have already mentioned are fears of being left and fear of being punished.

C. Fear of  
abandonment

D. Fear of  
punishment

Mrs. Brown:

Do parents give children the impression that they send them to the hospital to be punished?

Nurse:

A child can come up with the funniest ideas for reasons why he is going to the hospital; especially if he doesn't know why.

He may think it was because he ate too much sweet foods or he didn't clean up his room when he was supposed to. He may ask questions like "Was I bad?"

He needs your reassurance that there was nothing bad that he had done that he has to go to the hospital. Tell him you want him to go to the hospital so he will be well.

The last fear I would like to mention is the fear of the unknown. Even grown-ups become worried and anxious when they don't know what is going to happen to them.

E. Fear of the  
unknown

Mrs. Brown:

I guess a clue to this fear would be any questions about what is going to happen.

Nurse:

Exactly, it is our hope that your

child's attendance in our preadmission orientation will be of help in familiarizing him to the hospital. But as I said before, it is up to you to keep on explaining, clarifying, and reassuring him what is to happen.

**REVIEW**

In review let's look at a chart of the six points to keep in mind when preparing your child.

- A. Listen to what your child says and asks
- B. Be brief
- C. Use simple terms at his age level
- D. Explain only relevant experiences.
- E. Be truthful.
- F. Be positive.

**APPENDIX D**

## BOOKLET ON HOSPITAL ROUTINES

## Dear Parents:

Welcome to the hospital at Loma Linda University Medical Center. The following information is especially designed to help you become better acquainted with the hospital routines when your child is admitted. If you have any questions during your child's stay please feel free to ask the hospital personnel.

## WHEN TO ARRIVE:

The usual admission day is the day before surgery. Your doctor may have told you when he wanted your child to be admitted. You should plan on calling the admitting office by 11:00 a.m. to verify the time of admission.

Redlands  
Colton  
796-7311

San Bernardino  
Fontana

Riverside  
Rialto  
824-0800

## WHAT TO BRING:

The hospital supplies gowns and pajamas and an admission kit which contains a toothbrush and some tooth paste. If you wish, your child may bring his own pajamas to use the first evening. But, there is a risk of losing them in the laundry. You may want to bring his robe, slipper, and his own comb or brush. Toys are available from our playroom. Should your child wish to bring his favorite toy be sure to have one of the nurses help you label it.

## VISITING HOURS:

Visitors are welcome to visit between 11:00 a.m. to 8:00 p.m. You are requested to observe the 8:00 p.m. bedtime. Due to the danger of communicable disease, children under 13 yrs. are not permitted to visit.

## STAYING OVERNIGHT:

Since we do not have adequate facilities to accommodate parents we ask that you get a good night's rest at home or elsewhere. We do encourage you to come during visiting hours.

## CAFETERIA:

The cafeteria is located on the lobby level for guests and personnel. Meals are served at the following hours:



|           | Mon. - Fri.      | Sat. & Holidays | Sun.             |
|-----------|------------------|-----------------|------------------|
| Breakfast | 6:15-10:15 a.m.  | 7:00-9:30 a.m.  | 7:00-10:15 a.m.  |
| Lunch     | 11:00- 2:00 p.m. | 11:30-1:30 p.m. | 11:00- 2:00 p.m. |
| Dinner    | 5:00- 7:30 p.m.  | 5:00-7:30 p.m.  | 5:00- 7:30 p.m.  |

Snack service is available at other times.

#### DIETARY:

Your child's diet has been specially planned by his doctor and the hospital dietitian to provide him with nutritious meals. His likes and dislikes will be taken into consideration. It is requested that you not bring additional foods unless checking with the nurse.

#### SURGERY:

You can check with the ward secretary to find out the time your child goes for surgery. In the morning before surgery a preoperative medication will be given. If you plan to be with your child before surgery you should come at least 1½ hours before the listed time of surgery. You can come as early as 6:30 a.m. Surgery time varies with the type of surgery and the individual child. It usually lasts between 1-2 hours for a minor surgery.

#### RECOVERY:

From surgery your child is wheeled to the recovery room where the nurses are there to care for him closely. He will usually stay here for approximately two or more hours.

#### WHERE TO WAIT:

While your child is in surgery and recovery room you should wait in the lobby to the right of the information desk. A volunteer lady dressed in pink will be seated at a desk to inform you when your child has entered and left the recovery room for the ward so you can go visit him. Remember, this is the only place where you can receive information concerning your child at this time.

#### PATIENT ROOMS:

Since the ward is circular in structure your child's room is equally distant from the nurses' station as the other rooms. A restroom for patients is either in his room or in the adjoining room. Some transferring of patients is necessary to keep children of similar ages and conditions together. If you are unable to find your child in his room, please check with the ward secretary.

**PLAYROOM:**

The playroom is the first room to your left as you enter the ward. Children who are allowed up and out of their rooms are welcome to use it. If you are in the playroom with your child it would be very helpful if you would help us replace the toys on the shelves.

**CHAPEL:**

The chapel is located in the northeast corner of the main lobby. It is always open for your use.

**DAYROOM:**

The dayroom is located opposite the elevators on each floor. Visitors are welcome.

**GIFT SHOP:**

The gift shop is operated by the volunteer service league and is located near the main entrance of the building to serve patients and visitors. Gift items, greeting cards, and other useful items are available.

**Hours:**

|                 |                        |
|-----------------|------------------------|
| Sunday          | 10:00 a.m. - 8:00 p.m. |
| Monday-Thursday | 9:00 a.m. - 8:00 p.m.  |
| Friday          | 9:00 a.m. - 3:00 p.m.  |

**DISCHARGE:**

Discharge requires a written order by your child's physician and a clearance from the business office. The usual departure time is around 11:00 a.m. This depends on when the physician writes the discharge order. You will be notified when your child is discharged.

We sincerely hope your child will have a pleasant stay in the hospital. Thank you for entrusting your child to our care.

APPENDIX E

PHYSICIAN'S CONSENT FORM

Chart No. \_\_\_\_\_

I hereby give permission for \_\_\_\_\_  
name of patient

to participate in a study involving a preadmission orientation to the  
hospital.

type of surgery \_\_\_\_\_

expected date of hospitalization \_\_\_\_\_

expected length of stay \_\_\_\_\_

\_\_\_\_\_  
comments

\_\_\_\_\_  
Signature \_\_\_\_\_  
physician

Date \_\_\_\_\_

**APPENDIX F**

## PARENT'S CONSENT FORM

(control)

Dear Parents of \_\_\_\_\_:

A study is being conducted to help prepare children for their hospitalization. The study will compare the effects of the type of preparation on the behavior of children after hospitalization.

Your signature below gives me permission to include you and your child in this study. As participants you will be asked to answer a questionnaire regarding your child's behavior before and two weeks after hospitalization.

Your help will be greatly appreciated.

Signature \_\_\_\_\_

Date \_\_\_\_\_ Witness \_\_\_\_\_

## PARENT'S CONSENT FORM

(experimental 1 &amp; 2)

Dear Parents of \_\_\_\_\_:

A study is being conducted to help prepare children for their hospitalization. The study will compare the effects of the type of preparation on the behavior of children after hospitalization.

Your signature below gives me permission to include you and your child in this study. As participants you will be asked to attend a preadmission orientation and answer a questionnaire regarding your child's behavior before and two weeks after hospitalization.

Your help will be greatly appreciated.

Signature \_\_\_\_\_

Date \_\_\_\_\_ Witness \_\_\_\_\_

**APPENDIX G**



Study no. \_\_\_\_\_

Date \_\_\_\_\_

## ASSESSMENT SHEET

The information obtained from this questionnaire is to help me know you and your child better. It will be given confidential treatment. Please answer briefly the following questions:

1. What grade in school is your child? \_\_\_\_\_
2. How many children are in the family? \_\_\_\_\_
3. What is the birth order of your child? \_\_\_\_\_
4. Who plans to be with your child when he/she is admitted? \_\_\_\_\_  
 \_\_\_\_\_ discharged? \_\_\_\_\_
5. Who plans to care for the child after hospitalization? \_\_\_\_\_  
 \_\_\_\_\_
6. Who will answer the questionnaire that is given two weeks after your child is discharged? \_\_\_\_\_
7. What is the highest grade in school that you and your husband/wife have attended? \_\_\_\_\_
8. What is the wage earner's occupation? \_\_\_\_\_
9. Are both parents in the home? \_\_\_\_\_
10. Has your child been hospitalized before? \_\_\_yes \_\_\_no  
 If yes: when? \_\_\_\_\_  
 what for? \_\_\_\_\_  
 how long was the longest stay? \_\_\_\_\_
11. Does your child have any special fears about the hospital or health personnel? \_\_\_yes \_\_\_no If yes: what kinds of fears?  
 \_\_\_\_\_

12. Has there been any stressful experiences that your child has had in the last six months such as a death of a friend or relative, new baby in family, separation in family, or moving to a new home or school?  yes  no
13. What has your child been told about his hospitalization? \_\_\_\_\_  
\_\_\_\_\_
14. (rated by interviewer) What is their race or ethnic group?  
 White  Black  Mexican Am.  Oriental \_\_\_\_\_ Other

APPENDIX H

## BEHAVIORAL QUESTIONNAIRE

I would like to know about your child's present typical behavior.  
Please answer the questions by choosing one of the following answers:

always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_

1. Does your child make a fuss about going to bed at night?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
2. Does your child make a fuss about eating?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
3. Does your child spend time just sitting or lying and doing nothing?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
4. Does your child need a pacifier?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
5. Does your child seem to be afraid of leaving the house with you?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
6. Does your child bite his (or her) fingernails?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
7. Does your child get upset when you leave him (or her) alone for a few minutes?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
8. Does your child need a lot of help doing things?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
9. Is it difficult to get your child interested in doing things (like playing games with toys, and so on)?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
10. Does your child have difficulty making up his (or her) mind?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
11. Does your child have temper tantrums?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
12. Is it difficult to get your child to talk to you?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
13. Does your child follow you everywhere around the house?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_

14. Does your child spend time trying to get or hold your attention?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
15. Is your child afraid of the dark?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
16. Does your child have bad dreams at night or wake up and cry?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
17. Is your child irregular in his (or her) bowel movements?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
18. Does your child have trouble getting to sleep at night?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
19. Does your child seem to be shy or afraid around strangers?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
20. Does your child have a poor appetite?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
21. Does your child tend to disobey you?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
22. Does your child break toys or other objects?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_
23. Does your child suck his (or her) fingers or thumb?  
always\_\_\_ often\_\_\_ sometimes\_\_\_ seldom\_\_\_ never\_\_\_

## Score:

always = 0  
often = 1  
sometimes = 2  
seldom = 3  
never = 4

**APPENDIX I**

## EVALUATION SHEET

The following questions are asked to better evaluate the treatment given to you and your child. Please answer them briefly.

1. Did your child have any complications after surgery such as an infection or another surgery?  yes  no

If yes, what kind of complication? \_\_\_\_\_

2. How did you find that the hospital treated you and your child?

\_\_\_\_\_

excellent \_\_\_\_\_ good \_\_\_\_\_ average \_\_\_\_\_ poor \_\_\_\_\_

3. (Ask only E<sub>1</sub> and E<sub>2</sub>) How did you find the orientation program in helping you and your child for hospitalization? \_\_\_\_\_

\_\_\_\_\_

for you:

excellent \_\_\_\_\_ good \_\_\_\_\_ average \_\_\_\_\_ poor \_\_\_\_\_

for your child:

excellent \_\_\_\_\_ good \_\_\_\_\_ average \_\_\_\_\_ poor \_\_\_\_\_

LOMA LINDA UNIVERSITY

Graduate School

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THE EFFECT OF PREADMISSION ORIENTATION  
ON POST HOSPITAL BEHAVIOR IN CHILDREN

by

Alice Loo

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An Abstract of a Thesis  
in Partial Fulfillment of the Requirements  
for the Degree Master of Science  
in the Field of Nursing

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## ABSTRACT

Hospitalization was assessed as imposing stress on a child which may result in negative behavior. The purpose of this study was to evaluate the effect of a planned preadmission orientation in decreasing negative behavior after hospitalization.

An experimental randomized group design was used.

There were fifteen subjects ages 3.8 to 10.6 years who had a planned admission to Loma Linda University Medical Center for a minor surgery and brief hospital stay. The children were randomly assigned to two experimental groups and a control group. It was hypothesized that those receiving an orientation would have less negative post hospital behaviors than those without an orientation. Also, those who received type II orientation would have less negative behavior than those with type I orientation. Type I orientation familiarized both the child and the parents to the hospital. Type II orientation also included measures to help parents prepare the child for hospitalization. The parents of all subjects answered a questionnaire before hospitalization reporting the child's current behavior. The experimental groups were given the specified orientation a few days before admission. Two weeks after hospitalization the parents in all groups were asked to complete the same questionnaire reporting behavior after discharge from the hospital.

After statistical analysis of the data the hypotheses were rejected because the differences on behavioral score changes between

the groups were not significant at the .05 level. Group E<sub>2</sub> showed less negative post hospital behavior than the other two groups. Having had one or more previous hospitalization significantly increased the factor of general anxiety and regression of the child after hospitalization. It would appear that children who have had previous hospitalization may need special attention in preparative measures to decrease general anxiety and regression. Results of this study suggest that the parents play an important role in preparing children to cope with the stress of hospitalization. An orientation program should include not only measures to familiarize the child and parents to hospital routines but also help parents in preparing their child for hospitalization.