Janie M. Leary is a Doctoral Student at West Virginia University (email: jleary@hsc.wvu.edu). Dr David Adams is an Associate Professor at Armstrong Atlantic State University (email: David.Adams@armstrong.edu). Dr Sherry K. Gaines is a personal and professional coach and consultant and former Associate Professor at Georgia State University (email: skgaines@mac.com). Dr Judith L. Wold is a former Associate Professor at Georgia State University (email: jwold@gsu.edu). Dr Michael Mink is an Assistant Professor at Armstrong Atlantic State University (email: Michael.Mink@armstrong.edu).

Janie M. Leary, David Adams, Sherry K. Gaines, Judith L. Wold, Michael Mink

Measurement of activity preferences of preschoolers and caregivers

Physical activity is cited as a treatment for and prevention against obesity (Frary & Johnson, 2000; Sothern, et al., 1999). Participation in enjoyable activities is essential for a physically active lifestyle (Borra et al., 2003; Salmon et al., 2003). Research on preschooler preferences is limited (Janz, 2005), presumably due to lack of concrete preferences. Further, research investigating relationships between activity preferences of parents and young children is lacking. This study investigates caregiver and preschooler activity preferences using an experimental tool. Findings could aid in the development of interventions encouraging physically active lifestyles.

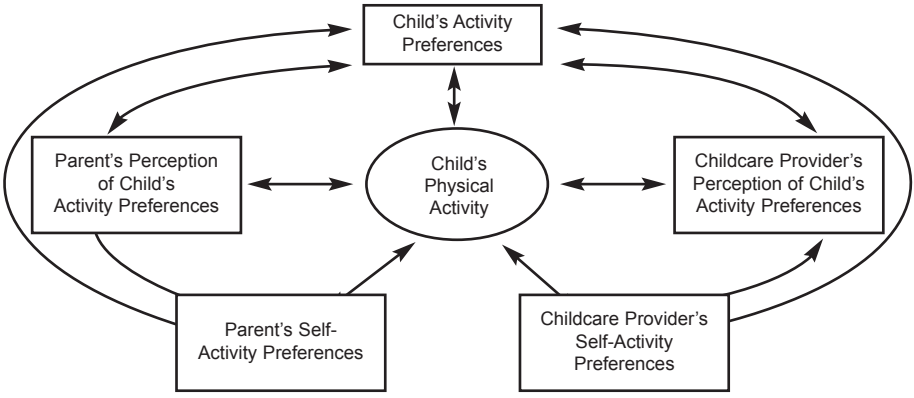
Conceptual Model

A conceptual model (Figure 1) was developed to explain better the complex relationships between caregiver and child activity preferences. Squares represent a query of participant activity preferences. Arrows represent educational opportunities to increase awareness of children's activity preferences and to help children develop activity preferences supporting a healthy lifestyle.

Methods

Currently, there are no published studies using a single tool to study activity preferences across age groups. An experimental instrument used both pictorial and written versions for querying pre-literacy-aged children through adults. The children's interview consisted of nine picture pairs, each pair with one sedentary

Figure 1: Conceptual Model of Preschooler Activity Preferences



activity and one physically active. Adults completed a written survey that included the same forced-choice questions.

Two questions varied slightly for adults and children. Walking/jogging was substituted with jumping rope and bike riding was replaced with tricycle riding for children. Responses were coded as 1 for physically active and 0 for sedentary choices for a potential score of nine points on the cumulative activity score. The total activity score was categorized as: 0-3 sedentary preferences; 4-5 neutral activity preferences; and 6-9 preference for physical activity.

Participants were recruited from a convenience sample of childcare centers. Parents returned completed consent forms and surveys within two weeks. Children were interviewed in a quiet area of the childcare center. Parents self-reported height and weight while these measurements were taken for the children at the beginning of the interview.

Childcare providers were also invited to participate. The provider survey was identical to the parent survey regarding physical activity questions and perceptions of child activity preferences.

The study was approved by the Armstrong Atlantic State University Institutional Review Board. SPSS 12.0 was used for data analysis.

Results

Four childcare centers were contacted, with three agreeing to take part in the study. Four of the five eligible four-year-old classrooms participated. Seventeen of the sixty-one invited parent-child pairs agreed to participate (response rate of 27.9%). Parent participants were predominately female (82%), Caucasian (59%), and overweight/obese (53%). Children were predominately male (59%), Caucasian (53%), and normal weight (82%). Mean age for parents was 37.4 (SD = 7.5) and for children was 4.5 (SD = 0.3).

The mean score on the parent activity preference survey was 4.00 (SD = 2.37) and the child interview was 4.76 (SD = 1.03). A significant, positive correlation was found between parents' self-reported activity preferences and the preferences reported by children (rho = 0.579; $p < 0.05$). Parents who preferred physical activities were more likely to have children who expressed a similar preference. Conversely, parents who preferred sedentary activities were more likely to have children who preferred the same.

The mean score on the parent perception of child activity preferences survey was 5.9 (SD = 2.19). There were no significant correlations between parents' self-reports of activity preferences and their perceptions of their child's activity preferences. Further, there were no significant correlations between parents' perceptions of their child's activity preferences and the child's stated activity preferences.

Four female childcare providers took part in the study and had a mean age of 36.4 years (SD = 11.9). Weight status was evenly divided between normal and overweight. Providers unanimously preferred sedentary activities and there were no significant correlations between provider self-report or perceptions of child preferences and preferences reported by the children.

Discussion

Parent perceptions of child activity preferences were higher than those reported by the children. Further, parent perceptions of child activity preferences were not correlated with preferences reported by the child.

These findings suggest a potential educational opportunity with parents. Children's actual activity levels may rise by increasing parents' understanding of child activity preferences and teaching parents how to support children's preferences for more physical activity.

These recommendations support those of

Borra et al. (2003) that parents need to learn how to help their children develop healthier lifestyles.

This pilot study attempts to increase understanding of a minimally researched area: potential relationships between child and caregiver activity preferences. A larger study is needed to better understand the relationships between caregiver and child activity preferences.

Despite the small sample size, the study results suggest that a single measurement tool has the potential for use across age groups. Additional research with large samples of children, parents, and childcare providers is encouraged to further develop this area of research. Additionally, testing the tool with older children will further develop its ability to assess activity preferences across age groups.

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