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Contributions of Family Leisure to Family Functioning Among Families that Include Children with Developmental Disabilities

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Abstract

The purpose of this study was to examine the relationship between family leisure involvement and family functioning among families that include children with developmental disabilities. The sample consisted of 144 families (144 parents and 60 youth). Data were analyzed from the parent, youth, and family perspective. The Family Leisure Activity Profile (FLAP) was used to measure family leisure involvement. FACES II was used to measure family functioning. A scale based upon the definition, classification, and systems of support manual of the American Association on Mental Retardation adapted by Dyches was used to measure the level of support needed by the child with a developmental disability. Blocked multiple regression analyses indicated a positive relationship between core family leisure and family cohesion, adaptability, and overall family functioning, but the analyses indicated no relationship between balance family leisure and family cohesion, adaptability, and overall family functioning from all three perspectives. Results also indicated that family functioning and family leisure involvement were very similar between traditional families and families including children with developmental disabilities. Implications for practitioners and recommendations for further research are discussed.

KEYWORDS: Adaptability, cohesion, core and balance family leisure, developmental disability, family functioning, family leisure.

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Assistance in preparing the manuscript came from Dr. Ramon B. Zabriskie, Dr. Mark Widmer, and Dr. Dennis Eggett, professors at Brigham Young University.

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Researchers consistently find positive relationships between family leisure involvement and family functioning (Freeman & Zabriskie, 2003; Orthner & Mancini, 1991; Zabriskie, 2000, 2001; Zabriskie & Freeman, 2004; Zabriskie & McCormick, 2001, 2003). Although many studies examine leisure among traditional families, very little research focuses on nontraditional families. Mactavish and Schleien, (1998, 2004) have called for a greater understanding of family leisure among families who have children with developmental disabilities. Such families face a unique set of challenges and stressors (Singer, 2002). Many researchers agree that families who have children with developmental disabilities face substantially greater challenges and have higher levels of stress than families without children with disabilities (Glidden, 1993; Mactavish & Schleien, 1998; Olsson & Hwang, 2001; Warfield, Krauss, Hauser-Cram, Upshur, & Shonkoff, 1999). Contrary to previous research (Kronick, 1976; Margalit & Heiman, 1986), some scholars (Cahill & Glidden, 1996; Dyson, 1996; Ferguson, 2002) have reported that although families of children with developmental disabilities face greater challenges and stress, they may still function at or near the same levels as traditional families without children with disabilities.

Olson (2000) suggests that a family's ability to successfully function as a system is demonstrated through its capacity to meet its needs for cohesion and adaptability. Zabriskie and Freeman (2004) argue that such needs are often met through family leisure involvement. Recent studies among various family types (Freeman & Zabriskie, 2003; Zabriskie & Freeman, 2004; Zabriskie & McCormick, 2001, 2003) have followed Orthner and Mancini's (1991) recommendation of using a family systems perspective as a theoretical framework to examine the contributions of family leisure. These studies consistently support the relationship between family leisure involvement and family functioning among a variety of family structures including broad general samples of families (Zabriskie & McCormick, 2001: Zabriskie, 2000), families with transracial adoptive children (Freeman and Zabriskie, 2003; Zabriskie & Freeman, 2004), Hispanic families (Christenson, Zabriskie, Eggett, & Freeman, 2006), and single parent families (Smith, Taylor, Hill, & Zabriskie, 2004). Researchers have called for further known group studies including families of children with developmental disabilities (Zabriskie, 2000; Zabriskie & Freeman, 2004; Zabriskie & McCormick, 2001, 2003).

Research examining leisure in these families is in its infancy (Mactavish & Schleien, 1998, 2004; Mactavish, Schleien, & Tabourne, 1997; Scholl, McAvoy, Rynders, & Smith, 2003). While the literature provides a sound basis for this emerging line of research, most findings are based on qualitative methodologies with small samples. A next step in this line of research is to examine the contributions of family leisure involvement to measurable outcomes (such as aspects of family functioning) in larger samples of families who have a child with a developmental disability. This will not only further this line of study, but also provide insight and direction for researchers and practitioners attempting to strengthen families and improve family functioning in families that include children with developmental disabilities.

Review of Literature

Family Functioning and Family Leisure

Studies of family leisure. Some scholars suggest that leisure is the single most important force promoting cohesive, healthy relationships between husband and wives, and

between parents and their children (Couchman, 1982). Family leisure studies were first conducted in the 1930s (Hawks, 1991), and since that time they have improved in both their theoretical framework and their statistical analysis. Current studies and new theoretical models in family research "provide greater understanding and vital direction for the development and provision of services that are likely to strengthen families" (Zabriskie, 2001, p. 30). In 1998, Orthner criticized parks and recreation professionals for not committing sufficient time and resources to family leisure and its value for family togetherness. He then went on to challenge them to focus on and strengthen the most vital institution in society, the family. Since this challenge, interest in family leisure has increased significantly (Zabriskie, 2001).

Shaw (1999) reported that parents view family leisure as an occasion for increased family functioning in the areas of communication, bonding, child development, and learning. Another study found that families who participated in challenging outdoor recreation had reduced levels of conflict because they were more willing to work together through disagreements and problems which was a result of increased trust, support, kindness, affection, interaction, and communication (Huff, Widmer, McCoy, & Hill, 2003). Zabriskie and McCormick (2001) suggested that family leisure plays a vital role in "family cohesion, adaptability, and communication" (p. 282) and many studies have consistently reported positive relationships between family leisure involvement and positive family functioning (Hawks, 1991; Holman & Epperson, 1989; Orthner & Mancini, 1991; Zabriskie & McCormick, 2001). Such findings have been consistent whether measured from an adolescent child, young adult, parent, or family perspective (Zabriskie, 2000).

Until recently, however, scholars stated that "the nature of the relationship (between family leisure and family functioning) (was) still poorly understood" (Freeman & Zabriskie, 2003, p. 75). One of the weaknesses in early research was that married couples were examined and findings were generalized to the entire family. Another problem involved leisure being "operationalized in a simplistic and inconsistent manner. Measurement has included any time spent together, as well as lists of activities placed into categories with no theoretical basis" (Zabriskie & McCormick, 2001, p. 283). The lack of theoretical framework in early research resulted in vague general findings clouded by the "idiosyncrasies of the investigation at hand" (Orthner & Mancini, 1991, p. 299). This has been recognized by other scholars and a call for more theory based research has resulted (Hawks, 1991; Holman, & Epperson, 1989; Orthner & Mancini, 1991). "It is imperative to identify and test theoretical models of family leisure that could provide the basis for strengthening measurement, generating hypotheses, and interpreting results when examining family leisure" (Zabriskie & McCormick, 2001, p. 283).

Family leisure and family functioning. Family functioning is often examined and interpreted through a family systems theoretical perspective (Orthner & Mancini, 1991). Family systems theory focuses on family dynamics, which include power, relations, structures, boundaries, communication patterns, and roles (Rothbaum, Rosen, Ujiie, & Uchida, 2002). Using this framework, family behavior can be understood by viewing the family as a unit rather than as individual parts. Changes in individuals affect the family system's behavior as a whole, just as changes in the system affect each individual family member's behavior (White & Klein, 2002). Zabriskie and McCormick

(2001) summarize family systems theory by stating that family systems theory "holds that families are goal directed, self-correcting, dynamic, interconnected systems that both affect and are affected by their environment and by qualities within the family system itself" (p. 281).

Olson's (1993) Circumplex Model of Marital and Family Systems is a well established model commonly used to describe the family systems framework. It was developed to bridge the gap between research, theory, and practice. Zabriskie and McCormick (2001) suggest that all three dimensions of Olson's model (cohesion, adaptability, and communication) are facilitated through family leisure involvement. In response to the criticisms of early family leisure research, they developed and tested the Core and Balance Model of Family Leisure Functioning (Zabriskie, 2000; Zabriskie & McCormick, 2001). It is grounded in the family systems theory and implies a direct relationship between family leisure patterns and family cohesion and adaptability (Zabriskie & Freeman, 2004).

The Core and Balance Model of Family Leisure Functioning. The Core and Balance Model indicates that there are two basic categories or patterns of family leisure, core and balance, which families utilize to meet needs for both stability and change, and ultimately facilitate outcomes of family cohesion and adaptability which are primary components of family functioning. Core family leisure includes "common, everyday, low-cost, relatively accessible, often home-based activities that many families do frequently" (Zabriskie & McCormick, 2003, p. 168). This may include family activities such as playing board games together, making and eating dinner together, shooting hoops in the driveway or playing together in the leaves once the pile is complete. Such activities provide a "consistent, safe and usually positive context in which family relationships can be enhanced and feelings of family closeness increased" (Freeman & Zabriskie, 2003, p. 77). Balance family leisure, on the other hand are "depicted by activities that are generally less common, lees frequent, more out of the ordinary, and usually not home-based thus providing novel experiences" (Zabriskie & McCormick, 2003, p. 168). This may include family activities such as vacations, camping, fishing, special events, and trips to theme parks. They tend to be more out of the ordinary and "include elements of unpredictability or novelty, which require family members to negotiate and adapt to new input and experiences that stand apart from everyday life" (Freeman & Zabriskie, 2003, p. 77).

Core family leisure involvement tends to facilitate feelings of closeness, personal relatedness, family identity and bonding. Balance family leisure involvement provides the input necessary for families to be challenged, to develop, to adapt, to progress as a working unit and helps foster the adaptive skills necessary to navigate the challenge of family life in today's society. Family systems theory (Olson, 1986) holds that these two constructs, family cohesion and family adaptability, are the primary components of family functioning. Similarly, findings (Freeman & Zabriskie, 2003, Zabriskie & McCormick, 2001) related to the Core and Balance Model suggest that both categories are essential, and that families who regularly participate in both core and balance types of family leisure activities report higher levels of family functioning than those who participate in high or low amounts of either category. The Core and Balance Model also appears to offer a sound theoretical framework from which to examine family leisure functioning among families that include children with developmental disabilities.

Family Functioning in Families of Children with Developmental Disabilities

Historically children with any kind of disability did not reside with their families, but instead were institutionalized and had little contact with their families (Landesman & Vietze, 1987). The movement towards normalization in the 1960s promoted the rights of individuals with disabilities, and for many, provided culturally normal living conditions. As a result, children with disabilities began to live with their families or in family situations rather than institutions (Landesman & Vietze). Since that time, children with developmental disabilities have lived in diverse family situations and the majority live in nuclear families with their biological parents and siblings (Mactavish et al., 1997). For at least four decades now, a common focus of research in disability studies has been families that include children with developmental disabilities (Singer, 2002).

The term developmental disability was created in 1970 to broaden the group of people who could receive federal aid and it has had various definitions ever since. Today's definition, however, passed through congress in 1978 and is based exclusively on the individual's functional limitation rather than a child's diagnosis or nature of the disabling condition (DHHS, 1981). The definition states that a developmental disability is a severe and chronic disability of a person that (A) is attributed to mental or physical impairment or a combination of both; (B) is manifest before 22 years old; (C) is likely to continue indefinitely; (D) results in substantial functional limitation in three or more of the following areas of major life activities: self-care, receptive and expressive language, learning, mobility, self direction, capacity of independent living, and economic sufficiency; and (E) reflects a person's need for a combination and sequence of special interdisciplinary, or generic care, treatment or services which are lifelong or of extended duration and are individually planned and coordinated. While this final change in definition resulted in a decrease in the population considered to have a developmental disability, they also have a wider range of disabling conditions which are more substantially disabling.

From a family systems perspective, families that include children with such disabling conditions are clearly affected in terms of their functioning as a whole as they face their own unique sets of challenges and constraints. Numerous researchers report that such families face more challenges and have higher stress levels than those whose children do not have disabilities (Glidden, 1993; Mactavish & Schleien, 1998; Olsson & Hwang, 2001; Summers et al., 2005; Warfield et al., 1999). Children often have difficult behaviors, and require high levels of supervision as well as extensive long-term medical care. These families often experience extensive care-giving, emotional, and physical demands, as well as high expenses related to medical care. The increased financial demand alone is enough to critically impact most families, let alone the social stigma that often accompanies those with observable disabilities.

The high physical and emotional demands on families of children with developmental disabilities do not only take their toll on parents (Singer, 2002), but they limit parental time for other children and have a significant emotional and social impact on such siblings as well. Overall, the economic, physical, emotional, and social demands faced by these families often result in higher constraints and stress levels and affect overall family functioning (Scholl, McAvoy, Rynders, & Smith, 2003; Singer, 2002). Each family must develop their level of resiliency and ability to adapt to the unique added demands associated with caring for their child with a developmental disability.

While increased parental stress, altered routines, and other demands are disadvantages for these families, they do not always cause maladjustment and family dysfunction (Dyson, 1996). Early researchers tended to "make blanket attributions characterizing (such) families as maladaptive and marked by pathology" (Singer, 2002, p. 150). Glidden (1993) claimed that such blanket attributions were based on flawed methodologies. Because researchers were not looking for or hypothesizing positive outcomes associated with having a child with a disability in a family, they were not finding any. Recent research suggests that families can cope effectively and adjust positively to the added demands of raising a child with a disability (Blacher, 2001; Ferguson, 2002; Kwai-sang & Li-Tsang, 1999; Singer, 2002; Taunt & Hastings, 2002).

Cahill and Glidden (1996) found that families with children who have developmental disabilities function at or near normal levels based on families in general. In fact, according to Ferguson (2002), a growing body of research has found that even though these families face greater challenges and constraints, their patterns of overall adjustment and well-being are similar to families without children with disabilities (Blacher, 2001; Dyson, 1996; Taunt & Hastings, 2002). Many parents are able to adapt and care for the special demands of their children with developmental disabilities, resulting in parental adaptation rather than parental dysfunction (Roach, Orsmond, & Barratt, 1999). Understanding the behaviors of families with children who have developmental disabilities who function at higher levels, even with the increased levels of stress, constraints, and challenges, may provide valuable insight for other families and parents.

Family Leisure in Families of Children with Developmental Disabilities

Family leisure involvement has consistently been related to family functioning and quality of family life among traditional families (Hawks, 1991; Holman & Epperson, 1989; Orthner & Mancini, 1991; Zabriskie & McCormick, 2001). While studies of nontraditional families are limited, scholars have also reported that family leisure contributes to family functioning among families with different structures such as those with transracial adoptive children (Freeman & Zabriskie, 2003; Zabriskie & Freeman, 2004), single-parent families (Smith et al., 2004), and Hispanic families living in the United States (Christenson et al., 2006). Studies among families with children who have developmental disabilities have reported similar findings and scholars have called for further research among these families (Mactavish & Schleien, 1998; 2004; Scholl et al., 2003).

Findings in this emerging line of research are based primarily on qualitative studies with small samples of families and have focused not only on identifying and describing differences in family leisure patterns, but have identified a variety of outcomes attributed to their family leisure involvement. Parents in one study (Scholl et al., 2003) reported that increased confidence in their family as a unit, increased awareness of family skill level and support needs, and meeting other families with similar challenges, were critical benefits of family leisure participation. Mactavish and Schleien (1998) found that families with children with developmental disabilities viewed family leisure as a means for promoting overall quality of family life (e.g. family unity, satisfaction, physical and mental health) and for helping family members develop other life skills such as problem solving, compromising, and negotiation. They also found that family leisure benefits appeared to be most effective with the entire family, much more than for parents alone and concluded

that "concentrating on adult-only perceptions may under-estimate the positive value of shared recreation for the family as a whole" (p. 226).

While authors of these studies and others (e.g. Mactavish , Schleien, & Tabourne,1997) agree that family leisure involvement among such families is important for their successful family functioning, they also agree that further research is necessary. Mactavish and Schleien (2004) declared that "recreation in families that include children with developmental disabilities is a neglected area of research in both disability studies and leisure studies" (p. 125). Further research along these lines would "improve understanding of family life, factors that contribute to effective family functioning, and the role of leisure in this process" (p. 125). Furthermore, studies that include perceptions of other family members as well as broader, more representative samples are a vital step to further this line of research.

Adding to this line of research with a theoretical framework of family leisure functioning such as the Core and Balance Model will also strengthen the foundation previous researchers have established and provide more generalizable findings from a broader sample of families with children with developmental disabilities. Findings from such a study would have considerable implications for families, professionals, services, and agencies that work with these families, and may provide direction for those families within this category who may be struggling under their high levels of demand and stress. Therefore, the purpose of this study was to examine the contribution of family leisure involvement to family functioning among a large sample of families that include children with developmental disabilities.

It was hypothesized that there would be a positive relationship between family leisure involvement and family functioning among families that include children with developmental disabilities after controlling for the level of support needed by the child with a disability. It was further hypothesized, based on emerging research, that there would be no differences in levels of family functioning, and therefore, family leisure involvement, between families with a child with a disability and families who do not have a child with a disability.

Methods

Sample

One hundred and fifty-four families of children with developmental disabilities participated in this study. A developmental disability was defined as "a severe and chronic disorder involving mental and/or physical impairment that originates before age 22" (Mactavish et al., 1997, p. 26). The participants were recruited through one of three associations: The Arc of United States, Texas Council for Developmental Disabilities, and the National Down Syndrome Society. The Arc of United States, a national organization for people with mental retardation, posted the URL for the online questionnaire on their website and on a listserv in collaboration with the National Down Syndrome Society. The Texas Council for Developmental Disabilities, a 27-member board, dedicated to ensuring that Texans with developmental disabilities have equal opportunities, also posted the URL in their newsletter. "Scholars have called (for) studies . . . to go beyond a parent only perspective and examine a child's perspective of family functioning as well" (Zabriskie & Freeman, 2004, p. 57). In an attempt to obtain a family perspective, data was collected from one parent and one sibling (ages

10-17) without a disability. In families that did not have a sibling, just one parent's perspective was obtained. The restricted age range was implemented to involve children at a cognitive developmental level which enabled them to correctly understand and complete the research instrument (Zabriskie & McCormick, 2003). The URL of the online questionnaire which included consent and confidentiality information was available for participants to complete at their convenience, from July-October, 2006. The completed questionnaires were e-mailed to the researcher and stored in an online database.

The sample included 60 youth (siblings) and 144 parents. The youth were predominantly white (81.7%) and male (65%), and ranged in age from 10-17 (M = 13.03, SD = 2.27). The parents were predominantly white (79.9%) and female (89.6%), and ranged in age from 26 to 60 (M = 42.91, SD = 7.29). The majority of the parents were married (81.9%) and 32.6% had a history of divorce. Family size ranged from 2 to 11, with an average size of 4.41 members (SD = 1.29). Respondents participated from 35 different states spread fairly even across the nation from the South (25%), West (23%), East (18%), South West (16%), Mid West (16%), Hawaii (1%) and Canada (1%). The majority (73.6%) of the participants lived in urban / suburban (>50,000) areas and the household incomes ranged from less than $10,000 to over $150,000. The modal annual income category for families was $50,000 - $59,000 (16%), with 62% making from $40,000 – $99,000.

Each of the parent participants had at least one child with a developmental disability living in their home. If the child with the developmental disability was over the age of majority (> 21) the family was removed from the sample (n = 10) to avoid a possible confounding variable in sample comparisons. Therefore, the children with developmental disabilities in the current sample ranged in age from 1 to 21 (M = 11.66, SD = 4.80) and most had been in their families for more than nine years (68.1%). Primary diagnoses included autism (23.4%), Down syndrome (20.8%), mental retardation (16.9%), cerebral palsy (9.7%), aspergers (9.1%), attention deficit hyperactivity disorder (3.2%), and pervasive developmental disorder – NOS (2.6%). The other 14.3% included a variety of other disorders such as 11q syndrome, Angelman Syndrome, behavioral disorders, auditory and visual impairments, brain abnormalities, etc... Nearly half (49.4%) of the children had additional diagnoses such as auditory processing disorder, Beckwith-Weidman Syndrome, bi-polar, fetal alcohol spectrum disorder, scoliosis, etc. Forty eight percent of the children had an IQ of less than 70, (13.6% < 25, 4.5% = 25 - 40, 14.9% = 40 – 55, 16.2% = 55 – 70) with another 35.4% that were unreported. The parent reported level of support needed by the children to participate in natural environments ranged from a 1 to 4 (1 = intermittent, 2 = limited, 3 = extensive, 4 = pervasive) with a mean of 2.54 (SD = 0.79). The modal support level was 2.18 with 44.8% ranging from 2.0 – 2.9 (limited). Intermittent to limited support was needed by 24.7% of the children; limited to extensive support was needed by 44.8% of the children, and extensive to pervasive support was needed by 30.5% of the children.

Instrumentation

The research instrument included three sections a) the Family Adaptability and

Cohesion Scale (FACES II), used to measure family functioning (Olson et al., 1992) b) the Family Leisure Activity Profile (FLAP), used to measure family leisure involvement (Zabriskie & McCormick, 2001), and c) relevant socio-demographic questions including a scale adapted by Dyches (2000) to measure the level of support needed by people with developmental disabilities.

FACES II. The Family Adaptability and Cohesion Scales (FACES II) is a 30-item scale that measures perceptions of family cohesion, adaptability, and overall family functioning based on Olson's Circumplex Model (Olson, 1986). It contains 16 items measuring cohesion and 14 items measuring adaptability. Because it was designed to measure family dynamics, it focuses on system characteristics of family members presently living at home. It uses a Likert scale ranging from 1 (almost never) to 5 (almost always). After obtaining total cohesion and adaptability scores, linear scoring interpretation procedures (Olson et al., 1992) were used to obtain a score which is used as an indicator of overall family functioning. Acceptable psychometric properties have been reported (Olson et al.). For this sample Cronbach Alpha coefficients were .78 and .79 for adaptability and .86 and .88 for cohesion.

FLAP. The Family Leisure Activity Profile (FLAP) is an activity inventory which measures family leisure involvement based on the Core and Balance Model of Family Leisure Functioning (Zabriskie, 2000). Respondents identify activities participated in with family members across 16 activity categories. Eight items represent core family leisure patterns and eight represent balance family leisure patterns. Each item asks if the respondent participates in the activity category with family members. If the answer is yes, the respondent is asked the estimated frequency and duration for the activity. An index score was computed for each question by multiplying duration and frequency scores. Core and balance family leisure involvement scores were calculated by summing the appropriate indices (Zabriskie & McCormick, 2001). Acceptable psychometric properties have been reported including construct and content validity, inter-rater reliability, and test-retest reliability for core ($r = .74$), balance ($r = .78$), and total family leisure involvement ($r = .78$) (Zabriskie, 2001).

Demographics. Socio-demographic questions were included to determine underlying characteristics of the sample. Items included age, gender, marital status, ethnicity, state of residence, annual family income, family size, length of time the child with a developmental disability had been in the family, their IQ, diagnosis, and needed levels of support.

The level of support needed by the child with a developmental disability was asked only of the parent respondent and was determined using a scale adapted by Dyches (2000). This scale was created based on the definition, classification, and systems of support manual of the American Association on Mental Retardation (1992). The scale consists of 11 items asking the child's skill level for various adaptive skills. For each of the 11 adaptive skills, parents chose from four levels of support: intermittent, limited, extensive, or pervasive. Intermittent support is given infrequently and on an 'as-needed' basis in few settings. Limited support is provided regularly for short periods of time, in several settings. "Extensive support is needed regularly in several settings and may extend over long periods of time. Pervasive support is constant and intense in all settings and may be life-sustaining" (Dyches, Cichella, Olsen, & Mandleco, 2004, p. 175). The final score for support needed is calculated by averaging all eleven items.

This scale has been used successfully in past studies (Dyches et al.) and has content validity in that it covers not only the seven areas of major life activities from the developmental disability definition used in this study, but goes beyond this definition to measure additional areas.

Analysis

Data were analyzed using the statistical package SPSS. Descriptive analyses explored the underlying characteristics of the research variables. In order to gain a family perspective, three data sets were compiled: responses of parents, responses of the youth, and a family perspective. The family perspective data set was computed as recommended in previous work (Zabriskie & Freeman, 2004; Zabriskie & McCormick, 2003) by calculating the mean scores from parents and their youth for the research variables (e.g. family leisure & family functioning variables). All socio-demographic variables from both the parent and youth respondents were included in the family perspective data set as reported for analysis at the univariate and multivariate levels. For each of the three data sets, scores were calculated for core and balance family leisure involvement, family cohesion, family adaptability, and family functioning. In order to make a comparison between the sample of families with a child with a disability and a sample of normative families, data from a companion study that used the same instrumentation was utilized (Hornberger, 2007). This national sample of families (n = 343) which also included one parent and a dependent child from each family was collected concurrently and had similar descriptive characteristics in terms of parent age (M = 41.51, SD = 6.72), gender (majority female 89%) and youth age (M = 13.12, SD = 1.51) and gender (male = 51%, female 49%). Multiple independent sample t-tests were run to examine differences between samples. Due to multiple t-tests the Bonferroni adjustment was used.

Pearson Product Moment zero-order correlations were calculated to check for multicollinearity and significant relationships among the variables. Although some significant zero-order correlations resulted, multicollinearity was not indicated (Tabachnick & Fidell, 1996). A small number of significant correlations between dependent and socio-demographic variables were found in each of the three data sets (parent, youth, and family). These significant variables (e.g. level of support) as well as other socio-demographic variables believed to be theoretically correlated to the dependent variables were included in multiple regression models as controlling factors. This was done in order to examine the unique contributions of family leisure involvement to family functioning.

Multiple regression analyses were performed on each of the three dependent variables (family cohesion, family adaptability, and family functioning) for each of the three data sets (parent, youth, and family). Using the block entry method, the socio-demographic variables were entered in the first block and the family leisure variables (core and balance) were entered in the second block. The models were then examined at an alpha level of .05. In the significant models, the standardized regression coefficient (Beta) indicated the contribution of each variable.

Results

The parent cohesion scores ranged from 19 to 78 with a mean of 62.47 (SD =

10.08); parent adaptability scores ranged from 25 to 61 with a mean of 46.47 (SD = 7.21), and parent family functioning scores ranged from 1 to 7.5 with a mean of 4.88 (SD = 1.61). The youth cohesion scores ranged from 33 to 79 with a mean of 58.18 (SD = 10.43); youth adaptability scores ranged from 20 to 62 with a mean of 42.32 (SD = 8.93), and youth family functioning scores ranged from 1 to 7.50 with a mean of 4.0 (SD = 1.69). These scores fell within the established norms for FACES as determined by Olson et al. (1992). The cohesion scores of the family mean perspective ranged from 41 to 78.5 with a mean of 60.40 (SD = 8.94); their adaptability scores ranged from 27 to 60.50 with a mean of 44.15 (SD = 6.83), and the family functioning scores ranged from 2 to 7.5 with a mean of 4.41 (SD = 1.47).

The scores of core family leisure involvement from the parent perspective ranged from 0 to 110 with a mean of 42.21 (SD = 16.12) and balance scores ranged from 0 to 131 with a mean of 50.95 (SD = 25.28). The scores from the youth perspective for core family leisure involvement ranged from 11 to 116 with a mean of 42.97 (SD = 21.39) and balance scores ranged from 0 to 133 with a mean of 53.67 (SD = 26.86). The scores from the family perspective for core family leisure involvement ranged from 12 to 93 with a mean of 44.16 (SD = 16.62) and the balance scores ranged from 18.5 to 119.5 with a mean of 52.93 (SD = 22.80).

Sample Comparisons

The comparison of family cohesion, family adaptability, and family functioning between the present sample of families including a child with a developmental disability and the sample of normative families indicated that there were no significant differences ($p < .01$) between the mean scores in the two data sets from the parent, youth, or family perspective (see Table 1). In comparing the leisure involvement scores (core, balance, and total family leisure involvement) between the two samples there were also no significant differences ($p < .01$) between the mean scores in the two data sets from the parent, youth or family perspective (see Table 2).

A total of 18 t-tests were completed and then used in comparing the sample of families including a child with a developmental disability to the normative sample. If a $p < .05$ level of confidence were used for each test it would be expected that on average, one out of 18 tests would be significant by chance alone (Ramsey & Schafer, 2002). Because one test (core leisure from the parent perspective) was significant at that level, it could have been by chance alone. Use of the Bonferroni adjustment typically prevents this possible error. The core leisure involvement, from the parent perspective, which was the only significant difference between the two samples (Table 2) at the .05 level would no longer be significant using the conservative nature of the Bonferroni adjustment ($p < .01$). Therefore, using the Bonferroni adjustment there were no significant differences between the sample of families including children with disabilities and the normative sample in their leisure involvement or family functioning. *Univariate Analyses*

Zero-order correlations were used to examine univariate relationships between family leisure involvement and family functioning variables among the sample of families that include children with developmental disabilities. Significant correlations ($p < .01$) were identified between both (core and balance) family leisure involvement variables and both family functioning variables (cohesion and adaptability) from the parent

TABLE 1

Differences between Families with a Child with a Developmental Disability and Normative Families on Cohesion, Adaptability and Family Functioning

Variable	M	SD	t	p
Parent Perspective				
Cohesion				
Disability (n = 144)	62.25	10.20	-.588	.547
Normative (n = 343)	62.83	9.92		
Adaptability				
Disability	46.17	7.23	-1.068	.286
Normative	46.94	7.17		
Family Functioning				
Disability	4.83	1.61	-.874	.383
Normative	4.96	1.54		
Youth Perspective				
Cohesion				
Disability (n = 60)	58.25	10.43	-.403	.687
Normative (n = 343)	58.85	10.69		
Adaptability				
Disability	42.27	9.07	-1.441	.150
Normative	43.92	8.05		
Family Functioning				
Disability	4.00	1.71	-.938	.349
Normative	4.22	1.65		
Family Perspective				
Cohesion				
Disability (n = 60)	60.45	8.89	-.292	.771
Normative (n = 343)	60.84	9.74		
Adaptability				
Disability	44.06	6.93	-1.397	.163
Normative	45.43	7.02		
Family Functioning				
Disability	4.40	1.49	-.929	.354
Normative	4.59	1.49		

TABLE 2

Differences between Families with a Child with a Developmental Disability and Normative Families on Family Leisure Involvement

Variable	M	SD	t	p
Parent Perspective				
Core Activities				
Disability (n = 144)	41.74	16.21	-2.323	.021*
Normative (n = 343)	45.62	17.02		
Balance Activities				
Disability	50.69	25.18	-.084	.933
Normative	50.47	27.13		
Total Family Leisure				
Disability	92.44	37.01	-.973	.331
Normative	96.09	38.07		
Youth Perspective				
Core Activities				
Disability (n = 59)	43.61	21.37	.414	.679
Normative (n = 343)	42.58	16.94		
Balance Activities				
Disability (n = 58)	54.31	27.06	.398	.691
Normative (n = 343)	52.76	27.43		
Total Family Leisure				
Disability (n = 57)	98.16	42.64	.614	.540
Normative (n = 343)	94.73	38.35		
Family Perspective				
Core Activities				
Disability (n = 59)	44.45	16.77	.157	.875
Normative (n = 343)	44.10	15.75		
Balance Activities				
Disability (n = 58)	53.42	22.98	.499	.618
Normative (n = 343)	51.52	25.85		
Total Family Leisure				
Disability (n = 57)	98.47	35.43	.588	.557
Normative (n = 343)	95.41	36.89		

Note: $^*p < .05$

perspective. Level of support needed by the child with a disability was negatively correlated to family adaptability($r = -.170, p = .042$). No other sociodemographic variables were correlated with any of the dependent variables from the parent perspective.

Significant univariate correlations ($p < .01$) were identified only between core family leisure involvement and family cohesion and adaptability from both the youth and family perspectives. The length of time that the child with the developmental disability had been in the family approached a negative correlation to family cohesion ($r = -.253, p = .051$) from the youth perspective, and no significant correlations were found between the level of support needed by the child with a disability and any of the research variables from any of the perspectives. No other sociodemographic variables were correlated with any of the research variables from the youth or family perspective.

Multivariate Analyses

Multivariate analyses were computed with block entry method multiple regressions to examine the relationship between family leisure involvement and family functioning among families that include children with developmental disabilities beyond the univariate level. For each data set (parent, youth, and family), a multiple regression model was created for each of the dependent variables (family cohesion, family adaptability, and total family functioning), resulting in a total of nine multiple regression models. Independent variables were included in the regression models if they had significant zero-order correlations to the dependent variables or if they were theoretically justified to be included based on past literature.

In the first model for the parent data (n = 139) (see Table 3), the first block containing only socio-demographic variables explained a small, but statistically significant amount of the variance in family cohesion ($r^2 = .086, p = .016$). The parent's age ($\beta = -.228, p = .014$) and the level of support needed by the child with the disability ($\beta = -.212, p = .015$) were significant negative predictors. After adding core and balance family leisure involvement into the second block there was a statistically significant change in the variance explained by the model ($\Delta R^2 = .157, p < .001$). The previous variables remained significant and core family leisure involvement was a significant predictor of family cohesion ($\beta = .370, p < .001$).

In the second model for the parent data (n = 143), the first block containing only socio-demographic variables again explained a small, but statistically significant amount of the variance in family adaptability ($r^2 = .067, p = .045$). The level of support needed by the child with the disability was a significant negative predictor ($\beta = -.216, p = .015$). After adding the family leisure involvement variables into the second block there was a significant change in the model ($\Delta R^2 = .128, p < .001$). Core family leisure involvement was a significant predictor of family adaptability ($\beta = .367, p < .001$), while the level of support needed by the child with the disability was no longer significant ($\beta = -.154, p = .066$).

In the final model for the parent data (n = 139), the first block again explained a small, but significant amount of the variance in family functioning ($r^2 = .059, p = .015$). The parent's age ($\beta = -.198, p = .022$) and the level of support needed by the child with the disability ($\beta = -.196, p = .023$) were significant negative predictors. After adding core and balance family leisure involvement into the second block there was a significant change in the variance explained by the model ($\Delta R^2 = .177, p < .001$). Core

TABLE 3

Summary of Blocked Regression Equations: Parent Data

Variables	B	SE B	β	*p*
Family Cohesion (n = 139)				
Block 1 R^2 = .086 (*p* = .016*)				
Parent Age	-.322	.129	-.228	.014*
Level of Support Needed by Child	-2.773	1.125	-.212	.015*
Time Child With Disability in the Home	-.689	1.070	-.057	.521
Parent Ethnic Majority	-2.664	2.120	-.105	.211
Block 2 ΔR^2 = .157 (*p* < .001)**				
Parent Age	-.290	.120	-.205	.017*
Level of Support Needed by Child	-2.094	1.041	-.160	.046*
Time Child With Disability in the Home	-.411	.983	-.034	.676
Parent Ethnicity Majority	-.985	1.991	-.039	.622
Core Family Leisure	.235	.059	.370	<.001**
Balance Family Leisure	.023	.039	.056	.559
Family Adaptability (n = 143)				
Block 1 R^2 = .067 (*p* = .045*)				
Level of Support Needed by Child	-1.980	.800	-.216	.015*
Parent Ethnicity Majority	-2.970	1.517	-.165	.052
Age of Child with Disability	.004	.126	.003	.975
Family Size	.483	.485	.086	.321
Block 2 ΔR^2 = .128 (*p* < .001)**				
Level of Support Needed by Child	-1.415	.763	-.154	.066
Parent Ethnicity Majority	-2.232	1.441	-.124	.124
Age of Child with Disability	.038	.119	.025	.751
Family Size	.092	.467	.016	.844
Core Family Leisure	.164	.042	.367	<.001**
Balance Family Leisure	-.001	.028	.003	.975
Family Adaptability (n = 139)				
Block 1 R^2 = .059 (*p* = .015*)				
Parent Age	-.044	.019	-.198	.022*
Level of Support Needed by Child	-.403	.176	-.196	.023*
Block 2 R^2 = .177 (*p* = .001)**				
Parent Age	-.040	.018	-.179	.025*
Level of Support Needed by Child	-.313	.160	-.152	.053
Core Family Leisure	.036	.009	.361	<.001**
Balance Family Leisure	.006	.006	.096	.306

Note: *$p < .05$; **$p < .01$. A Bonferroni adjustment was used for multiple tests. A family-wise .05 significance level was used overall, but the Bonferroni adjustment of .01 (or less) significance level was used for individual tests.

family leisure involvement was once again a significant predictor of family functioning ($\beta = .361, p < .001$).

In the first model for the youth data (n = 56) (see Table 4), the first block containing only socio-demographic variables did not explain a significant portion of the variance in family cohesion ($r^2 = .060, p = .191$). After adding core and balance family leisure involvement into the second block there was nearly a statistically significant change in the variance explained by the model ($\Delta R^2 = .101, p = .053$).Core leisure involvement was the only significant predictor of family cohesion ($\beta = .368, p = .018$).

In the second model for the youth data, the first block again did not explain a significant portion of the variance in family adaptability ($r^2 = .063, p = .641$). After adding core and balance family leisure involvement into the second block there was a statistically significant change in the variance explained by the model ($\Delta R^2 = .170, p = .007$). Core family leisure involvement was the only significant predictor of family adaptability ($\beta = .466, p = .003$).

In the final model for the youth data, the first block did not explain a significant portion of the variance in family functioning ($r^2 = .090, p = .422$). After adding core and balance family leisure involvement into the second block there was a statistically significant change in the variance explained by the model ($\Delta R^2 = .137, p = .018$) and core family leisure involvement was again the only significant predictor of family functioning ($\beta = .407, p = .009$).

In the first model for the family perspective data (n = 56) (Table 5), the first block containing only socio-demographic variables did not explain a significant portion of the variance in family cohesion ($r^2 = .106, p = .205$). After adding core and balance family leisure involvement into the second block there was a statistically significant change in the variance explained by the model ($\Delta R^2 = .207, p < .001$). Core family leisure involvement was the only significant predictor of family cohesion ($\beta = .539, p < .001$).

In the second model for the family data, the first block again did not explain a significant portion of the variance in family adaptability ($r^2 = .013, p = .951$). After adding core and balance family leisure involvement into the second block there was a statistically significant change in the variance explained by the model ($\Delta R^2 = .237, p < .001$). Core family leisure involvement was the only significant predictor of family adaptability ($\beta = .592, p < .001$).

In the final model for the family data, the first block did not explain a significant portion of the variance in family functioning ($r^2 = .064, p = .477$). After adding core and balance family leisure involvement into the second block, there was a statistically significant change in the variance explained by the model ($\Delta R^2 = .244, p < .001$). Core family leisure involvement was the only significant predictor of family functioning ($\beta = .591, p < .001$).

Discussion

The purpose of this study was to examine the contribution of family leisure involvement to family functioning among families of children with developmental dis-

TABLE 4

Summary of Blocked Regression Equations: Youth Data

Variables	B	SE B	β	*p*
Family Cohesion				
Block 1 R^2 = .060 (*p* = .191)				
Level of Support Needed by Child	-1.395	1.909	-.098	.468
Time Child with Disability in the Home	-3.432	1.918	-239	.079
Block 2 ΔR^2 = .101 (*p* = .053)				
Level of Support Needed by Child	-1.250	1.840	-.087	.500
Time Child with Disability in the Home	-3.305	1.857	-.230	.081
Core Family Leisure	.174	.071	.368	.018*
Balance Family Leisure	-.049	.056	-.132	.386
Family Cohesion				
Block 1 R^2 = .063 (*p* = .641)				
Level of Support Needed by Child	1.291	1.701	.106	.451
Youth Age	.219	.538	.059	.685
Time Child with Disability in the Home	.851	1.738	.069	.626
Income	-.854	.525	-.247	.110
Divorced History	1.914	2.673	.103	.477
Block 2 ΔR^2 = .170 (*p* = .007)**				
Level of Support Needed by Child	1.499	1.572	.123	.345
Youth Age	.216	.497	.058	.665
Time Child with Disability in the Home	.872	1.609	.071	.590
Income	-.752	.488	-.218	.130
Divorced History	1.573	2.470	.084	.527
Core Family Leisure	.188	.060	.466	.003**
Balance Family Leisure	-.039	.047	-.123	.417
Family Cohesion				
Block 1 R^2 = .090 (*p* = .422)				
Level of Support Needed by Child	-.231	.325	-.098	.480
Youth Age	-.024	.103	-.034	.814
Time Child with Disability in the Home	-.297	.333	-.124	.376
Income	-.160	.100	-.239	.117
Divorced History	.480	.512	.133	.352
Block 2 ΔR^2 = .137 (*p* = .018*)				
Level of Support Needed by Child	-.194	.306	-.082	.530
Youth Age	-.024	.097	-.033	.803
Time Child with Disability in the Home	-.298	.314	-.125	.346
Income	-.145	.095	-.215	.135
Divorced History	.421	.481	.116	.386
Core Family Leisure	.032	.012	.407	.009**
Balance Family Leisure	-.005	.009	-.079	.602

Note: *$p < .05$; **$p < .01$; n = 56. A Bonferroni adjustment was used for multiple tests. A family-wise .05 significance level was used overall, but the Bonferroni adjustment of .01 (or less) significance level was used for individual tests.

TABLE 5

Summary of Blocked Regression Equations: Family Data (Parent and Youth)

Variables	B	SE B	β	*p*
Family Cohesion				
Block 1 R^2 = .061 (*p* = .205)				
Level of Support Needed by Child	-2.901	1.708	-.227	.096
Divorce History	2.479	2.708	.127	.364
Income	-.539	.521	-.149	.306
Youth Age	-.714	.544	-.182	.195
Block 2 ΔR^2 = .207 (*p* = .001)**				
Level of Support Needed by Child	-2.498	1.537	-.195	.110
Divorce History	2.569	2.422	.132	.294
Income	-.430	.470	-.119	.364
Youth Age	-.660	.448	-.169	.181
Core Family Leisure	.289	.077	.539	<.001**
Balance Family Leisure	-.077	.056	-.198	.175
Family Cohesion				
Block 1 R^2 = .013 (*p* = .951)				
Level of Support Needed by Child	-.424	1.324	-.045	.750
Divorce History	.999	2.099	.069	.636
Income	-.281	.404	-.105	.429
Youth Age	-.030	.422	-.010	.944
Block 2 ΔR^2 = .237 (*p* = .001)**				
Level of Support Needed by Child	.177	1.184	-.019	.882
Divorce History	1.092	1.867	.076	.561
Income	-.168	.362	-.063	.645
Youth Age	.012	.375	.004	.975
Core Family Leisure	.234	.059	.592	<.001**
Balance Family Leisure	-.088	.043	-.305	.048
Family Cohesion				
Block 1 R^2 = .064 (*p* = .477)				
Level of Support Needed by Child	-.404	.293	-.189	.173
Divorce History	.156	.464	.048	.737
Income	-.071	.089	-.116	.433
Youth Age	-.092	.093	-.140	.330
Block 2 ΔR^2 = .244 (*p* = .001)**				
Level of Support Needed by Child	-.335	.258	-.156	.200
Divorce History	.174	.407	.053	.670
Income	-.049	.079	-.081	.536
Youth Age	-.082	.082	-.125	.322
Core Family Leisure	.053	.013	.591	<.001**
Balance Family Leisure	-.016	.009	-.240	.103

Note: *$p < .05$; **$p < .01$; n = 56. A Bonferroni adjustment was used for multiple tests. A family-wise .05 significance level was used overall, but the Bonferroni adjustment of .01 (or less) significance level was used for individual tests.

abilities. It was hypothesized that there would be a significant relationship between the family leisure and family functioning variables and that when comparing this sample to a sample of normative families there would be no significant differences in their family functioning or in their family leisure involvement. Findings supported both hypotheses and indicated that there were no significant differences in family functioning or in family leisure involvement between the two samples. Results also indicated a positive relationship between core family leisure involvement and all family functioning variables from multiple perspectives. Interestingly, findings did not indicate a significant relationship between balance leisure involvement and family functioning variables in this sample. Findings provide new insight into this line of study as well as specific implications for parents and professionals who work with families of children with developmental disabilities such as therapeutic recreation specialists, social workers, teachers, and other support groups.

Comparison of Families of Children with Developmental Disabilities and Normative Families

Traditionally researchers suggested that children with disabilities damaged their families and created a high degree of pathology in their family functioning resulting in disabled families (Ferguson, 2002; Glidden, 1993). Because such families reported increased pressure and demands along with added stress and challenges (Dyson, 1996; Fuller & Rankin, 1994; Mactavish et al., 1997), it was assumed that they were lower functioning. More recent research has reported mixed results for family functioning in families that include a child with a disability (Summers et al., 2005). Some reported these families as malfunctioning (Kronick, 1976) and deviating from the normal range of family cohesion and adaptability (Michaels & Lewandowski, 1990) while others reported their adaptational profiles resembled, in range and number, those profiles of families with children without disabilities (Baxter, Cummins & Polak, 1995; Krauss & Seltzer, 1993). The most recent research indicates that families of children with disabilities can adjust positively and cope effectively with the added demands of raising such children (Blacher, 2001; Ferguson, 2002; Taunt & Haustings, 2002), and it has been argued that these families function at or near normal levels based on established norms for families in general (Cahill & Glidden, 1996).

Results of this study provide further support to the recent research that suggests families with children with disabilities function at similar levels to normative families. Findings indicated that for this sample, families including a child with a developmental disability reported nearly equal perceptions of family adaptability, family cohesion, and overall family functioning as a sample of normative families collected during the same time frame. Using the Bonferroni adjustment, which takes into account results by chance alone, families also reported nearly identical levels of family leisure involvement in core, balance, and total family leisure.

Such findings not only provide further evidence supporting similarities in aspects of family functioning between these two kinds of families, but they extend beyond the present literature in several ways. First, most previous studies made general comparisons to nationally established norms and were not able to make direct comparisons between samples. Therefore, this is one of the first studies to utilize statistical methods to report no significant differences between families that include a child with a devel-

opmental disability and normative families. Second, the current study was one of the first to utilize a specific measure of overall family functioning in this comparison. By using the linear scoring method recommended by Olson et al. (1992), this study reported no differences between the two samples in family cohesion, family adaptability, and overall family functioning. Furthermore, this study answered calls to go beyond the parent only perspective when examining family variables and reported consistent findings from parent, child, and family perspectives. Finally, results also extend beyond previous work by examining behavioral characteristics related to aspects of family functioning. The Core and Balance Model suggests direct relationships between family leisure involvement and family functioning. Therefore, the findings that indicate no differences in levels of core or balance family leisure involvement provide further support for the similarities in family functioning between normative families and those including a child with a disability.

Family Leisure Involvement and Family Functioning

Researchers have consistently found positive relationships between family leisure involvement and positive family functioning for families in general (Hawks, 1991; Holman & Epperson, 1989; Orthner & Mancini, 1991; Zabriskie & McCormick, 2001). Freeman and Zabriskie (2003) found specifically that families with transracial adopted children indicated family leisure involvement was the most powerful predictor of family functioning. Other studies examining Hispanic families (Christenson et al., 2006), and single parent families (Smith et al., 2004) have reported similar results. Researchers (Zabriskie & Freeman, 2004; Zabriskie & McCormick, 2001, 2003) have called for further known group studies of families with different structures including families with children with developmental disabilities.

Recently, a number of studies examining family leisure among families of children with developmental disabilities have emerged indicating that family leisure involvement is important for the successful functioning of these families (Mactavish et al., 1997; Mactavish & Schleien, 1998, 2004; Scholl et al., 2003). This line of research is fairly new and has primarily used qualitative research methods with small sample sizes. The current study attempted to respond to the call for improved understanding of "family life, factors that contribute to effective family functioning, and the role of leisure in this process" (Mactavish & Schleien, 2004, p. 125) among these families. Findings collaborate and add clear support to previous work and do so with a different methodological approach and a broader more representative sample. Findings also added some new insight to this growing line of research.

Results indicated a positive multivariate relationship between core leisure involvement and family functioning for this sample from the parent ($p < .01$), youth ($p < .01$), and family perspective ($p < .01$). Core family leisure activities are common, low-cost, home-based, spontaneous, informal, and require little planning. Even when taking into account other family characteristics such as the level of support needed by the child with the disability, time the child has been in the home, income, history of divorce, age, ethnicity, and family size, the strongest predictor of higher family functioning was specifically core family leisure involvement. In other words, families who participated in board games, home meals, gardening, spontaneous activities in the yard, and reading books, etc. had higher levels of family functioning. This sheds new light on the

relationship between specific types of leisure involvement and family functioning for these families as compared to families in general.

Previous research (Freeman & Zabriskie, 2003; Smith et al., 2004; Zabriskie & McCormick, 2001) has found both core and balance family leisure involvement to be related to perceptions of family functioning for parents and youth. While from the parent perspective, findings have indicated core and balance family leisure involvement to be equally significant in predicting family cohesion and adaptability, responses from a youth perspective, have consistently reported core family leisure involvement to be a greater contributor to the explanation of family functioning than balance family leisure involvement in a variety of family samples (Christenson, et al., 2006; Freeman & Zabriskie, 2003; Smith, et al., 2004, Zabriskie, 2000). Findings from the present study indicated that, for the first time within this line of research, core leisure involvement was not only a stronger predictor, but was the only significant predictor of family cohesion, family adaptability, and total family functioning from the parent perspective. In fact, it was the only significant predictor of family functioning from all three perspectives (parent, youth, and family). It appears, therefore, that core family leisure involvement played an essential role in family functioning for this sample of families.

Although findings indicate that core family leisure was the only significant predictor of family functioning in families that include children with developmental disabilities, one must question if this relationship would subsist if balance leisure involvement was eliminated. While core leisure stands out for these families, it must be acknowledged that they did participate in balance family leisure. In fact, they participated in the same levels of balance activities as normative families, even though such activities may have been more difficult for them. In other words, these families are likely to have made substantial effort to negotiate their individual constraints in order to participate in balance leisure. Considering this effort and that the model suggests both core and balance family leisure are interrelated and both are needed for healthy family functioning, balance family leisure within these families should not be undervalued.

It is likely that the very nature of having a child with a disability requires families to develop the adaptive skills necessary for healthy family functioning. These skills are most likely learned by families in the early stages of a child's life as the families learn to accept and negotiate the constraints and challenges they encounter in having a child with a disability. Therefore, just as normative families are likely to develop adaptive skills through balance family leisure involvement; families of children with developmental disabilities may develop their adaptive skills through other venues. If these families already have adaptive skills then involvement in balance leisure may not contribute to the explanation of variance in their family functioning at the same level as it does for normative families.

Although families that include a child with a disability face added demands, stress, and constraints (Scholl et al., 2003; Singer, 2002), those in this sample participated in the same levels of core and balance family leisure when compared to normative families. Balance leisure activities usually take place away from home, are longer in duration, require more planning, time, and effort, are more expensive, and as such are likely to require more from these families and add additional stress and demands. Yet, these families still participated in normal levels of balance family leisure. This adds support to Scholl et al.'s (2003) findings regarding the importance of inclusive outdoor

balance types of family leisure to families of children with developmental disabilities. Core leisure activities, on the other hand, are common, require little planning, and are usually home based. Such activities may be more convenient and accessible for families of children with disabilities to participate in. Frequent involvement in the lower stress core family leisure activities is likely a foundation and is enjoyable while less demanding, which may be one reason it explained significant variance in family cohesion, adaptability, and total family functioning. Although the regression models only explained 16%-31% of the total variance in family functioning, core family leisure involvement must be considered an important behavioral factor related to healthy families with children with developmental disabilities.

Another aspect of this study that went beyond previous work was the inclusion of a measure of level of support needed by the child with a developmental disability. While this variable did not play a significant role from the youth or family perspectives, it did have a significant negative relationship with family functioning variables from the parent perspective (see Table 3). Such findings are to be expected as parents would have an acute awareness of the impact of support needed when considering their family functioning. It is interesting to note, however, that the amount of variance explained in the family functioning variables was somewhat reduced when core family leisure was introduced to each model. In other words, it appears that core family leisure involvement has some influence on the negative relationship between level of support needed and aspects of family functioning. While further conclusions can not be made from this dataset, it is strongly recommended that the level of support needed by children with developmental disabilities be included in future family leisure research.

Practical Implications

Many implications arise from this study for both families of children with disabilities and professionals who work with them. Based on the findings it is important not only to recognize that family leisure in general is quite important for families today, but that core family leisure involvement in particular, is an essential element of family life for families of children with developmental disabilities. This is the first study to identify a specific type of family leisure that clearly stands out when considering aspects of family functioning. It not only provides empirical evidence, but does so from both a parent and youth perspective. While balance family leisure was not related to family functioning for these families, its theoretical inter-relationship with core family leisure must not be over looked. Families in this sample participated in just as much balance family leisure as other types of families even in the face of increased constraint and adversity, which certainly may have been related to the significant contributions of core leisure involvement.

Findings from this study provide new direction for parents, professionals, and human service agencies that work with families who have children with developmental disabilities. Along with current approaches it is also recommended that efforts be made to help develop the specific leisure skills needed to address family functioning through regular family leisure involvement. Parents may want to consider participating in such things as board games or other adapted games, accessible gardening, meals together as a family, reading and singing together, adapted or modified home based sports, or other every day, simple activities that can be done together at home with

little or no resources. It is common for recreation professionals to provide services focused primarily on out of the ordinary balance activities, but findings suggest that skills for ongoing, regular, home-based family leisure participation are also necessary. Professionals should consider teaching the required skills, informing parents of the many options of core leisure activities, and facilitating regular participation in such home-based family leisure.

Additional implications include possible use of the Family Leisure Activity Profile (FLAP) in providing professionals and parents with specific direction as to what leisure options families are presently participating in and what possible changes or additions can be made in their leisure habits in an effort to improve behaviors related to family functioning. Leisure education workshops and programs could also provide parents with added knowledge and understanding about the value of core family leisure involvement and provide lists of various core activities that could be participated in at home with family members. "Family leisure is not a magic pill or a panacea that will automatically resolve the intricate challenges and difficulties faced by. . ." families of children with developmental disabilities (Zabriskie & Freeman, 2004, p. 75). Current findings, however, imply that family involvement in core leisure activities is related to aspects of family functioning and may provide an important, inexpensive, and practical approach for influencing family cohesion and adaptability among families that include a child with a developmental disability.

Recommendations for Future Research

While findings from this study contribute to the literature and have useful practical implication, study limitations must be recognized. Correlational techniques were used to identify relationships, and therefore causal relationships cannot be determined or assumed without further research. In order to examine the directionality of the relationship between family leisure involvement and family functioning, future research should include longitudinal studies with experimental designs. This study also had a limited sample. Although it was larger and broader than those in previous studies, it was not a true random sample and therefore, results cannot be generalized to all families of children with developmental disabilities. A larger, randomized, sample is recommended for future research which would allow for generalizations to a broader population. Future studies should continue to obtain a family perspective by obtaining data from multiple family members. This study had a smaller number of youth respondents possibly due to the lack of older children in the home which would likely be addressed with a larger sample size.

Finally, this is the first study to report the significant contributions of core family leisure to the explanation of all family functioning variables from both a youth and parent perspective. Therefore, scholars should attempt to gain a more in-depth understanding of core family leisure involvement and its relationship to family functioning among families that include a child with a developmental disability. Qualitative methods are likely to be beneficial in determining the characteristics of core leisure involvement. It may also be important to examine relationships between specific core activities and family functioning for these families and determine if variations exist between such relationships.

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