## U.S. Department of Health and Human Services

## NATIONAL INSTITUTES OF HEALTH

**NIH News** 

National Institute of Child Health and Human Development (NICHD) http://www.nichd.nih.gov/

EMBARGOED FOR RELEASE Wednesday, July 16, 2003 12:01 a.m. ET

## CHILD CARE LINKED TO ASSERTIVE, NONCOMPLIANT, AND AGGRESSIVE BEHAVIORS

Vast Majority of Children Within Normal Range

The more time children spent in child care from birth to age four-and-a-half, the more adults tended to rate them, both at age four-and-a-half and at kindergarten, as less likely to get along with others, as more assertive, as disobedient, and as aggressive, according to a study appearing in the July/August issue of "Child Development".

However, the researchers cautioned that for the vast majority of children, the levels of the behaviors reported were well within the normal range.

In fact, a mother's sensitivity to her child was a better indicator of reported problem behaviors than was time in child care, with more sensitive mothering being linked to less problem behaviors. Higher maternal education and family income also predicted lower levels of children's problem behaviors.

The findings, by the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development, are reported in the

"It's important to put these findings in perspective," said Duane Alexander, M.D., Director of the NICHD. "The amount of time in child care is one of several family and child care factors linked to children's behaviors, both positive and negative."

The NICHD launched the study of early child care in 1991. The 27 researchers conducting the study have been following the development of more than 1000 children from across the United States. The children were enrolled in the study at birth and come from an ethnically and economically diverse sample of families. In addition to focusing on time in child care, the current article focused on several other aspects of the child care experience: the quality of the child care arrangement, the proportion of time that the child was in a child care center, the proportion of time that the child was cared for in a group setting, and the number of times that the mother reported that the child started a new child care arrangement.

In the current article, the researchers describe how child care experiences in the first fourand-a-half years of the children's lives relate to children's social competence and behavior problems, when the children were four-and-a-half years old, and later, when they reached kindergarten. The study measured children's social behavior by having mothers, child care providers and teachers complete standardized ratings of children's behavior problems and social competence -- their ability to get along with children and adults and their ability to follow social rules. Information about the number of hours the children were in child care was obtained from the mothers every 3-4 months.

The link between time in child care and problem behavior was greater than the link between infant temperament and problem behavior or maternal depression and problem behavior. This link between time in child care and problem behavior was also greater for children in center-based care than for children in other types of care.

The study authors noted that, of the children who displayed problem behaviors, the majority were well within the normal range. A small proportion of children showed levels of problem behavior that should be monitored to see if they developed into more serious problems. The proportion of children showing these higher levels of problem behavior is commensurate with the proportion of children in the U.S. population as a whole who also display these problems.

The link between time in child care and problem behavior occurred across all family backgrounds and all types and quality of care. The authors added that the time in child care during infancy did not appear to have a greater bearing on the children's behavior than did the time they spent in care after infancy. The researchers also found evidence that children who experienced better quality child care -- in which caregivers provided intellectual stimulation and were warm, positive, and sensitive to child behavior-had fewer child caregiver/teacher -- reported problem behaviors and conflict than did children who experienced lower quality care. The researchers noted, however, that high quality child care did not eliminate the link between hours in care and behavior problems.

The researchers could find no threshold of child-care hours above which problem behaviors were especially likely to emerge.

To illustrate the reported findings that were based on the information from the group as a whole, the researchers classified the children into four groups, based on the amount of time they spent in child care:

- -- 16 percent of children were in child care an average of 0-9 hours a week
- -- 38 percent for 10-29 hours
- -- 36 percent for 30-45 hours
- -- 10 percent for more than 45 hours a week.

In each of these groups, a minority of the children had a high score on behavior problems. However, the percent of children with high scores increased with the increase in the number of hours children spent in child care.

Children were rated by mothers and teachers on items such as: child demands a lot of attention; argues a lot; bragging and boasting; cruelty, bullying or meanness to others;

destroys things belonging to others; disobedient at home; disobedient at school; gets into many fights; lying or cheating; screams a lot.

One of the important findings of this study is that the strongest predictor of how well a child behaves was a feature of maternal parenting that the researchers described as sensitivity—how attuned a mother is to a child's wants and needs. The behaviors of the sensitive mother are child centered; the sensitive mother is aware of the child's needs, moods, interests, and capabilities. She allows this awareness to guide her interactions with her child. Children of more sensitive mothers were more competent socially, less likely to engage in disruptive behavior, and less likely to be involved in conflicts with their caregivers and teachers.

Similarly, children whose parents had higher incomes and who were more highly educated also were more socially competent and less likely to engage in problem behaviors.

The study authors noted that their study was not designed to prove a cause and effect relationship. That is, the study cannot prove whether spending more time in child care causes children to have more problem behaviors. The behavior problems the researchers documented might be due to some other characteristic of the children or of their environment. Accompanying editorials in the July/August issue of "Child Development" offer possible explanations.

Findings previously reported from the NICHD Study of Early Child Care and Youth Development showed that more time in care predicted more problem behavior among two-year olds, but not among three-year olds; less sensitive maternal behavior and less harmonious mother-child interaction when children were 6-36 months of age; as well as higher rates of insecure attachment to the mother if the mother's parenting was relatively insensitive.

Preliminary findings pertaining to the research questions posed and answered by the current article were presented at the meeting of the Society for Research in Child Development in April of 2001. In the future, the researchers plan to focus on the relation between hours spent in child care and children's behavior during the school years.

The NICHD is part of the National Institutes of Health (NIH), the biomedical research arm of the federal government. NIH is an agency of the U.S. Department of Health and Human Services. The NICHD sponsors research on development, before and after birth; maternal, child, and family health; reproductive biology and population issues; and medical rehabilitation. NICHD publications, as well as information about the Institute, are available from the NICHD Web site, <a href="http://www.nichd.nih.gov">http://www.nichd.nih.gov</a>, or from the NICHD Information Resource Center, 1-800-370-2943; e-mail NICHInformationResourceCenter@mail.nih.gov.

##