

Dunst, C. J., Hamby, D. W., & Snyder, D. (2009). Preschool children's emerging participation in leisure and recreation activities. *World Leisure Journal*, 51, 219-228.



WORLD LEISURE No. 4/2009 © Copyright by the authors

## Preschool Children's Emerging Participation in Leisure and Recreation Activities\*

CARL J. DUNST, DEBBIE HAMBY, DONNA SNYDER  
*Orelena Hawks Puckett Institute, North Carolina, USA*

### Abstract

Parents ( $n = 1509$ ) of young children birth to 6 years of age were surveyed about their children's participation in 30 leisure and recreation community activities. Analyses focused on similarities and differences according to type of activity (leisure vs. recreation), child age, and child developmental condition (children with vs. children without disabilities or delays). Results showed that there were age-related increases in the patterns of participation in both recreation and leisure activities, but that there was considerable heterogeneity in patterns of participation in terms of the particular activities constituting the focus of investigation. Findings also showed greater participation in leisure compared to recreation activities, and greater participation in both types of activities among children without disabilities or delays.

**Keywords:** *Leisure activities, recreation activities, preschool children, child participation, age-related patterns*

\* \* \*

The potential value of leisure and recreation activities for children birth to 6 years of age has been noted by both researchers and practitioners (e.g., DeVault, 2000; Parnicka, 1995). The National Association for Sport and Physical Education (2002) recently issued guidelines for promoting infant, toddler, and preschooler participation in everyday activities that provide opportunities for physical exercise and development. Bender and Baglin (2003) also proposed guidelines for both parents and professionals to en-

courage the participation of young children in leisure and recreation activities.

The kinds of recreation and leisure activities that have been described as appropriate for infants, toddlers, and preschoolers include, but are not limited to, *aquatics* (Langendorfer, 1990), *outdoor activities* (Bennett & Bennett, 1993; Rivkin, 1995), *gardening* (Herd, 1995), *art and music activities* (Andress, 1991; Zimmerman & Zimmerman, 2000), *visiting farms, museums, and zoos* (Tunnicliffe, 1995;

Turley, 2001), *fishing* (Circle, 2003), *running and jumping* (Eastman, 1997), *T-ball and other sports activities* (Mead et al., 2007), *nature activities* (Cohen & Tunick, 1993), *gymnastics* (Poudevigne et al., 2003), *library story hours* (Flatow, 1997; Kuchner, 2001), *children's festivals and fairs* (Amato, 1989), *neighborhood and community walks* (Gobster, 2005), and *exercise and movement classes* (Gervais, 2003), among many other kinds of activities (e.g., Evaldsson & Corsaro, 1998; Gunner, Atkinson, Nichols, & Eissa, 2005; Kimball, 1981; Meeks & Mauldin, 1990).

The study described in this paper examined infant, toddler, and preschooler emerging participation in community activities generally considered either leisure or recreational activities. We used Kraus' (2006) descriptions of leisure and recreation activities to propose working definitions of the two types of activities applicable to infants, toddlers, and preschoolers. Our distinction between the two types of activities is based on Kraus' (2006) contentions that "leisure implies...reflection, self-enrichment, relaxation, or pleasure" (p.38) whereas "recreation consists of human activity or experiences" (p. 45). Neulinger (1981) made a similar distinction between leisure and recreation based on a survey of the "meaning of leisure." "When asked to describe the distinction between leisure and recreation, the most frequent reply was that leisure implies passivity and nonactivity, whereas recreation implies activity" (Neulinger, 1981, p. 25). Accordingly, we postulated that leisure and recreation activities for infants, toddlers, and preschoolers would vary from passive to active child involvement.

The common denominator of both leisure and recreation activities is participation, whether as a bystander (passive) or as an operative (active). Young children's participation in any activity, including recreation and leisure activities, is often selected and guided by adult family members (Göncü, 1999; Rogoff, Mistry, Göncü, & Mosier, 1993). In addition, participation is shaped and influenced by the demands of an activity (e.g., listening to an outdoor concert vs. taking swimming lessons) which affects how participation is manifested. Participation therefore would be expected to vary according to type of activity (Brustad, 1993; de Winter, Baerveldt, & Kooistra, 1999).

While it is generally recognized that leisure and recreation activities are not mutually exclusive but rather serve similar functions (Veal, 1992), the distinctions we made allowed us to determine if patterns and levels of involvement differed along a continuum from active to passive participation (Havitz & Mannell, 2005; Hull, Stewart, & Yi, 1992; Meeks & Mauldin, 1990). Moreover, inasmuch as definitions of recreation and leisure applicable to older children and adults (see e.g., Veal, 1992; for a compilation of definitions) often include elements that are not developmentally appropriate for younger children, and especially infants and toddlers (e.g., choosing how to spend free time), our working definitions were considered a first step in determining if such a categorization of community activities would be useful for discerning patterns of differential participation in leisure and recreation activities.

The particular activities constituting the focus of analysis were ones that young children birth to 6 years of age often experience as part of everyday life. Activity theory (Chaiklin, Hedegaard, & Jensen, 1999; Göncü, 1999; Rogoff et al., 1993) was used to guide the identification and selection of the activities constituting the focus of analysis. Activity theory posits that the everyday activity settings making up the fabric of daily life are the contexts for encouraging participation in different kinds of activities, including but not limited to, leisure and recreation (Farver, 1999). Accordingly, the activities examined in our study were ones that were potentially available to infants, toddlers, and preschoolers as a part of everyday life. These included, but were not limited to, nature walks, outdoor concerts, fishing, water sports, and bicycling. Interestingly, the activities are the same ones adults and older children participate in for leisure and recreation (Neulinger, 1981).

The extent to which participation in leisure and recreation activities were associated with child-related characteristics was examined in the study reported in this paper. The two child factors that were the focus of analysis were children's ages and developmental condition (Larson & Verma, 1999). Surprisingly, little is known empirically about the influence of child age on patterns of infant, toddler, and preschooler participation in different leisure and recreation activities. Much of the evidence con-



cerning young children's participation in both recreation and leisure activities is descriptive or anecdotal. The exceptions are studies by Beckman et al. (1998) and Dunst et al. (2000) who investigated the different kinds of family and/or community activities that infants, toddlers, and preschoolers typically participate in as part of everyday life. Some but not all of the activities described by Beckman et al. and Dunst et al. included leisure and recreation activities. There is some evidence, for a limited number of community activities, that children with disabilities participate in such activities less often than children without disabilities (e.g., Ehrmann, Aeschleman, & Svanum, 1995).

The need for information about the influences of child characteristics on participation in community activities was recently noted by King et al. (2007) who have been investigating older children's involvement in leisure and recreation activities (Law et al., 2006). This paper includes information on the age-related and condition-related (children with vs. children without disabilities or delays) differences in young children's patterns of participation in community leisure and recreation activities. The main goal of the analyses described in this paper was a more complete portrayal of which kinds of activities infants, toddlers, and preschoolers participate in at different ages.

## Method

### Participants

The participants were 1,509 parents and other primary caregivers of young children birth to 6 years of age from 48 United States and Puerto Rico. They were recruited through early-childhood programs that were serving the participants' children at the time the survey was administered. Mailing lists of early childhood programs were obtained from state-level and territory early childhood intervention program coordinators and from federal Early Head Start, Head Start, and Bureau of Indian Affairs program officers. Letters explaining the studies were sent to the programs on the mailing lists asking them to complete a program profile which was subsequently used to select programs.

Four hundred and fifty program profiles were returned. Profile information was used to stratify programs according to type of program (preschool special education, Head Start, etc.), child

age (birth to 3, 3 to 5, birth to 5), child condition (children with and without disabilities), parent education (less than high school, high school, etc.) family socioeconomic backgrounds (low, middle, high), family ethnicity (Asian, Latino, Caucasian, etc.), and parent marital status (married, divorced, etc.). Programs in different strata were selected to insure broad-based child and family representation. Programs serving typically underrepresented families were overselected to ensure that large enough samples of those families were included in the study. Two hundred and twenty-two (222) out of 450 programs were invited to participate in the study, 180 (80%) of which accepted our invitation.

The parents' and caregivers' ages ranged from 16 to 62 years. They had completed from zero (0) to 20 years of formal schooling. About three-quarters of the respondents were married or living with a partner (72%); 13% were separated, divorced, or widowed; and 15% were single, never married, and not living with a partner. The participants were equally divided into terms of those working (49%) and not working (51%) outside the home. The majority of participants' families' socioeconomic backgrounds (Hollingshead, 1975) were low/middle (26%), middle (31%), and middle/upper (19%) classes, whereas 15% had low socioeconomic status (SES) backgrounds, and 9% had high SES backgrounds.

Just under 60% of the participants identified themselves as Caucasian (58%), while the others identified themselves as Latino (16%), African American or African Descent (10%), Native American or Native Alaskan (5%), Asian American or Asian (2%), Pacific Islander or Native Hawaiian (1%), and Middle Eastern (0.5%). A small percentage of participants indicated they were biracial or multicultural. The distribution of participants according to ethnicity was diverse as expected from the stratification process.

The children's ages varied from 1 to 71 months. The mean child age was just over three years ( $M = 40.59$  months,  $SD = 17.94$ ). The children included those with (56%) and without (44%) identified disabilities or developmental delays. The children's disabilities included chromosomal abnormalities (e.g., Down syndrome), physical disabilities (e.g., cerebral palsy), sensory impairments (e.g., low vision), and other conditions associated with developmental de-

lays. The distribution was as expected based on how programs were stratified and selected.

**Survey**

Both English and Spanish versions of the survey were prepared for the study. The survey was subsequently translated into four other languages to permit non-English and non-Spanish speaking parents to complete the survey. The children's parents or caregivers were asked to indicate the types of community activities that served as the context of their children's participation and learning. The activities in the survey were selected based on an extensive review of the literature on infants', toddlers', and preschoolers' participation in everyday activities. Respondents indicated, on a 5-point scale (0 = not at all, 1 = very little, 2 = some, 3 = a lot, 4 = always), the extent to which an activity was a community experience or opportunity in which his or her child was involved as a participant and learned or displayed behavior that was appropriate to the activities.

The survey included 15 items identified as leisure activities and 15 items identified as recreation activities. The items in each category were organized into subscales of five different kinds of activities with three items per subscale (Table 1). Both the selection of the items and the assignment of the indicators to

the subscales were guided by existing classifications and categorizations of leisure and recreation activities (e.g., Glausier, Whorton, & Morgan, 1996; Snepenger & Crompton, 1985; Stebbins, 2005).

Principal components factor analyses with varimax rotation of the 10 sets of activities each produced a single factor solution. The internal consistency estimates (coefficient alpha) for the 10 analyses ranged between .56 and .79 (Median = .62), which were considered acceptable for scales including only a few items (Nunnally, 1978).

**Methods of analysis**

The primary analysis was a 12 Between-Child Age (0-6, 6-12...21-66, 66-72 Months) X 2 Between-Child Condition (Delayed vs. Nondelayed) X 2 Within the Type of Activity (Leisure vs. Recreation) ANOVA with subscales nested within the type of activity factor. The sum of the ratings for the three items per subscale was used as the measure of participation in each of the leisure and recreational activity categories. Inasmuch as our main interest was children's emerging participation in leisure and recreation activities, all between-age analyses included tests for linear and curvilinear trends in the dependent measures for purposes of ascertaining similarities and differ-

**Table 1. Categorization of the Leisure and Recreation Activities**

Leisure Activities	Recreation Activities
<i>Entertainment</i> ( $\alpha = .60$ )	<i>Seasonal Sports</i> ( $\alpha = .59$ )
Listening to Storytellers	Swimming
Library/Bookmobile	Ice Skating
Music Activities/Concerts	Fishing
<i>Animal Habitats</i> ( $\alpha = .79$ )	<i>Nature Activities</i> ( $\alpha = .64$ )
Animal Farm/Petting Zoo	Nature Trail Walks
Zoo/Animal Reserve	Hiking
Pet Store/Animal Shelter	Horseback Riding
<i>Play Activities</i> ( $\alpha = .56$ )	<i>Outdoor Activities</i> ( $\alpha = .66$ )
Indoor/Outdoor Playgrounds	Boating/Canoeing
Community Centers	Rafting/Tubing
Arcade Games/Centers	Camping
<i>Community Events</i> ( $\alpha = .74$ )	<i>Sports</i> ( $\alpha = .60$ )
Parades	Baseball/Basketball
Children's Festivals/Fairs	Soccer/Football
Community Fairs/Celebrations	Karate/Martial Arts
<i>Attractions</i> ( $\alpha = .67$ )	<i>Organizations</i> ( $\alpha = .56$ )
Museum/Science Center	Gymnastics/Movement Classes
Parks/Nature Center or Reserve	Scouting (Club/Brownies)
Community Garden	Children's Clubs (4H, Indian Guides)



ences in patterns of emerging participation in the 10 categories of activities. Cohen's  $d$  was used as the size of effect for between-group comparisons and for both the linear and curvilinear trends (Rosenthal, 1994).

The extent to which degree of participation varied along an active to inactive continuum was ascertained by calculating for each leisure and recreation subscale the percentage of children who received a score of either a 3 (a lot) or 4 (always) for one or more activities within each subcategory. An activity in a subcategory rated either a 3 or 4 was used as the measure of frequent participation in an activity. This was considered an appropriate coding procedure since any one child would not necessarily be expected to be involved in all three activities in a subcategory. Percentages were calculated separately for the children with and without disabilities or delays. Chi-square analyses and Cohen's

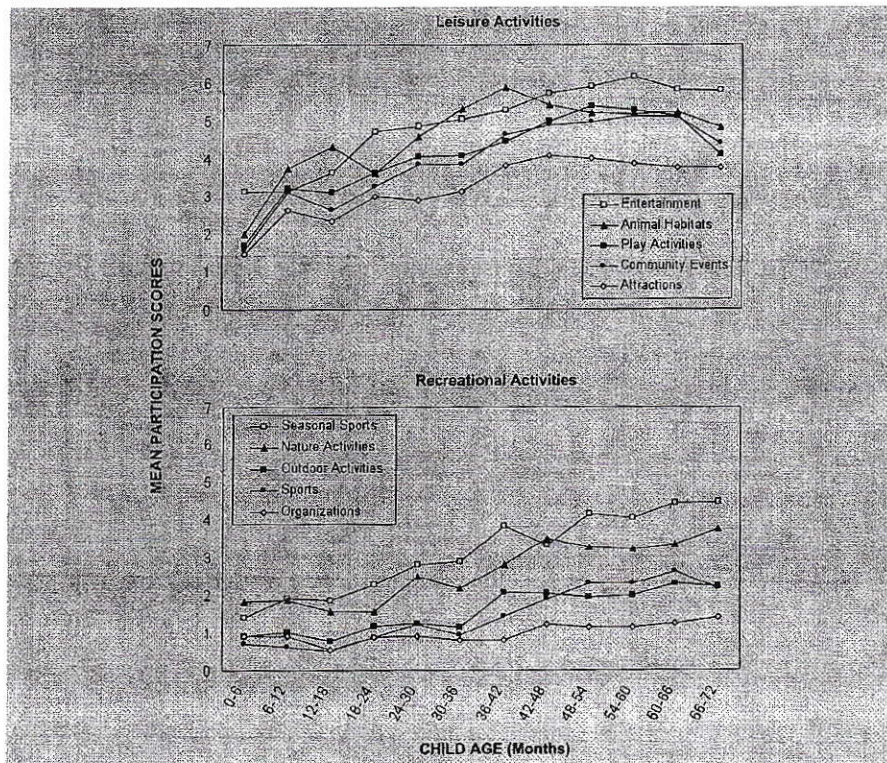
$d$  effect sizes for  $2 \times 2$  tables (Lipsey & Wilson, 2001) were used to ascertain similarities and differences in frequency of participation in the 10 subcategories of activities for children with or without disabilities or delays.

## Results

### Primary analysis

The ANOVA produced main effects for child condition,  $F(1, 1484) = 23.02, p < .0001$ ; type of activity,  $F(1, 1484) = 1845.04, p < .0001$ ; and child age,  $F(11, 1484) = 13.74, p < .0001$ . Findings showed that children without disabilities or delays participated in more activities ( $M = 3.74, SD = 2.97$ ) compared to children with disabilities or delays ( $M = 2.86, SD = 2.81$ ),  $d = .30$ . Findings also showed that the children participated in more leisure activities ( $M = 4.44, SD = 2.81$ ) compared to recreation activities ( $M = 2.05, SD = 2.50$ ),  $d = .90$ .

Figure 1. Patterns of young children's participations in 10 types of leisure and recreation activities





The main effects for age and type of activity were qualified by a child age x type of activity interaction,  $F(11, 1484) = 5.16, p < .001$ . The subscale nested within type of activity components of the ANOVA produced child age x activity interactions for both the recreation,  $F(44, 5936) = 3.09, p < .001$ , and the leisure,  $F(44, 5936) = 1.63, p < .01$ , subscales, indicating that there was heterogeneity in patterns of participation in the different categories of activities at the different child ages. The patterns of participation are shown in Figure 1.

Follow-up tests of the age-related differences in patterns of participation in the five types of leisure activities and five types of recreation activities are shown in Table 2. There were between age differences in 9 of the 10 analyses, significant linear trends in all 10 analyses, and significant curvilinear trends in the five leisure activity analyses. The effect sizes for the linear trends all indicate, except for organized group activities, that the magnitude of increases in participation in both the leisure and recreation activities were moderately large. The effect sizes for the curvilinear trends for the leisure activities indicate that there were increases in participation followed by a leveling off. The leveling off was most pronounced for involvement in the animal habits, play activities, and community events.

*Leisure activities.* Patterns of participation in the leisure activities showed ascending increases

in all five types of activities birth to 42 months of age, followed by a leveling off in the levels of participation (Figure 1). The leveling off was evidenced by the significant curvilinear trends for each leisure activity category, indicating a threshold effect for the degree or amount of participation between 4 and 6 years of age.

*Recreation activities.* Inspection of Figure 1 shows small, but incremental, increases in participation in all five types of recreation activities, with the greatest increases in seasonal sports and nature activities, and the smallest increases in organized group activities. Despite a significant linear increase in participation in organized group activities, overall levels of participation remained low at all age-levels.

**Secondary analysis**

Figure 2 shows the percentage of children with and without disabilities or delays who frequently participated in one or more activities in each of the 10 subcategories. A larger percentage of children without disabilities or delays participated in most of the activities compared to children with disabilities or delays,  $\chi^2_s = 5.45$  to  $30.86, df = 1, p_s < .02$  to  $.0001, ds = .12$  to  $.29$ , except for the organized group and outdoor activities,  $\chi^2_s = 0.62$  and  $2.20, df = 1, p_s > .10, ds = .04$  and  $.08$ , where participation was much alike for both groups of children. Notwithstanding the statistically significant differences, patterns of participation were more alike

**Table 2. Age-Related ANOVA Results and Cohen's d Effect Sizes for the Different Types of Recreation and Leisure Activities**

Type of Activity	Between Ages	Linear Trends	d <sup>c</sup>	Curvilinear Trends	d <sup>c</sup>
	F-tests <sup>a</sup>	F-tests <sup>b</sup>		F-tests <sup>b</sup>	
<i>Leisure Activities</i>					
Entertainment	6.13****	46.41****	.35	6.77**	.14
Animal Habitats	6.56****	43.50****	.34	6.28****	.21
Play Activities	11.58****	64.14****	.42	30.11****	.29
Community Events	12.18****	77.45****	.46	17.60****	.22
Community Attractions	5.38****	35.52****	.31	6.90**	.14
<i>Recreation Activities</i>					
Seasonal Sports	13.64****	98.98****	.52	1.19	.06
Nature Activities	5.65****	36.02****	.31	0.00	.00
Outdoor Activities	5.26****	31.26****	.29	0.09	.02
Sports	9.69****	60.15****	.40	0.35	.03
Organizations	1.49	6.32**	.13	1.81	.07

<sup>a</sup> df = 11,1484.

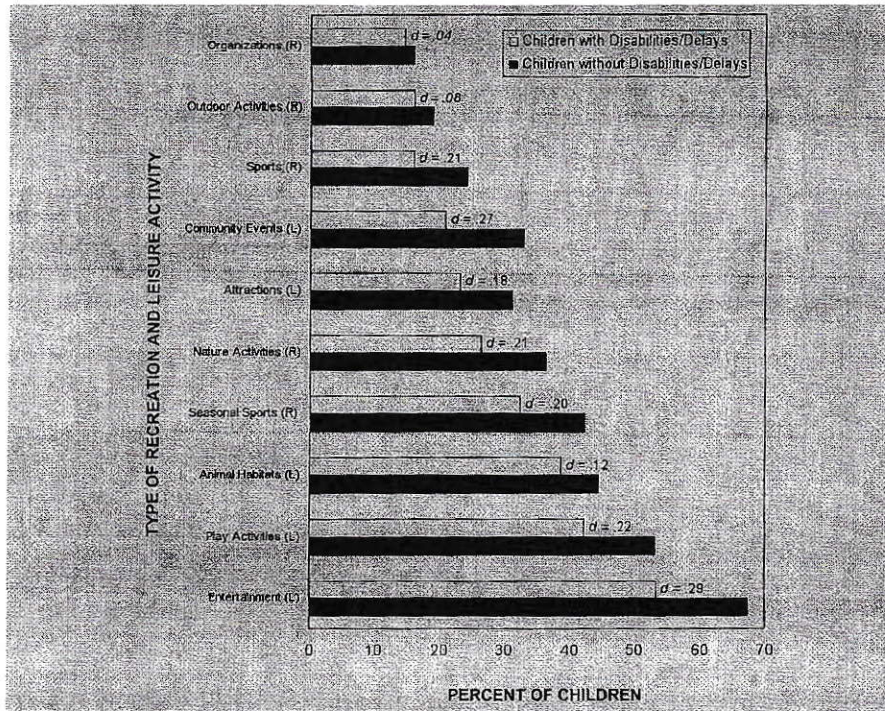
<sup>b</sup> df = 1,1484.

<sup>c</sup> Cohen's d effect size for the trends.

\* p < .05. \*\* p < .01 \*\*\* p < .001 \*\*\*\* p < .0001.



Figure 2. Percentage of children participating in the different leisure (L) and recreation (R) activities



than different in all 10 subcategories of activities for both groups of children as evidenced by the small sizes of effect for the majority of the 10 between-group comparisons.

Further inspection of Figure 2 shows that the three types of activities in which the children participated the least were categorized as recreation activities, and the three types of activities in which the children participated the most were categorized as leisure activities. Children's participation in community events and attractions (both considered leisure activities) occurred less frequently than participation in nature and seasonal sports activities (both considered recreation activities).

### Discussion

Findings indicated that there were both age-related and child condition-related differences in patterns of infant, toddler, and preschooler emerging participation in recreation and leisure activities. Results also showed that patterns of

participation varied both between and within the two types of activities constituting the focus of analyses (leisure vs. recreation). Patterns of participation generally fell along an active to passive continuum, although the expected pattern was not nearly as strong as predicted.

The age-related patterns of participation described in this paper, to the best of our knowledge, constitute the first set of data showing the manner in which young children birth to 6 years of age become increasingly involved in different kinds of leisure and recreation activities. The findings showed for most activities predictable and expected increases in child participation, where increases were greatest in activities that involved more passive participation. The findings as a whole add to the knowledge base in terms of the everyday activities that provide contexts for child participation and learning (e.g., Göncü, 1999; Rogoff et al., 1993).

Findings showed that children without disabilities or delays participated in both leisure and



recreation activities more often compared to children with disabilities or delays. This is consistent with findings from other studies (e.g., Ehrmann et al., 1995; Howard, 1996; Schleien, Mustonen, & Rynders, 1995). Despite the differences, however, patterns of participation of children with and without disabilities or delays were more alike than different (Figure 2). Findings similar to these were reported by Law et al. (2006) and Mactavish et al. (1997) for older children with disabilities (see also Post, 1986).

The fact that the patterns of participation in leisure and recreation activities did not conform strictly to the predicted continuum (Figure 2) deserves comment to make clear the nature of child participation in the different kinds of activities. At the extremes of the active to passive continuum, patterns of participation make both empirical and intuitive sense. For example, child participation in the entertainment activities constituting the focus of investigation occurred most often presumably because a child is a more passive participant in the activities (e.g., visiting a library). In contrast, child participation in outdoor activities (e.g., boating or camping) occur considerably less often because an infant or toddler, for example, would not be expected to have the skills to engage in these activities. Rather, a child would typically be involved in these activities as a bystander where the child's parents or caregivers, for example, were the persons rowing a boat or pitching a tent.

Why then was child participation in nature activities (walks, hiking, etc.) considerably more frequent? This would appear to be the case because infants and toddlers, and sometimes older preschoolers, are involved in those activities by riding in walkers or jogging strollers or by being carried by their parents in back packs (e.g., Currie & Develin, 2002). Children are involved in these kinds of activities to the extent that their parents or caregivers themselves choose to engage in the activities, which appeared to be the case for many parents in this study. According to Freeman, Hill, and Huff (2002), family recreation is a way of drawing children into leisure and recreation activities that provide opportunities for increased child participation and for strengthening parenting confidence and competence (see also Barnett & Chick, 1986; Zabriskie & McCormick, 2003).

At the outset we stated that the purpose of this study was to discern if patterns of emerging participation in leisure and recreation activities differed as a function of child age and developmental condition. Results showed that variations in patterns of participation were highly age-related. The next step in this line of research is to identify which contextual, family, and cultural factors account for variations in individual child participation in leisure and recreation activities to isolate "what matters most" in explaining different degrees of participation in those kinds of activities.

We conclude with a word of caution. Sports and recreation activities are the leading cause of young children's hospital emergency department visits (Simon, Bublitz, & Hambidge, 2004) when the type of participation is beyond children's developmental capabilities. Care therefore is warranted in terms of *how* infants, toddlers, and preschoolers are involved in recreation and leisure activities that include different degrees of risks. Notwithstanding the risks, there are many benefits of participation in the kinds of activities constituting the focus of analysis in this paper (e.g., Frost, Brown, Sutterby, & Thornton, 2004; Mactavish & Schleien, 1998; Rogers & Zaragoza-Lao, 2003; Stern, Bradley, Prince, & Stroh, 1990). To the extent that benefits outweigh any risks, infant, toddler and preschoolers' developmentally-appropriate participation in leisure and recreation activities is warranted.

## REFERENCES

- Amato, P. R. (1989). Who cares for children in public places? Naturalistic observation of male and female caretakers. *Journal of Marriage and the Family*, 51, 981-990.
- Andress, B. (1991). From research to practice: Preschool children and their movement responses to music. *Young Children*, 47(1), 22-27.
- Barnett, L. A., & Chick, G. E. (1986). Chips off the ol' block: Parents' leisure and their children's play. *Journal of Leisure Research*, 18, 266-283.
- Beckman, P., Barnwell, D., Horn, E., Hanson, M., Gutierrez, S., & Lieber, J. (1998). Communities, families and inclusion. *Early Childhood Research Quarterly*, 13, 125-150.
- Bender, M., & Baglin, C. A. (Eds.). (2003). *Implementing recreation and leisure opportunities for infants and toddlers with disabilities*. Champaign, IL: Sagamore.
- Bennett, S. J., & Bennett, R. (1993). *365 outdoor activities you can do with your child*. Holbrook, MA: Adams.



- Brustad, R. J. (1993). Who will go out and play? Parental and psychological influences on children's attraction to physical activity. *Pediatric Exercise Science*, 5, 210-233.
- Chaiklin, S., Hedegaard, M., & Jensen, U. J. (Eds.). (1999). *Activity theory and social practice: Cultural-historical approaches*. Aarhus C, Denmark: Aarhus University Press.
- Circle, H. (2003, May). Let's go fishing! Put a rod in a youngster's hand and watch the fun begin. Here's how to get new anglers off to a good start. *Outdoor Life*, 39-42.
- Cohen, R., & Tunick, B. P. (1993). *Snail trails and tadpole tails: Nature education guide for young children*. St. Paul, MN: Redleaf Press.
- Currie, J. L., & Develin, E. (2002). Stroll your way to well-being: A survey of the perceived benefits, barriers, community support, and stigma associated with pram walking groups designed for new mothers, Sydney Australia. *Health Care for Women International*, 23, 882-893.
- de Winter, M., Baerveldt, C., & Kooistra, J. (1999). Enabling children: Participation as a new perspective on child-health promotion. *Child: Care, Health and Development*, 25, 15-25.
- DeVault, M. L. (2000). Producing family time: Practices of leisure activity beyond the home. *Qualitative Sociology*, 23, 485-503.
- Dunst, C. J., Hamby, D., Trivette, C. M., Raab, M., & Bruder, M. B. (2000). Everyday family and community life and children's naturally occurring learning opportunities. *Journal of Early Intervention*, 23, 151-164.
- Eastman, W. (1997). Active living: Physical activities for infants, toddlers, and preschoolers. *Early Childhood Education Journal*, 24, 161-164.
- Ehrmann, L. C., Aeschleman, S. R., & Svanum, S. (1995). Parental reports of community activity patterns: A comparison between young children with disabilities and their nondisabled peers. *Research in Developmental Disabilities*, 16, 331-343.
- Evaldsson, A.-C., & Corsaro, W. A. (1998). Play and games in the peer cultures of preschool and preadolescent children. *Childhood*, 5, 377-402.
- Farver, J. A. M. (1999). Activity setting analysis: A model for examining the role of culture in development. In A. Göncü (Ed.), *Children's engagement in the world: Sociocultural perspectives* (pp. 99-127). Cambridge, UK: Cambridge University Press.
- Flatow, K. M. (1997). Programs for babies in public libraries. *Illinois Libraries*, 79, 107-109.
- Freeman, P. A., Hill, B. J., & Huff, C. (2002, March). Development of a family recreation research agenda. *LARNet: The Cyber Journal of Applied Leisure and Recreation Research*. Retrieved August 9, 2007, from <http://web.nccu.edu/larnet/2002-5.html>.
- Frost, J. L., Brown, P.-S., Sutterby, J. A., & Thornton, C. D. (2004). *The developmental benefits of play-grounds*. Olney, MD: Association for Childhood Education International.
- Gervais, K. (2003, January/February). Young yogis: Add yoga to your child's exercise options. *American Fitness*, 31-32.
- Glausier, S. R., Wharton, J. E., & Morgan, R. L. (1996). A recreation and leisure inventory: Development and application. In D. Montgomery (Ed.), *Rural goals 2000: Building programs that work. Conference proceedings of the American Council on Rural Special Education (ACRES)* (pp. 208-212). (ERIC Document Reproduction Service No. ED394763).
- Gobster, P. H. (2005). Recreation and leisure research from an active living perspective: Taking a second look at urban trail use data. *Leisure Sciences*, 27, 367-383.
- Göncü, A. (Ed.). (1999). *Children's engagement in the world: Sociocultural perspectives*. Cambridge, UK: Cambridge University Press.
- Gunner, K. B., Atkinson, P. M., Nichols, J., & Eissa, M. A. (2005). Health promotion strategies to encourage physical activity in infants, toddlers, and preschoolers. *Journal of Pediatric Health Care*, 19, 253-258.
- Havitz, M. E., & Mannell, R. C. (2005). Enduring involvement, situational involvement, and flow in leisure and non-leisure activities. *Journal of Leisure Research*, 37, 152-177.
- Herd, M. (1995). *Learn and play in the garden: Games, crafts, and activities for children*. Hauppauge, NY: Barron's Educational Series.
- Hollingshead, A. B. (1975). *Four factor index of social status*. Unpublished manuscript, Yale University, Department of Sociology, New Haven, CT.
- Howard, L. (1996). A comparison of leisure-time activities between able-bodied children and children with physical disabilities. *British Journal of Occupational Therapy*, 59, 570-574.
- Hull, R. B., IV, Stewart, W. P., & Yi, Y. K. (1992). Experience patterns: Capturing the dynamic nature of a recreation experience. *Journal of Leisure Research*, 24, 240-252.
- Kimball, L. (1981). *Learn in the community: How parents can help children learn basic skills. Community proven practices II*. Phoenix, AZ: Arizona State Department of Education. (ERIC Document Reproduction Service No. ED211703).
- King, G. A., Law, M., King, S., Hurley, P., Hanna, S., Kertoy, M., & Rosenbaum, P. (2007). Measuring children's participation in recreation and leisure activities: Construct validation of the CAPE and PAC. *Child: Care, Health and Development*, 33, 28-39.
- Kuchner, J. F. (2001). Creating welcoming library environments for infants, toddlers and their families. *Zero to Three*, 21(3), 11-18.
- Langendorfer, S. J. (1990). Contemporary trends in infant/preschool aquatics: Into the 1990s and beyond. *Journal of Physical Education, Recreation and Dance*, 61(5), 36-39.
- Larson, R. W., & Verma, S. (1999). How children and adolescents spend time across the world: Work, play, and developmental opportunities. *Psychological Bulletin*, 125, 701-736.
- Law, M., King, G., King, S., Kertoy, M., Hurley, P., Rosenbaum, P., Young, N., & Hanna, S. (2006). Patterns of participation in recreational and leisure activities among children with complex physical disabilities. *Developmental Medicine and Child Neurology*, 48, 337-342.

- Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis* (Applied Social Research Methods Series Vol. 49). Thousand Oaks: Sage.
- Mactavish, J., Schleien, S., & Tabourne, C. (1997). Patterns of family recreation in families that include children with a developmental disability. *Journal of Leisure Research, 29*, 21-46.
- Mactavish, J. B., & Schleien, S. J. (1998). Playing together growing together: Parents' perspectives on the benefits of family recreation in families that include children with a developmental disability. *Therapeutic Recreation Journal, 32*, 207-230.
- Mead, T. P., Broussard, C. D., Rosenthal, G. T., Boudreaux, D. L., Cooley, A. M., & Hammerli, W. W. (2007). On-task distractors associated with totball baseball games: A preliminary study. *Perceptual and Motor Skills, 105*, 204-206.
- Meeks, C. B., & Mauldin, T. (1990). Children's time in structured and unstructured leisure activities. *Lifestyles: Family and Economic Issues, 11*, 257-281.
- National Association for Sport and Physical Education. (2002). *Active start: A statement of physical activity guidelines for children birth to five years*. Reston, PA: Author.
- Neulinger, J. (1981). *The psychology of leisure* (2nd ed.). Springfield, IL: C. C. Thomas.
- Nunnally, J. C. (1978). *Psychometry theory*. New York: McGraw-Hill.
- Parnicka, U. (1995). Leisure time and active recreation in families with pre-school age children in Biala Podlaska. *World Leisure and Recreation, 37*(3), 42-44.
- Post, M. S. L. (1986). Recreation and leisure patterns of families with a child identified as emotionally disturbed. (Doctoral dissertation, University of Utah, 1985). *Dissertation Abstracts International, 46*, 3 859-3860.
- Poudevigne, M. S., O'Connor, P. J., Laing, E. M., Wilson, A. M. R., Modlesky, C. M., & Lewis, R. D. (2003). Body images of 4-8-year-old girls at the outset of their first artistic gymnastics class. *International Journal of Eating Disorders, 34*, 244-250.
- Rivkin, M. S. (1995). *The great outdoors: Restoring children's right to play outside*. Washington, DC: National Association for the Education of Young Children.
- Rogers, M. A. M., & Zaragoza-Lao, E. (2003). Happiness and children's health: An investigation of art, entertainment, and recreation. *American Journal of Public Health, 93*, 288-289.
- Rogoff, B., Mistry, J., Göncü, A., & Mosier, C. (1993). Guided participation in cultural activities by toddlers and caregivers. *Monographs of the Society for Research in Child Development, 58*(8, Serial No. 236).
- Rosenthal, R. (1994). Parametric measures of effect size. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis* (pp. 231-244). New York: Russell Sage Foundation.
- Schleien, S. J., Mustonen, T., & Rynders, J. E. (1995). Participation of children with autism and nondisabled peers in a cooperatively structured community art program. *Journal of Autism and Developmental Disorders, 25*, 397-413.
- Simon, T. D., Bublitz, C., & Hambidge, S. J. (2004). External causes of pediatric injury-related emergency department visits in the United States. *Academic Emergency Medicine, 11*, 1042-1048.
- Snepenger, D. J., & Crompton, J. L. (1985). A review of leisure participation models based on the level of discourse taxonomy. *Leisure Sciences, 7*, 443-465.
- Stebbins, R. A. (2005). Choice and experiential definitions of leisure. *Leisure Sciences, 27*, 349-352.
- Stern, H. P., Bradley, R. H., Prince, M. T., & Stroh, S. E. (1990). Young children in recreational sports: Participation motivation. *Clinical Pediatrics, 29*, 89-94.
- Tunncliffe, S. D. (1995). *Talking about animals: Studies of young children visiting zoos, a museum, and a farm*. Unpublished doctoral dissertation, King's College, University of London (ERIC Document Reproduction Service No. ED409171).
- Turley, S. K. (2001). Children and the demand for recreational experiences: The case of zoos. *Leisure Studies, 20*, 1-18.
- Veal, A. J. (1992). Definitions of leisure and recreation. *Australian Journal of Leisure and Recreation, 2*(4), 44-48, 52. Retrieved June 5, 2007, from [http://www.business.uts.edu.au/1st/downloads/WP04\\_Veal.pdf](http://www.business.uts.edu.au/1st/downloads/WP04_Veal.pdf)
- Zabriskie, R. B., & McCormick, B. P. (2003). Parent and child perspectives of family leisure involvement and satisfaction with family life. *Journal of Leisure Research, 35*, 163-189.
- Zimmerman, E., & Zimmerman, L. (2000). Art education and early childhood education: The young child as creator and meaning maker within a community context. *Young Children, 55*(6), 87-92.

\* The research reported in this paper was supported in part by a cooperative agreement with the U.S. Department of Education, Office of Special Education Programs, Research to Practice Division (HO24596008). The opinions expressed, however, are those of the authors and do not necessarily reflect the official position of the Department.

\* \* \*

CARL J. DUNST, Ph.D.  
 Orelena Hawks Puckett Institute  
 Asheville, North Carolina  
 8 Elk Mountain Road,  
 Asheville, NC 28804  
 USA,  
 dunst@puckett.org

DEBBIE HAMBY, M.P.H.  
 Orelena Hawks Puckett Institute  
 Morganton, North Carolina

DONNA SNYDER, B.A.  
 Community Action Opportunities  
 Asheville, North Carolina