

## Research in Review

# The Development of Nurturance in Young Children



Francis Wardle

*What makes a young child want to nurture another child? How much knowledge of what babies need do young children have? How good are they at applying their knowledge in live situations?*

**Gail F. Melson and  
Alan Fogel**

**A**n important, perhaps essential, adult characteristic is the motivation and ability to be a skillful and sensitive caregiver. This ability is the core of effective parenting and is also needed by nonfamily child care providers, caregivers for the handicapped and elderly, loving partners, and even pet owners or plant growers. Nurture involves fostering the development of another, whether it be

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a baby, person in need, mate, animal, or plant in one's care, and, more broadly speaking, the people one supervises at work, coworkers, students, neighbors, friends, lovers, and all family members of whatever age. In this review, we look at the developmental roots of nurturance in early childhood and assess evidence that relates to the question "Under what conditions might young children display nurturant behaviors?" Thus we examine factors such as *child characteristics* (for example, the child's sex or age), *characteristics of the object of nurturance* (for example, the behavior of an infant who might be nurtured by an older child), and selected *aspects of the situation* (for example, the involvement of adults in encouraging the child to be nurturant) that may affect how nurturance develops.

We are particularly interested in the behavior of children to nonsiblings because as more and more children spend much of their early lives in child care we will all need to understand how to encourage nurturing behavior. Therefore, we have intentionally not studied young children's nurturing behavior in the home, where it is frequently found. Some of the studies reported here may seem contrived to readers familiar with children's nurturing in natural situations. The idea of studying emergent nurturing in young children is quite new. We need much more research on its many aspects. The studies included here are pioneering studies, pointing the way for future research.

### **What is nurturance?**

Three aspects of nurturance may be distinguished: interest, knowledge, and behavior (Fogel, Melson, & Mistry, 1986). To foster the development of another—such as a baby

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## **Read about recent, pioneering research on selected aspects of emerging nurturing behavior in young children.**

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—a person needs first to direct attention or interest to the other (baby). This *interest* may arise because the baby seems appealing or simply because nurturing is socially expected (for example, the person has been hired as a babysitter). Degree of interest varies and so does the quality of nurturing. Caring for a baby requires some *knowledge* of what the baby is like, what the baby's needs are, and how those needs can be met. Nurturance also demands certain skills, which must be used in appropriate situations. What young children actually do when they express their developing capacities to nurture others constitutes their *nurturing behavior*.

Although there are multiple aspects to the construct of nurturance, studies have measured one or two of these aspects, not all three. Moreover, although it is possible to nurture many different people and things, almost all research has focused on nurturing an infant or toddler, perhaps because caring for an infant seems to exemplify what is meant by "nurturing." Thus, this review will be restricted to studies of the development of young children's nurturance toward infants, noting the aspect or aspects of nurturance measured in each study.

### **Child characteristics**

Which children tend to be most nurturant? One way researchers have approached this question is to study sex and age differences in nurturance. Research to date shows clearly that girl children are expected to, and actually do, engage in much more infant care than boys

(although their behavior is not necessarily *nurturing*; nurturing means being sensitively responsive, whereas some young girls "play dolls" with real babies showing very little sensitivity to the babies' needs). Are girls more interested in babies and their care than are boys? Do they behave differently toward infants than do boys? Do they know more than boys about babies and their care? Do sex differences vary with the age of the children? Research reported here does not deal with *why* interest, knowledge, and behavior is as it is, though researchers and, doubtless, readers have a variety of thoughts on the subject. Research thus far has attempted to explain the existence of sex and age differences

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## **Why sex differences in nurturing?**

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and to describe children's nurturing behavior carefully.

One of the first studies to explore the issue of sex differences in nurturance was conducted by Berman, Monda, and Myerscough (1977). They observed 43 girls and 43 boys, ages 32 to 63 months, in a child care center's large playroom. For 2 days, a playpen with a 13-month-old girl was placed in one corner of the room, and observers noted which children came near the baby and their behaviors. They also observed children's behavior for several days when an empty playpen or a fish tank was in the room to ensure that the children were not responding simply to unusual items.

On the first day the baby was there, girls spent 20% of the time near the playpen, whereas boys spent about 12%. On the second "baby" day, girls stayed near the baby 25% of the time, boys about 18% of the time. As children became used to the infant, they spent more time near her, but in general girls did so more than boys. However, the sex difference was largely due to a substantial decline in interest by boys who were at least 4 years old.

Once children directed their attention to the baby, what behaviors did they express? Most of the time children looked at the baby and touched the playpen. About 20% of the time children were close to the baby, they tried to interact with her, usually by touching her, but only four of the children spoke to the baby. Interestingly, although girls were somewhat more likely to come near the baby, once boys were close by they were just as likely as girls to interact with her.

These results suggested two tentative hypotheses about preschoolers' early nurturance toward babies: (1) Before the age of 4 both boys and girls have similar levels of interest, but beyond 4 girls begin to show more interest than do boys; and (2) preschoolers' behaviors toward an infant consist mainly of looking and touching.

What about age and sex differences in knowledge about nurturing babies? Only one study (Melson, Fogel, & Toda, 1986) has examined children's knowledge about infants and their care. In interviews with 43 preschoolers (half boys and half girls; average age 4 years) and an equal number of second graders, we first asked each child to identify the babies from a stack of drawings of people of different ages. Then we asked the child, "What are babies like? What do babies do?" Next, the child picked out those drawings of people who could "take care" of a



Ellen Levine Ebert

***Why do boys 4 years old and older seem less interested in babies than younger boys do? Is it all because of societal sex stereotyping? Is it because they don't have nurturing fathers? Or is it also because at this age children are not cognitively capable of grasping complex concepts, and are still grappling with the basics of male identity and female identity, only later to fill in the details and thus become more androgynous?***

baby and then told all the ways they could do so. Finally, we asked each child, "Can you take care of a baby?" and if so, "How?" Children's verbal skill levels were measured separately to make sure they could explain themselves, but that does not eliminate the problem of children who are too shy or inarticulate to tell all they know. The *status* of each child's sibling situation was noted, but not its quality (nurturing, hostile, etc.).

Both preschool boys and girls were highly accurate in identifying pictures of babies, and there were no sex differences at any age in knowledge about infant characteristics or ways to care for babies. In describing babies, both boys and girls talked about their small size, their developmental immaturity ("they fall down," "they can't understand"), and their characteristic

motor and oral behaviors ("crawl," "chew, suck"), indicating that even young children appear to have appropriate and differentiated understanding of infant characteristics. Similarly, both boys and girls were highly accurate in describing ways that older children and adults would care for babies ("put to sleep," "pick up," "rock," "change," "put in crib"). Finally, 77% of the preschoolers answered "yes" when asked if they could take care of a baby and went on to suggest appropriate ways they might do so.

Although boys and girls appear to be equally knowledgeable about infants and their care, they also show evidence of associating infant care with adult females. Children in this sample were most likely to identify adult females as people who "can take care of babies." Interestingly, the presence of a

younger sibling did not affect preschoolers' knowledge about infants or their care.

This study along with those of Berman and her colleagues supports the importance of distinguishing among different aspects of nurturance. While boys and girls appear to be equally knowledgeable about babies and their care, they begin to differ about age 4 or 5 in observed behaviors and interest. Studies of older children's and adults' responsiveness to babies also find that sex differences favoring females are more likely on measures of observed behaviors than those of knowledge or emotional responses (Feldman, Nash, & Cutrona, 1977; Nash & Feldman, 1981).

A number of important questions remained as researchers continued their work. First, would preschoolers express more interest and a wider range of behaviors under different circumstances? Did the infant's confinement to a playpen restrict the ways the baby and preschoolers could interact? Would some demonstration or encouragement from adults lead children to behave differently? Finally, why do boys seem to decrease their interest in babies around the age of 4, while maintaining equal levels of knowledge?

### ***The infant's contribution***

Berman et al.'s (1977) observations of a 13-month-old baby in a playpen noted that this highly sociable infant often reached out and touched the children who came near her and that 90% of the children whom she touched subsequently tried to engage in interaction with her. This suggests, logically, that the infants' characteristics and behaviors may affect children's interest and involvement,

as it is known to affect adults' interest and involvement.

To determine this, we observed 37 boys and 34 girls (24 to 64 months old) as each individually encountered a 6- to 8-month-old infant (Melson & Fogel, 1982). We placed each of 26 babies on the floor in a small playroom stocked with toys, some suitable for infants, others attractive to preschoolers. The relatively large number of infants and their unrestricted movement permitted an analysis of possible effects of infant characteristics and behaviors on the older children.

Both male and female babies, regardless of whether or not they had older brothers and sisters, were equally responsive to the preschoolers. If a child looked at the infant, the baby was likely to look back; when offered a toy, babies explored it; and when the older child ignored the baby by turning away, the infant was likely to "demand" interaction by reaching out toward the child while looking and attempting to touch. Thus, in general, infants played an active role in eliciting attention and involvement from preschoolers (Melson, Fogel, & Mistry, 1986).

There was also evidence that infant characteristics affected preschoolers' behavior. In general, children showed most interest in babies that they perceived were like them in gender (i.e., both girls or both boys). (This was true regardless of whether the biological sex of the baby was male or female, indicating that the child's belief, not sex differences in infants' characteristics or behaviors, dictated interest.) However, the oldest preschool boys (average age = 54 months) showed most interest in babies they perceived as female (although their interest level was the lowest of all preschoolers).

One interpretation of these

findings is that when children view babies as like them in some important way, such as gender, they are likely to be more responsive to them. However, for older preschool boys, similarity to a baby may conflict with their ideas of what it means to be a boy, especially as boys are forever being told not to "act like a baby," and so they are both less responsive to babies in general and relatively more interested in female than male babies.

There is evidence, however, that both boys and girls respond similarly when infants send strong emotional signals, such as cries. Melson, Fogel, & Mistry (1986) observed that when babies were fussy or cried, both boys and girls attempted to distract the infant by offering toys, but they were less responsive to more subtle signals from the baby, such as looking and reaching out toward the child. Berman (1987) reported similar findings, noting that 9 of 12 children who were asked to "take care" of a crying baby made constructive and often persistent attempts to placate and calm the baby. These efforts did not vary by the age or sex of the older child; even the youngest child (33 months) observed with a crying baby offered him toys, touched his hand, repeatedly said "Shhh," and finally got the baby to roll a ball back and forth with her.

Even when boys and girls do not actually see an infant crying, as long as they understand the infant's needs, they are likely to attempt to meet them. Weinstock (1979) gave each of 32 boys and girls, aged 5 to 6 years, a dish filled with pieces of candy and then showed them a picture of a "poor" 1-year-old baby and told them they could share if they wished. In this situation, boys actually donated more candy (4.3 pieces on the average) than girls (3.1 pieces). Finally, Zahn-Waxler, Friedman, & Cummings (1983) ob-



*Nurturing does not mean smothering or instructing, it means responding sensitively to another's needs, including the need for independence. This baby wants interaction and entertainment, and therefore the older girl is nurturing.*

served the reactions of preschoolers as well as elementary-school-age children to taped infant cries heard in an adjacent room after each child had just seen a mother and her baby enter that room. When the mother came into the room where the child was seated saying that she was looking for the baby's bottle, most of the

children tried to help (by searching for the bottle, for example). Boys attempted to help as frequently as girls at each age level, although older children helped more than preschoolers.

In summary, studies completed to date in this new area of research indicate that sex differences in interest in and behaviors toward

babies do not appear before age 4 to 5. Although older preschool boys may be less likely to attend to babies, once their attention is engaged and the infant shows clear need, boys do not differ from girls in their attempts to be nurturing. Both boys and girls are responsive to the behaviors of the infant, particularly infant distress.

Other aspects of the situation in which child and infant meet each other may be important. Is the child given any guidance or direction by adults concerning what to do with the baby?

### ***Characteristics of the situation***

To determine if variations in the situation in which children meet infants would affect the children's interest and behavior, Berman, Smith, and Goodman (1983) observed 10 boys and 10 girls from 3½ to 4½ years old and 9 boys and 9 girls from 4½ to 5½ years in a small play area as they individually encountered either a male or female toddler who was free to move around. For the first 6 minutes, the older child was told she or he could "play with the toys or the baby or do whatever [she or he] would like to do"; after 6 minutes, the child was told, "We'd like you to take care of the baby for a few minutes so we can work."

During the first "free play" period with the baby, interactions with the toddler occurred about 17% of the time, approximately the same amount as in the study where the baby was confined to a playpen. Because the toddler could move about and toys were available in the play area, the children used toys in about half of their interactions. In this situation, boys and girls at both age levels did not differ in their interest in the baby or in the ways they behaved.

However, differences in the behaviors of children emerged when they were asked to take care of the toddler. Under these circumstances, younger preschool boys increased their interaction with the baby to 26% of the time, but the girls of this age range interacted only 13% of the time. In marked contrast, older preschool girls directed attention to the baby 43% of the time, whereas older boys paid attention to the toddler only 2% of the time. In terms of the quality of children's interactions with the toddler, older girls took the initiative to offer toys, touch, and speak to the baby especially often, whereas older boys never took the initiative and even sometimes withdrew from the baby's approach.

These findings suggest that sex differences in interest in babies and in behaviors toward them vary with the circumstances in which preschoolers encounter babies. When asked to "take care" of a baby, older preschool girls (average age = 5 years) behave, according to researcher Phyllis Berman, like "little mothers" who try to take charge of the baby, while older boys ignore or avoid the baby most of the time. Thus, the sex difference favoring girls in interest in and interactions with a baby seems to depend upon the situation ("free play" vs. "care-taking") and perhaps also the behaviors or characteristics of the infant, such as mobility. It is fascinating to note that girls' greater *involvement* with babies was *not* found to be necessarily nurturing. In many instances it was dominating play with live dolls, not sensitive responsiveness.

Boys and girls are equally knowledgeable about babies and their care, and sex differences in behavior depend on the situation. Would it be possible, through altering the situation, to enhance young children's interest in and

nurturing behaviors toward babies? In particular, might boys' behaviors be changed by interventions or encouragement of nurture toward infants?

In a study by Berman and Goodman (1984), boys and girls between the ages of 2½ and 7½ were individually paired with one of 12 babies in a small play area. Following the example of previous studies, researchers asked each child to "take care" of the baby. However, in this study an adult entered the area with half the children and demonstrated how to offer each of four toys to the baby and induce the baby to play with the toys. The child's behaviors toward the baby after the adult left were observed and compared with pre-modeling behaviors.

After adult modeling, preschoolers between 2½ and 5 increased in toy play with the baby only slightly—girls from 16% to 21% of the time, boys from 19% to 20%. Other forms of interaction such as talking to or touching the baby did not increase or even decrease. However, the toy demonstration by the adult had a marked positive effect on older girls and boys; they doubled in their use of toys to interact with the baby.

One reason for the weak effects of this adult intervention on preschoolers may be that simply demonstrating the use of a toy with a baby provides preschoolers with insufficient information and motivation to sustain interest in and interaction with an infant.

To determine the effects of longer term intervention on preschool boys' interest in an infant, Blakemore (1983) showed 2- to 6-year-old boys at a child care center a videotape of a man caring for a baby and read them a book containing pictures of men interacting with and caring for babies. Each boy saw the tape twice and saw the

book three to four times during a 4-week period. Children's approach to a baby in a playpen was recorded for 3 days prior to and 3 days after the intervention.

The effect of this intervention increased boys' interest in the baby, at least as measured by how long children stayed near the playpen. For example, on the last "baby" day before the intervention, boys spent an average of slightly more than 1 minute out of 15 near the infant; following the intervention they stayed near the baby for more than 5 minutes out of 15. Thus, a more extended demonstration of infant care through books and film appears to change preschool boys' interest in a baby immediately following exposure (there was no long-term follow-up).

Because it measured only proximity to the baby, the Blakemore study offered no information on how intervention might affect the behaviors of children toward babies once they were in proximity to the infants. In order to provide a more detailed assessment of children's behaviors and also to investigate the effects of a live demonstration, Fogel, Melson, Toda, and Mistry (1987) observed 48 preschool boys and girls individually as they encountered a 6- to 8-month-old infant and the infant's mother (who had been previously coached by the experimenters to actively encourage the preschooler's involvement with the baby). Thus, mothers were told they might ask the child to pick out a toy and offer it to the baby, to help in some play or care-taking activity, and to join in play with the baby.

We compared these children's behaviors toward the babies to those of a previous study (Melson & Fogel, 1982) with similar subjects conducted in the same manner, except that the babies' mothers were instructed not to interact with



Nancy F. Alexander

*Does it help children become nurturing to live with nurturing adults at home and at school? What if only the parents are nurturers, not the staff? What if only the staff are nurturers, not the parents? How much nurturing must a child be given before she or he becomes a nurturing person?*

the child or the infant in any way. After mother intervention, compared to the no-intervention situation, children showed less hesitancy toward the infant (13% vs. 39% of the time they were with the baby), were more involved in toy play with the baby (20% vs. 5% of the time), and spent more time close to the baby (33% vs. 11% of the time). Not surprisingly, the children also asked the mother many more questions about the baby

during the mother intervention (44% of the time) as compared to when mothers were not involved (6% of the time).

Although intervention studies to date have been extremely limited, all of them have found boys and girls responding similarly; sex differences in interest in babies that appear among older preschoolers disappear when children receive encouragement and demonstration of interaction with an infant.

### **Summary of existing studies**

In general, observations of preschool-age children with babies indicate that prior to age 4 to 5 years, both boys and girls are equally interested in babies and try to engage in interaction with them. After that time, boys show less spontaneous interest and less compliance to adults' requests to care for a baby than do girls. However,

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## Do your children take care of children? plants? elderly people?

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both boys and girls respond similarly to clear signals of infant distress, and the sexes do not differ in what they know about infants or their care. When children are guided by adults to become involved with a baby, both boys and girls respond with increased interaction and interest.

### **Directions for future research**

This review of literature related to preschool children's development of nurturance suggests several areas of fruitful inquiry for the future.

#### **More detailed assessment of children's behaviors toward infants under more varied conditions**

In all the research reviewed, children have been observed only for short amounts of time as they encounter infants who are unfamiliar to them. Hence, the results could be due to effects of novelty or children's adjustment to a relatively unfamiliar situation. Do children who have some acquaintance with an infant respond differently? Would sex differences appear in this situation as well? Observations of children with their infant siblings suggest wide individual differences and a broader range of responses than those observed in the studies reviewed here (Dunn, 1983). There is need for studies that observe preschoolers over repeated encounters with the same infants, in

other words, documentation of the acquaintance process between child and baby as it unfolds. As was mentioned earlier, we are especially interested in what is involved in facilitating the development of nurturing behavior in young children whose early years are largely spent in out-of-home child care settings, and in children who have no siblings.

#### **Comparing the development of different aspects of nurturance**

All the studies reviewed have measured one or two of the three aspects of nurturance—interest, behaviors, and knowledge—but none has assessed all three. Do children who know more about babies and their care express greater interest in babies and do they exhibit a more varied repertoire of responses toward them? Existing findings suggest that this may not be the case, because, as with adults, knowledge may not always express itself in behavior; many other factors, such as the infant's behavior, the child's sex-role identification, and the child's basic attitudes of trust, friendliness, hostility and anxiety must also be considered. However, a direct test of the relationships among interest, knowledge, and behaviors is yet to be done.

#### **A more process-oriented approach to interventions**

The design of ways to encourage young children to be more interested in babies has not been guided by theory or research results. It is not clear what elements of adult intervention are most effective, and perhaps some elements are effective for some children and not for others. For example, demonstration of a man caring for a baby (in film and in books) appears to increase interest in a baby for boys (Blake-more, 1983). Would a female so depicted have similar effects? Live

demonstrations, by contrast, have used only adult females, so comparison of effects of live demonstrations by men versus women has not yet been possible.

We must also know about the effects of specific behaviors that adults may engage in to encourage children to respond positively to babies. After all, in daily life most young children encounter babies in conjunction with their adult caregivers (usually the infant's parents). Adults are therefore important translators of the world of the baby to the young child, and children may learn a great deal indirectly about nurturing babies through the questions they ask of the adult and their observations of the adult's behaviors and the infant's responses to them.

Finally, we need to assess long-term, in addition to immediate, effects of various interventions. If adults exert influence on how children understand and respond to babies, then it is important to know how lasting these effects may be. Children in other cultures who are assigned regular caretaking responsibilities for younger children show higher levels of positive social behaviors like sharing and helping (Whiting & Whiting, 1975) as well as enhanced reasoning about moral issues (Edwards, 1986). These findings suggest the possibility that in our own culture adult-guided involvement in caregiving experiences, if regular and intensive, may foster positive social development.

#### **Not only babies: Other influences on the development of nurturance**

The definition of nurturance we employ suggests that it may develop in many contexts and not just in relation to babies and infant care. Any person or thing whose developmental needs must be understood and fostered may be an ob-



ject of nurturance. For example, children may learn the fundamentals of nurture from learning about and caring for a pet animal, helping to care for a handicapped or elderly relative, even by growing a plant (Fogel, Melson, & Mistry, 1986). A more broadened way of thinking about the experiences that may promote nurturance in children should lead to a de-emphasis on sex differences. When the focus is on interest in babies, boys begin to appear less nurturant than girls (under certain circumstances) around age 4 to 5 years. However, when the focus shifts to interest in pets and involvement with their care, there appear to be no sex differences from early childhood through adolescence—in this area, boys and girls show equal levels of nurturance (Melson, Fogel, & Toda, 1987).

### Implications for child care practices

Because research on the development of nurturance during early childhood is still in its infancy, implications for early childhood education and child care must be made with caution. However, existing evidence suggests several guidelines:

(1) Exposing young children to live babies can help children learn about the characteristics of babies and how to respond appropriately to them. By reacting to babies' behaviors, children have an opportunity to practice interacting with someone much younger than themselves. They also gain valuable experiences in how to relieve another's distress and how to give care to others. Books, films, and doll play related to babies and their care can supplement but are not substitutes for exposure to live babies.

(2) Experiences with babies are most effective when they are

guided by adults who can encourage the children to become involved appropriately and who can model caregiving and play behaviors. Adult guidance is especially important in exposing older preschool boys to babies, since age 4 to 5 years is the time when many boys begin to show less interest in babies or baby care.

(3) Because both boys and girls by age 3 associate baby care with being female, having children observe men and older boys caring for infants may help boys see nurturing as more appropriate for themselves. A visit by a father and his infant or toddler to a preschool to demonstrate feeding, diapering, and playing with a baby might be a valuable lesson for both boys and girls.

(4) In addition to experiences with babies, a wide range of activities may be integrated into an early childhood educational setting to promote the development of nurturance. Caring for a pet, taking care of a plant, or hosting elderly or handicapped visitors to the preschool all help children understand and meet the special needs of those different from themselves.

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