

THE EFFECTS OF A SIBLING CLASS ON THE BEHAVIOR OF CHILDREN
TOWARD THE NEW INFANT IN THE FAMILY

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DEDICATION

This thesis is dedicated to my family. Without their love, support, and belief in me, I would have never been able to finish this study.

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CHAPTER 1

INTRODUCTION

The birth of an infant is a major event in the life of a family, and it is a widely held assumption that this can be a major crisis for the older children, especially for the school age child. "Many children are not psychologically prepared to move over and share the family spotlight with a stranger. The whole idea can be very traumatic, resulting in everything from temper tantrums to regression patterns and infantile behavior" (Bless, 1980, p. 30).

Throughout the country, unique programs have been or are being established to meet the needs of the sibling. These classes are open to children 3 to 10 years old. The purpose is to help children deal with some of the concerns and feelings about birth, and the hospital setting. The classes also attempt to promote family bonding.

The sibling class usually includes a discussion and story concerning pregnancy and childbirth. The children

take a tour of the labor and delivery, postpartum, and the newborn nursery units. They learn and practice diapering, feeding, and holding a baby, and view a film or talk about dealing with jealousy.

There is little knowledge or systematic study about the difference in behavior between children who have had the class and those who have not. It is because of this lack of information that this study tried to determine if there are any benefits or value of the sibling class. It also attempted to determine whether the class decreases the negative regressive behavior that is believed to be associated with the birth of a sibling.

Problem of study

When a new infant has entered the family, is there a difference in behavior of those siblings who have completed a sibling class and those siblings who have not completed a sibling class?

Justification of Problem

The addition of a new baby to a family can be an unsettling experience for the older child. Sibling rivalry is a concern of parents and health professionals and is widely discussed in the popular literature. A number of strategies and hints is put forth as ways to

deal with the problem. A relatively new approach to sibling rivalry is to have the older child in the family attend a sibling class. For the past few years these special classes have been or are being started to provide the sibling a forum in which he can gain more understanding of the changes taking place in his mother and the family unit. These classes include a discussion of pregnancy and childbirth and a story-telling time to discuss sibling jealousy and other feelings. A practice play session on how to diaper, feed, and hold the baby is also included. The family is taken on a tour of the labor and delivery, the newborn nursery, and the postpartum units, in hopes of relieving separation anxiety of the child when the mother goes to the hospital.

There is no evidence in the literature that such programs have been evaluated and are indeed effective and actually change or improve behavior of the sibling. It is not really known whether the child who has attended such a class has more positive feelings toward the newborn infant. Based on the limited research regarding the behavior changes of the sibling when a new infant is added to the family, the question arises as to whether a

sibling class can effectively alter or reduce the negative behavior. Because of the changing economy of the country and the rising costs of health care, hospitals are scrutinizing the expenditure of funds for programs provided to the community. It has become an essential function of nurses to make sure the allocation of funds is based on programs that have been evaluated and found to be beneficial to their clients.

The nature of nursing is to make a commitment to clients. Curtin and Flaherty (1982) declared the promises that the nursing profession makes toward its clients:

Nurses have promised to help those who are ill to regain their health, those who are healthy to maintain their health, those who cannot be cured to maximize their potentials and those who are dying to live as fully as possible until their deaths. The making of such promises entails an honest commitment to their fulfillment because their fulfillment significantly affects people's lives. (p. 98)

An ethical question is raised when an institution or individual nurse promotes a sibling class without actually knowing its benefits. In effect, it is implied that by attending a sibling class, a child's behavior will be influenced in a positive manner. There is no empirical evidence to support this. Do nurses have the ethical obligation to make sure the class will actually produce some benefits to the participants?

The consumer is becoming a more assertive advocate of health cost containment and professional reliability. Because of these changes in the health system, the nurse must evaluate not only her own clinical practice, but also the programs she recommends to clients. It is imperative that nurses become accountable for their practice and also serve as client advocates. The value or benefits of recommended interventions must be established.

Theoretical Framework

As the child is developing physically, he is also beginning to develop his personality and cognition. The theoretical frameworks of Freud (1949) and Piaget (1950) will be discussed to explain the personality and cognitive development of the child.

Freud's Theory of Personality Development

One of the obvious facts about personality is that it is constantly changing and developing. This is especially noticeable during the periods of infancy, childhood, and adolescence.

Freud was trained as a medical doctor, but he wanted to be a scientist. With true scientific curiosity, Freud developed improved techniques of analyzing the deep thoughts of his patients.

"His probing revealed dynamic forces at work which were responsible for creating the abnormal symptom that he was called upon to treat" (Hall, 1954, p. 15). Based on the knowledge Freud gained from his patients, he was able to lay a foundation for a theory of personality.

Freud conceived that the total personality consisted of three major systems. He called these systems the id, the ego, and the superego. The id "provides for the immediate discharge of quantities of excitation (energy or tension) that are released in the organism by internal or external stimulation" (Hall, 1954, p. 22). Freud (1949) explained the ego of the well-adjusted person to be the "executive of the personality, controlling and governing the id and the superego and maintaining commerce with the external world in the interest of the total personality and its far-flung needs" (p. 19). The third major system, the superego, "is the moral or judicial branch of personality . . . the superego is the person's moral code" (Hall, 1954, p. 31).

Freud (1949) noted that the ego is formed out of the id and the superego is formed out of the ego. "They continue to interact and blend with each other throughout life" (Freud, 1949, p. 54). These interactions and

blendings, as well as the opposition that develop among three systems, help with personality development.

Freud (cited in Hall, 1954) identified personality development as an "elaboration of behavior patterns, a proliferation of object-cathexis (arguing forces) in the form of interests and attachments, and a development of the psychological processes of perception, memory and thinking" (p. 72). Freud also noted that through learning, the child develops greater skills in dealing with frustrations and anxieties.

The development of personality takes place as a result of two major conditions. "These are (1) maturation of natural growth and (2) learning to overcome frustrations, to avoid pain, resolve conflicts, and reduce anxiety" (Hall, 1954, p. 113).

Maturation consists of innately controlled sequences of developmental changes. Examples of the maturational process are walking and language development.

"Perception, memory, learning, judgment, and thought are influenced by the maturation of the central nervous system" (Hall, 1954, p. 73). Freud believed that there is not any aspect of development that does not bear the imprint of maturation, and that maturation and learning go hand in hand in the development of personality.

Freud felt that development of the sexual instincts was of great importance in developing the personality because this was the first important source of tension and pleasure for the baby. Freud (cited in Hall, 1954) conceptualized that there were regions of the body where "irritating excitatory processes (tensions) tend to become focalized and whose tensions can be removed by some action upon the region, such as sucking or stroking" (pp. 102-103). Freud called these regions the erogenous zone. The three principle erogenous zones are the mouth, the anus, and the genital organs. "Each of the principle zones is associated with the satisfaction of a vital need" (Hall, 1954, p. 103). Freud noted that "pleasure derived from the erogenous zone may be and often is independent of the pleasure derived from the fulfillment of the vital need" (Hall, 1954, p. 103). Examples of this are thumbsucking and masturbation. Both actions are tension-reducing, but thumbsucking does not satisfy hunger, nor does masturbation serve the cause of reproduction.

Frustration may be due to something within the person. Learning to overcome frustration and, therefore, reducing anxiety is another major condition in personality development. There may be conflict, an

opposing force which prevents the person from obtaining satisfaction. A personal inadequacy is a weakness or limitation that lies within the person. Fear may be a cause of frustration. This occurs when the person is afraid to go after the things that he wants. The ways in which a person meets and attempts to overcome or adjust to these obstacles shape his personality. Freud proposed that identification has a major role in personality development. "Identification will be defined as the incorporation of the qualities of an external object, usually those of another person, into one's personality" (Hall, 1954, p. 74). A person who successfully identifies with another person will resemble that person. One of the reasons why children resemble their parents is that they assimilate the characteristics of their parents. "The tendency to copy and imitate other people is an important factor in molding personality" (Hall, 1954, p. 74). Freud felt that the motivational force of identification is provided by "Frustration, inadequacy, anxiety, and the purpose of painful tension through mastery of the frustration, inadequacy or anxiety" (Hall, 1954, p. 78).

The process by which energy is rechanneled from one object to another object is called displacement. The development of personality proceeds by a series of energy displacements or object substitutions. The source and aim of the instinct remain the same when energy is displaced; it is only the goat object that varies. Sublimation is the type of displacement that occurs when a "substitute object is one that represents a higher cultural goal" (Hall, 1954, p. 82). An example of sublimation is when the direct expression of sexual and aggressive instincts is transformed into apparently nonsexual and nonaggressive forms of behaviors.

Freud (1956a) noted that one "of the major tasks imposed upon the ego is that of dealing with the threats and dangers that beset the person and arouse anxiety" (p. 185). In order for the person to attempt to alleviate these anxieties, the ego uses methods of denial, or falsifying or distorting reality. These attempts may impede the development of personality. Freud referred to these methods as the defense mechanisms of the ego.

The first defense mechanism Freud described is repression. Freud (cited in Hall, 1954), defined repression as "the nullifying or restraining of a

cathexis (the urging force), by the anti-cathexis (the checking force)" (p. 85). Repression may prevent a person from seeing something that is in plain view or destroy that which he does see. He may falsify the information coming in through the sense organs in order to protect the ego from apprehending an object that is dangerous or that is associated with a danger that would arouse anxiety. Although repression is necessary for normal personality development, there are those persons who depend upon it to the exclusion of other ways of adjusting to threats, and then become more repressed. Freud (1956b) felt that these people use so much energy in maintaining their repressions that they cannot enjoy life or learn to interact with others.

Projection, the second defense mechanism described by Freud, occurs when a person feels anxious from pressure upon the ego from the id or superego, and he tries to relieve this anxiety by attributing its cause to the external world. An example of projection is that the person may exchange the anxiety for or on to someone else. "I hate you" is converted into "you hate me." Freud felt that the ego is trying to transform neurotic or moral anxiety into objective anxiety. Projection not only helps relieve anxiety but also offers a person an

excuse for expressing his real feelings. A person who believes that he is hated or persecuted may use this belief as a justification for attacking his imaginary enemy.

Having reached a certain stage of development, a person may retreat to an earlier level because of fear. This defense mechanism is called regression. Freud (1956a) stated that "any flight from controlled and realistic thinking constitutes a regression" (p. 308). Healthy, well-adjusted people regress at times in order to reduce a particular anxiety. Children, having gone through a particular developmental stage, may regress when faced with a crisis or an anxiety-producing situation. An example of this could be the birth of a new sibling. Regressional behavior may include loss of temper, biting the nails, picking the nose, talking baby talk, masturbating, rebelling against authority, or exhibiting other inappropriate behaviors.

Freud (1956a) noted:

Another important factor for healthy ego development is an environment which offers the child a succession of experiences that are synchronized with his capacities for adjustment. At no time should the dangers and hardships be so strong as to be incapacitating. In infancy the hazards of existence should be a small one, in early childhood the threats should be a little stronger, and so on through the years of growth. In such a graded series of environments, the ego would have an opportunity to shed its defense mechanisms, and to replace them by more realistic and more efficient mechanisms. (pp. 310-311)

In summary, Freud believed that the development of personality takes place as a result of maturation of natural growth and learning to overcome frustrations, to avoid pain, resolve conflicts, and reduce anxiety. Learning consists of forming identifications, displacements, compromises, compensations, and, finally, defenses. All of these mechanisms of personality are involved in the substitution of a new object-cathexis and anti-cathexis by the ego and super ego. These mechanisms are responsible for the way in which the personality develops.

Piaget's Theory of Cognitive Development

Just as Freud discovered that individuals go through several stages of personality development, Piaget found that they also evolve through increasingly complex phases of cognitive development. Piaget also noted that the child learns by dealing with the new, the unexpected, and fitting it into his already existing framework of knowledge through reflective abstraction. The second conceptual framework to be utilized for this research and to support the concept of how the child learns will be Piaget's (1950) theory of cognitive development.

Thinking, knowing, imagining, perceiving, remembering, recognizing, abstracting, generalizing--all these processes are included in the term cognition, which refers to all intellectual activities of the mind.

Pulaski (1980) noted that Piaget's studies of human cognitive development help to understand what to expect of children, how they perceive the world around them at different ages, and why they ask questions and interpret information in ways that may seem strange to adults.

Piaget conceived of intellectual development as a continual process of organization and reorganization of

structures, each new organization integrating the previous one into itself. "Although that process is continuous, its results are discontinuous; they are qualitatively different from time to time. Because of that, Piaget has chosen to break the total course of development into units called periods and stages" (Phillips, 1981, p. 44). These stages should not be thought of as static, but as a guide for the nurse to assess the child as he progresses through the stages of development. Piaget felt that each day, the child's mind grows in its capacity to interact with the environment. Sufficient maturation and appropriate experiences enable the child to develop structures for better handling of stimuli from his surroundings. Piaget (1967) also believed that the mind develops certain strategies and these evolve in a rather progressive way as the child matures.

Piaget developed four stages of cognitive development. The period which involves a child's first 24 months of life is the sensory-motor stage. During this period of life, the sensory and motor experiences are predominantly molded into sequences and activities.

The preoperational stage is from 2 to 7 years of life. During this phase of life, the child is in a "continuous investigation of the environment and the possibilities of activity within it" (Maier, 1978, p. 41). The concrete-operational stage is from 7 to 11 years of age. The child is now able to "fully employ through structures rather than relying primarily upon perceptual or body-motor cues as they did previously" (Maier, 1978, p. 54).

The stage from 11 to 14 years of age is the formal-operational stage. Unlike the child in the earlier stages, the adolescent in this stage becomes "an individual who thinks beyond the present and forms theories about everything, delighting especially in considerations of that which is not" (Piaget, 1950, p. 148).

Because the sample of this study consisted of children 3 to 7 years of age, a discussion of Piaget's preoperational stage will be included.

The first phase of the preoperational stage is the preconceptual period. This phase is from 2 to 4 years of age. During this phase, the child is operating on the level of symbolic representation. This is

evidenced by imitation and memory and is shown in drawings, dreams, language, and make-believe play. During this stage, the child's thinking is still "egocentric and dominated by a sense of magic omnipotence" (Pulaski, 1980, p. 215). The child "assumes that all natural objects are alive and have feelings and intentions because he does" (Pulaski, 1980, p. 215). He believes that things which happen coincidentally have a cause and effect relationship. He also believes that the world is only as he views it without accepting the viewpoint of others.

The second phase of the preoperational stage is the intuitive or prelogical period. This phase occurs during the ages of 4 to 7 years. During this stage, the child's ability of prelogical reasoning appears, based on perconceptual appearances. Trial and error may lead to a discovery of correct relationships, but the child can only look at one aspect of that relationship at a time. "Language is used in an egocentric way, reflecting the child's limited experience" (Pulaski, 1980, p. 216).

Piaget felt that there were different influences that helped explain cognitive development. The first of these influences is adaptation. "Adaptation is the

essence of intellectual functioning, just as it is the essence of biological functioning" (Pulaski, 1980, p. 9). Adaptation is one of the two basic tendencies inherent in all species; the other is organization. According to Pulaski (1980), organization is "the ability to integrate both physical and psychological structures into coherent systems" (p. 8). Adaptation takes place through organization; "the organism discriminates among the myriad stimuli and sensations by which it is bombarded and organizes them into some kind of structure" (Pulaski, 1980, p. 9). An example of this organization is the infant's conception of "mothers." The infant knows his mother's voice, the softness of her breast, the taste and smell of her milk, and the comforting feel of her warm body. When all of these stimuli are put together by the infant, then he knows that this person caring for him is "mother."

Piaget (1967) continued to define adaptation as having a dual role. It consists of the process of assimilation and accommodation. Assimilation is the taking of information from the environment and incorporating it into existing mental schemes or structures. An example of this is a child listening to people talking around him. He hears and learns the

inflections, the phrasing, and the meaning of language long before he is able to talk to himself. Assimilation is continuously balances by accommodation.

"Accommodation involves the modification or fabrication of mental schemes and structures. The outgoing, the adjusting process of reaching out to the environment" (Sund, 1976, p. 7).

Just as the body seeks to find a physiological state of equilibrium between rest and exercise, Piaget felt that the child's mind also is seeking equilibrium between what he understands and what he experiences in his environment. Piaget, as defined by Pulaski (1980), stated the equilibrium is:

The arrival at a relatively 'steady state' in a system of constantly changing balances and coordinations between the organism and its surroundings. This system is an open system in which feedback from the environment contributes to a constant process of self-regulated, internal organization. (p. 11)

Piaget's emphasis was mainly on the process that brings about these progressive states of equilibrium; "the dynamic, ongoing self regulating process which he calls equilibration" (Pulaski, 1980, p. 11). Equilibration functions to bring about a balanced coordination between assimilation and accommodation. Piaget (1967) wrote,

"In a sense, development is a progressive equilibration from a lesser to a higher state of equilibrium" (p. 3). It is the search for equilibrium for answers that satisfy which spurs the mind on to higher levels of thought.

Experience is another factor Piaget identified that explains cognitive development. Experience has both physical and empirical aspects. Physical knowledge comes from "acting on objects and observing how they react or are transformed" (Pulaski, 1980, p. 12). The second type of experience is logical-mathematical knowledge. This is when a child "acts on objects. He constructs logical relationships between or among them. These include comparisons such as higher, lower, faster, bigger; they involve relationships existing not in the objects, but in the mind of the child who compares them" (Pulaski, 1980, p. 13).

The final contributing factor to cognitive development is social transmission. Social transmission is information learned from other children or transmitted by parents, teachers, or books in the process of education. Piaget believed that when a child hears contradictory or challenging statements, his equilibrium

is disturbed. "He then sets out in search of an answer that will enable him to achieve a new, higher achievement" (Pulaski, 1980, p. 14). As the child's mental structures become competent to grapple with new problems, he is stimulated and challenged by his environment to seek new solutions. The child's cognitive conflict spurs him on to higher levels of intellectual development. He also learns from his mistakes.

As the child matures, he goes through several different stages of personality and cognitive development. According to Freud's theory of personality development, the child learns to deal with frustrations and conflicts to reduce anxiety and avoid pain. Piaget contended that the child, to develop his cognitive abilities and intelligence, builds one experience on another and moves forward in his role as an individual. The theories of Freud and Piaget served as the basis for describing and explaining the behavior observed in children when they are faced with new and potentially frustrating situations.

Assumptions

The following assumptions were considered basic to this study:

1. Sibling rivalry is an aspect of family life.
2. Children are able to participate in and benefit from learning situations.

Hypotheses

The following hypotheses were studied:

1. When a new infant enters the family, there will be a change in identified behaviors of those first born siblings, between the ages of 3 and 7 years, who have completed a sibling class and those first born siblings, between the ages of 3 and 7 years, who have not completed a sibling class.
2. When a new infant enters the family, there will be a difference in frequency of identified behavior of those first born siblings, between the ages of 3 and 7 years, who have completed a sibling class, and those first born siblings, between the ages of 3 and 7 years, who have not completed a sibling class.

Definition of Terms

For the purpose of this study, the following terms were defined:

1. Infant--a young child from birth to two years of age (Miller & Keane, 1972). For this study an infant is a child up to the age of 2 weeks of age.

2. Family--any child or children and their consistent caretaker or caretakers and other persons who the child or caretaker identifies as significant to them. Usually this group of people resides together in the household (Chinn, 1979). For this study the family consists of the infant, first-born sibling, a mother, and a father, with all members residing in the same household.

3. Sibling--an individual born of the same parents, a brother or sister (Miller & Keane, 1972). For this study the sibling is the first born child of the family and may be a male or female.

4. Sibling Class--a class that helps prepare children for the arrival of a new baby in the family and what this will mean to their lives. It also provides basic information about reproduction and the birth

process (Sweet, 1979). For this study the sibling class is SIBS - Special Ideas for Brothers and Sisters. This class is a comprehensive 2-hour class so the older child can learn to interact with the new infant. The class shows a film about the changing family. A discussion of pregnancy and the birth process is included. Doll play is utilized to demonstrate and practice diapering, feeding, and holding the infant. A story is read that discusses feelings and offers appropriate ways to vent those feelings.

5. Control group--children from the ages of 3 through 7 years selected for the sample of this study who have not attended SIBS

6. Experimental group--children from the ages of 3 through 7 years selected for the sample of this study who have attended SIBS

7. Behavior--the manner in which an individual acts or performs (Miller & Keane, 1972). For this study behavior is those acts of aggression, regression, anger, love, jealousy, and curiosity of the sibling toward the new infant.

Limitations

The following limitations were considered basic to this study:

1. There was no control over parental interaction and home environment.
2. There was no control over informal preparation of the child for the new infant by significant others in his life.
3. Sibling changes in behavior may have been related to separation from the mother.
4. Normal developmental crises occurring at this time may have influenced the child's behavior.
5. A convenience sample from only one sibling class was used in this investigation. This precluded the generalization of the findings beyond the sample unit.

Summary

The experience of becoming and having a sibling is a common situation for many children. In order to clarify the implications of such an event, a unique class has been developed to help the child cope with those experiences. The sibling class was established to help the young child put all of his new feelings toward the

CHAPTER 2

REVIEW OF LITERATURE

This study focused on the effects a sibling class has on the frequency and change of identified behaviors of older children toward the new infant in the family. Consequently, a review of the literature on this subject must include sibling relationships and behaviors, the psychoanalytic view of the sibling, use of Piaget theory in teaching young children, and the sibling preparation class. Thus, this chapter presents selected literature from each of these areas.

Sibling Relationships and Behaviors

Everyday life is rich in surprises for the child. He constantly encounters the previously unknown and is frequently coming upon new situations that push him to make new adaptations which usefully enlarge his repertoire of coping mechanisms. "Some new experiences will delight him, while others puzzle, bewilder, confuse or frighten him, thus putting him under stress" (Legg, Sherick, & Wadland, 1974, p. 3). A common stressful situation in childhood is the experience of becoming and having a sibling.

Sibling rivalry has been with us since the human race began. The Bible (New International Version, 1979) records the first murder as a case of sibling rivalry -- Cain, the first born, killing his brother Able. The theme of sibling conflict as a struggle for power recurs throughout literary history. "Whether power is truly the most important matter in the relationship of siblings is difficult to say, but it appears to be the most important consideration in traditional literature" (Sutton-Smith & Rosenberg, 1970, p. 3).

The most commonly discussed immediate reactions to the birth of a sibling, as stated in the literature, are direct aggression toward the baby, attention-seeking behaviors, and varying degrees of regression.

In 1976, Chess, Thomas, and Birch stated:

There is no doubt that sibling rivalry is a fact of life in many families. The first child may express pain and even intense distress at being suddenly and unequivocally removed from number one spot in the child centered American home, to become just one of the children. He may protest violently when the second baby occupies his crib, uses his highchair, is fed while he is left to feed himself, and more important perhaps, takes a lot of the mother's time and attention that used to be all his. (p. 138)

McDermott (1980) indicated that sibling rivalry is a kind of practice of life, something natural that has to be

kept under control, "but neither to be avoided nor to be overly encouraged by parents" (p. 16). Spock (1976) pointed out that rivalry can help children to grow up more tolerant, more independent, and more generous. "If sibling rivalry is successfully resolved, the former rivals will be able to handle competition with other people, and won't feel compelled to dominate or to appease their future friends and lovers" (Spock, 1976, p. 360).

If sibling rivalry becomes too extreme it can have devastating life-long effects. Freud (1958) warned that "hostile feelings towards brothers and sisters must be far more frequent in childhood than the unseeing eye of the adult observer can perceive" (pp. 251-252). Weiss (1981) noted that sibling rivalry, in its most extreme and rare form, can be life-threatening. In more recent times, there have been cases reported of attempted drowning, poisoning, and burning by threatened siblings. But these type of reactions to siblings are rare. Weiss noted that the siblings usually become more aggressive and hostile, biting their parents, painting the walls, and even smearing feces on the hated newcomer. Weiss also pointed out that if the sibling's "actions don't tell it, their words may. They request that the baby be

disposed of with all deliberate speed, down the toilet, into the garbage, (or) back to the hospital" (p. 175). But, also, some children react in more subtle ways. Retreating into silence or becoming overly affectionate to the baby, hugging the baby and warning the parent not to drop the baby, may be the older children's way of hiding his/her anger toward the new infant in the family.

Nestal (1979) defined jealousy as an "emotion that is aroused by stressful situations. Purposeful and intended to accomplish a particular result, jealousy is a part of human nature and occurs as a response to feelings of uncertainty, rejection, or lack of appreciation" (pp. 19-20). Spock (1945) clarified that jealousy is not entirely a destructive experience. "Probably everyone has to go through a certain amount of it. If it is not too bitter and is solved constructively, the result should be a more resilient, adaptable, tolerant personality" (Spock, 1945, p. 382). Helms and Turner (1976), Levy (1937), and Spock (1945) noted that the most common form of jealousy during childhood exists when the children realize that they must share their parents love. A change in care, affection, attention, or difference in appearance or routine of the child's familiar world has been disrupted by the addition of a new family member.

Because of these changes in his world, the child is jealous of the baby for monopolizing his parents' love. Dunn and Kendrick (1980) researched the changes in interaction between mother and first born from before to after the birth of the sibling. This investigation included a sample of 41 families who was studied by the use of home observation and interviews. The researchers found that there was a "decrease in maternal attention and play, an increase in confrontation, and changes in the balance of responsibility" (p. 131). The researchers concluded that there was less sensitive attention given to the older child, by the mother, after the baby was born.

Age and/or spacing of the sibling can have an effect on the family. Weiss (1981) believed that "the closer the spacing the greater the problems for every one involved; the wider the gap, the more delightful the experience for parents and children alike" (p. 47). A few studies have been done to indicate that spacing and/or age of the sibling does make a difference in the sibling relationship. Henschis (cited in Legg, et al., 1974), noted that overt negative reactions to the birth of a sibling "were found in 89% of subjects under three

years, but only 11% of those over six years showed this reaction" (p. 5). Helms and Turner (1976), Legg et al. (1974), and Nestal (1979) also noted that spacing of the children can encourage favorable sibling relationships. Legg et al. (1974) noted that children over 3 years and particularly from late 4 to 5 years old seem to show interest in the baby immediately, desiring to hold it and care for it. Helms and Turner (1976) also noted that if the interval of ages is greater than three years, older children may develop interest in the home life, which will serve to lessen their jealous feeling. Finally, Nestal (1979) indicated that:

Siblings spaced 0 to 2 years apart were found to be more alike than those who were spaced from 2 to 4 years....As the children's ages difference exceeded 4 to 6 years, the siblings had less effect on each other, and increased independence was evident in the children. (p. 18)

Birth order also has been suggested as a probable cause of sibling jealousy. Adler (cited in Mead, 1977) theorized that:

First born children suffering from dethronement often fight for their mother's attention. In so doing, they tend to become critical and demanding of the rights and the prerogative of being first. They tend to be rule keepers and somewhat more conservative in that they want to maintain power and authority over others. (p. 51)

Research also supports this theory.

Legg et al. (1974), Nadelman and Begum (1982), and Nastal (1979) noted that first-born children experience more jealousy or/and rivalry toward the infant than other children. Legg et al.(1974) said that "first children are found to show more intense reactions than those who already have a sibling" (pp. 7-8). Nadelman and Begum investigated and showed that there were general changes in the first born's behavior in the few weeks after the infant was home. Nastal (1979) pointed out that perhaps the first-born child "who has become accustomed to his parents' individual attention, can be expected to experience the most intense jealousy at the arrival of a new sibling" (p. 20).

Feeding time of the infant, whether it be breast feeding or bottle-feeding, has been noted by a few authors as a time of stress and jealousy for the older child. Legg et al.(1974) noted in their study that in every situation where breast-feeding occurred, the older child responded with jealousy. The researchers observed behaviors of wanting to sit on mother's lap, to be read to while the baby was feeding, and to have a turn to suck. Spock (1976) noted that breast feeding is often a time when the older child becomes jealous. Dunn and Kendrick (1980) observed 40 mothers and their first born

children during a feeding session with a new baby. The researchers noted that there were more incidents of "deliberate naughtiness" if the feeding was done by bottle and more confrontation between mother and child. In contrast, the breast feeding mothers were less likely to play with the first born during the feeding. Dunn and Kendrick (1980) concluded that "mothers who are expecting a second child should not feel that the choice of breast feeding rather than bottle feeding will involve subjecting their first born to added stress" (p. 123). Weiss (1981) indicated that "some believe that breast feeding arouses more jealousy than bottle feeding. Others feel that feeding can be a difficult time, whether done by breast or bottle, simply because mother is so taken up by the baby" (p. 177).

Regressive behavior of the older child may be a result of feeling unloved by parent or jealousy toward the new infant. In 1980 Salk indicated that for a while after the birth of a baby, a parent can expect an older child to show some regressive behavior.

By being just like the baby, the older child may feel that he will gain the same care and attention. But after he has adjusted to the birth of the new one and realized that he is still loved, and respected, he usually gives up these temporarily acquired infantile behavior patterns. (p. 22)

Weiss (1981) had also noted that regressed behavior is fairly normal for a while and should not last too long. She indicated that a child who was toilet trained may wet the bed or have accidents. Or, a child who slept soundly may wake at odd hours. Also, daytime behavior might change and the child may act the way he did when he was much younger.

A common regressive behavior is in the area of toilet training. Legg et al.(1974) specified that a 4-year-old child in their sample wet at school 1 month after birth of the child's younger sister. They also noted another four-year-old who began to bedwet the night his mother went to the hospital. This same child frequently displayed direct aggression toward his younger sister. These acts consisted of pinching his sister, squeezing her leg, and putting a quarter in her mouth to stop her crying.

The Legg et al.(1974) study also noted evidence of regressive behavior in the form of increased desire for oral gratification. The sample exhibited a renewed desire for a bottle, pacifier, or thumbsucking.

In a study done by Thomas et al.(cited in Legg et al. 1974), the researchers investigated the effects of important socialization experience in childhood after

birth of a sibling. The authors recorded that over one-half of the older children showed disturbances over the event of the birth of a sibling. "Two main types of disturbances noted were: (1) reversion to more infantile patterns of functioning in socialization, feeding, sleeping, and toileting, (2) aggressive behaviors toward the new baby" (Legg et al., 1974, p.7).

Psychoanalytic View of the Sibling

Systematic clinical studies of sibling experiences have not been carried out with a focus on healthy or progressive development. Most of the reports regarding siblings, especially the psychoanalytic clinical studies, have placed the main emphasis on sibling rivalry and on the burdens to a first child when the second child enters the family. Freud (cited in Colonna & Newman, 1983) wrote several articles about the importance of sibling relationships.

Freud's discovery that intense, hostile feelings between siblings are ('far more frequent in childhood than the unseeing eye of the adult observer can preceive') was quite momentous. It was part of what he discovered about the child's inner world - The intensity of conflicting emotions. (p. 285)

Freud cited many examples of the hostility toward younger siblings, both from his own practice and observations as well as those supplied by others. Freud

mentioned the child who "was told that the stork had brought a new baby. He looked the new arrival up and down and then declared decisively - The stork can take her away again. . . I don't want a baby sister!" (cited in Colonna & Newman, 1983, p. 286).

Freud wrote several examples of hostile feelings siblings had toward one another. He felt that they usually took the form of a death wish. "He linked them to character formation and neurogenesis" (Colonna & Newman, 1983, p. 287). An example of this reaction was a child who after the birth of a sibling at age 4 "became transformed into an obstinant, unmanageable boy, who perpetually provoked his mother severely. Moreover, he never regained the right path" (cited in Colonna & Newman, 1983, p. 287).

Freud's ideas about early sibling rivalry inspired Levy (1937) to validate Freud's findings. Levy's research tested the older child's anger and resentment toward the new baby. Levy showed the child dolls which represented an infant breast feeding. The child's responses were recorded after the researcher gave the stimulus words, "The mother must feed the baby." In another experimental group, phrases aimed at eliciting further hostility were spoken, such as "the nerve of that

baby or nasty baby at my mother's breast." Elaborations of patterns depending on the age and development of the child were then observed as well as reaction formations, defenses against aggressive impulses, and the wish to be the baby. Levy concluded that sibling rivalry existed dramatically in the second group.

Colonna & Newman (1983) noted that Freud and psychoanalytic authors following him have been "criticized for stressing only the negative aspects of the sibling experience" (p. 293). The authors noted that while some of the claims of these authors are exaggerated "especially that Freud's own status as a sibling predisposed him to select only negative phenomena in the sibling relationship, their criticism is more applicable to the literature following Freud than to Freud himself" (p. 294).

Another theory explaining a child's aggressive behavior toward the new infant is the personality theory of Adler. Adler, a follower of Freud, developed his own theory of personality development. "Adler saw the individual as compensating psychologically when a weakness in a personality trait occurs" (Mead, 1977, p. 47). He assumed that humans are motivated by social urges. Each individual must find a solution to three

basic human problems. The first is "how he will relate to society, second, who he will meet his needs (ie, work), and third, how he will meet his emotional needs, and his need for love" (Mead, 1977, p. 48). Adler called these challenges a part of the style of life. To Adler, a person's style of life is how that person will meet his goals. "The style of life is formed very early in childhood, and from then on experiences are assimilated and utilized according to this unique style of life." (Hall & Lindzey, 1978, pp. 164-165). Adler theorized that the "final goal toward which all humans strive and which gives consistency and unity to personality" (Hall & Lindzey, 1978, p. 161), was to be aggressive, to be powerful, and to be superior. Adler noted that "superiority does not mean social distinction, leadership or preeminent position in society" (Hall & Lindzey, 1978, p. 162). By superiority, Adler means that it is a striving for perfect completion, a "great upward drive" (Hall & Lindzey, 1978, p. 162).

Use of Piagetian Theory in

Education of Children

Piaget's theory has been applied to various content areas in education; however, there is little literature published that apply Piaget's theory to health

education. Sonquest, Kamii, and Duman (cited in Lindsay, 1978), when describing an explanatory attempt to apply Piaget's developmental theory of knowledge to preschool education, suggested that "how to apply Piaget's theory to preschool education is not obvious; Piaget himself has said very little about education" (p. 68). Other authors agreed that while Piaget himself rarely dealt with educational problems or with other practical applications of his work, "it is clear nevertheless that his theories are particularly relevant for educational practice" (Lindsay, 1978, p. 68).

One of the first areas that Lindsay (1978) noted was the way a child learns. Piaget stressed the need for activity in a child's cognitive development. "Knowledge is not a copy of reality. To know an object, to know an event, is not simply to look at it and make a mental copy, or image, of it. To know an object is to act on it" (Cited in Lindsay, 1978, p. 70). An example of how health education topics can involve active child participation is the use of films, books, toys designed to reach children at an early age, and encourage "positive attitudes toward health care" (Lindsay, 1978, p. 70).

Pontious (1982) noted that a child's thought process and understanding are not just a miniature version of adult thought and comprehension. "Nursing care of children is incomplete, unhelpful, or even detrimental for the child when nurses use adult language to explain or teach" (Pontious, 1982, p. 114). Nurses can provide helpful total nursing care to children if they apply Piaget's theory of cognitive development in designing their explanations and teaching plans for children. "Words used must be appropriate, simple, nonambiguous, and truthful" (Pontious, 1982, p. 117).

Lindsay (1978) concluded:

It is important for health educators and teachers in general, to understand and utilize some theory of child development. Piaget stresses active involvement of the child; that the child's needs and interests be used as a starting point when teaching health. It is important to know what developmental stage children are in and the characteristics of their current cognitive process. (p. 73)

Sibling Preparation Classes

There can be little disagreement with the assumption that the birth of a second child is a stressful time in a family system.

According to Adler, if the first child has been prepared for this event and has even been taught to help in the care of the younger sibling, the shock of this 'dethronement' is generally quickly over. If, as is too often the case, the child has not been prepared, the pain of losing his favored position may be very great. (Mead, 1977, p. 50)

Weiss (1981) pointed out that one of the most pressing concerns of parents is the preparation of that child for the new family member. She noted that it is not an easy task and requires understanding, sensitivity and finesse. Weiss believed that if this preparation is done well, there may still be rivalry between siblings but there may be less resentment and a lot more love.

Recent trends in perinatal care have fostered a renewed interest in maternal, paternal, and sibling aspects of the childbirth experience. One of the trends that has been occurring throughout the perinatal world is sibling preparation classes. These classes were formulated to include the sibling in the birth, in hope that the older child will feel special and feel a significant part of the birth of the baby. Another trend is the emphasis of truth with children. In 1980, Bliss wrote "no longer do we rely on 'the stork' or the 'cabbage patch' (to educate children about birth), but parents are often unable to cope with answers to the questions young children have about childbirth" (p. 30).

Bliss (1980) formulated five expected benefits a sibling class can produce for a family.

(1) Provide guidance and support, (2) Develop mutual trust between parents and medical staff, (3) Decrease siblings' fears by increasing their awareness of the hospital setting and birth process, (4) Enhance sibling bonding and acceptance of the new baby, (5) Help siblings feel 'as important' as the new baby, and an active rather than passive member of the expected family. (p. 31)

Recognizing that having a new infant join the family can be difficult for the entire family, a column in a local magazine described the program that Plano General Hospital in Plano, Texas offers. This is a special 2 hour class for siblings, called SIBS - Special Ideas for Brothers and Sisters. To help the children "cope with their feelings of jealousy, the nurses have designed the course to alleviate the child's fears of being separated from his/her mother when the parent enters the hospital to have the baby" (Noteworthy-SIBS, 1984, p. 16). The class includes an open discussion of the birth process and delivery. The children and parents take a tour of the labor and delivery, nursery, and postpartum units. Story telling time is used to discuss sibling jealousy. Also "the class includes a session in which the children use dolls to practice diapering, feeding and holding a baby" (Noteworthy-SIBS, 1984, p. 16). Plano General

Hospital expects parents to attend the class with their children as, "this often gives Mom and Dad a chance to comfortably talk about a subject that they may find difficult to discuss" (Whitley, 1984, p. 1c).

Sweet (1979) stated that:

Classes are of benefit not only to the children, helping them to adjust to a change in their life-style, but also to the family unit as a whole. They foster a good adjustment by everyone involved in a frequent aspect of family living-the arrival of a new member. (p. 83)

Summary

The literature related to the effects a sibling class has on the frequency and change of identified behaviors of older children toward the new infant in the family has been presented in four major headings. First, literature discussing sibling relationship and behaviors was reviewed. This section included a discussion of direct aggression toward the baby, attention-seeking behaviors, and varying degrees of regression. A discussion of how Freud and the psychoanalyst viewed siblings were discussed. This section discussed Freud's writings on sibling rivalry, Levy's study that used the same concepts of Freud's theory, and other psychoanalytic views of the

sibling relationship. The third major heading discussed the use of Piaget's theory in teaching the child about health. A discussion on use of Piagetian concepts in teaching health (i.e., activity, language) to children was included. The fourth major heading included a review of the literature about the sibling preparation class.

Such an ubiquitous experience as sibling birth and sibling rivalry might be presumed to have a voluminous literature, but this was not found to be true. One of the main factors missing in the literature is the lack of authors who reflect on the possible unconscious determinants of the behaviors. Also, when coping mechanisms were noted, these were not examined in detail from a developmental point of view. Because of this lack of information, research must be done to explain why children react to siblings in positive or negative ways. Also, research must be done by nurses on ways in which the profession can assist children in preventing or at least decreasing, their negative feelings and reactions.

CHAPTER 3

PROCEDURE FOR COLLECTION AND

TREATMENT OF DATA

The investigation was designed as a two group quasi-experimental study. According to Polit and Hungler (1983), the quasi-experimental design is used when subjects of a study cannot be randomly assigned to the treatment. In this research design, the researcher manipulates the independent variable and exercises certain controls to enhance the internal validity of the results.

The independent variable of this study was the sibling class taken by the children in the experimental group. The control group was those children who have not attended the sibling class. The dependent variable was the change in behavior observed by the older child after the new infant had come home. Behavioral changes in the experimental and control group were measured by researcher-formulated questionnaires.

Setting

The agency utilized for the collection of data was located in a midsize suburban community in northeastern Texas. The maternity department of the corporation-owned hospital was the setting for this investigation. This department consists of labor and delivery, newborn nursery, and postpartum units. This department also promotes and teaches a class for sibling preparation. The sibling class is taught by registered nurses who are employed by the hospital and who have special training in maternal-child nursing. The class is taught on a 1-time basis for 2 hours on a Saturday morning. Parents of the child are asked to attend the class.

Population and Sample

The target population included those children between the ages of 3 and 7 years who have attended a sibling class and whose mother had a new infant at the agency being utilized. The population also included those children between the ages of 3 and 7 years old who had not attended a sibling class and whose mother had had a new infant born at the utilizing agency.

The experimental group consisted of 12 children who had completed the sibling class and whose mothers had a new infant born at the hospital. The control group consisted of 14 children who had not attended a sibling class and whose mothers had a new infant born at the hospital. The sample was selected by the convenience sampling technique.

The following criteria were included to minimize the effects of extraneous variables:

1. The mother and father of the new infant must live in the same household.
2. The new infant is the second child of the family.
3. The older child is between 3 and 7 years old.
4. For the control group, the older child has not attended a sibling class.

Protection of Human Subjects

The human rights of the subjects who agreed to participate in this study were protected by the following measures:

1. Permission to conduct the study was secured from the Human Subjects Review Committee of Texas Woman's University (Appendix A).

2. Written permission to conduct the study was received from Texas Woman's University Graduate School (Appendix B).

3. Permission to conduct this study was obtained from the hospital in which the study was conducted (Appendix C).

4. Written explanation of the study was given to the parents prior to their completing the questionnaires (Appendix D).

5. A written explanation of how their participation was to be kept confidential was included in the cover letter of the questionnaires (Appendix E).

Instrument

The instruments utilized in this study are Likert scale questionnaires developed by the researcher. The questionnaires were completed by the mother 2 weeks after the new infant had been home. The first questionnaire, Behavior Questionnaire 1 (Appendix F), contains nine statements on the change of behavior the older child has exhibited since the new infant has come home. Behavior Questionnaire 2 (Appendix F) contains nine statements that determine the frequency the child exhibits certain behaviors during a week. Each statement on the

questionnaires was answered by placing an (X) in the corresponding box that best answers the question.

Demographic information of sex, race, age of the older child, parents' age, race, and highest level of education was obtained in order to assist with research findings.

A panel of experts determined content validity.

This panel consisted of three experts in child psychology and pediatric nursing (Appendix G). The panel was asked to determine if the questionnaires included appropriate behavioral changes in the older child who has a newborn sibling. The panel found that the questionnaires included appropriate terminology and that all statements and directions were clear in meaning. The experts suggested that the wording on Behavior Questionnaire 1, item number 4, be changed from biting nails to sucking of thumb. This change was incorporated in the final questionnaire. The panel also suggested inclusion of a statement about school phobia. The researcher decided not to include this because of the vast psychological problems this phobia produces.

A pilot study, consisting of 10 mothers who were similar to the sample, was used to determine ease of administration of the questionnaires. This group was asked to evaluate the tool according to the following characteristics: (a) readability, (b) clarity, (c) understandability, (d) ease of administration, and (e) brevity. All members of the pilot study returned the critique and found the questionnaires met the criteria of the study. After the revisions of the questionnaire were made, the instrument was ready for administration to the subjects of the study.

Reliability of the instruments was determined by the coefficient alpha method from the sample. According to Polit and Hungler (1983), the statistical method is a "reliability index that estimates the internal consistency or homogeneity of a measure composed of several items or subparts" (p. 610). Demographic data were collected and analyzed in order to describe the sample.

Data Collection

After written permission was obtained from Texas Woman's University to conduct this study, collection of data proceeded as follows:

1. A teacher of SIBS, Special Ideas for Brothers and Sisters, was instructed on how to ask subjects to participate in this study. A written explanation of the study and an information sheet were distributed to the parents of the older child who had just completed the sibling class. The teacher then collected the information sheets from those parents who consented to have the questionnaires mailed to their home.

2. The researcher collected the returned information sheets and noted the estimated date of delivery the mother had recorded.

3 The researcher surveyed the log book of deliveries, noting the name of the subjects, the date of delivery, and discharge date of the mother.

4. Two weeks after the date of discharge of the mother and new baby, the researcher mailed Behavior Questionnaires 1 and 2 to the parents.

5. The cover letter to the questionnaire stated the purpose of the study, how the researcher obtained the subject's name, and directions for completing and returning the questionnaires.

6. The subjects were asked to return the questionnaires within 5 days in the enclosed, self-addressed stamped envelope.

7. Each questionnaire envelope was coded to help determine if the questionnaires were returned. If the questionnaires were not returned, then a postcard was sent reminding the subject of the return date.

8. If after 1 week, the questionnaires still were not returned, then the researcher assumed that the subject did not wish to participate in the study.

The control group was obtained in the following way:

1. The researcher explained the study to the head nurse of the postpartum unit of Plano General Hospital. The head nurse then informed the nurses on this unit of the procedures to be used to obtain subjects for the study.

2. The researcher visited the postpartum unit several times during the 6 weeks of data collection. She noted the prenatal and postpartum histories of the mothers on the postpartum unit.

3. The researcher then visited those mothers who fit the sample and asked for their participation in the study.

4. If the mother did meet the criteria then the researcher gave the mother a cover letter explaining the study, risks of the study, and how the study was to be administered.

5. The mother completed the information sheet that was attached to the cover letter.

6. The researcher collected the completed information sheet and completed the data collection process as noted above (steps 4-8).

After the questionnaires were returned to the researcher, the corresponding code number on the return envelope was marked off the master list, and the envelope was discarded. A data tally sheet was used to tally the demographic information obtained and the responses to each statement on the questionnaires.

Treatment of Data

The hypotheses of this study were statistically examined by analysis of covariance. According to Polit and Hungler (1983), analysis of covariance utilizes internal data and provides a means of providing statistical control for one or more extraneous variables. The covariate for this study was the age of the child.

In Hypothesis 1, the analysis of covariance was used to determine if there were any statistically significant changes in the identified behaviors between the two groups. In Hypothesis 2, the statistical significance of the frequency of the identified behaviors was also determined by the analysis of covariance. The demographic data of the sample was described by descriptive statistics. The Texas Women's University DEC 20 computer was used in the analysis of data obtained. The level of significance was set at the .05 level.

CHAPTER 4

ANALYSIS OF DATA

This quasi-experimental study examined the effects a sibling class has on the frequency and change of identified behaviors of older children toward the new infant in the family. An experimental control group method of research was utilized for the study. This chapter provides a description of the sample and presents the findings of the study.

Description of the Sample

A total of 26 questionnaires was completed by parents of children who had a new sibling in the family. The experimental group (Group I) consisted of 12 children (4 males and 8 females). The age categories consisted of three 3-year-olds, two 4-year-olds, one 5-year-old, three 6-year-olds and three 7-year-olds (Table 1). All of the children attended SIBS-Special Ideas for Brothers and Sisters class at Plano General Hospital in Plano, Texas.

Table 1

Age, Frequency, and Percentage of Experimental Group

Age	<u>n</u>	Percentage
3	3	25.00
4	2	16.66
5	1	8.34
6	3	25.00
<u>7</u>	<u>3</u>	<u>25.00</u>
Total	12	100.00

The control group (Group II) consisted of 14 children. There were five 3-year-olds, three 4-year-olds, two 5-year-olds and one 6-year-old, and three 7-year-olds (Table 2).

Table 2

Age, Frequency, and Percentage of Control Group

Age	<u>n</u>	Percentage
3	5	35.72
4	3	21.43
5	2	14.28
6	1	7.14
<u>7</u>	<u>3</u>	<u>21.43</u>
Total	14	100.00

The control group consisted of 7 females and 7 males. None of these children attended a formal sibling preparation class.

Findings

Hypothesis 1 for the study stated: When a new infant enters the family, there will be a change in identified behaviors of those first born siblings, between the ages of 3 and 7 years, who have completed a sibling class and

those first born siblings between the ages of 3 and 7 years, who have not completed a sibling class.

The multiple analysis of covariance statistical test was utilized for this study to control for any differences in the scores due to differences in the ages of the children. Statistical testing was done at the .05 level of significance. Testing of Hypothesis 1 was done by use of Behavior Questionnaire 1. The scores for questionnaire one was measured using the following scale:

-2 = more change on the negative behaviors

-1 = some change on the negative behaviors

0 = no change

1 = some change on the positive behaviors

2 = more change on the positive behaviors

Table 3 shows the frequency of changed behaviors reported by the parents for the experimental group and Table 4 indicates the frequency of changed behaviors of the control group.

Table 3

Frequency of Changed Behaviors: Experimental Group

<u>Behavior</u>	<u>More</u>	<u>No Change</u>	<u>Less</u>	<u>Not Applicable</u>
Cries	1	6	3	2
Wets or dirties pants or bed	1	8	0	3
"Baby talks"	1	10	0	1
Sucks thumb	4	5	1	2
Temper outbursts	9	2	0	1
Requires attention from mother	10	1	1	0
Stays home	7	4	1	0
Plays with friends	2	6	4	0
Wakes up at night	1	11	0	0

Table 4

Frequency of Changed Behaviors: Control Group

Behaviors	More	No Change	Less	Not Applicable
<hr/>				
Cries	3	10	1	0
Wets &/or dirties pants &/or bed	2	12	0	0
"Baby talks"	1	13	0	0
Sucks thumb	1	13	0	0
Temper outbursts	9	4	1	0
Requires attention from mother	13	1	0	0
Stays home	4	7	3	0
Plays with friends	2	8	4	0
Wakes up at night	2	10	2	0

The results of the multiple analysis of variance (MANOVA) showed that a significant difference did not exist between the experimental group and the control group. ($F(1,23) = .87992, p = .358$). The covariate, the variable that was controlled statistically, for this study was the ages of the sample. The scores were adjusted for age. The adjusted mean for Group 1 was $-.65462$, and Group 2's adjusted mean was $-.53697$. Therefore, Hypothesis 1 was rejected.

Hypothesis 2 stated: When a new infant enters the family, there will be a difference in frequency of identified behaviors of those first born siblings, between the ages of 3 and 7 years, who have completed a sibling class, and those first born siblings between the ages of 3 and 7 years, who have not completed a sibling class. Testing of Hypothesis 2 was done by use of Behavior Questionnaire 2. The score used on this questionnaire had the following categories:

- 0 = not at all
- 2 = once a week
- 3 = 2 to 3 times a week
- 4 = once a day
- 5 = 2 to 3 times a day

Table 5 and Table 6 depict the frequency the sample exhibited the indicated behaviors.

Table 5

Frequency of Exhibited Behaviors: Experimental Group

Behaviors	Not applicable	Not at all	Once a week	2 to 3 times a week	Once a day	2 to 3 times a day
Care for baby	0	0	0	3	3	6
Takes bottle away from baby	6	6	0	0	0	0
Kisses, hugs, plays with baby	0	0	0	1	3	8
Talks about baby in positive way	0	0	1	3	5	3
Reacts negatively to breast feedings	5	2	0	5	0	3
Talks about baby in negative way	0	9	2	0	1	0
Pinches or hits baby	0	12	0	0	0	0
Interrupts care of baby	0	2	0	1	2	7
Imitates care and feedings	0	0	0	2	4	6

Table 6

Frequency of Exhibited Behaviors: Control Group

Behaviors	Not applicable	Not at all	Once a week	2 or 3 times week	Once a day	2 or 3 times a day
Care of baby	0	0	1	3	5	5
Takes bottle away	5	8	0	1	0	0
Kisses, hugs, & plays with baby	0	0	1	1	6	6
Talks about baby, posi- tive way	0	1	2	3	6	2
Reacts nega- tively to breast feed- ings	6	1	1	0	2	4
Talks about baby, nega- tive way	0	10	3	1	0	0
Pinches, hits baby	0	12	2	0	0	0
Interrupts care of baby	0	1	0	1	5	7
Imitates feeding; caring	0	3	3	3	2	3

The results of MANOVA showed that a significant difference does not exist between the experimental group and the control group ($F(1,23) = 1.32837, p = .261$). The scores for Hypothesis 2 were also adjusted for age, the covariant of the study. The adjusted mean for Group 1 was 2.92981, and for Group 2 was 2.63956. Therefore, Hypothesis 2 was rejected.

Additional Findings

Descriptive statistics were used to look at the frequency a child changed his behavior and the frequency the child exhibited certain identified behaviors. The scale used to score the behaviors for Questionnaires 1 and 2 are included in the findings. Table 7 shows a comparison of the means and standard deviations of changed behaviors of both groups.

This comparison indicates three behaviors that show a significant difference between groups. Item 4, sucks thumb, indicates a greater incidence of the Experimental group sucking the thumb than the Control group. On Item 7, staying home, the Experimental group stayed home more than the Control group.

Table 7

Comparison of Means (\bar{x}) and Standard Deviations (SD)Behavior Questionnaire 1

Behaviors (by item no)	<u>Experimental</u>			<u>Control</u>		
	\bar{x}	SD	n	\bar{x}	SD	n
1	-.500	.707	10	-.500	.854	14
2	-.222	.666	9	-.285	.726	14
3	-.181	.603	11	-.142	.534	14
4	-.900	.994	10	-.142	.534	14
5	-1.636	.809	11	-1.357	.928	14
6	-1.75	.621	12	-1.857	.534	14
7	-1.25	.965	12	-.785	.892	14
8	.666	.778	12	.571	.755	14
9	-.166	.577	12	-.428	.755	14

The final difference in the means was Item 9, sleeping habits. The control group exhibited more change in sleeping habits than the experimental group.

Descriptive statistics were also used in determining the frequency of identified behaviors questioned in Behavior Questionnaire 2. Table 8 shows a comparison of the means (\bar{x}) and standard deviation for each behavior exhibited by the experimental and control groups.

Table 8

Comparison of Means (\bar{x}) and Standard Deviations (SD);
Questionnaire 2

Behaviors (by item no.)	<u>Experimental</u>			<u>Control</u>		
	\bar{x}	SD	n	\bar{x}	SD	n
1	4.25	.866	12	4.00	.960	14
2	0	0	6	.375	1.06	8
3	4.58	.668	12	4.214	.892	14
4	3.833	.937	12	3.357	1.336	14
5	3.00	2.23	7	3.75	1.832	8
6	.666	1.302	12	.642	1.081	14
7	0	0	12	.285	.726	14
8	3.833	1.898	12	4.142	1.350	14
9	4.333	.778	12	2.785	1.847	14

The comparison shown in Table 8 indicated difference in frequency of behavior between the group in only three items. On Item 2, negative reaction to bottle feeding, the control group indicated increased frequency of behavior in this area, where the experimental group indicated no increase in negative behavior during bottle feeding time. The experimental group showed no aggressive behavior toward the baby, Item 7, but there

was a slight increase in aggressive behavior of the control group. Item 9, imitation of feeding and care behaviors, the experimental group performed the behavior at least once a day but the control group performed this behavior only once a week to 2 to 3 times a week.

Demographic information was requested from each sample family. Descriptive statistics were used in determining the mean age and educational levels of the parents. The mean age of the mother in Group 1 was 29.25 years ($SD = 3.980$, $n = 12$), and the mean age for the fathers was 31 years ($SD = 3.43$, $n = 12$). The mean age for mothers in Group 2 was 29.07 years ($SD = 4.178$, $n = 14$) and for fathers, the mean age was 29.85 years ($SD = 4.382$, $n = 14$).

The scale of scores for education level was determined as follows:

- 1 = some high school
- 2 = high school graduate
- 3 = some college
- 4 = bachelor's degree
- 5 = master's degree

The mean educational level for mothers in Group 1 was 3.166 ($SD = .834$, $n = 12$). The mean educational level for the fathers in Group 1 was 3.58 ($SD = .900$, $n = 12$).

In Group 2, the mothers education level was mean 3.57 years (\underline{SD} = 1.22, \underline{n} = 14) and the fathers' education level was mean = 3.65 (\underline{SD} =1.277, \underline{n} = 14). These statistics have shown little difference in the mean age and educational level between the two groups.

Summary of Findings

There was a total of 26 children in the sample. Group 1, who attended the SIBS class, consisted of 12 children. Group 2, children who had not attended any formal preparation class, consisted of 14 children.

The MANOVA results indicated that a significant difference did not exist between the two groups. This was evident with both hypotheses; therefore Hypothesis 1 and Hypothesis 2 were rejected.

In addition, the two groups were compared on the frequency of changed behaviors and the comparison of frequency of identified behaviors. Descriptive statistics were used to describe this comparison. Three items on Questionnaire 1 indicated a difference in means, and on Questionnaire 2, three items were significantly different.

A description of the parents' ages and education levels was also included. There was little variation between the two groups of parents on age and education.

CHAPTER 5

SUMMARY OF THE STUDY

This chapter discusses a summary of the findings, conclusions that can be drawn from the study, and the implications this study has for nursing practice. Finally, recommendations for further study are included.

Summary

This study utilized a quasi-experimental method of research. Two groups of parents who completed questionnaires about behavior exhibited by the older children in a family with a newborn infant made up the sample for this study. The experimental group, Group 1, consisted of 12 children between the ages of 3 and 6 years. Group 2, the control group, included 14 children also between the ages of 3 and 7 years. The experimental group attended the SIBS, Special Ideas for Brothers and Sisters, class and the control group did not receive any formal sibling preparation. The two hypotheses for this study were tested by use of researcher formulated questionnaires. Behavior Questionnaire 1 consisted of nine statements about the change of behaviors the older child had exhibited since the new baby had come home.

The parents chose one of four categories on a Likert type scale. Behavior Questionnaire 2 consisted of nine statements about the frequency the older child exhibited identified behavior during a 1-week time frame. These behaviors were also scored on a Likert-type scale.

Hypothesis 1 for this study stated: When a new infant enters the family, there will be a change in identified behaviors of those first-born siblings, between the ages of 3 and 7 years, who have completed a sibling class and those first-born siblings between the ages of 3 and 7 years, who have not completed a sibling class. Using the analysis of covariance, with age being the covariant, no significant difference was found between the groups at the .05 level of significance. Thus, Hypothesis 1 was rejected.

Hypothesis 2 for this study stated: When a new infant enters the family, there will be a difference in frequency of identified behaviors of those first-born siblings, between the ages of 3 and 7 years who have completed a sibling class, and those first-born siblings between the ages of 3 and 7 years, who have not completed a sibling class. Analysis of covariance, with age of the

child as the covariant, was utilized to determine the significant difference between the two groups. The level of significance was set at the .05 level. The analysis revealed that there was no significant difference between the two groups; therefore, Hypothesis 2 was also rejected.

Additionally, the means of the scores for the changed behaviors and the frequency of behaviors were compared between groups. A difference between the experimental group and the control group was found on three items on Behavior Questionnaire 1. Three items on Behavior Questionnaire 2 were also found to be different between the groups. Descriptions of the parents' ages and educational levels were also included.

Discussion of Findings

The focus of the present study was to determine if there was a significant difference in behaviors and frequency of behaviors toward the new infant in the family of older children who attended the SIBS class and those older children who did not attend a formal sibling preparation class.

Researcher-formulated questionnaires were used to measure changes in behavior and frequency of behaviors. A panel of experts determined that the questionnaires did ask appropriate behavior about sibling rivalry and relationships; therefore, the panel found the questionnaires to be valid. A pilot study was done in order to determine the ease of administration of the questionnaires. This study determined that the questionnaires were easy to read and the items were not ambiguous. Coefficient alpha, a test that "estimates the internal consistency or homogeneity of a measure composed of several items or subparts" (Polit & Hungler, 1983, p. 610), was performed to determine the reliability of the instruments used in the study. The alpha of both questionnaires was determined to be -.26039. This statistic determined that there was no reliability of the instruments. The alpha coefficient determined the relationship between items on a questionnaire. It was an inappropriate test to use because each item on Behavior Questionnaire 1 and Behavior Questionnaire 2 did not relate to each other. It was determined that in order to have a reliable questionnaire, each item on the questionnaire must have sub-items that relate to a

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heading. An example of this is the item asked about the change in temper outburst. If other items were included like throwing self on floor, kicking, or hitting at mother during these outbursts, then the items would relate to each other and the instrument could be tested statistically using the alpha coefficient test. The content validity of the instrument was supported by the literature, panel of experts, and the pilot study.

Based on the results of this study, Hypotheses 1 and 2 were rejected. Therefore, there is no significant difference in changed behaviors and frequency of behaviors between those children who attended the SIBS class and those children who did not attend the SIBS class. These findings are not supported by other studies, because there has been no research found that determines if the sibling preparation classes change behaviors of the older child toward the new infant in the family. Additional information about the change of behaviors and frequency of behaviors older children experience when the new infant comes home are supported in the literature.

Freud (cited in Hall, 1954) theorized that thumbsucking was a way for the child to reduce tension and cause pleasure. The Legg et al. (1974) study noted

evidence of regressive behavior in their sample, in the form of increased desire for oral gratification. Their sample exhibited a renewed desire for a bottle, pacifier, or thumbsucking. The present study determined that the experimental group sucked their thumbs more often than the control group. This change in behavior could indicate a need for tension reduction in those children who changed their behavior when the new infant came home.

In this study, the experimental group demonstrated a greater incidence of staying home than the control group. Chess et al. (1976) researched the changes in socialization experiences in the older child after the arrival of the baby. This study noted that over one-half of the sample showed disturbances in socialization, feeding, sleeping, and increased aggression. The change of socialization of the sample of the present study could be a negative or positive changed behavior. Even though the arrival of the new baby could be a problem for the child, he still could enjoy the infant and staying home more could be a positive reaction to wanting to be near the infant. The negative aspect of the finding could be that the family is not as active because of the new infant and the older child is required to stay home more often.

Weiss (1981) noted that a child who slept soundly may wake at odd hours, indicating a regressive behavior. The control group, for this present study, showed a slight change in sleeping habits, but only one child in the experimental group demonstrated any type of altered sleeping habits.

Legg et al. (1974), Spock (1976), and Weiss (1981) noted that feeding time of the infant, whether it be breast feeding or bottle-feeding, is a stressful and highly jealous time for the older child. The experimental group, for this present study, had no change at all in behavior during bottle-feeding. But the control group did report some change in behavior during bottle feeding. During breast-feeding, older children in both groups reacted negatively at least 2 to 3 time a week during this intimate time. Levy's (1937) study supported this finding.

Chess et al. (1976), Freud, (1958), Spock (1976), and Weiss (1981) noted that direct aggression toward the baby was a common reaction of the older child to the new baby. Two children in the control group of this study demonstrated some incidences of hitting or pinching of the new baby. The experimental group demonstrated no incidence of this type of aggressive behavior.

Helms and Turner (1976), Levy (1937), and Spock (1945) noted that the most common form of jealousy during childhood exists when the child must realize that they must share their parents' love. A change in care, affection, attention, or difference in appearance or routine of the child's familiar world has been disrupted by the addition of a new family member. Both groups in this present study demonstrated an increase in frequency of interrupting mother during caring time for the baby. The control group interrupted during care of the baby at least once a day, and the experimental group interrupted caring time at least 2 to 3 times a week.

Piaget (cited in Lindsay, 1978) noted that "knowledge is not a copy of reality. To know an object, to know an event, is not simply to look at it and make a mental copy or image of it. To know an object is to act on it" (p. 70). In this present study the children in the experimental group imitated feeding and caring behaviors with their dolls and/or with their friends once a day. The control group demonstrated this caring behavior only once a week to 2 to 3 times a week. The difference in frequency of this behavior could be attributed to the experimental group being introduced to feeding and caring behaviors during the sibling class.

Of the three 7-year-olds in the experimental group, two of the questionnaires completed by the parents indicated that behaviors of crying, wets and/or dirties bed and/or pants, were not applicable to their children. One of these parents also indicated not applicable on the behaviors of baby talks, sucks thumbs or having temper outburst. The parents of the three 7-year-olds in the control group did not answer the questions about these behaviors.

Conclusions and Implications

1. There is no statistical difference in the behaviors exhibited toward the new infant in the family by the older siblings who attended the SIBS class and by those who did not attend the sibling class. Therefore, the class did not affect behavior changes or frequency of behavior in the older child.

2. The experimental group exhibited a higher incidence of sucking their thumb than the control group. This finding indicates that these children resorted to this tension-reducing behavior as a mechanism to help them deal with stressful situations.

3. The experimental group demonstrated a higher frequency of staying at home. This finding could indicate a desire for the children to stay home because they want to be closer to the new infant.

4. The control group was found to have a higher incidence of change in sleeping habits than the experimental group. This finding may indicate more regression in the children in the control group.

5. Both groups demonstrated increase of frequency of negative reaction to breast-feeding. This indicates that the older child may perceive the intimate contact of breast-feeding a threat to the private relationship with his mother and that the baby has invaded this relationship.

6. Children in the control group demonstrated a high incidence of direct aggression toward the baby. In the experimental group this type of behavior was not reported. This could be related to the fact that the experimental group participated in an open discussion of story telling time about ways to vent anger, loneliness, and jealousy toward the new baby in the sibling class, and the control group did not have this opportunity to learn about proper behavior.

7. Both groups demonstrated a high frequency of interrupting the mother during infant care time. This finding may indicate the child's feeling of loss, of being left out, and his parents not loving him anymore. This finding could also indicate the mother's decrease in time spent with the older child and the child attempting to recover this time by asking for more individual time.

8. The experimental group demonstrated a high frequency in imitation of caring and feeding behaviors with their dolls or friends. The greater incidence of this finding in the experimental group than the control group might be related to the opportunity for doll play and teaching of diapering, feeding, and caring behavior provided in the SIBS class.

9. In the experimental group parents of two of the 7 year olds indicated that the behaviors of crying and wetting were not applicable to their children.

10. This study provides nurses with information to help parents deal with sibling rivalry, by describing behaviors that the older child may experience when the new baby comes home.

11. As nurses plan other sibling preparation courses, this study is helpful in indicating the need to include imitation play, as a way the older child can demonstrate positive and appropriate behavior toward the new baby.

Recommendation for Further Study

Based on the findings of this study, it is recommended that:

1. The instruments be revised to allow for determining reliability.
2. A larger sample be used which includes families from different socioeconomic levels, single-parent families, and the high risk family.
3. The behaviors of the older child be investigated during a longitudinal study. Time periods to study could be 3 months, 6 months, and 12 months after the baby comes home.
4. Further studies be done using the same behaviors indicated in the study, but using a more narrow developmental age range, such as 3 to 5.
5. An instrument be developed that would include behaviors more appropriate for the 5 to 7-year-old-age range. This could include behavior problems with school, and further socialization problems.

APPENDIX A

This prospectus proposed by: Jane E. Allen

THE EFFECTS OF A SIBLING CLASS ON THE BEHAVIOR OF CHILDREN TOWARD
THE NEW INFANT IN THE FAMILY

This research is (check one):

_____ Requires Human Subjects Review Committee review
because

Research Committee: _____ Date: 9-6-84

Chairperson, Marion Tinetti

Member John H. 777 Chisler

Member Angus Leonard

Dallas Campus X Denton Campus _____ Houston Campus _____

APPENDIX B



Texas Woman's University

P.O. Box 22479, Dallas, Texas 75224-0479, (214) 259-2100, TWU FAX (214) 259-2101

THE GRADUATE SCHOOL

September 25, 1984

Miss Jane Elizabeth Allen
1810 Inwood, #513
Dallas, Texas 75235

Dear Miss Allen:

I have received and approved the Prospectus for your research project. Best wishes to you in the research and writing of your project.

Sincerely yours,

A handwritten signature in cursive script that reads 'Leslie M. Thompson'.

Leslie M. Thompson
Provost

ko

cc Dr. Marion Anema
Dr. Anne Gudmundsen

APPENDIX C

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE Plano General Hospital

GRANTS TO Jane E. Allen
a student enrolled in a program of nursing leading to a
Master's Degree at Texas Woman's University, the privilege
of its facilities in order to study the following
problem.

THE EFFECTS OF A SIBLING CLASS ON THE BEHAVIOR OF CHILDREN
TOWARD THE NEW INFANT IN THE FAMILY

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan.

5. Other We would like a copy of the thesis upon completion.

Date 9/10/84

Jane E. Allen
Signature of Student

Ursula Henrich, RN Clinical Director
Signature of Agency Personnel

Dr. Marion Anema
Signature of Faculty Advisor

*Fill out & sign 3 copies to be distributed: Original-student; 1st copy-Agency; 2nd copy-TWU School of Nursing

APPENDIX D

Cover letter for Information Sheet

My name is Jane E. Allen, R.N., and I am a graduate nursing student at Texas Woman's University. I am doing research on the change in behavior older children may experience after a new baby brother or sister has joined the family.

In order to do this research, I would like to send you two short questionnaires to complete. These questionnaires will arrive by mail 2 weeks after the new baby comes home. It should take you only 10 to 15 minutes to complete. A self-addressed, stamped envelope will be enclosed to return the questionnaires to me.

Please complete the attached form and return it to the nurse. You may keep this letter for your future reference.

Thank you for assisting me in this research. If for any reason you decide not to participate in this study, call me and I will remove your name from this research project. My phone number is

Thank you again for your time and help!

Jane E. Allen, R.N., B.S.
TWU-Graduate Nursing School
Denton, Texas

Information Sheet
(Experimental Group)

NAME:

ADDRESS:

CITY:

STATE:

ZIP CODE:

Number of children in your family:

Estimated date of delivery:

Information Sheet
(Control Group)

NAME:

ADDRESS:

CITY:

STATE:

ZIP CODE:

Number of children in your family:

(Please include the new infant)

Date of birth of infant:

APPENDIX E

(Cover Letter for Questionnaire)

Dear Parent:

The behavior changes older children exhibit when a new infant joins the family is a subject on which little research has been done. In order for health professionals and parents to better understand these changes in behavior, I have elected to study this problem as part of my Master of Science degree at Texas Woman's University. You were chosen to participate in this study because you completed an information form at the S.I.B.S. class or while you were a patient on the postpartum unit at Plano General Hospital.

Your participation in this study will require you to complete the enclosed questionnaire. This should take approximately 10 to 15 minutes of your time. By completing and returning the questionnaire, you are expressing agreement to participate in this study. All information will remain confidential. Your name is not required, but the return envelope has been coded for follow-up purposes. Once the code has been checked, the envelope will be discarded, further assuring

confidentiality. If all mailings have not been returned in 2 weeks time, a follow-up post card will be sent.

You are under no obligation to participate in the study. Your completing and returning of the questionnaire will be taken as your consent to have the information used for the purpose of the study.

You may retain the cover letter and this explanation about the nature of your participation and the handling of the information you supply. Although the results may not be of direct benefit to you, the indirect benefit will be knowledge that may be of value in understanding the behaviors of children to the nursing profession.

Thank you in advance for assisting me with my study. A copy of the completed research will be available at the Texas Woman's University Library in Denton, Texas.

Sincerely,

Jane E. Allen, R.N., B.S.
Texas Woman's University
Graduate Nursing
Denton, Texas

APPENDIX F

Demographic Data Sheet

Please complete the following questions:

OLDER CHILD'S AGE: _____

OLDER CHILD'S SEX: _____

OLDER CHILD'S RACE: _____

MOTHER'S AGE: _____

MOTHER'S RACE: _____

HIGHEST LEVEL OF EDUCATION: _____

FATHER'S AGE: _____

FATHER'S RACE: _____

HIGHEST LEVEL OF EDUCATION: _____

COMPLETION AND RETURN OF BOTH QUESTIONNAIRES WILL BE CONSIDERED
TO BE YOUR CONSENT TO BE A RESEARCH SUBJECT IN THIS STUDY.

Behavior Questionnaire 1

Please complete the following statements by placing an (x) in the corresponding box that best describes the behavior of your older child since the new infant has come home.

MY OLDER CHILD	MORE	NO CHANGE	LESS	NOT APPLICABLE
...cries ____ since the baby has come home				
...wets or dirties his/her pants &/or bed ____ since the baby has come home				
..."baby talks" instead of talking in his/her normal way of talking				
...sucks thumb ____ since the baby has come home				
...has ____ temper outbursts since the baby has come home				
...requires ____ attention from me since the baby has come home (Examples: "Play with me", "Hold me", "I need you now!")				
...stays home ____ since the baby has come home				
...plays with his/her friends ____ since the baby has come home				
...wakes up ____ at night				

Behavior Questionnaire 2

Please indicate the Number of Times during the week that you observed your child exhibiting (doing) the following behaviors. Place an (X) in the corresponding box that best notes the correct answer.

MY OLDER CHILD..	NOT APPLICABLE	NOT AT ALL	ONCE A WEEK	2 or 3 TIMES A WEEK	ONCE A DAY	2 or 3 TIMES A DAY
...wants to help care for the new baby. (Examples: diapering, feed- ing, bathing.)						
...takes the bottle away from the baby.						
...kisses, hugs, and plays with the new baby.						
...talks about the baby in a positive way. (Examples: "I love the baby", "I'm glad the baby is here".)						
...reacts negatively when I am breast feeding the baby. (Examples: gets in the way, wants up in my lap.)						
...talks about the baby in a negative way. (Examples: "I hate him/her", "Send the baby back", "Why did he/she have to come here")						
...pinches or hits the new baby.						
...interrupts when baby is being cared for.						
...imitates feeding, caring behaviors with dolls &/or play friends.						

THANK YOU FOR YOUR HELP!

Please place the completed questionnaires in the enclosed self-addressed, stamped envelope and mail it to me.
THANKS AGAIN!
Jane E. Allen, R.N., B.S.

APPENDIX G

Biographical Information: Panel of Experts

Phyllis W. Green

Education: Bachelor of Science in Education (English and Psychology): Northwest Missouri State University, Mayville, Missouri.
Post Graduate work in English: University Missouri, Kansas City.
Master of Science - School Psychology: North Texas State University, Denton, Texas.

Professional Experience:

Teacher (English) 1966-1971
Associate School Psychologist: Austin, California, and Dallas, Texas - 1979 to present.

President Elect: Dallas Association of School Psychologists.

Joan Lanning

Education: Master of Science: Early Childhood Education
Doctoral Candidate: Family Counseling
Professional Experiences:
Taught Child development for 8 years.
Developed and directed a day care center.
Presently: Child Life Program Coordinator for Parkland Hospital.

Grace Rutherford

Education: Bachelor of Science in Nursing: 1978 - Texas Christian University
Master of Science Candidate (Nursing): Texas Womens University.

Professional Experience:

Nurse Educator: Childrens Medical Center, Dallas, Texas
Presently: Public Health Nurse, City of Garland, Garland, Texas.

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