

A Critical Examination of Couple Leisure and the Application of the Core and Balance Model

Peter J. Ward
Keith W. Barney
Neil R. Lundberg
Ramon B. Zabriskie
Brigham Young University

Abstract

This study further clarified the relationship between couple leisure involvement, couple leisure satisfaction, and marital satisfaction through examining the core and balance framework as it has been applied to the relationship between couple leisure and marital satisfaction. The sample consisted of 1,187 couples across the United States ($N = 2,374$). SEM analyses supported previous findings, indicating satisfaction with couple leisure involvement was far more important when predicting marital satisfaction than the amount of leisure involvement. Furthermore, while core marital leisure satisfaction was the driving force in the explanation of variance in marital satisfaction, findings suggested before that can happen there must be participation in both core and balance couple leisure. Additional findings, implications, and recommendations for further research are discussed.

Keywords: *couple leisure, leisure satisfaction, marital satisfaction, Core and Balance model*

Peter J. Ward is an associate professor, **Keith W. Barney** is an assistant professor, **Neil R. Lundberg** is an associate professor, and **Ramon B. Zabriskie** is a professor in the Department of Recreation Management at Brigham Young University. Please address correspondence to Peter Ward, peter_ward@byu.edu

Over time, society's perceptions and expectations for marriage have slowly evolved to focus on the quality of marital relationships. In part, this view of marriage has sparked a growing interest in marital satisfaction as a topic of research (Stack & Eshleman, 1998). A systematic review of research by Bradbury and colleagues (2000) identified predictors of marital satisfaction including the quality and nature of interpersonal interactions, the presence of children, life stresses, and economic factors (Bradbury, Fincham, & Beach, 2000). In addition, a growing body of research has indicated the importance of shared time and couple leisure. In general, scholars suggest that couples who participate in leisure activities together have higher levels of marital satisfaction than those who do not (Holman & Epperson, 1989; Orthner & Mancini, 1991).

While some theoretical work has emerged to explore leisure's specific contribution to marital satisfaction (Baldwin, Ellis, & Baldwin, 1999; Holman & Jacquart, 1988), the relationship of leisure to marital satisfaction still remains unclear. Borrowing from the family leisure literature, the Core and Balance Model of Family Leisure Functioning (Zabriskie & McCormick, 2001) may provide a useful framework to better understand marital satisfaction with regard to couple leisure. Across the last 15 years, this framework has been extensively used to report significant relationships between family leisure involvement and positive family outcomes. From this perspective, research related to the model has provided considerable insight into the family leisure and family functioning relationship among diverse family samples including traditional families (Zabriskie & McCormick, 2003), adoptive families (Freeman & Zabriskie, 2003), single-parent families (Hornberger, Zabriskie, & Freeman, 2010; Smith, Taylor, Hill, & Zabriskie, 2004), families with a child with a disability (Dodd, Zabriskie, Widmer, & Eggett, 2009), families with a child with symptoms of eating disorders (Baker, 2004), nonresident father's families (Swinton, Freeman, Zabriskie, & Fields, 2008), Samoan families (Fotu, 2007), and Mexican-American families (Christenson, Zabriskie, Eggett, & Freeman, 2006). Although the core and balance framework is widely used in family leisure research, only one study has used it to examine couple leisure and its relationship to marital satisfaction (Johnson, Zabriskie, & Hill, 2006) and it was limited by a small, regional sample. Thus, the purpose of this study was to further clarify the relationship between couple leisure involvement, couple leisure satisfaction, and marital satisfaction through a critical examination of the core and balance framework as it has been applied to the relationship between couple leisure and marital satisfaction.

Literature Review

Marital Satisfaction

The quality of marital relationships is a subject that has been researched for some time and continues to be of interest as it pertains to the prediction of marital satisfaction (Stack & Eshleman, 1998). Marital satisfaction has been defined as "the degree to which spouses perceive that their partner meets their needs and desires" (Peleg, 2008, p. 388), or more specifically as "an individual's emotional state of being content with the interactions, experiences, and expectations of his or her married life" (Ward, Lundberg, Zabriskie, & Barrett, 2009, p. 415). Scholars have indicated marital satisfaction is a central component of individual and family well-being (Bradbury et al., 2000). Indeed, there appears to be a clear association between individuals who are married and higher levels of psychological well-being (Kim & McKenry, 2002) and physical health (Carrère, Buehlman, Gottman, Coan, & Ruckstuhl, 2000). In contrast, marital distress and conflict have been associated with higher levels of anxiety, stress, and family dissolution (Skowron, 2000) as well as poor childhood adjustment and psychological disturbances (Coie et

al., 1993; Sturge-Apple, Davies, & Cummings, 2006). Considering the potential negative effects of marital dissatisfaction, conflict, and discord, (Waldinger, Schulz, Hauser, Allen, & Crowell, 2004) it seems appropriate to continue examining factors which appear to be influential in producing marital satisfaction (Carrère et al., 2000, p. 42).

Couple Leisure

Research suggests that couples who participate in leisure activities together have higher levels of marital satisfaction (Holman & Epperson, 1984; Orthner & Mancini, 1991). Findings have also indicated that couples' leisure participation may enhance marital cohesion and satisfaction and provided opportunities for improved communication (Herridge, Shaw, & Mannell, 2003). In addition, bonding, intimacy, and overall satisfaction with relationships are positive byproducts of couple leisure (Herridge et al., 2003). Longitudinal studies, furthermore, have suggested the importance of couples participating in mutually enjoyable leisure activities to increase marital satisfaction (Crawford, Houts, Huston, & George, 2002). More recent research, however, has suggested the type or amount of couple leisure was not necessarily the most important factor, but instead it was simply the "satisfaction with couple leisure that contributed to marital satisfaction" (Johnson et al., 2006, p. 83). While research on the topic is widespread, recurring themes in the literature seem to emphasize four basic concepts: (a) independent couple leisure, (b) joint leisure, (c), parallel couple leisure, and (d) core and balance couple leisure.

Independent couple leisure. Early research by Orthner (1975) focused on the idea of individual, joint, and parallel forms of leisure. Studies using this framework showed that individual recreation participation, at the exclusion of one's spouse, was a good indicator of marital distress and lack of marital satisfaction (Smith, Snyder, Trull, & Monsma, 1988; Orthner & Mancini, 1991). Other studies confirmed the negative relationship between individual expressions of leisure and couple satisfaction for both men and women in marital relationships (Holman & Jacquart, 1988; Orthner & Mancini, 1990).

Although there has been a negative relationship established surrounding individual leisure pursuits as it relates to marital satisfaction, it is not immediately clear that couples need to share and enjoy the same leisure activities in order to experience high levels of marital satisfaction. For example, individuals who reported experiencing high levels of spousal support and approval for their individual activity choices also reported high levels of marital satisfaction (Baldwin et al., 1999). These findings confirm and clarify the role partners play in marital satisfaction. The time partners spent together (or apart) was not the critical element in leading to marital satisfaction, but rather it was partner support that contributed to marital satisfaction. This support could be expressed for example in verbal interest, actual presence at events, financial allocation, or time spent planning activities.

Joint couple leisure. Joint leisure can be considered participation in activities or forms of recreation that allow mutual involvement and interaction during the event. Joint couple leisure occurs when couples are engaged in recreation-type activities that facilitate communication through teamwork or problem solving. Since Orthner's (1975) early work, multiple investigations have established the relationship between marital satisfaction and joint couple leisure (Holman, 1981; Holman & Jacquart, 1988; Miller, 1976; Orthner & Mancini, 1990; Smith et al., 1988), including the study of couples outside the United States (Ahn, 1982; Bell, 1975; Palisi, 1984). Orthner's work, however, has been challenged by Berg, Trost, Schneider, and Allison (2001) who suggested that "time spent in joint leisure, regardless of method of measurement, did not significantly influence relationship satisfaction." This finding indicates that time spent together is not a direct influence on relationship satisfaction and must be mediated by the nature

of the shared experience. These differing results indicate that the co-occurring factors of joint participation and marital satisfaction need further investigation.

Parallel couple leisure. Some activities that people engage in together are labeled parallel because they do not facilitate interaction, sharing, or communicating. Being in the same place at the same time, such as watching television or a movie, but not interacting is not necessarily joint leisure, but instead is parallel couple leisure. Parallel forms of couple leisure have been studied with mixed results. Research by Orthner (1975) and Palisi (1984) indicated there was a positive relationship between parallel couple leisure and marital satisfaction, but the effect was weaker than that of joint couple leisure. Holman and Jacquart (1988) used different measurement techniques and found parallel leisure had a negative relationship with marital satisfaction for both partners. They concluded that parallel forms of leisure that allowed little or no interaction could at best provide limited benefit or might actually harm the relationship.

While the concepts of independent, parallel, and joint couple leisure provide some insights, the mechanisms of how shared leisure time influences marital satisfaction remains unclear. In a longitudinal study that followed a cohort of married couples for over decade, Crawford et al. (2002) observed that mutual participation in leisure which both partners personally enjoyed yielded higher levels of marital satisfaction, lending support to the concept of joint leisure. In contrast, the research also observed that separate participation in leisure activities contributed to lower levels of marital satisfaction and women were found to become progressively more dissatisfied when they participated in shared leisure experiences that were imbalanced, or where the men enjoyed the activity more than women. (Crawford et al., 2002). Thus, varying mood states ranging from satisfaction to anxiety, distress, and dissatisfaction can be present during shared leisure time. These different moods can contribute to couples' perceptions of marital satisfaction. With the many different explanations and obstacles to understand the effect of leisure participation on marital satisfaction, Reissman, Aron, and Bergen (1993) identified the need for additional theoretical frameworks to help further understand the relationship between couple leisure and marital satisfaction.

Theoretical Foundations: Core and Balance

Johnson et al. (2006) developed a theoretical framework to understand couple leisure involvement and marital satisfaction by applying the Core and Balance Model of Family Leisure Functioning (Zabriskie & McCormick, 2003). The model, grounded in family systems theory, indicates that involvement in different patterns of leisure contributes to family functioning in different ways. Although the model was not specifically developed for examining the subsystem of married couples within a family, the framework could still be utilized because it provides sound theoretical structure for examining family leisure involvement and was developed from a family system perspective.

Iso-Ahola (1984) indicated individuals try to meet two opposing needs in their leisure involvement. He states that individuals "seek both stability and change, structure and variety, and familiarity and novelty in leisure" (p. 98). The interplay and balance between stability and change plays a complex role when considering the need of a system, like a married couple or family, than when looked at for an individual (Freeman & Zabriskie, 2003). Couples, similar to families, continually must meet both the need for stability in interactions, structure, as well as the need for novelty in experience, input, and challenge in order to function and develop effectively. Zabriskie and McCormick (2001) further suggested families and couples also tend to search for balance between stability and change through their leisure involvement. The Core and Balance Model of Family Leisure suggests there are two interrelated basic categories of family leisure involvement,

which families use to meet the needs of stability and change. The model has also been used to examine the contributions of core and balance leisure involvement to other related constructs such as family satisfaction (Zabriskie & McCormick, 2003).

Core and Balance

Core family leisure patterns are depicted by “common, every day, low-cost, relatively accessible often home based activities that many families do frequently” (Zabriskie & McCormick, 2003, p.168). This may include activities such as playing board games together, making and eating dinner together, watching movies or television together in the home, playing in the yard, going on a bike ride together around the neighborhood, or shooting hoops in the driveway. “Such activities often require minimal planning and resources; are spontaneous or informal; provide a safe, consistent, and typically positive context in which participants relationships tend to be enriched; and increase feelings of closeness” (Ward & Zabriskie, 2011, p. 32). Couples participating in core types of activities can safely explore boundaries and define couple/family roles and rules in a safe, accessible environment (Johnson et al., 2006). Core leisure activities may become activities of choice that are looked forward to among couples in which they can regularly enjoy each other’s company and complete household chores at the same time. Feelings of closeness and cohesion within the family system often increase from regular personal interactions based on shared experiences (Zabriskie, 2000).

Balance family leisure patterns are “depicted by activities that are generally less common, less frequent, more out of the ordinary and usually not home-based thus providing novel experiences” (Zabriskie & McCormick, 2003, p.168). These types of activities may include vacations, camping, skiing, special events, and trips to sporting events or theme parks. Such activities typically require greater investment of resources such as planning, time, effort, or money, and are therefore less spontaneous and more formalized. Balance leisure activities 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).

Overall, the model suggests core family leisure primarily meets family needs for familiarity and stability and tend to facilitate feelings of closeness, personal relatedness, family identity, bonding and cohesion. Balance family leisure, on the other hand, primarily meets family needs for novelty and change by providing 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 challenges of family life in today’s society. Family system theory holds that these two constructs, family cohesion and family adaptability, are both necessary and are the primary components of healthy family functioning and wellness (Orthner & Mancini, 1991). Similarly, findings (Freeman & Zabriskie, 2003) related to the Core and Balance Model (Figure 1) suggest involvement in both categories of family leisure is essential, and that families who regularly participate in both core and balance types of family leisure report higher levels of family functioning than those who participate in uneven amounts of either category. Families who primarily participate in one category without the other are likely to experience disarray, frustration, and dysfunction.

Family or couple involvement in leisure activities, however, may not be enough to ensure the benefits claimed by family leisure theorists. The quality or the individual’s satisfaction with family leisure involvement is another likely contributor. By including a measure of family leisure satisfaction, researchers examining broad constructs across diverse samples of families can account for variance related to conflict, contradictions, and family stress (Larson, Gillman, & Richards, 1997; Shaw, 1997; Shaw & Dawson, 2001). Poff, Zabriskie, and Townsend (2010) reported

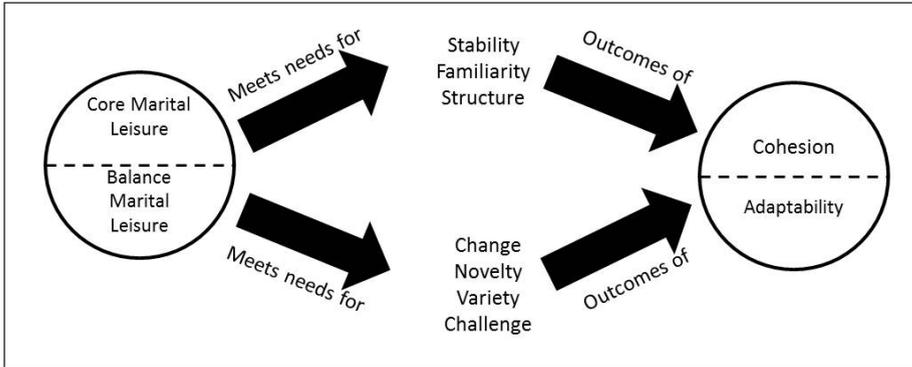


Figure 1. Core and Balance Model. Adapted from the Core and Balance Model of Family Leisure Functioning (Zaabriskie & McCormick, 2001)

that from a parent perspective family leisure involvement helped explain variance in variables such as family communication and family functioning, but ultimately it was core and balance family leisure satisfaction that explained variance in overall satisfaction with family life. Agate, Zabriskie, Agate, and Poff (2009) noted satisfaction with core family leisure was the greatest positive predictor of satisfaction with family life among a national sample of families. Satisfaction with core family leisure accounted for much more variance than family leisure involvement alone. Furthermore, Johnson et al. (2006) reported satisfaction with marital leisure involvement as the strongest single predictor of marital satisfaction in couples even when controlling for leisure involvement and other sociodemographic variables. Yet to date, no studies have included couple leisure satisfaction when examining couple leisure and marital satisfaction with a large national sample.

Applying the Core and Balance Model to Couples

When considering family leisure from a couple perspective, the core and balance model may provide a useful framework (Johnson et al., 2006). As pointed out by Johnson et al., this framework accounts for the need of stability and change in the subfamily unit of married couples. Meeting these needs within a couple leads to constancy and change and contributes to cohesion and adaptability in the couple relationship. It is further expected that similar to the family system, the application of the core and balance framework would lead to couple leisure satisfaction and contribute to overall marital satisfaction.

The application of the core and balance model to couple leisure is in its infancy with limitations in study design and statistical power. Results from Johnson et al.'s (2006) study found marital satisfaction increased when couples engage in leisure activities together, but it was not the amount of time spent in the activity, nor the satisfaction with the time shared that increased marital satisfaction. Rather, the couples who were satisfied with their marital leisure involvement had greater marital satisfaction than couples who were not. The benefits of participation in certain activities appears to be related not to the activity itself, but the way such activities fulfill psychological needs present in the couple relationship which is manifested in marital satisfaction (Johnson et al.). Furthermore, Johnson et al. reported satisfaction with core couple leisure involvement was the strongest contributing factor to marital satisfaction and the driving force in the model when controlling for core and balance leisure involvement and other demographics variables.

Johnson et al. (2006) noted that additional studies would be needed to further examine the relationship between core or balance couple leisure to better understand their contribution to satisfying couple leisure involvement. Further, they questioned if couples leisure was being accurately represented by the Marital Activity Profile (MAP) due to it being primarily based on the Family Leisure Activity Profile (FLAP) (Zabriskie & McCormick, 2001). Although there were clear modifications made considering couple leisure patterns, the MAP still used similar activity categories and followed the same structure as the FLAP to represent couple leisure involvement. Therefore there may be some question as to whether the MAP accurately reflects couple leisure patterns. Previous studies using the core and balance framework with couples have not examined the use of the performance of the MAP in a detailed fashion.

An important part of further examining the MAP is clarifying the role of core and balance leisure involvement in establishing a satisfying leisure lifestyle for the couple. This requires further investigation because the link between couple leisure involvement appears to be moderated by overall feelings of leisure satisfaction. Such findings move away from the adage that leisure activities were in and of themselves “good” for marriage and all that was needed for marital satisfaction. The notion that joint participation results in marital satisfaction has been historically promoted to the point in which it has approached the status of a “cultural truism” (Crawford et al., 2002), but further investigation is clearly needed. Therefore, the purpose of this study was to further clarify the relationship between couple leisure involvement, couple leisure satisfaction, and marital satisfaction. This is achieved through a critical examination of the core and balance model as it has been applied to the relationship between couple leisure and marital satisfaction.

Method

Data Collection Procedures

An online questionnaire was administered by Survey Sampling International (SSI). SSI is a leading provider of sampling and data collection solutions for survey research that maintains a large, nationally reflective data pool. SSI’s Internet panel consisted of approximately 2.2 million households that have indicated a willingness to participate in online research. To be included in the study, participants had to answer all the items in the questionnaire. Online data collection has similar limitations to other methods of self-report data collection (Dillman, 2000; Ward, Clark, Zabriskie, & Morris, 2012). A link to the online questionnaire in Qualtrics was given to SSI who sent out an email to randomly drawn subjects of couples across the country.

If couples agreed to participate, they followed a link to the questionnaire’s online site. Participants were asked to have one member complete the entire questionnaire and then have the other independently complete it in an effort to foster open honest responses. Neither partner should have been aware of the other’s responses. No instructions were given to which partner should complete the questionnaire first. The couples who successfully completed the questionnaire were entered into a drawing from Survey Sampling International to receive a prize. Once the targeted sample of 1,200 couples completed the questionnaire, data were compiled and the online questionnaire site was deactivated.

Sample

A couple was defined as a relationship between two individuals who were considered domestic partners. As consistent with the definition of couple per Sabourin, Valois, and Lussier (2005), cohabitation or sexual preference was not a delimiting factor for couples to be included in the sample. Therefore respondents ($n = 1,226$) consisted of couples from across the continental United States.

The data cleaning process reduced the sample size to 1,187 couples. Participants were deleted from the study due to incomplete questionnaires, or being an extreme outlier with an improbable response when reporting couple behavior. For example, a couple who reported they experienced 20 hours of family dinner every day of the week would be considered an outlier because the likelihood of participating in family dinner for this amount of time is unlikely and they would have been excluded from the study. A second step in cleaning the data was comparing partners' responses to each other to ensure compatibility of answers. If the couples reported very different answers on the joint participation items, then the couple was not included in the study.

Instrumentation

The instruments used in the study included the following scales: (1) the 15-item MAP, that measured couple leisure involvement and couple leisure satisfaction (Johnson et al., 2006); (2) the Satisfaction with Married Life Scale (SWML) that measures satisfaction with married life based on participants' own criteria (Ward et al., 2009) and (3) relevant sociodemographic questions.

MAP. The MAP measures involvement in marital leisure activities based on the Core and Balance Model of Family Leisure Functioning (Johnson et al., 2006; Zabriskie, 2000). It is a modified version of the FLAP, which has demonstrated acceptable psychometric properties (Zabriskie, 2001). The FLAP was modified by replacing the phrase "with your family" with the words "with your spouse" when asking about involvement in leisure activities. Other minor modifications were made to the MAP from the FLAP. These modifications were made in an effort to better fit the type of leisure activities in which couples may participate while maintaining the core and balance framework (e.g., household cooking/cleaning and leisure-based communication). All other aspects of the MAP including format, scoring procedures, and leisure satisfaction items remained the same as the FLAP.

Participants responded to 15 items that asked about leisure activities they participated in with their partner. Eight categories of activities are representative of core marital leisure patterns (e.g., home-based TV/video watching together, regular communication, and playing games together) and seven categories are representative of balance marital leisure patterns (e.g., community-based events, outdoor activities, adventure activities, and travel together). Examples of activity types that might fall into the specific categories were given to help delineate between the unique categories. Each question root asked respondents if they participated in the activity category with their spouses. If participants responded "yes," they were asked to estimate the frequency of the activity ("About how often") and duration ("For about how long each time"), as well as participation satisfaction with your partner for the root activity on a 5-point Likert type scale (1 = *Very Dissatisfied* to 5 = *Very Satisfied*). If respondents did not participate in the activity, they were still asked to rate their participation satisfaction. Some respondents may have been very satisfied to not have participated in a particular activity category.

Scores for the MAP were calculated by first multiplying the frequency and duration of participation in each category creating an ordinal index, and then summing the core indices to provide a core marital leisure involvement score. The same process was also followed for the balance categories to provide a balance marital leisure involvement score. The total couple leisure involvement score was calculated by summing the core and balance scores. The satisfaction with couple leisure involvement score was calculated by summing the satisfaction responses for the core items and balance items. The MAP has demonstrated acceptable psychometric properties including evidence of construct and content validity (Johnson et al., 2006).

SWML. The SWML measured global marital satisfaction (Ward et al., 2009). It is a modified version of the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). The SWML requires respondents to agree or disagree with five statements about married life on a 7-point Likert-type scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*. Scoring consists of summing all items, which produces a satisfaction with married life score that ranges from 5 to 35. The couples' scores were then summed to represent a total marital satisfaction score ranging from 10 to 70. Higher scores indicated greater couple marital satisfaction. In order to determine if couples greatly differed on their satisfaction scores, the absolute difference between the partners' responses was considered. For example, there was only an absolute difference of 3.67 between the partners' responses for satisfaction with married life mean scores. No participants were removed from the study based on their differences in the SWFL score. Acceptable psychometric properties with a Cronbach's alpha of .943 and face, criterion, and construct validity have been established for the SWML scale (Ward et al.).

Demographics. Sociodemographic questions were included to identify the underlying characteristics of the sample. For example, these items included age, gender, ethnicity, previous marital history, and income.

Analysis

As suggested by Kline (2011), Structural equation modeling (SEM) was used to examine the relationship between couple leisure involvement, couple satisfaction, and overall marital satisfaction. SEM was used because a theoretical relationship existed between multiple constructs and SEM helps to confirm the model's predictions (Kline). SEM is warranted when trying to test specific hypotheses about a model, in modifying an existing model, or to test related models (Tabachnick & Fidell, 2007), but requires large samples that may have restricted the use of SEM in previous studies. The model was evaluated using SEM's maximum likelihood estimation in Amos 18.0. Maximum likelihood estimation was used because it is robust even when the data are not normally distributed (Chou & Bentler, 1995). Hypotheses were tested simultaneously to determine the direction and significance of the relationship.

Kline's (2005) four-step approach was used to estimate the relationship of core and balance leisure involvement and satisfaction with couples. The first step was model specification that tested if the structural model was consistent with the data. This involved building a path diagram and testing it. Using the path analysis, deleted paths were tested based on theory, all other paths within the model were tested, and finally the model was trimmed. Revisions to the path diagram were based on both theory and statistical diagnostics. Second, the measurement model was revised if needed. Confirmatory factor analysis (CFA) was used to test the factor structure of Core Leisure Involvement, Balance Leisure Involvement, Core Leisure Satisfaction, Balance Leisure Satisfaction, Total Leisure Satisfaction, and Satisfaction with Married Life. CFA is a technique used when a priori theoretical conception of the factor structure is already established and a statistical method is desired to test the adequacy of the particular measurement model (Kline, 2005). Since the MAP has previously been successfully used in research (Johnson et al., 2006) this study provided an opportunity to test the adequacy of the model from a measurement perspective. Third, model estimation combined the path diagram and measurement models to construct the hybrid model. Analysis was done to test the specified paths and trim paths based on related theory and statistical diagnostics. Fourth, the model's fit was estimated using the model fit indices to determine if the modified model was better than the null (Kline, 2005).

As recommended by Kline (2005) a variety of conservative model fit indices were examined to evaluate overall model fit. First, a chi-square test was examined. With such a large sample

size, a nonsignificant chi-square statistic is unlikely (Kline, 2005), and a significant chi-square test is typically not used to reject a model. To account for the large sample size, a χ^2/df ratio was examined. Second, the comparative fit index (CFI) was considered to evaluate the model's absolute or parsimonious fit relative to the null or hypothetical model. For CFI, an index score of .95 or greater is desired for good model fit. Last, the root mean square error of approximation (RMSEA) was considered to assess fit based on the magnitude of the residuals. Using RMSEA, an index score of .08 or less is desired for good model fit (Kline).

Results

Characteristics of the Sample

Participants were from 48 states within the United States of America. California had the highest percentage of participation with 75 couples, which made up 6.3% of the overall sample. Wyoming had the lowest level of participation with one couple that comprised 0.1% of the overall sample. The sample's mean age was 50.67 ($SD = 13.75$) with a mode of 60, representing 95 participants. The two youngest participants were 19 years old. The oldest participant was 90 years old. Thirty-seven percent of the sample reported being previously divorced and 53.2% reported living in urban locations with a population over 500,000. The median annual household income category was \$50,000 to \$59,999. This falls within range for the median income for all households in the United States being \$50,233 (DeNavas-Walt, Proctor, & Smith, 2008). Many different ethnic groups participated in the study; however, 90.7% of the participants classified themselves as White, non-Hispanic. Forty-seven couples reported being in a same-sex relationship, and of these relationships, 32 of the relationships were female.

Path Analysis

The path analysis (Figure 2) yielded the following significant relationships ($p < .05$) between core marital leisure involvement and core marital leisure satisfaction ($\beta = .490, t = 17.77$), core marital leisure satisfaction and satisfaction with married life (SWML), core marital leisure involvement and SWML ($\beta = .10, t = 3.835$), core marital leisure involvement and balance marital leisure satisfaction ($\beta = .232, t = 8.08$), balance marital leisure involvement and core marital leisure satisfaction ($\beta = .312, t = 10.88$), and balance marital leisure involvement and SWML ($\beta = .098, t = 4.359$). Balance marital leisure satisfaction was not a significant predictor of SWML. A moderately positive correlation existed between core marital leisure involvement and balance marital leisure involvement ($r = .444$). A strong positive correlation between core marital leisure satisfaction and balance marital leisure satisfaction ($r = .775$) was present. The strength of this correlation may suggest multicollinearity between core marital leisure satisfaction and balance marital leisure satisfaction, theory suggests, however, these two variables should be related. The path analysis had an acceptable level of fit ($\chi^2/df = .073$; CFI = 1.00; RMSEA = .000, CI (90%) .000 to .050; SRMR = .001). Using the Sobel test for mediation, a significant indirect effect was present (Sobel Test Statistic = 15.16). The path analysis explained 52% of SWML.

Measurement Model

Confirmatory factor analyses were individually conducted on the latent variables of core marital leisure involvement, core marital leisure satisfaction, balance marital leisure involvement, balance marital leisure satisfaction, and SWML. The CFA for core marital leisure involve-

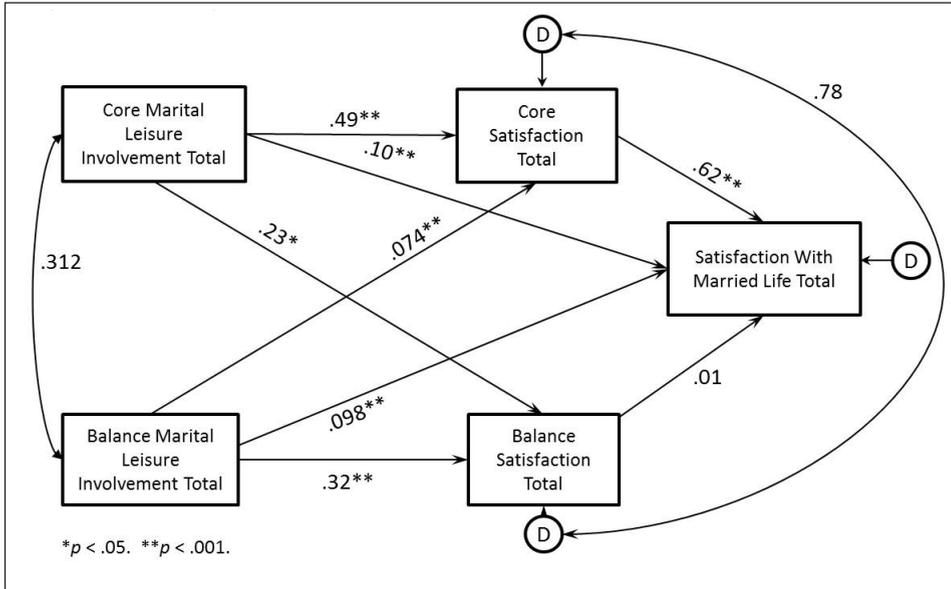


Figure 2. Path Analysis—Core Marital Leisure Involvement Total

ment reduced the number of predictors from eight to six items. The items relating to home based activities (e.g., watching TV, listening to music, reading books) and religious/spiritual activities (e.g., church activities, worshipping, scripture reading) were not significantly predicted by core marital leisure involvement. The participation rate for these activities categories was low in comparison to others. Less than 1% of the respondents reported participating in home-based activities daily or weekly. Over 55% of the respondents did not participate in religious/spiritual activities at least annually. The significant core activity categories had participation rates ranging between 63% and 98%. The remaining six estimates were significant (Table 1). Errors between the core activity categories of having dinner at home and do you participate in household duties were correlated to improve core marital leisure involvement measurement model's fit ($\chi^2/df=2.850$; CFI=.983; RMSEA=.039, CI (90%) .021-.059; SRMR=.023). The two predictors that were not significant for core marital leisure involvement were not included when analyzing core marital leisure satisfaction. These were not included because individual satisfaction scores were based on activity involvement, and to keep consistency between involvement and satisfaction, satisfaction scores for a particular predictor were only retained if it was a significant contributor to involvement. The remaining six core marital leisure satisfaction estimates were significant with standardized regression weights from .656 to .838. Errors were correlated as in the core marital leisure involvement model with the addition of correlating the errors of household duties with talking regularly and dinners at home with talking regularly. Correlation of these errors was based on the modification indices to improve model fit. The core marital leisure satisfaction model fit was acceptable ($\chi^2/df = 2.536$; CFI = .998; RMSEA = .036, CI (90%) .014-.059; SRMR = .010).

The CFA for balance marital leisure involvement recommended reducing the number of predictors from seven items to four items. Items relating to participation in community-based sport activities, outdoor activities, and outdoor adventure activities were not significantly predicted by balance marital leisure involvement. The participation rate for these balance activities was low in comparison to other activities. Less than 23% of the respondents reported participating in some level of community based sport. Over 54% of the couples did not participate in outdoors activities and more than 92% did not participate in outdoor adventure activities. The remaining four items were significant (Table 1) and had participation rates ranging from 67% to 89%. Balance marital leisure involvement measurement model's fit was acceptable ($\chi^2/df = 1.621$; CFI = .998; RMSEA = .023, CI (90%) .000-.066; SRMR = .011). The three predictors that were not significant for balance marital leisure involvement were not included when analyzing balance marital leisure satisfaction. The remaining four estimates were significant and standardized regression weights ranged from .762 to .854. Errors were correlated between satisfaction in spectator activities and participation in tourism activities as suggested by the modification indices to improve model fit. The balance marital leisure satisfaction model fit was acceptable ($\chi^2/df = .287$; CFI = 1.000; RMSEA = .000, CI (90%) .000 - .062; SRMR = .002).

The CFA for SWML retained all five predictors as significant. Regression estimates ranged from .858 to .976. Errors between three of the items were correlated to improve the model's fit. The SWML model's fit was acceptable ($\chi^2/df = 2.405$; CFI = .1.000; RMSEA = .034, CI (90%) .000 - .075; SRMR = .002).

Hybrid Model

All of the individual measurement models were combined with the path analysis so a hybrid model could be tested (Kline, 2005). The corresponding errors were correlated between involvement and satisfaction items. For example, the errors between involvement in tourism activities was correlated with satisfaction with tourism activities. The just-identified hybrid model resulted in core marital leisure satisfaction and balance marital leisure satisfaction being strongly positively correlated ($r = .886$). Due to the strong correlation, these two variables were combined into a new variable, total marital leisure satisfaction, as recommended by Kline if the latent variables' correlation is stronger than .80 (2005, 2011). In addition, the disturbances were strongly correlated in the path analysis, suggesting they shared similar error variance and multicollinearity with the two variables likely existed (Kline, 2011). Furthermore, after testing the modified model with core marital leisure satisfaction and balance marital leisure satisfaction estimating total marital leisure satisfaction, the balance marital leisure satisfaction estimates did not significantly contribute to total marital leisure satisfaction and were trimmed from the model (Figure 3).

The modified model had significant estimates between core marital leisure involvement to total marital leisure satisfaction (.688), balance marital leisure involvement to total marital leisure satisfaction (-.126), and total marital leisure satisfaction to SWML (.978). Core marital leisure involvement and balance marital leisure involvement explained 36% of total marital leisure satisfaction and the total model explained 48 % of SWML. Correlation between core marital leisure involvement and balance marital leisure involvement was .740 and the correlation between total marital leisure satisfaction's and SWML's disturbances was -.419.

Model's Fit

The model had an acceptable model fit ($\chi^2/df = 3.584$; CFI = .973; RMSEA = .047, CI (90%) .043 - .051; SRMR = .040). Hoelter's fit index indicated the model would still have been significant with 391 participants, meaning the model's significance was not driven by the large sample size.

Table 1*Confirmatory Factor Analysis Results*

	Standardized Beta Weight
Core Marital Leisure Involvement	
1. Do you have meals with your spouse?	.357
3. Do you participate in household duties (for example preparation of meals, household maintenance, dishes, laundry, housework such as dusting, vacuuming etc.) with your spouse?	.517
4. Do you participate in games, crafts, and/or hobbies (for example playing cards, board games, video games, drawing, scrap books, sewing, painting, ceramics, home improvement projects etc.) with your spouse?	.606
5. Do you participate in regular talking (for example visiting, extended discussions, talking before retiring to bed, etc.) with your spouse?	.499
6. Do you participate in home-based or neighborhood based activities (for example star gazing, gardening, yard work, playing catch, shooting baskets, bike rides, fitness activities, exercise, etc.) with your spouse?	.561
7. Do you attend and support your spouse's individual activities (for example watching their sporting events, musical performances, school/work programs and presentations, etc.)?	.491
Balance Marital Leisure Involvement	
9. Do you participate in community-based social activities (for example going to restaurants, parties, shopping, visiting friends and neighbors, picnics, etc.) with your spouse?	.587
11. Do you participate in spectator activities (for example going to movies, sporting events, concerts, plays or theatrical performances, etc.) with your spouse?	.633
12. Do you participate in community-based special events (for example visiting museums, zoos, theme parks, fairs, etc.) with your spouse?	.623
15. Do you participate in tourism activities (for example couple vacations, traveling, visiting historic sites, visiting state/national parks, etc.) with your spouse?	.499
Satisfaction With Married Life	
1. In most ways my married life is close to ideal.	.955
2. The conditions of my married life are excellent.	.976
3. I am satisfied with my married life.	.955
4. So far I have gotten the important things I want in my married life.	.897
5. If I could live my married life over, I would change almost nothing.	.858

Discussion

The purpose of this study was to further clarify the relationship between couple leisure involvement, couple leisure satisfaction, and marital satisfaction. The study, furthermore, critically examined the core and balance model as it has been applied to the relationship between couple leisure and marital satisfaction, and did so using a large national sample and advanced

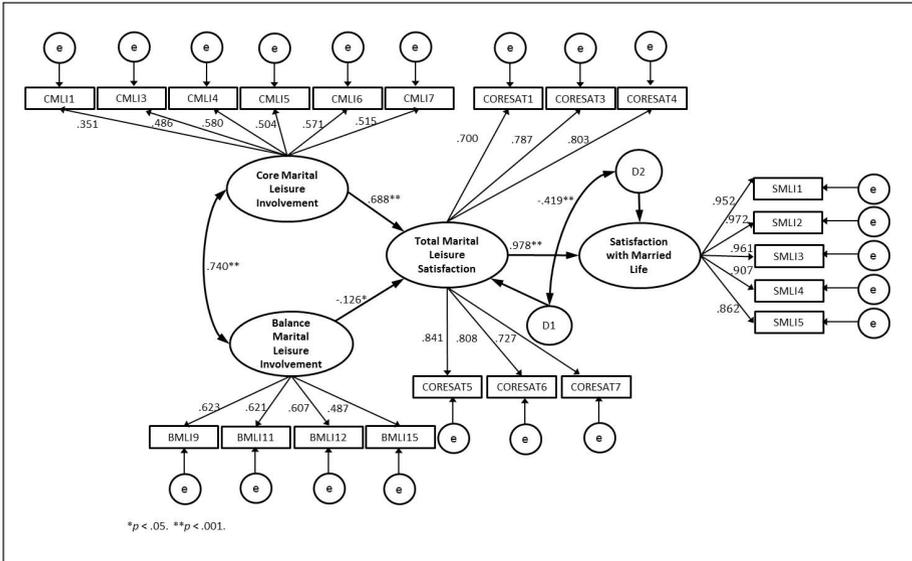


Figure 3. Model of Marital Activity Profile

modeling techniques. The results suggested core marital leisure satisfaction and balance marital leisure satisfaction are strongly interrelated. Core marital leisure involvement was a strong positive contributor to marital leisure satisfaction; whereas, balance marital leisure involvement was considered a weak negative contributor to marital leisure satisfaction. In addition, the type of activities that influence core marital leisure involvement and balance marital leisure involvement were refined. The relationship between total marital leisure satisfaction and overall Satisfaction with Married Life remained positive and strong as suggested by previous research (Johnson et al., 2006).

Marital Leisure Satisfaction

Overall, findings from the current study add further support to previous work (Johnson et al., 2006) by indicating that satisfaction with couple leisure involvement is far more important when predicting marital satisfaction than the amount of leisure involvement itself. This study also moves beyond previous work that utilized a small regionalized sample by reporting these consistent findings from a large geographically distributed national sample. Furthermore, examination of the path model (see Figure 2) emphasized the role of couple leisure involvement as an antecedent to couple leisure satisfaction, as a couple is not likely to be satisfied with its couple leisure involvement if it has none. Although core marital leisure satisfaction drives the explanation of variance in marital satisfaction, these findings suggest before that can happen there must be participation in both core and balance couple leisure. Balance leisure involvement alone clearly is unlikely to lead to core leisure satisfaction, but it is also unlikely that core participation alone is enough to produce sufficient marital leisure satisfaction. The model indicates that the interrelationship of both core and balance couple leisure appears to be essential.

The relationship between core and balance leisure is also theoretically supported by the Core and Balance Model. Perhaps it is most likely that regular participation in core couple leisure such as eating dinner together, meaningful conversations, and sharing hobbies, provides

the foundation for successful balance couple leisure involvement which provides a context for challenge, adaptation and growth, and ultimately leads back to further safe core couple leisure. Thus, the interrelationship of participation in both core and balance is likely to lead to core leisure satisfaction in particular (balance involvement alone tends to have a negative relationship) which ultimately predicts increased marital satisfaction.

Satisfaction with Married Life

Total marital leisure satisfaction was a strong positive indicator of satisfaction with married life, with both core and balance leisure involvement making minor direct contributions as indicated in the path analysis. This finding is congruent with previous work that has also found strong ties between leisure satisfaction and satisfaction with married life (Johnson et al., 2006). It is worth noting, however, that research continues to support the concept that it is not the specific leisure involvement, but rather the satisfaction with that leisure involvement that predicts marital satisfaction. Thus, one possible avenue for couples who are striving to increase marital satisfaction is to find, identify, and participate in more core leisure activities together. This increase in spending regular meaningful time together in or around the home with a partner will likely improve core leisure satisfaction, which is the primary contributor to marital satisfaction. For example, playing games together, being involved in meaningful conversations, sharing hobbies, going on walks or bike rides, or cooking and eating dinner together are likely to provide the foundation necessary to increase marital leisure satisfaction resulting in enhanced marital satisfaction. Furthermore as suggested above, an increased foundation of core couple leisure involvement is also likely to increase successful balance leisure involvement further contributing to couple leisure satisfaction. While satisfaction with married life may be increased through marital leisure satisfaction, this is not the only component that leads to higher satisfaction with marital life. Practitioners should recognize other factors also play into satisfaction with married life such as personality, temperament, and situational or environmental factors (Heller, Watson, & Ilies, 2004).

Core and Balance Involvement

Results of the confirmatory factor analysis indicated that in creating a total marital leisure satisfaction model, some items from the previous MAP contribute more in predicting marital satisfaction than others. Core leisure items that were retained in the new total marital leisure satisfaction model included: participation in dinners, household duties, games, crafts, and/or hobbies, regular talking, home based or neighborhood activities such as gardening, yard work, bike rides, or other fitness activities, and supporting spouse in individual activities. Core items that were not contributing to the new model included: participation in home-based activities such as watching TV/videos, listening to music, reading books, singing etc., and religious/spiritual activities. When comparing the type of activities that were statistically retained versus dropped from the model a noticeable trend emerges. All the items retained in the model were typically done in a social setting and personal interaction was required, similar to joint activities. The nonsignificant items appeared to more appropriately fit the parallel couple leisure concept, being comprised of individual activities that did not require interaction within the couple.

Balance activities that retained significance as they contributed to the creation of the new model included participation in community-based social activities, spectator activities, community-based special events, and tourism activities. The balance activities that were not related to total marital leisure satisfaction included participation in community-based sporting events, outdoor activities, and outdoor adventure activities. Again, considering the nature of the activities represented in these items, various explanations might exist for why items were not included

as part of the model. It could be that couples often have different skill levels and desire different outcomes from their participation in these types of activities. For example, with regard to community based sporting activities, one member of the couple may be competitive and focus on winning; while, the other may want the social aspect of participation and does not focus on the final score. Thus, the couple's purposes for participating in the activity are different. Due to this difference, couples may have chosen not to participate in these activities as joint leisure or may be unsatisfied with their joint participation (Crawford et al., 2002).

Further research may warrant the removal of elements not performing well, and other items may need to be included in order to more accurately represent unique aspects of couples living together, such as the expression of physical affection and intimacy. The further application of the Core and Balance Model to understanding couples' leisure may certainly lead to changes in measurement. While this study represents a first step in better understanding the application of the Core and Balance Model to couples, it would be premature to make changes in the model until it has been explored more thoroughly among different populations.

Limitations and Future Research

It should be noted that the sample used in this research represents a nationwide survey collected via an electronic database, but it is not necessarily representative of the U.S. population. While the study included couples from each state, was regionally reflective of the national population, and reflective of the national annual income, it was not nationally representative in terms of ethnicity and other sociodemographic variables, which potentially influenced participation rates in both core and balance activities represented in the MAP. One notable area of interest in this sample is the age of respondent. Respondents had a mean of age 50 and a mode of nearly 60 years old. A larger representation of younger couples may have trended differently for some of the balance activities in particular. Future research in this area must address issues of representativeness in order to develop a robust model that has broader explanatory power.

Replication of these findings is also needed to determine future improvements in the measurement of couple leisure behavior and its relationship with leisure satisfaction. For example, there is no representation of physical affection and intimacy in the current assessment of couple leisure behavior. Intimacy is recognized as a key component of couple leisure behavior and not including it is certainly a glaring deficiency when considering constructs such as marital satisfaction (Patrick, Sells, Giordano, & Tollerud, 2007). Furthermore, an effort should be made to determine if current leisure activities within the MAP accurately reflect couple leisure behavior within the Core and Balance Framework. By doing so, measuring satisfaction with couple leisure may be improved and a more accurate understanding of marital satisfaction will emerge.

Current findings, however, represent a significant contribution in our understanding of the role couple leisure plays in marital satisfaction. In particular, confirming the finding that a couple's satisfaction with their leisure involvement is far more important when predicting marital satisfaction than the amount of leisure involvement among a large national sample stands out. As does the findings related to the essential nature of core couple leisure satisfaction in the explanation of variance in marital satisfaction, and that couples are more likely to influence their core leisure satisfaction when actively participating in both core and balance types of leisure activities together. In today's society where the instrumental necessity of marriage has been replaced by a focus on mutually satisfying meaningful relationships, the knowledge that such relatively accessible and simple behavioral factors have the potential to influence those relationships becomes invaluable.

Reference

- Agate, J., Zabriskie, R., Agate, S., & Poff, R. (2009). Family leisure satisfaction and satisfaction with family life. *Journal of Leisure Research, 41*(2), 205–223.
- Ahn, D. S. (1982). *A study of the relation between leisure activity patterns and marital satisfaction of urban housewives*. (Doctoral dissertation, Korea: Srokmyuns Women's University).
- Baker, B. (2004). *Family differentiation, family recreation, and symptoms of eating disorders* (Master's Thesis, Brigham Young University).
- Baldwin, J. H., Ellis, G. D., & Baldwin, B. M. (1999). Marital satisfaction: An examination of its relationship to spouse support and congruence of commitment among runners. *Leisure Sciences, 21*, 117–131.
- Bell, R. R. (1975). Significant roles among a sample of Australian women. *Australian and New Zealand Journal of Sociology, 11*, 2–11.
- Berg, E., Trost, M., Schneider, I., & Allison, M. (2001). Dyadic exploration of the relationship of leisure satisfaction, leisure time, and gender to relationship satisfaction. *Leisure Sciences, 23*, 35–46.
- Bradbury, T. N., Fincham, F. D., & Beach, S. R. H. (2000). Research on the nature and determinants of marital satisfaction: A decade in review. *Journal of Marriage and the Family, 62*(4), 964–980.
- Carrère, S., Buehlman, K. T., Gottman, J. M., Coan, J. A., & Ruckstuhl, L. (2000). Predicting marital stability and divorce in newlywed couples. *Journal of Family Psychology, 14*(1), 42–58.
- Chou, C. P., & Bentler, P. M. (1995). Estimation and tests in structural equation modeling. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 37–55). Thousand Oaks, CA: Sage.
- Christenson, O., Zabriskie, R., Eggett, D., & Freeman, P. (2006). Family acculturation, family leisure involvement, and family functioning among Mexican-Americans. *Journal of Leisure Research, 38*(4), 475–495.
- Coie, J. D., Watt N. F., West S. G., Hawkins, J. D., Asarnow, J. R., Markham, H. J., & Long, B. (1993). The science of prevention: A conceptual framework and some directions for a national research program. *American Psychological Association, 48*(10), 1013–1022.
- Crawford, D. W., Houts, R. M., Huston, T. L., & George, L. J. (2002). Compatibility, leisure, and satisfaction in marital relationships. *Journal of Marriage and Family, 64*(2), 433–449.
- DeNavas-Walt, C., Proctor, B. D., & Smith, J. C. (2008). Income, poverty, and health insurance coverage in the United States: 2007. *Current Population Reports* (p. 60–235). Washington, D.C.: U.S. Government Printing Office.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71–75.
- Dillman, D. (2000). *Mail and Internet surveys: The tailored design method* (2nd ed.). New York, NY: John Wiley & Sons.
- Dodd, D., Zabriskie, R., Widmer, M., & Eggett, D. (2009). Contributions of family leisure to family functioning among families that include children with developmental disabilities. *Journal of Leisure Research, 41*(2), 261–286.
- Fotu, I. D. A. (2007). *Family leisure involvement and family functioning in Samoa*. Unpublished masters thesis, Brigham Young University, Provo, Utah.
- Freeman, P., & Zabriskie, R. B. (2003). Leisure and family functioning in adoptive families: Implications for therapeutic recreation. *Therapeutic Recreation Journal, 37*(1), 73–93.

- Heller, D., Watson, D., & Ilies, R. (2004). The role of person versus situation in life satisfaction: A critical examination. *Psychological Bulletin, 130*(4), 574.
- Herridge, K., Shaw, S., & Mannell, R. (2003). An exploration of women's leisure within heterosexual romantic relationships. *Journal of Leisure Research, 35*(3), 274–291.
- Holman, T. B. (1981). *A path analytic test of a model of early marital quality: The direct and indirect effects of premarital and marital factors*. Unpublished doctoral dissertation, Brigham Young University, Provo, UT.
- Holman, T., & Epperson, A. (1984). Family and leisure: A review of the literature with research recommendations. *Journal of Leisure Research, 16*, 277–294.
- Holman, T. B., & Epperson, A. (1989). Family and leisure: A review of the literature with research recommendations. *Journal of Leisure Research, 16*, 277–294.
- Holman, T. B., & Jacquart, M. (1988). Leisure activity patterns and marital satisfaction: A further test. *Journal of Marriage and the Family, 50*, 69–77.
- Hornberger, L. B., Zabriskie, R. B., & Freeman, P. (2010). Contributions of family leisure to family functioning among single-parent families. *Leisure Sciences, 32*(2), 143–161.
- Iso-Ahola, S. E. (1984). Social psychological foundations of leisure and resultant implications for leisure counseling. In E. T. Dowd (Ed.), *Leisure counseling: Concepts and applications* (pp. 97–125). Springfield, IL: Charles C. Thomas.
- Johnson, H. A., Zabriskie, R. B., & Hill, B. (2006). The contribution of couple leisure involvement, leisure time, and leisure satisfaction to marital satisfaction. *Marriage and Family Review, 40*(1), 69–91.
- Kim, H. K., & McKenry, P. C. (2002). The relationship between marriage and psychological well-being. *Journal of Family Issues, 23*(8), 885–911.
- Kline, R. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: Guilford Press.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York: The Guilford Press.
- Larson, R. W., Gillman, A., & Richards, M. (1997). Divergent experiences of family leisure: Fathers, mothers, and young adolescents. *Journal of Leisure Research, 29*(1), 78–97.
- Miller, B. C. (1976). A multivariate developmental model of marital satisfaction. *Journal of Marriage and Family, 38*(4), 643–657.
- Orthner, D. K. (1975). Leisure activity patterns and marital satisfaction over the marital career. *Journal of Marriage and the Family, 1*, 91–102.
- Orthner, D. K., & Mancini, J. A. (1990). Leisure Impacts on Family Interaction and Cohesion. *Journal of Leisure Research, 22*(2), 125–137.
- Orthner, D. K., & Mancini, J. A. (1991). Benefits of leisure for family bonding. In B. L. Driver, P. J. Brown, & G. L. Peterson, (Eds.), *Benefits of leisure* (pp. 215–301). State College, PA: Venture Publishing.
- Palisi, B. J. (1984). Marriage companionship and marriage well-being: A comparison of metropolitan areas in three countries. *Journal of Comparative Family Studies, 15*, 43–56.
- Patrick, S., Sells, J.N., Giordano, F. G., & Tollerud, T. R. (2007). Intimacy, differentiation, and personality variables as predictors of marital satisfaction. *Family Journal, 15*(4), 359–367.
- Peleg, O. (2008). The relationship between differentiation of self and marital satisfaction: What can be learned from married people over the course of life? *The American Journal of Family Therapy, 36*, 388–401.
- Poff, R., Zabriskie, R., & Townsend, J. (2010). Australian family leisure: Modeling parent and youth data. *Australian Family Leisure, 13*(3), 420–438.

- Reissman, C., Aron, A., & Bergen, M. R. (1993). Shared activities and marital satisfaction: Causal direction and self-expansion versus boredom. *Journal of Social and Personal Relationships, 10*(2), 243–254.
- Sabourin, S., Valois, P., & Lussier, Y. (2005). Development and validation of a brief version of the dyadic scale with a nonparametric item analysis model. *Psychological Assessment, 17*(1), 15–27.
- Shaw, S. M. (1997). Controversies and contradictions in family leisure: An analysis of conflicting paradigms. *Journal of Leisure Research, 29*(1), 98–112.
- Shaw, S., & Dawson, D. (2001). Purposive leisure: Examining parental discourses on family activities. *Leisure Sciences, 23*, 217–231.
- Skowron, E. A. (2000). The role of differentiation of self in marital adjustment. *Journal of Counseling Psychology, 47*(2), 229–237.
- Smith, G. T., Snyder, D. K., Trull, T. J., & Monsma, B. R. (1988). Predicting relationship satisfaction from couples' use of leisure time. *The American Journal of Family Therapy, 16*(1), 3–13.
- Smith, K., Taylor, S., Hill, B., & Zabriskie, R. (2004). Family functioning and leisure in single-parent families. *Abstracts from the 2004 Symposium on Research, 53*.
- Stack, S., & Eshleman, J. R. (1998). Marital status and happiness: A 17-nation study. *Journal of Marriage and the Family, 60*, 527–536.
- Sturge-Apple, M. L., Davies, P. T., & Cummings E. M. (2006). Hostility and withdrawal in marital conflict: Effects on parental emotional unavailability and inconsistent discipline. *Journal of Family Psychology, 20*(2), 227–238.
- Swinton, A., Freeman, P., Zabriskie, R., & Fields, P. (2008). Nonresident fathers' family leisure patterns during parenting time with their children. *Fathering, 6*(3), 205–225.
- Tabachnick, B., & Fidell, L. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Pearson.
- Waldinger, R. J., Schulz, M. S., Hauser, S. T., Allen, J. P., & Crowell, J. A. (2004). Reading others' emotions: The role of intuitive judgments in predicting marital satisfaction, quality, and stability. *Journal of Family Psychology, 18*(1), 58–71.
- Ward, P., Clark, T., Zabriskie, R., & Morris, T. (In press). Paper/pencil versus online data collection: An exploratory study. *Journal of Leisure Research*.
- Ward, P., Lundberg, N., Zabriskie, R., & Barret, K. (2009). Measuring marital satisfaction: A comparison of the Revised Dyadic Adjustment Scale and the Satisfaction with Married Life Scale. *Marriage and Family Review, 45*(4), 412–429.
- Ward, P. J., & Zabriskie, R. B. (2011). Positive youth development within a family leisure context: Youth perspectives of family outcomes. *New Directions for Youth Development, 2011*(130), 29–42.
- Zabriskie, R. B. (2000). *An examination of family and leisure behavior among families with middle school aged children*. Unpublished doctoral dissertation. Indiana University, Bloomington, Indiana.
- Zabriskie, R. B. (2001). Family recreation: How can we make a difference? *Parks and Recreation, 36*(10), 30–42.
- Zabriskie, R. B., & McCormick, B. P. (2001). The influences of family leisure patterns on perceptions of family functioning. *Family Relations, 50*, 281–289.
- 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*(2), 163–189.