DOCUMENT RESUME

ED 230 293 PS 013 569

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TITLE Family Environment and Television Use by Preschool Children.
SPONS AGENCY National Inst. of Mental Health (DHEW), Rockville, Md.
PUB DATE Apr 83
NOTE 16p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (Detroit, MI, April 21-24, 1983).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Age Differences; *Family Characteristics; *Family Environment; *Individual Characteristics; Longitudinal Studies; Parent Child Relationship; Parent Influence; *Predictor Variables; *Preschool Children; Preschool Education; Sex Differences; Television Research; *Television Viewing

ABSTRACT

This study, the first phase of a 2-year longitudinal investigation of television-viewing patterns of preschool children, examines family characteristics, parent/child interactive patterns, and aspects of the home environment associated with young children's television viewing. Participating were a group of 320 children within 3 months of their third or fifth birthdays at the onset of the study in 1981. Data were collected from subjects' parents, who were asked to keep a diary of all television viewing by family members during 1 week out of every 6 months. The first diaries were collected in April of 1981 for half of the sample; for the other half, diaries were collected in October of 1981. From 1 to 3 months before the initial diary was collected, parents were interviewed, and children were administered the Peabody Picture Vocabulary Scale. In general, results indicated that heavy viewers of television at both ages had relatively uneducated mothers, had cable television available in their home, did not go to preschool, had parents who did not regulate viewing, and were heavily focused on television in their conversation and play. (MP)

Family Environment and Television Use by Preschool Children

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Note 1.

The authors wish to acknowledge the critical contributions of Ellen Wartella, Valeria Lovelace, and Dafna Lemish to this research, as well as those of the 320 families in Topeka, Kansas who have participated in the study. This research was supported by a grant from the National Institute of Mental Health, and indirectly by the Spencer Foundation.

The purpose of this paper is to describe the family characteristics, parent-child interaction patterns, and aspects of the home environment that are associated with young children's television viewing. The age period from about 2 1/2 to 5 or 6 appears to be a time when children form their initial patterns of television use. Anderson and Levin (1976) reported that "purposive" viewing appears to begin at about age 2 1/2 to 3. That is the age at which children seem to become interested in particular television content and in which they become increasingly attentive to the television screen.

Although laboratory data abound for preschool children, most investigations of home viewing have been conducted with older children. Yet television use is socialized primarily at home. It seems reasonable that the important environmental variables contributing to this socialization can be found by examining viewing in the natural context of the home.

The data to be reported here are from the first phase of a two-year longitudinal investigation of television viewing patterns of preschool children. The sample consists of 320 children who were within three months of their third or fifth birthdays at the onset of the study in 1981. All families live in Topeka, Kansas, a medium-sized midwestern city. Topeka is an ideal place for a longitudinal study because it is demographically representative of a large portion of the American population and because it is a very stable community. People do not move in and out of Topeka very often. Families were initially identified by newspaper birth announcements, local preschool rosters, and advertisements on bulletin boards in public places.

Although it is a volunteer sample, it represents a wide range of parent educational levels and occupational statuses (e.g. Duncan occupational status rating for father averages 56 on a scale of 1-99).

Each family keeps a diary of all television viewing by family members for one week every six months. The first diaries were collected in April 1981 for half of the sample and October 1981 for the other half. The mean number of hours viewed per week during the first diary period was 18.8 for the three-year-olds and 20.2 for the five-year-olds. These figures are, if anything, overestimates of the child's actual exposure to television programming. Parents were instructed to record the children as viewers whenever they were in the same room with an operating television set. This definition of viewing was used so that the parent would not need to make unreliable judgments about when the child was attending to the TV, but it undoubtedly resulted in the inclusion of times when children were in the room, but not paying attention to the television.

One to three months before the initial diary was collected one of two female investigators conducted an extensive personal interview with each mother. She also administered the Peabody Picture Vocabulary Scale to the child.

The analysis reported here was designed to examine how the family and child characteristics measured in the mother interview were related to the child's total amount of television viewing, as indexed by the first viewing diary. The sets of variables which were examined are presented in Table 1. All 23 predictor

variables were entered in a multiple regression predicting the total amount of television viewed by the child during the week, according to the viewing diary. Regressions were calculated for the entire sample and for each age group separately. The family variables were entered first, then the child characteristics, then the other sets of variables. During the entry phase of the regression, all variables reaching an F ratio of 1.0 or more were allowed to enter. Then, variables were dropped until only those reaching the .05 level of significance remained. This procedure permitted possible suppressor effects to be identified.

The results of these analyses are shown in Table 1. For each variable, the means for the two age groups and for boys and girls are shown. In the column labeled, Predict Viewing, those variables that entered the regression equation as independent predictors at the .05 level of significance are labeled.

Family Characteristics.

The family characteristics examined included family size, mother's education, mother's employment (none, part time, or full time), mother's socioeconomic status (Duncan Scale), and father presence. Most of the literature on television viewing shows that both education and occupational status are negatively associated with the amount of television viewed by adults. Because parents' viewing habits are likely to be an important influence on children's viewing, we expected children of more educated parents and parents with high occupational status to be relatively infrequent viewers. Father's education and occupational status was not included in this analysis, because it would have required dropping the cases without a father in the

home and because fathers' demographic characteristics overlap with those of mothers.

For the combined sample and for both age groups separately, maternal education was the single best predictor of viewing. The more well educated the mother, the less television the child watched. Other demographic characteristics of the family (including father education and occupational status in another analysis) fell in the same pattern, but maternal education was the best predictor.

Our sample also provides an opportunity to examine the relation of maternal employment to children's viewing, because it was about equally divided between mothers who were employed full-time, part-time, or were full-time homemakers. There is a great deal of emotional speculation about children of employed mothers watching television constantly, but virtually no good data exist, particularly for the preschool age group.

Maternal employment was not significantly related to viewing. The direction of the relationship was, in fact, slightly negative; children whose mothers were employed viewed slightly less than those of full-time homemakers. Viewing at baby sitters and day care settings was included in the diary total, so this finding is not an artifact of children being out of the home part of the time. At least for preschool children, maternal employment does not lead to increased television viewing.

Still another stereotype is contradicted by the finding that, for three-year-olds, children without fathers at home

watched television less frequently than those with two parents. Although father presence is a significant predictor, this result should be interpreted with caution because the number of single-parent families was very small (less than 10). Nevertheless, the direction of the finding is opposite to that which is often assumed in the popular literature where all social evils seem to be blamed on working mothers, single-parent families, and excessive television.

Child Characteristics.

Gender, age group, and the child's Score on the Peabody Picture Vocabulary Test were the child variables investigated. Investigations of older children have sometimes shown that intelligence is negatively related to television viewing. The Peabody score reflects the most central component of most intelligence tests: vocabularly level. The results showed no independent contribution of Peabody score to viewing frequency at either age level. One reason may be that, for young children, television can be a source of stimulation, particularly for language development. It is not necessarily a detractor. also expected older children to watch more than younger ones.

There were no overall age differences in total viewing. Instead, a sex difference emerged for the five-year-olds. Five-year-old boys watched more television than girls (and more than three-year-old boys. There were no sex differences at age three. Earlier literature has indicated that boys like cartoons better than girls do. In several laboratory studies conducted at CRITC, we have found that boys are more attentive to animated and high action children's programs than girls are.

Some possible explanations for these sex differences are suggested by the other variables on which sex differences appear. Boys showed more involvement with television generally. They had higher scores on TV Focus (talking about television and playing games with television themes) and they had more TV-related toys and objects. They also liked print media less than girls. The final version of the regression equation for five-year-olds did not include sex, but did include TV focus and liking print, suggesting that these variables accounted for the sex differences in viewing.

Television Availability

The number of television sets in the home, other video equipment (video recorders and games), and the number of cable options subscribed to all provide indexes of the family interest in television as well as the child's opportunities to view. Among these, cable options were significantly related to children's viewing frequency. The paper on cable options later in this symposium presents a detailed discussion of this variable.

Family TV Regulations

Three aspects of regulation were examined: the amount of control exerted over the total viewing time or the programs viewed (TV Control); regulations imposed on viewing specific types of adult content, primarily violence or sex (Adult Content Regulation); and encouragement to watch particularly programs or at particular times (TV Encouragement).

Most investigations have shown that parents do remarkably little to regulate their children's uses of television. Many parents place no limits on the amount of time or the types of

programs their children may view. In this sample, the majority of parents had some limits on the types of programs their children could watch. The most frequent reason given for forbidding a program was excessive violence.

Parent regulation of television was negatively related to viewing. It appears that parents who are conscious of what their children watch on television and who restrict viewing to some degree succeed in limiting their children's total viewing. Parenthetically, parent encouragement of viewing was not the reverse of control; they were positively correlated. Parents who encourage certain kinds of viewing appear to be more aware and concerned about their children's viewing than those who do not.

Child's Media Orientation.

The variable, TV Focus consists of the mother's responses on five-point rating scales about the frequency of play activities using TV themes, conversations about TV, enjoyment of TV, asking for explanations of TV events, asking about scary things on TV, asking for TV-advertised products, talking about commercials, asking if events on TV are real, and disagreement about TV viewing rules).

TV Focus was associated with frequent viewing for both age groups. It appears that for heavy viewers television characters and content pervade many aspects of the child's play activities and interactions with parents. Television is not an isolated experience, but can become a central focus of children's lives.

TV Objects described the number of TV-related playthings, games, clothes, and other objects the child owns. Although this

variable may also reflect the pervasiveness of television themes and content in the home, it did not predict viewing.

Two variables indexed the child's interest in non-television media. Liking print media was the sum of rated enjoyment of books, having books as a favorite activity, frequency of library visits, and playing alone with books. Liking other media was the rated enjoyment of records, tapes, or any media other than television or print.

Many investigations have suggested that television may conflict with attraction to print media. Television viewing and reading are negatively correlated for elementary school-age children. Our results suggest that this pattern may emerge by age five. Children who were reported to like books and to spend time with books were light viewers. Few of our sample could read, but this finding may indicate a forerunner of what has been observed with older children -- heavy television viewers are less interested in books. The negative relation of interest in print media to viewing is particularly interesting because there was no relation of Peabody vocabulary score to television viewing.

Interest in other media, such as records and tapes, was also negatively related to television. These are for the most part auditory media (as is listening to books at this age). Could it be that light television viewers enjoy auditory processing more than heavy viewers?

Child's Other Activities

Whether the child attended preschool, and the reported enjoyment of indoor play, outdoor play, and play with other children (social play) were included to determine whether

involvement in alternative activities is related to the amount of time spent with television.

Children who attended preschool watched less television than those who did not. When children spend some of their time in an educational setting, they spend less of it watching television. Many of these preschools were day care centers. Perhaps one of the unheralded benefits of day care is to reduce daytime television viewing for many children.

Enjoyment of other play activities did not predict viewing, with one exception. For five-year-olds, children who enjoyed outdoor play watched less television than those who did not. This finding occurred despite the fact that boys more often liked outdoor play and watched more television.

Now that each set of variables has been considered separately, I will try to summarize the pattern of family attributes, child characteristics, and other environmental correlates of television viewing in this sample.

Heavy viewers of television at both ages had relatively uneducated mothers, had cable available in their homes, did not go to preschool, had parents who did not regulate viewing, and were heavily focused on television in their conversation and play.

Age differences in overall viewing did not occur, but some different patterns appeared. The amount of variance accounted for by all the predictors was considerably higher for five-year-olds than for three-year-olds, suggesting that the older children had more well-formed and consistent habits of television viewing.

For the three-year-olds, two of the three final predictors were family variables--maternal education and father present in the home. Only one child characteristic, TV focus, was related to viewing. It is likely that much of the viewing done by children at this age is determined by what is viewed by adults around them. (In fact, other analyses of these data show that three-year-olds watch with parents more than five-year-olds).

Five-year-olds have a few more choices and better ability to make intentional decisions about when to view or what else to do with their time. For five-year-olds, a number of child characteristics were related to viewing. Heavy viewers were boys, and children for whom TV was a central part of play activities and conversation. They were relatively uninterested in outdoor play, print media, or other media. Their parents did not regulate their viewing.

Clearly, the factors that determine children's viewing patterns at home are multiple and complex. Our findings support many others in showing that family characteristics, particularly maternal education, are central influences on children's viewing patterns. There are in addition, a host of characteristics of the family environment and the child that contribute to children's use of television.

Table 1

Predictors of Preschool Children's Television Viewing

	Age Group		Sex		Regression Coefficient		
	3	5	Boys	Girls	3	5	Both Ages
Family Characteristics							
Number of people in family	4.17	4.48*	4.28	4.40			
Mother's education[c]	3.23	3.42	3.32	3.34	-.28[ab]	-.30[ab]	-.29[ab]
Mother's occupational status (Duncan)	52.1	52.5	53.9	50.5			
Mother employed (1=no; 3=full time)	1.97	1.90	1.92	1.95			
Father present (0=no; 1=yes)	.95	.95	.93	.96	.23[ab]		
Child Characteristics							
Age							
Sex						-.10[a]	
Peabody Picture Vocabulary (%ile)	60.8	65.2	64.4	61.5			
Television Availability							
Number of TV sets owned	1.75	1.81	1.89	1.68*			
Other video equipment (e.g. tape recorders)	.23	.17	.20	.20			
Cable options (1=none; 4=two movies)	1.95	1.94	2.04	1.83		.18[ab]	.12[ab]
Family TV Regulations							
TV Control	1.77	1.74	1.70	1.82		-.12[a]	-.11[ab]
Regulation of Content (violence, sex)	.82	.95	.88	.89			

Encourages TV	1.27	1.29	1.24	1.32			
Child's Media Orientation							
TV Focus (Play & conversation about TV)	37.7	43.3*	41.6	39.4*	.21[ab]	.15[ab]	.21[ab]
TV Objects (toys and games)	4.47	4.82	4.93	4.33*			
Likes print media	15.4	16.0*	15.4	16.0*		-.16[ab]	
Likes other media (e.g. records, tapes)	5.9	6.3*	6.1	6.1		-.22[ab]	
				Multiple R	.40	.51	.43
				R^2	.16	.27	.17

a. Variable entered regression equation at $p < .05$

b. Variable was in final regression equation at $p < .05$

c. Maternal education scale: 1=less than high school; 2=completed high school; 3=some post-high school training; 4=college degree (Bachelor's) 5=some post-graduate training; 6=graduate degree.