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How do school age children teach their toddler age siblings?

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**HOW DO SCHOOL AGE CHILDREN TEACH
THEIR TODDLER AGE SIBLINGS?**

A Thesis

Presented to

The Faculty of the School of Nursing

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

By

Joanne Hing

August, 1996

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ABSTRACT

HOW DO SCHOOL AGE CHILDREN TEACH THEIR TODDLER AGE SIBLINGS?

by Joanne Hing

This qualitative study utilized secondary analysis of videotaped structured teaching interactions between school age children and their toddler siblings to identify teaching styles and strategies used by school age children. Life span development theory served as the theoretical framework. The participants included 22 sibling dyads from 14 families: 15 school age boys, 7 school age girls, and their toddler siblings, 8 boys and 6 girls. Grounded theory methodology was used to analyze data. Strategies used by all of the siblings were described, combined into related groupings, and linked with the various teaching styles. Four distinct teaching styles were identified and labeled authoritative, collaborative, loosely connected, and aggressive. Following the qualitative analysis, interactions were viewed and scored using the NCAST Teaching Scale. The scale was found to be ineffective in helping to identify key concepts in sibling teaching style.

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CHAPTER 1

INTRODUCTION

Sibling relationships are generally considered to be the longest lasting relationships in a lifetime (Cicirelli, 1982). Many times, these relationships outlast the parent/child relationship.

Over the last 3 decades, studies of human development, including sibling relationships, have changed in several important ways. Sibling research has evolved from correlational studies on adults looking at the effects of birth order on personality and intellectual development, to the study of the “formative processes” which created those effects (Lamb, 1982). Researchers have shifted their focus from development in childhood to development across the lifespan. The family is now recognized as a complex social system in which each individual potentially influences, and is influenced by, every other family member directly or indirectly (Lamb, 1982). While some researchers have expanded the study of family relationships from mother/father/child triads to include siblings (Dunn & Kendrick, 1982; Krepner, Paulsen, & Schutze, 1982; Krepner, 1986; Murphy, 1992, 1993a, 1993b), there are many aspects of the sibling relationship itself which have yet to be explored.

Statement of the Problem

Researchers acknowledge the importance of the sibling as a socializing agent in the infant environment (Abramovitch, Corter, & Lando, 1979; Kendrick & Dunn, 1980). Stewart (1983) studied preschoolers as teachers of their infant siblings. Cicirelli (1973) studied school age children as teachers of their younger school age siblings. Lamb (1978)

recognized older siblings as indirect role models whom their younger infant siblings may imitate to master objects and tasks in their environment.

Sibling researchers have focused primarily on siblings who are relatively close in age. Consequently, little is known about how school age children interact with their infant siblings or if this interaction changes over time as each member of the dyad matures. No studies have been conducted on school age children teaching infants in a structured teaching situation. No research has investigated how the ongoing, developing sibling relationship relates to the teaching interaction.

Nurses work with parents during the prenatal and postpartum period in hospital, clinic, and community settings. Nurses are an important information source during the newborn and early childhood period as well. Nursing research has tended to focus primarily upon parent (mother)/child interactions as they relate to infant cognitive development (Barnard et al., 1989). Little has been reported in the nursing literature about how sibling relationships influence the development of the infant/toddler.

Recently an entire issue of the Journal of Pediatric Nursing (Betz, 1993) was devoted to the varied settings in which nurses can utilize sibling research in their practice. Situations involving health, illness, hospitalization, and grief were highlighted, indicating a growing professional awareness of this aspect of child care.

Substantive theoretical work by Murphy (1992) identified the quality of "sibling mutuality" in early sibling relationships of school age children. Behavioral and affective dimensions of sibling mutuality were described along with the family conditions which foster or inhibit mutuality (Murphy).

Barnard's Child Health Assessment Interaction Model includes the sibling as part of the animate environment of the infant (Sumner & Spietz, 1994). However, no research has been conducted concerning this aspect of the model. An instrument which assesses parent/infant dyad teaching interactions, the Nursing Child Assessment Teaching Scale (NCATS) (Barnard et al., 1989) is available based on the Barnard model. However, there are no known instruments which measure sibling/toddler dyad teaching interactions.

This secondary analysis of existing qualitative data on school age children/toddler teaching interactions offered an opportunity to explore the use of the NCATS in obtaining information about sibling teaching interactions.

Research Question

The primary research question for this study was: How do school age children teach their toddler age siblings? Initial sensitizing questions included: What are the recurring teaching styles or patterns of school age children in teaching their toddler siblings? How do school age children relate to their toddler siblings during teaching interactions? and What information does the NCATS provide in observing the school age sibling/toddler teaching interactions?

Purpose and Need

The purpose of this study was to explore how school age children teach their toddler siblings. By observing sibling dyads in structured teaching interactions, this investigator aimed to identify the teaching styles used by school age children in teaching their toddler siblings. Concepts identified in the teaching and interactional data could be

added to the substantive theoretical work on sibling relationships completed by Murphy (1992).

The more nurses understand about sibling interactions and concerns in a variety of situations, the more they will be able to assess and develop appropriate interventions to meet sibling needs. Assisting parents to interpret sibling interactions in a positive rather than a negative, or regressive, way can be supportive of evolving family relationships.

Definition of Terms

Operational Definition

Nursing Child Assessment Teaching Scale (NCATS). This assessment tool was developed by Dr. Kathryn Barnard (Sumner & Spietz, 1994) for assessing parent interactions with children in the 0-3 age group. The instrument assesses the parent and child as individual components of the dyad in a structured teaching interaction, as well as the quality of the interaction as a whole.

Research Design

This exploratory qualitative study utilized secondary analysis of existing qualitative data on sibling/toddler teaching interactions. The subjects in this study were part of previous research conducted by Dr. Susan Murphy (Murphy, 1992).

No attempt was made to control variables, because the intent was to explore data obtained to identify theoretical concepts in sibling teaching interactions. Both male and female siblings were observed interacting with male and female toddlers.

In the original study video tapes were made of sibling/toddler teaching interactions in the home of each dyad. These tapes were filmed between toddler age 22-24 months

(Murphy, 1992). Secondary analysis was made of this visual data of teaching interactions to identify concepts concerning how school age children teach their toddler siblings, to see whether recurring teaching styles/patterns could be seen, and to observe how school age children relate to their toddler siblings during a teaching interaction.

Following the qualitative analysis, interactions were viewed and scored using the NCATS. The NCATS was found to be ineffective in helping to identify key concepts in sibling teaching style. It was helpful, however, in identifying those siblings who were able to recognize toddler cues of distress and respond to them appropriately.

Assumptions

It was assumed that patterns in sibling interaction/teaching would be observable. It was also assumed that the teaching patterns may change over time due to the maturational changes of the school age sibling, the infant, or both members of the dyad. No other assumptions were made due to the exploratory, qualitative nature of the study.

Summary

Research continues to explore unknown aspects of sibling relationships. One of these areas is the school age child/toddler dyad. This exploratory qualitative study utilizing secondary analysis of existing visual data sought to add to the body of sibling research knowledge by describing teaching styles used by school age children in teaching their toddler siblings in a structured teaching interaction.

CHAPTER 2

CONCEPTUAL FRAMEWORK AND REVIEW OF RELATED LITERATURE

Introduction

Life span developmental theory served as the conceptual framework for the original study and the secondary analysis was also viewed through this perspective. This theory acknowledges the dynamic qualities of the developmental and interactional aspects of the sibling/toddler relationship. Recognition of factors which influence the development of each individual member of the sibling dyad and the dyadic relationship itself are important in understanding the dynamic quality of sibling relationships. The sibling dyadic relationship does not exist, nor function, in isolation, but rather develops as a subsystem within the larger context of the nuclear family. The structure and functioning of the family system influence the development of interdependent roles and relationships among the family members (Belsky, Lerner, & Spanier, 1984).

Conceptual Framework

Life span developmental theory states that development is a continuous process throughout life. Each individual must continually adjust to the demands and influences of various events and individuals within the family, culture, community, and environment. Thus, although much research has focused on early childhood development, and its later effects on adulthood, it is now recognized that development does not end when adulthood is reached. On the contrary, research acknowledges that development is a dynamic process which allows for change and adaptation throughout the entire life span (Lamb, 1982).

This developmental ability to change and adapt allows human relationships to change over time as well. Thus, impressions and experiences can be altered, reaffirmed, or eliminated by later experiences. This quality of “plasticity” is an important element in human development which allows change and redirection to occur in the individual and his/her relationships throughout the lifespan (Belsky, Lerner, & Spanier, 1984).

All human life begins in the context of some type of social system, most commonly known as a family. This complex system may include parents, siblings, and other relatives. The family is where children spend the most time. It is here that they usually establish the longest lasting, and most influential, relationships (Belsky, Lerner, & Spanier, 1984). Each individual in the family has the potential ability to affect every other member of the family system directly or indirectly (Lamb, 1982).

The family structure may change with the addition or deletion of members through birth or death, divorce, remarriage, or older children leaving home. Its functioning may also be affected by changing economic, social, cultural, or environmental influences. These changes affect the child directly or indirectly. Conversely, as the child grows and develops, the family system must adjust to the developmental changes. Therefore, changes in the family system affect the child and changes in the child affect the family, creating reciprocal (bidirectional) effects (Belsky, Lerner, & Spanier, 1984).

Children actively contribute to their own development. They influence, respond to, and are influenced by the world around them (Belsky, Lerner, & Spanier, 1984).

Related Literature

Sibling research in the late 1960's and early 1970's was primarily concerned with the effects of birth order and status on personality and intellectual development (Lamb, 1982). These studies were done, for the most part, on high school and college age siblings, and were correlational in nature.

Later studies of the 1980's focused on describing sibling interactional process. Several of these studies incorporated observational analysis of family and sibling interactions into a multiple research strategy system. They examined the formative processes which created the sibling status effects identified in the 1970's (Lamb, 1982).

The field of life span developmental psychology suggests that development is continuous, with the individual continually adjusting to various situations (Lamb, 1982). Therefore, all relationships change over time, and any "effects" experienced at one point in time may be eliminated, reinforced, or altered by later experiences.

It is generally agreed that the sibling relationship is the longest relationship in a lifetime (Cicirelli, 1982). Many times, this relationship outlasts the parent/child relationship. Sibling role modeling in childhood and adolescence can continue to occur in adulthood and old age (Cicirelli, 1982)

Kreppner, Paulsen, and Schutze (1982) found that the infant is gradually integrated into the family over a period of time, and that family interaction and roles change to accommodate the increasing developmental capacities of the infant. Utilizing interviews and videotaped observations of everyday family interactions in the home over a 2 year period, 16 families were observed from late pregnancy until the infant was 2 years old.

Three phases of family change were identified in the study. Phase one (birth to 9 months) revealed a positive relationship between the infant and older child, with parents adjusting their roles to accommodate the increased work load. Fathers became more active in housework and child care.

Phase two (9 to 16 months) revealed an increase in sibling conflict as the infant's increased mobility (crawling, walking) interfered with the older sibling's environment. Phase three (17 to 24 months) was characterized by the increasing language skills of the infant, and allowed new and varied interactions with the older sibling to occur. At this stage, some parents were more likely to leave the siblings to settle their differences without parental interference. Doing so brought a new organizational structure to the family system by establishing two subsystems: parent/child dyads and sibling dyads.

A significant longitudinal study by Dunn and Kendrick (1982) increased the understanding of the importance of the way the mother and family communicate with the sibling about the new baby, as well as the significance of the early sibling dyad relationship. Forty working-class families who were having a second child were followed prenatally and up to 14 months of infant age. Stillwell and Dunn (1985) continued to follow these families until the older siblings were 6 years old.

First born children were 18-43 months of age at the birth of the second infant. Observations were made during four home visits: once late in the second pregnancy, 2-3 weeks after delivery, 8 months later, and 14 months after delivery. Methods included maternal interviews, 2 hour home observations, and behavior, temperament, and language assessments.

Contrary to earlier belief, the study demonstrated that as young as the older sibling was, the dyadic sibling relationship was very important to the social and emotional development of both members of the dyad. The mother's relationship with each sibling was separate and distinct. Even so, this relationship with each of the siblings was found to have an influence on the sibling dyad itself.

The responses of the older siblings to the new infant varied across families over time from positive, to imitative, ambivalent, or hostile in a wide variety of interactions. There was no single pattern of positive or negative social behavior, but rather a combination of both. Most older siblings showed prompt concern in response to infant distress or potential danger, demonstrating an awareness of the infant's actions. They also reacted to mother/infant interactions.

It was also clear that by 14 months of age, the younger siblings had learned how to annoy, imitate, or ask for consoling from the older sibling. In some instances, elements of attachment behavior were present. The infants also immediately reacted to interactions between the mother and older sibling.

The investigators found significant connections between the relationship of the mother with each child and the quality of the sibling relationship. Those mothers who talked with the older child about the baby as a person with feelings, wants, and needs in the first weeks of the infant's life, later showed older siblings at 6 years of age who were more likely to comment on the baby as a person when the mothers did not initiate discussion, and had more friendly sibling interactions at 14 months postpartum.

These mothers treated the sibling as an equal in decision making in the care of the infant. They discussed infant feelings and encouraged the older child to care for the infant. They also tended to join the child's pretend games, and gave verbal justifications when trying to control the child. These uses of language were interpreted as a specific relating style of the mother to the child. These same children continued to have more friendly sibling interactions at 6 years of age (Stillwell & Dunn, 1985).

Researchers have studied siblings as socializing agents in the infant environment (Abramovitch, Corter, & Lando, 1979). Studies on siblings as socializing agents have examined role modeling that infants may imitate (Lamb, 1978), preschoolers acting as teachers to infant siblings (Stewart, 1983), and school age children acting as teachers to younger school age siblings (Cicirelli, 1973). All of these studies were a single episode observation, and were conducted in the home, school, or laboratory. Though these are brief episodes at various ages, the older siblings demonstrated an appropriate level of understanding of their roles as teachers consistent with their developmental level. They attempted various social strategies (games, verbal communication, making eye contact) to engage and keep the attention of the younger sibling, even though the younger child may not have been successful in performing the task.

Murphy's (1992, 1993a, 1993b) longitudinal study on childbearing families is the only research to date which focuses on school age sibling relationships with newborns/toddlers. This qualitative study followed 17 families from late pregnancy to infant age 2 years. Home visits when all family members were at home, in-depth interviews of parents and each school age child, videotapes of everyday family interactions as well as

the child's first meeting with the infant, and children's drawings were utilized over the 2 year period. A specific focus of the study was to see the sibling relationship from the child's point of view.

Participating families were experiencing a normal, healthy pregnancy, had both parents in the home, and had at least one school aged child. These families were lower middle to upper middle income, English speaking, and included Caucasian, African American, and Hispanic backgrounds. The 25 children were 5-11 years of age at the birth of the infant.

Murphy observed that some children interacted with the infant with sensitivity and continued high interest. These children responded contingently and empathically to the infant. They were sensitive to infant cues and were reciprocal in their interactions. She identified these behaviors as dimensions of a quality she labeled sibling mutuality. Eight specific behavioral and affective dimensions of this quality were identified, several of which appear to be aspects of perspective taking and empathy (1992).

Conditions in the family which appeared to foster sibling mutuality included generous opportunities for uncensored, uninterrupted interaction with the infant; allowing even young children to handle the infant from birth; and parents interacting with the older sibling with a similar kind of mutuality. Inclusion of the older sibling in planning and caring for the infant, which implied a "shared responsibility," was a major element in the parent/sibling relationship. Parental strategies which focused the child's attention on the infant behaviors, needs, and feelings, rather than the child's behavior with the infant, were also important (Murphy, 1992). Some of the parent strategies fostering sibling mutuality

identified in this study are similar to parent strategies reported by Dunn and Kendrick (1982), which fostered positive sibling interactions at 14 months of age.

Family conditions which appeared to inhibit sibling mutuality included limited access to the infant; interrupting the sibling-infant interaction with corrections; and discrepant parental treatment of the children. Other conditions of importance were the lack of mutuality between the parent and the older child; preexisting conflict between at least one parent and the older child; and evidence of strong disagreement between parents over disciplinary styles. In those parent/child relationships where mutuality was not observed, the quality of sibling mutuality was absent from the sibling dyad (Murphy, 1993a).

Murphy (1993a) identified and described three major interactional patterns of the school age child. These included the caretaker, buddy, and casual, with the casual being the most common. The ongoing family interaction and individual factors of developmental capabilities, interests, and personal meanings appeared to interact in shaping the sibling relationship.

Summary

Life span development theory served as the theoretical framework for this study. This theory acknowledges that the sibling dyadic relationship develops as a subsystem within the greater context of the nuclear family and that the members within the relationship change and adapt through out the lifespan. It also acknowledges that children contribute to their own development by influencing, responding to, and being influenced by the world around them (Belsky, Lerner, & Spanier, 1984).

Early sibling research dealt with the effects of birth order and status on personality and intellectual development (Lamb, 1982). More recently studies have begun to explore how the dyadic relationship develops in the context of the nuclear family from the point of entry of the new baby into the family system (Kreppner, Paulsen, & Schutze, 1982; Kreppner, 1986; Murphy, 1992).

Little was found in the literature specifically relating to the school age sibling infant/toddler dyadic relationship in the area of teaching interactions. It was hoped that knowledge from this study would help to expand the body of current knowledge in this area.

CHAPTER 3

METHOD

Research Design

This exploratory qualitative study utilized secondary analysis of existing qualitative data on sibling/toddler teaching interactions. The subjects in this study were part of previous research conducted by Dr. Susan Murphy (Murphy, 1992).

The families in the original study were recruited through community childbirth classes, obstetrical providers, and newspaper advertisements (Murphy, 1992). To participate in the study, all families had to be experiencing a normal, healthy pregnancy; have both parents in the home; and have a school age child over 5 years of age.

The parents were working and of lower middle to upper middle income status. The families were primarily Caucasian, with two families of African American, and one of Hispanic background included. Religious affiliations in the sample included Catholic, Protestant, Jewish, and Mormon, with some families stating no preference.

The subjects in the current study included school age children ranging from 6-13.5 years of age and their sibling toddlers ranging from 22-24 months of age. The group totaled 22 dyads in 14 families. Five families had more than one school age sibling participating with the same toddler (2 families had 3 school age siblings). Four of the families were blended (Murphy, 1992). Both male and female siblings were observed interacting with male and female toddlers.

The intent was to analyze visual data to identify theoretical concepts related to sibling teaching interactions. Families were identified by number to maintain confidentiality.

Data Collection

Video tapes had been made of sibling/toddler teaching interactions in the home of each dyad during the earlier research. These tapes were filmed at toddler age 9 months, 12 months, and a third time between 22-24 months (Murphy, 1992). The tapes were filmed during the day. Both members of the dyad were familiar with the researcher. They were also familiar with the taping process since other aspects of the family relationship had been filmed over the 2 year research period.

The current study focused on the final 22-24 month teaching interactions. The sibling was asked to teach the toddler several different skills, one at a time during the interaction. The skills were selected from a standardized age appropriate list utilized in the NCAST Scale. The skills chosen were purposely selected to be slightly above the toddler developmental age in order to create a situation that would be new to the toddler. They also challenged the sibling since the information surrounding the skill was not part of the dyadic interactional repertoire. The skills consistently used in all interactions were 1) make a tower using 6 blocks, 2) draw a horizontal or vertical line using paper and crayon, and 3) sort blocks by several different colors.

The sibling was presented with the appropriate task materials for each task and asked to teach the associated skill to the toddler. The sibling was told that there was no right or wrong way to teach the skill and that any method the sibling chose to use was

acceptable. The sibling was instructed to tell the researcher when he/she was finished teaching the task.

Data Analysis

Using grounded theory methodology (Strauss & Corbin, 1990), secondary analysis was made of the teaching and interactional data. Viewing each dyad interaction, coding categories were established which identified teaching strategies, techniques, patterns, styles, and qualities of the sibling. These categories were compared across families looking for similarities and differences in sibling teaching strategies. The categories were analyzed and grouped by sibling teaching patterns, strategies, and interactional styles.

Following the qualitative analysis, interactions were viewed and scored using the NCATS. Out of respect for the author a letter requesting permission to use the tool was sent to Dr. Kathryn Barnard. Verbal permission was given to this researcher to use the tool in this study. As a certified NCAST Instructor, this researcher has the authority to use this tool in research, teaching, and practice. The NCATS was found to be ineffective in helping to identify key concepts in sibling teaching style. It was helpful, however, in identifying those siblings who were able to recognize toddler behaviors indicating distress and respond to them appropriately.

CHAPTER 4

ANALYSIS AND INTERPRETATION OF THE DATA

Description of the Sample

The subjects in this study included school age children ranging from 6-13.5 years of age and their sibling toddlers ranging from 22-24 months of age. The original study included 23 dyads in 15 families. Five families had more than one sibling participating with the same toddler (2 families had 3 siblings). Four of the families were blended (Murphy, 1992). For this study one dyad was eliminated from the sample due to the sibling's uncooperative response to participating in the teaching interaction. This resulted in a study sample of 22 dyads in 14 families.

The older siblings included 15 boys ranging from 6-13.5 years of age. Seven sibling girls ranged in age from 7-11.5 years. The toddlers included 8 boys and 6 girls ranging from 22-24 months of age.

School Age Sibling Teaching Styles

Style, as defined by Merriam-Webster's New Collegiate Dictionary (1993), is the "distinctive or characteristic manner in which something is done, said, written, made, or executed." The various strategies used by all of the siblings were observed and described behaviorally. These strategies were then combined into conceptually related groupings. These groupings were identified as four distinctive sibling teaching styles. These styles have been labeled authoritative, collaborative, loosely connected, and aggressive in this study. A discussion of these four styles follows.

Authoritive

Siblings that exemplified this style assumed the role of a nurturing parent, patient teacher, guide, or expert in the tasks to be taught. They generally displayed a confident manner and did not appear overwhelmed or uncertain about attempting to teach the tasks. These siblings were able to organize and structure the interaction in a way which was supportive and effective in assisting the toddler to have a positive experience. The older sibling maintained the position of an authority, or expert, by presenting the instruction and guiding the toddler. The sibling seldom participated with the toddler in the activity.

This style was seen across ages and genders. There may be a gender or ethnic difference in the way this style is manifested; however, the sample is not diverse or large enough to make this determination. One 10 year old boy tended to be more reserved in his displays of affection and gave no praise. He was more likely to assume the role of a patient, distant, authoritarian parent during the interactions. Other boys who represented this authoritative style were less reserved, showing more physical and verbal affection. They were more likely to assume the role of a nurturing parent. Girls were more likely to display this teaching style in its most positive form.

Siblings with the authoritative style tended to display a warm and affectionate positive regard toward the toddler. Appreciation of various toddler behaviors and verbal comments were accompanied by smiles of amusement or laughter, comments to the toddler, or sibling comments to the research observer. Sometimes the sibling spoke quietly to the toddler using a gentle vocal tone.

The interactional tone between sibling and toddler was usually one of familiarity and affection. It was clear they had spent much time together and seemed to enjoy being together. The sibling tonal quality was one of an “older” person relating to a “younger” person. The toddler was generally cooperative and responsive to the sibling teaching efforts. When the toddler was uncooperative or asserted independent behavior, some siblings with the authoritative teaching style yielded to the behavior and incorporated the toddler’s actions into the teaching. At other times, a sibling would gently, but firmly, set limits on the toddler behavior and redirect the toddler’s attention to the task. These siblings were able to flow with, or yield to, the toddler behavior with little effort or disruption to the interaction.

Most of these siblings maintained a close physical connection with the toddler. Examples of this included gently putting an arm around the toddler; bending the head down and toward the toddler so that their heads were almost touching over the task items; positioning face to face so that eye contact was initiated by either member of the dyad; sitting side by side; nonverbally reaching over to the toddler and brushing away a hurt; sometimes gently pulling the toddler into the lap to facilitate working with the task items. Physical contact was initiated more often by the sibling than the toddler. The toddler usually responded positively to the physical contact. When the toddler indicated that more physical distance was desired by pulling away or getting up and moving, the sibling responded in a positive manner without attempting to contain or limit movement.

The teaching presentation varied among the siblings. Some gave the task materials to the toddler and allowed a period of free play and exploration before beginning the

teaching. Others began the teaching by demonstration and verbal explanation, and then handed the task items to the toddler. Some siblings began the task and withdrew participation as the toddler began to interact with the materials. These siblings continued verbal encouragement and support. Some toddlers chose to explore and handle the task items before attempting the task. Most of the siblings patiently allowed, and even encouraged this behavior.

The teaching information was presented in a structured and organized manner. The siblings focused the toddlers' attention on the task materials, presented the task, encouraged toddler performance, gave feedback and encouragement on results, retaught the task when necessary, encouraged continued toddler performance, and gave praise when successful.

The instruction itself was primarily verbal with some demonstration. The siblings used words which conceptualized the concrete, perceptive qualities of the task materials. Words which described the size, shape, texture, color, number, directions of up or down, as well as words like circle, straight, line, top, bottom, straight line, the name of a letter, alike, same, different, and match were used most often. Most siblings allowed silent spaces with no verbalizations once the task had been reviewed several times. They used words at that point to encourage or reinforce toddler performance.

These siblings facilitated the task performance of the toddler by repositioning the toddler or task materials. They steadied the block tower so it would not fall over, placed the crayon appropriately in the toddler's hand and assisted with drawing a line on the paper, or held the paper while the toddler made lines.

The pace and timing of the teaching was in harmony with the toddler behaviors and responses. The siblings did not rush the toddler to perform. Most of the siblings did not insist that the task be performed in a specific manner, allowing the toddler space to explore the task. One sibling was more directive than the others, insisting that the task be done in a specific way, with certain task items. When it was clear the toddler would not perform in that manner, the sibling was willing to flow with the toddler behavior. None of the siblings interrupted or interfered with the toddler performance.

It was clear that the siblings had a basic understanding of the developmental capabilities of the toddler. Some siblings indicated an expectation of a certain level of performance by such comments as, "You can do this." "Oh, you've done this before." or "We'll stay here until you do it." At the same time, other siblings were willing to push the toddler only so far, and then stopped. Some siblings were accepting of partial successes by commenting, "There's a straight line, but you can hardly see it." "That's pretty straight." "Well, he matched two colors. That's pretty good."

The siblings ended the task when the toddler was partially successful or successful a few times, or by reading toddler behavioral cues and deciding it was time to stop. If the toddler demonstrated continued interest in the task the sibling usually continued until the toddler behavior indicated a readiness to stop. In almost all instances the sibling asked the toddler if he/she was finished before stopping the task.

The siblings in this style did not seem to interpret the toddler's inability, or limited ability, to successfully perform or complete the tasks as a reflection of their own abilities to perform or teach. In most cases they demonstrated pleasure and pride in the toddler

when the toddler was successful. Occasionally a surprised claim of “I got him/her to do it!” was heard.

Collaborative

This style was a joy to watch. The siblings who demonstrated a collaborative teaching style assumed the role of a peer or best friend. Regardless of the age difference, the toddler was treated as an equal, rather than the sibling assuming an elevated position as in the authoritative style. The sibling’s language was filled with words and word phrases such as “let’s,” “we,” “your turn,” “want to,” “can we,” and “how about.” This seemed to indicate an acceptance on the part of the sibling of an equal partnership with the toddler in activities and decisions. The sibling demonstrated a willingness to modify behavior and/or activity if the toddler disagreed or indicated a desire to explore the task in a different way.

This style was identified across all ages, and by both genders. However, boys most often displayed this style in its most positive form, with both male and female toddlers.

The siblings with the collaborative teaching style displayed a confident manner, and did not appear intimidated or uncertain about attempting to teach the tasks. The tasks were presented as a game which both members of the dyad played together. Unlike the authoritative style, these siblings not only presented the instruction and guided the toddler, but also participated equally with the toddler in the activity.

The siblings in this style displayed a warm, enthusiastic, playful attitude toward the toddler. The tonal quality was one of quiet excitement with the sometimes stated expectation that “This is going to be fun!” Regardless of age or gender, these siblings demonstrated the unique ability of being able to enter the toddler’s world and engage the

toddler at his/her developmental level. Both verbal and nonverbal communication indicated a close connection with the toddler. It appeared that these siblings had the ability to see the world through the eyes of the toddler and understood the toddler's perspective. Examples of this included: (1) crawling together on the floor commando style or chasing each other on the floor on hands and knees; (2) engaging in "rough play" which sometimes included the sibling allowing the toddler to walk or fall on him/her, scattering blocks, or knocking over block towers, wrestling, or tickling each other; (3) mimicry of toddler gestures and body movements, manipulating task materials in the same way the toddler did; (4) mimicking or imitating toddler vocalizations or jabbering (even carrying on conversations back and forth between sibling and toddler in jabbering sounds); or (5) making sounds to coordinate with actions (a block becomes a car, a crayon makes a noise moving along the paper) which were mimicked by the toddler.

The interactional tone between sibling and toddler was usually one of familiarity and affection. As in the authoritative style, it was clear this dyad had spent much time together and seemed to enjoy being together. They frequently laughed together about something for no apparent reason, as if sharing a private joke. This is distinctly different from the authoritative style of amusement or appreciation about something the toddler says or does (which seemed more like laughing at or about, rather than with, the toddler). Both members of the dyad engaged in activities to make the other laugh.

Often these siblings gave an explanation of toddler behavior or interpreted verbalizations to the observer. Examples included: "She thinks I'm going to color that for her." or "Oh yah, those are the same [stated to the toddler in response to his jabbering and

holding up 2 pieces of paper]. He's found the same picture on two different pieces of paper." "He's hurt his foot and he wants me to kiss it better," was the interpretation given for the toddler holding his foot and jabbering to the sibling.

The bi-directional nature of the dyad was often demonstrated by the toddler. In contrast to dyads with the authoritative style, the toddlers initiated physical contact by reaching out and touching the sibling to get his/her attention, initiated eye contact, physically moved closer to the sibling and huddled over the task items, moved further away from the sibling and initiated independent behavior, handed task items to the sibling, and asked for and gave comfort or affection.

Some toddlers demonstrated the awareness that the sibling could enhance their capabilities. Examples of this included: asking the older sibling to pick them up so they could reach something they wanted; handing a task item to the sibling and asking or indicating the need for help in what they wanted to do; or jabbering in conversation to the research observer and then looking at the sibling as if to say, "Will you tell her what I mean?"

The teaching presentation was similar to the authoritative style. Some siblings allowed a period of free play and exploration of task materials, while others demonstrated the task and then handed the task items to the toddler. Unlike the authoritative style, all of these siblings participated with the toddler throughout the activity. They colored, built their own block tower, matched colored blocks, or took turns with the toddler in performing the activity.

Some of these siblings maintained control of the task items. They gave blocks one at a time to the toddler when building the tower, allowed only one crayon at a time to be used, or directed which color block to match. This seemed to focus the toddler attention and limited the distractions available. If the toddlers wanted more task items, or to alter the activity, the siblings were willing to modify their own behavior and follow the desires of the toddlers.

The collaborative sibling used many of the same strategies of the authoritative style. Due to the nature of the sibling/toddler relationship these strategies were modified to fit their collaborative style.

The teaching information was presented in a somewhat structured and organized manner. The organization was similar to the authoritative style. They focused toddler attention, presented the task, allowed time for performance, and gave feedback on toddler performance. The collaborative sibling allowed and encouraged time away from specific task performance, and then refocused toddler attention to the task.

The instruction itself was equally verbal and visual. These siblings focused the toddlers' visual attention on the task in creative ways. Some used an excited and enthusiastic approach which immediately stimulated the toddler curiosity. Such phrases as, "Oh, look!" "Come see what I've got!" "Can you do this?" were often used. Others used a calm, quiet attitude which was equally effective in stimulating the toddler. Comments such as, "Let's play with these." "O.K. Here's your side and here's my side. Now let's make a straight line." "Can you make a rainbow line of blocks like this?" "Let's color my hand."

(sibling had toddler help draw an outline shape of a hand and began to color the fingers), were effective in focusing the toddler on the task.

Some siblings used questions to focus the toddler, give freedom of choice, stimulate recall, and solicit understanding from the toddler. Some examples included: “Does it go here or here?” “Is that blue?” “Can you put it on top?” “Do you like my picture?” “You going to color on the other side?” “Can I have the black?”

Sibling verbal instruction included some concrete perceptual qualities of the task materials, but these were not as extensively used as in the authoritative style. The collaborative siblings were more likely to creatively incorporate the toddler’s knowledge or world view perspective into the “game” as illustrated in previous examples.

During the activity these siblings displayed little or no competitiveness with the toddler. This included sharing the same space or task items. For example, the dyad usually colored together on the same piece of paper. Some siblings divided the paper into two parts, “your side” and “my side.” At first they attempted to keep the toddler on one side of the paper. When it was clear the toddler was going to color on both areas of the paper, the sibling joined in with little protest. Others just found a vacant spot on the paper to use. If the toddler colored over the sibling’s coloring, the sibling added to it. If the toddler made several scribble marks, the sibling would make them into a drawing, such as a face or animal, and they would color it together.

The collaborative sibling was a positive cheerleader. Such comments as, “That’s good!” “Try again.” “Another one.” “Try it one more time!” “Almost.” “One more!” and “Okay” were often heard in an enthusiastic tone.

As in the authoritative style, these siblings had an understanding of the developmental capabilities of the toddler. In most situations they were unwilling to push the toddler beyond those limits. “I don’t think he understands. I don’t think he’ll understand for a long time yet,” or “She’s not ready for that yet,” were comments made after a few unsuccessful attempts to do a specific task. Some siblings gave the benefit of a doubt to toddler behavior and performance, commenting, “That’s as good as it’s going to get.” “Well, that’s a straight line, sort of.” or shrugging shoulders and saying, “He likes to jump on blocks, and that’s okay.”

The siblings usually ended the task when toddler behavioral cues indicated a loss of interest. The disengagement cues ranged from scattering blocks or putting crayons in and out of the bag instead of coloring to saying “No!” or getting up and walking away.

The collaborative sibling exhibited little frustration or sense of failure if the toddler was unsuccessful. On the contrary, they demonstrated great pride and enthusiasm toward the toddler and the research observer whether the toddler was partially successful or performed beyond their expectations.

Loosely Connected

The siblings who displayed a loosely connected teaching style demonstrated elements of the authoritative, collaborative, and aggressive styles for brief moments, but did not maintain any particular style for more than a short period of time. There were wide variations in manner and self confidence in teaching the tasks among these siblings. Some loosely connected siblings were clearly intimidated or uncertain about how to proceed when attempting to teach the task. Others began confidently and quickly became

frustrated when the toddler was uncooperative. Some siblings were positive and supportive in assisting the toddler, while others were more negative or displayed a medium to high degree of controlling behavior.

The loosely connected style was demonstrated by a majority of the siblings in the study. It was seen across all ages and in both genders.

The interactional tone was one of familiarity, although these dyads lacked the bi-directional, emotionally connected qualities displayed in the authoritative and collaborative styles. Generally there seemed to be a sense of distance and separateness maintained by either/or both members of the dyad throughout the interaction. This lack of attachment, or emotional connectedness, was noted consistently in all dyads in this style.

There often appeared to be a mismatch of temperament between the loosely connected sibling and toddler. While some siblings were attentive and interactive, their toddlers might be uncooperative or asserting independence. Conversely, when some of the toddlers indicated verbally or nonverbally a desire for assistance or direction, their siblings appeared not to notice or were self absorbed in elements of the task (coloring on the paper, building a separate tower of blocks). The lack of developmental maturity of either member of the dyad may have been a factor in this mismatch.

The loosely connected siblings usually displayed a positive regard toward the toddler. Depending upon the sibling, there was a varying degree of expressed appreciation for toddler behaviors. Some siblings were clearly pleased by the toddler and commented on behaviors to the toddler or to the research observer. "Wow, did you see what he did?" or "I couldn't even do that!" are examples. Loosely connected siblings were more likely to

laugh at, rather than with, the toddler. Some were more reserved and seldom acknowledged toddler antics even though they were obviously observed. Other siblings seemed oblivious to the endearing qualities displayed by the toddler and focused their attention on teaching the tasks.

The toddlers in the loosely connected style were less likely to be cooperative and responsive to the teaching efforts of the siblings. These toddlers were more likely to assert independence and insist upon performing the task in their own way. In most cases the siblings were unable to cope with this behavior for more than short periods of time. Some siblings seemed uncertain about what to do. Other siblings ended the task after a short period of time, as if helpless in gaining toddler cooperation. When the toddlers attempted to walk away, some siblings used physical force to attempt to hold the toddlers to the task. They restrained them or held on to their clothing before finally yielding to toddler resistance.

Some loosely connected siblings attempted to use bribery to focus the toddler's attention, redirect the toddler's efforts, or settle the toddler into the task. Bribery included offering candy or suggesting to play another game after the task was completed. Other siblings appealed to the emotions of the toddler by saying such things as, "Oh, pleeeze! Won't you do it for meeee?" or "Please play, please play with me!" Still other siblings threatened the toddler with "Do you want a spanking?" "Want me to tell momma on you so you get a spanking?" and "Do you want to get into trouble?" While these strategies were initially successful, they proved to be temporary and the toddler soon lost interest in the tasks.

The sense of distance and separateness previously mentioned generally extended to physical connectedness as well. There seemed to be little or no physical contact. There was no reaching out to touch each other, no movement to be closer to one another, no side by side play, no huddling over task items. The older sibling usually placed himself/herself in a face to face position in front of the toddler when demonstrating or teaching the task. This allowed eye contact to be initiated by either member of the dyad.

The loosely connected siblings tended to approach the teaching interaction with a serious tone. The activity did not seem to be viewed as a game or play, but rather as a test or work assignment to be accomplished.

The teaching presentation itself varied among the loosely connected siblings. Some siblings gave verbal explanations only, maintained control of task items, handed task items out one at a time, and directed toddler performance. Other siblings used demonstration and verbal explanations, but also tended to control toddler access to task items. One sibling handed the task items to the toddler, gave a verbal direction, and then sat back quietly watching toddler performance with little further verbal or physical interaction. Loosely connected siblings seldom participated with the toddler in the activity, although occasionally they became absorbed in their own performance of the task (using crayons and paper to make a separate drawing). If the toddler chose to explore task materials or attempted to use them in ways other than directed, these siblings would repeatedly redirect the toddler's attention to the task.

The teaching information tended to be presented in an unorganized manner. The loosely connected siblings focused the toddler's attention on the task materials, presented

the task, and waited for the toddler to perform. Many times these siblings interrupted the toddler's performance and redirected their efforts with such comments as, "Put it down here." "No, don't do it over here, do it over there." "No, don't get that one. Get the other one." "No, do it like this." "No, that's wrong. It goes there." As previously mentioned, many loosely connected siblings showed a high degree of control during the interaction. This control included how many task items were available, how and where the task was to be done, and when the task was completed. Some of these siblings were strongly directive in vocal tone and manner, even to the point of demanding specific behavior.

There was a limited amount of praise or positive feedback of the toddlers' performance. Such comments as, "Good," "That's good," "Good girl," seemed to be stated by the siblings to indicate correct performance of the task by the toddler rather than as encouragement or praise.

There seemed to be a limited teaching repertoire. When demonstration was used as a strategy, it was repeated exactly the same way with little variation. The verbal content seldom contained concrete perceptual qualities of the task items as in the authoritative or collaborative styles. The vocabulary was limited to a few word phrases which the siblings repeated over and over in the same vocal tone. These siblings seldom gave additional information about the task or task items, or associated the activities with the toddler's world. The pacing and timing of the verbal information seemed disjointed. In some instances too much information was given at one time; in other situations, little or no information was presented.

There was a general inability on the part of most siblings to adapt to toddler behavior or incorporate it into the instructional content. These loosely connected siblings were more likely to repeatedly direct toddler performance within a limited rigid structure. Several times this rigidity on the part of the older sibling led to a confrontation with the toddler. This sometimes resulted in fighting for control of task items, the toddler getting up and leaving the interaction, or the sibling ending the interaction in frustration. Occasionally, "I can't do this!" or "This is too hard," was heard.

In general, loosely connected siblings had a limited ability to identify toddler behavior that might indicate increasing frustration, a need for time away from the task, a need for guidance, or that the task was beyond the toddler's developmental capabilities. When the siblings finally recognized these behaviors, the toddlers were usually beyond being coerced into returning to the interaction.

It was unclear whether loosely connected siblings had high expectations of toddler performance or just didn't know when or how to end the interaction. Several siblings continued to push the toddler to perform the task after several repeated failures. Others pushed the toddler to continue to perform the task after several successes, even if the toddler indicated loss of interest in the task. Still other siblings ended the interaction even though the toddler continued to play with the task materials or wanted to repeat the task. These siblings seldom consulted the toddlers to determine if they were finished with the task. Loosely connected siblings were more likely to end the task when they lost interest, or they were able to get one successful completion of the task by the toddler. One sibling

continued to use crayon and paper long after toddler behavior indicated a need to stop, saying, "I'm not done with my picture yet."

Aggressive

The sibling who displayed an aggressive teaching style demonstrated elements of the authoritative, collaborative, and loosely connected styles for brief moments, but did not maintain any particular style for more than a short period of time. This 8 year old male sibling assumed the role of a directive, highly controlling, domineering parent and maintained this style consistently throughout most of the observed structured teaching interaction. The sibling displayed a confident manner and did not appear uncertain about attempting to teach the tasks. This aggressive sibling organized and structured the interaction in a way which seemed to keep the toddler in a controlled, passive state. This female toddler was allowed to observe, but not actively participate during most of the interaction.

This aggressive sibling spoke to the toddler using words and vocal tone which indicated warmth and affectionate positive regard. His tonal quality, vocabulary, and word pronunciation often took on an imitative form of baby talk. "Do you want bubber [brother] to do it for you?" "Do you want bubber to draw a raaaaaaainbow?" and "That's a bock." are examples. However, while this sibling spoke to the toddler with warmth and affection, his physical presentation conveyed intimidation and forceful control. This sibling was large for his age and he seemed to use this factor in an overpowering nonverbal manner. Many times when the toddler reached for a task item, he deflected her hand saying, "Bubber do it." Several times the toddler attempted to gain access to the box of

crayons. Each time the older sibling moved the box behind him, placed it in his lap and hunched his body over it, or held it firmly in one hand. The toddler reacted by moving back away from the teaching surface and watching passively or sucking on her fingers.

The interactional tone of the dyad was one of familiarity, but lacked the bidirectional, emotionally connected qualities displayed in the authoritative and collaborative styles. The older sibling did almost all of the talking. He made statements about what he was going to do. Occasionally he asked the toddler a question such as “Want me to do it for you?” or “Do you want me to just build something?” The toddler would nod her head yes, say “Uh huh,” or “What’s that?” and passively watch the older sibling. The older sibling laughed loudly after knocking over the blocks and looked at the toddler as if expecting her to join his laughter. After doing this several times the toddler began to laugh with him each time he knocked the block tower over.

As in the casual style, there seemed to be a sense of distance and separateness maintained by both members of the dyad throughout the interaction. The older sibling placed the toddler directly in front of him so that eye to eye contact was possible. He often leaned toward the toddler during the interactions, but made no attempt to make any type of positive physical contact with her. The toddler remained a short distance from the teaching surface, moving forward periodically in an attempt to participate with the task items, and then returning to her original position when prohibited.

This female toddler never asserted independence, or insisted upon participating in the task. She did not become angry, cry, or protest the older sibling’s controlling behavior. She demonstrated interest and curiosity about the task materials and activities, but did not

seem willing to challenge the older sibling to have the right to participate. She did not leave the teaching situation or become involved in her own activities.

This aggressive sibling approached the teaching interaction in a quiet tone and structured manner. The sibling focused the toddler's attention on the task materials and presented the task. The toddler was actively discouraged from performing the task by having her hand deflected from contact with the task item, the older sibling making the task item physically inaccessible to the toddler, or being told "You do not touch, okay?" The only positive feedback given to the toddler was during the task of matching blocks by color. The toddler was able to indicate by pointing to the appropriately colored block to be matched to the block presented, but not allowed to actually handle the blocks themselves. The older sibling said, "Are you good at this?"

The older sibling clearly indicated by verbal and nonverbal communication the expectation that the toddler would be a passive participant in the interaction. At one point, however, while working with the blocks, he looked at the toddler and said, "Aren't you going to help?"

This sibling did not seem able to separate his own active participation in the task from his role as a teacher or role model for the toddler. Several times the researcher attempted to refocus him on the task of teaching the toddler. During the task of paper and crayons, when he was reminded about teaching the task to the toddler, he replied, "One minute, I have to finish the picture." He continued coloring for some time, being reminded again about the task. Finally, he took a clean sheet of paper and demonstrated the task to the toddler and handed her the crayon. She made one mark, and dutifully

returned the crayon to him. He promptly began coloring again and ended the task a short time later, clearly having lost interest in the activity. At this point, the toddler was able to gain possession of the box of crayons and was busy removing them from the box. The older sibling refocused her attention on another activity he wanted her to do. At this point she finally got up and left the situation.

This aggressive sibling clearly demonstrated his satisfaction with the teaching interaction. He seemed unaware that he had not performed the teaching requested. It could not be determined from this single teaching interaction whether this toddler was usually this passive or whether this was an unusual response.

CHAPTER 5

DISCUSSION

Summary of Study

A qualitative study utilizing secondary analysis of videotaped structured teaching interactions between school age siblings and toddlers was conducted to identify teaching styles and strategies used by school age siblings. Life span development theory was used as the theoretical framework. Twenty-two dyads consisting of 15 school age boys ranging in age from 6 to 13.5 years, and 7 school age girls ranging in age from 7 to 11.5 years, in 14 families were analyzed. The 14 toddlers ranged in age from 22 to 24 months and consisted of 8 boys and 6 girls. Grounded theory methodology was used to analyze the data. Four distinct teaching styles were identified. These were labeled authoritative, collaborative, loosely connected, and aggressive. Strategies used by all siblings were identified, combined into related groupings, and linked with the various teaching styles. The NCAST Teaching Scale was used to analyze teaching interactions. It was found to be ineffective in helping to identify key concepts in sibling teaching style. It was helpful, however, in identifying those siblings who were able to recognize toddler cues of distress and respond to them appropriately.

Scope and Limitations

A convenience sample was used in this study, although efforts were made to recruit variety across ages and genders of siblings. The participants identified themselves from lower middle to upper middle socioeconomic status. Only families with both parents in the home were used. These study limitations excluded single parents, families with

nontraditional structures (grandparents acting as parents, foster parents, gay/lesbian parents), or families of broader socioeconomic status.

Although every attempt was made to put the older siblings at ease during the video filming of the interactions, it was clear that some felt they were being evaluated by the results they obtained. This was evidenced by such comments as, “Is that good enough?” “What are the rules?” “Does it count if I do it with him?” “Is that enough?” In other instances the siblings were observed looking frequently at the camera (or the observer filming the interaction), shrugging their shoulders, stating, “I can’t get him to do it.”

The video camera itself was an obvious distraction for both sibling and toddler. Several siblings were concerned the camera would not be able to see the interaction, evidenced by comments such as, “Can you see me now?” “Where do you want me?” “Can you still see him?” “Did you get that?” The toddlers tended to be fascinated by the camera, lights, and observer. In several instances the sibling ended the interaction due to the inability to focus the toddler on the task.

In five families, more than one sibling taught the same infant, increasing the probability the infant would perform the task more quickly with repeated exposure and opportunity. In some instances this shortened the interaction considerably since the sibling tended to terminate the episode with the toddler’s first successful completion of the task (thus limiting the ability to observe potential elements in the interaction).

In most families interactions with more than one sibling were filmed immediately after one another, creating an unnatural situation for the toddler and the subsequent sibling. Cues of fatigue, short attention span, increased distractibility, and frustration on

the part of the toddler were observed. This placed an added strain on the subsequent sibling, challenging each one to cope in ways which were not necessarily typical in a teaching situation.

Siblings were given specific standardized tasks to teach the toddler. These tasks were purposely selected to be slightly above the developmental capability of the toddler. This created an artificial, formal situation for both members of the dyad in terms of a specific skill to be taught, or learned. The naturalistic quality of the interaction was lost by requiring it to occur at a specific place and time. In some instances, when the toddler was uncooperative and unwilling to participate, the interaction was terminated and the interaction was repeated on a different day. Most of the interactions, however, were filmed on the first encounter.

Only teaching interaction data between 22 to 24 months were analyzed. Earlier filmed interactions at 9 and 12 months were not included in this study. No comparison was made of available interactional data of other situations to determine if the interaction was atypical.

A limitation in the methodology of secondary analysis was discovered. The study was based upon analyzing filmed sibling/toddler teaching interactions. It would have been helpful to interview the sibling following the interaction to discover how the experience felt to the sibling, what was comfortable, what was difficult or uncomfortable, why certain teaching strategies were used, and if the sibling thought this was a typical interaction for the dyad.

Recommendations

This one-point-in-time observation of sibling dyad teaching interactions was not sufficient to provide complete findings on this area of sibling relationships. Further study comparing the earlier videotaped interactions at toddler age 9 and 12 months to the data obtained in this study would be beneficial. Such comparisons across time could help to answer these additional questions: Do the identified teaching styles evolve or change over time? Does the on going development of each member of the dyad affect the teaching style? What are the teaching strategies used by the school age sibling at different toddler ages? Do they change or remain the same?

It would be beneficial to compare the teaching interaction data with other available interaction data from the previous study to determine if the interactions were atypical. Do the identified teaching styles link with the sibling interactional patterns (caretaker, buddy, casual) identified by Murphy (1992)?

Additional areas of sibling research would increase the theoretical understanding of teaching interactions between school age children and their toddler age siblings. For example: broadening the research to include specific populations with ethnic or socioeconomic differences would help to identify cultural or socioeconomic factors in sibling interactions across populations.

Further exploration could be done in the area of how the mother's relationship with each member of the sibling dyad affects the dyadic relationship. Investigators could study sibling teaching interactions from an "attachment" perspective. Does the emotional connection of each sibling to the mother strengthen the emotional connection in the dyad?

If both members of the dyad are poorly connected to the mother emotionally, what is the effect on the dyadic relationship? And finally, how do these variables relate to the study identified teaching styles and strategies used by the school age sibling.

Knowledge gained from this study adds to the growing body of knowledge about sibling relationships. The area of school age siblings and their interactions with their sibling toddlers has received little attention until now. Nurses can use this knowledge to assist parents in understanding their children and the important part that sibling relationships play in the continually changing family dynamics.

Research has shown that the sibling dyadic relationship begins from the moment the baby is brought into the family home (Dunn & Kendrick, 1982; Kreppner, Paulsen, & Schutze, 1982; Kreppner, 1986; Murphy, 1992). This relationship changes and develops over time.

In this study several siblings in the same family related to the toddler in different ways. Nurses can assist parents in understanding that each dyadic relationship is unique. As research continues to identify the elements in the family environment which enhance a positive sibling dyadic relationship, nurses can use this knowledge in their family health practice.

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APPENDIX A

Permission To Use Instrument

August 1, 1994

Kathryn Barnard Phd. R.N.
CDMRC, Res. 110, WJ-10
University of Washington
Seattle, Washington 98195

Dear Dr. Barnard,

I am preparing a research proposal for my Master's thesis at San Jose State University. I am planning an exploratory qualitative research study on how school age children teach their sibling infants and toddlers. I will be doing secondary analysis on video taped teaching interactions obtained by Dr. Susan Murphy. She was the primary investigator in a 2 year longitudinal study focused on identifying patterns of school age sibling response to newborns through 24 months following the infant's birth.

Since there are no known instruments that measure sibling/infant teaching interactions, I would like your permission to score the interactions using the Nursing Child Assessment Teaching Scale (NCATS) once the qualitative analysis is completed. I would like to see if the NCATS is useful in further understanding the interactional patterns identified by Dr. Murphy, and how they may influence the individual teaching styles.

The school age children range from 5 to 11 years of age. There are 22 dyads from 17 families. The families are lower middle to upper middle income, primarily Caucasian, and have both parents in the home. The videos were filmed in the home.

I am looking forward to exploring this use of the NCASTS.

Sincerely,

Joanne Hing PHN
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APPENDIX B

Human Subjects Information

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TO: Joanne Hing
19587 Somerville Dr.
Saratoga, CA 95070

FROM: Serena W. Stanford
AAVP, Graduate Studies & Research

DATE: December 19, 1994

The Human Subjects-Institutional Review Board has approved your request to use humans subjects in the study entitled:

"How Do School Age Children Teach Their Sibling Infants and / or Toddlers?"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to any and all data that may be collected from the subjects. The Board's approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Dr. Serena Stanford immediately. Injury includes but is not limited to bodily harm, psychological trauma and release of potentially damaging personal information.

Please also be advised that each subject needs to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal, will not affect any services the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.