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SHARED PHYSICAL ACTIVITY AND RELATIONSHIP SATISFACTION

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For my parents

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Table of Contents

Acknowledgements	iv
Abstract	vi
Chapter 1: Introduction	1
Theoretical Background	2
Literature Review	7
Communication Factors	9
Mental Health Factors	11
Physiological Health Factors	13
Dyadic Coping Factors	15
Self-Esteem Factors	17
Other Relationship Satisfaction Findings	19
Chapter 2: Method	24
Sample	24
Procedure	25
Measures	26
Chapter 3: Results	28
Chapter 4: Discussion	31
References	37
Appendix A: CSI-16	42

Abstract

The researcher investigated how sharing activity of a physical nature is associated with relationship satisfaction. The association between sharing physical activity with one's partner and relationship satisfaction was compared to the relationship satisfaction of individuals who share only non-physical leisure activity with their partners. Differences in the intensity of shared physical activity (low, moderate, vigorous) and relationship to relationship satisfaction were also examined. Using survey research, the study revealed that sharing physical activity was more closely related to higher relationship satisfaction than did sharing leisure activity of a non-physical nature. Intensity level of the shared physical activity was not found to be a predictor of relationship satisfaction, but amount of time spent in shared physical activity was. Women and men who share physical activity with their partners both endorsed significantly higher relationship satisfaction than those who do not share any physical activity. Women's overall satisfaction levels were higher than men's, including at the highest intensity level of shared physical activity. Discussion highlights suggestions for future research and practice directions for this new aspect of couples interaction.

Chapter 1: Introduction

Romantic relationship satisfaction and the various aspects of life that may have an impact on it have been studied at length for decades. Gottman and Krokoff (1989) noted that as early as 1938 the question has been posed, "what distinguishes a happy marriage from one that is unhappy?" (p. 47). The influencing factors against which relationship satisfaction has been measured are too numerous to list, however, they include "psychological factors, sociodemographic variables and trends, parenting, physical health, and psychopathology, or some combination of these" (Bradbury, Fincham, & Beach, 2000, p. 965). This is a small sample of the numerous factors that researchers have posited may have some influence on relationship satisfaction. In fact, the list above provided by Bradbury et al. was merely a summary of the work that was done in the 1990s, which they grouped into two overarching themes: interpersonal processes in marriage and the sociocultural ecologies and contexts within which marriages operate. Bradbury et al. reported both a degree of optimism and pessimism for the future of marital and relationship satisfaction research. Their pessimism stems from the "perception that progress in the field is characterized more by the adding of ideas within a given research area than by building upon"; while their optimism lies in the "fact that this topic is addressed with surprising vigor by scholars from diverse disciplinary backgrounds" (p. 975).

Spending leisure time with one's partner has many times been shown to correlate highly with satisfaction in the relationship (i.e. Baldwin, Ellis, & Baldwin, 1999; Crawford, Houts, Huston, & George, 2002; Johnson, Zabriskie, & Hill, 2006; Reissman, Aron, & Bergen, 1993). However, researchers have used a variety of ways to

operationalize spending time together in their studies, including: the amount of time spent together; the frequency of spending leisure time together; the perceived enjoyment of the activity in which couples engage; and the perceived level of excitement of the activity in which couples engage. Unfortunately, none of these methods of operationalizing spending leisure time together allows for an understanding of what specific types of shared activities may correlate with relationship satisfaction.

Some studies have included physical activities within larger groups of behaviors that also include activities of a non-physical nature (i.e. Johnson et al., 2006). This, however, does not allow for distinction between physical and non-physical activities and their potential disparate impact on relationship satisfaction. While there have been no studies published to date that have explored the impact on relationship satisfaction experienced by couples who share leisure activities specifically of a physical nature, there are studies (i.e. Robles &Kiecolt-Glaser, 2003) that lend credence to the notion that such a correlation may exist (as discussed in a later section of this text).

What appears to be missing from the body of literature regarding shared leisure activity and relationship satisfaction is a clear description of the specific activity in which the couples are participating. Keeping in mind the trend in research showing a positive correlation between physiological health and relationship satisfaction (i.e. Robles & Kiecolt-Glaser, 2003) the current study investigates the impact of shared leisure activities of a *physical* nature on the relationship satisfaction levels of participants.

Theoretical Background

Integrative Behavioral Couple Therapy (IBCT) was developed by Christensen and Jacobson in 1991 (Jacobson & Christensen, 1996) as a step forward from Traditional Behavioral Couple Therapy (TBCT) and other forms of couples therapy that existed at the time. The key premises of IBCT are *change* and *acceptance* (Jacobson & Christensen). As couples experience problems within their relationship, IBCT endeavors to use these problems as "vehicles for intimacy" (Jacobson & Christensen, p. 12) through acceptance, with greater intimacy in the relationship being the ultimate goal. Acceptance is also the means through which change is generated. Accepting one's partner and letting go of the struggle is one of the most effective means of generating change. Of the change and acceptance process in therapy, Jacobson and Christensen stated, "our job is simply to create conditions in therapy that allow couples to have experiences fostering both acceptance and change" (p. 15). More opportunities for couples to express change and acceptance should result in greater intimacy and more relational satisfaction.

These "vehicles of intimacy" are especially applicable to this study because physical activity almost always entails, at least to some extent, separateness. Even if a couple exercises at a gym together they are likely to work on different body parts simultaneously but apart from one another. Thus, their communication with one another about their workouts will involve their unique experiences. Still, as the current study proposes, if partners workout together to the extent that they can, their acceptance of one another will consist of shared experiences in addition to the separate, individually beneficial outcomes resulting from the physical activity in which they

participate. Acceptance involves an overlapping content that unites the couple but also is unique; thus, allowing for ongoing change that renews the relationship.

Acceptance is a quality or state that involves emotional receptivity and admittance. It is not simply resignation but is an active form of interconnection between individuals that allows for individuals to offer their uniqueness to one another. It allows for emotional intimacy without the dissolution of the individual selves in the relationship. This form of acceptance promotes change and dynamism in a relationship because, while it encourages individual development apart from the relationship, it also encourages partners to bring their ongoing development back to their relational interactions, which gives a zest and vigor to their interactions.

Regarding conflicts in relationships, IBCT indicates that conflicts are more likely rooted in differences than similarities but that neither differences nor similarities are likely to incite conflict early in a relationship (Jacobson & Christensen, 1996). Thus, when examining relationship satisfaction, it would seem more prudent to control for the length of time a couple has been together given the lower likelihood of conflict in relatively newer relationships. This study will look at couples who share physical activity and it proposes that the overlap of similarity that engaging in shared physical activity incorporates will contribute to greater relationship satisfaction.

Level of closeness is also a key for assessing relationships in the IBCT model (Jacobson & Christensen, 1996). "Closeness concerns the extent, diversity, and intensity of interaction between partners" (Jacobson & Christensen, p. 28). Closeness may be manifested in many different ways between couples, but it is a key aspect of

virtually any healthy, happy relationship. Overall contact with one another in a wide array of situations and the level of intensity of contact are the factors that indicate closeness in the IBCT model (Jacobson & Christensen). Thus, couples with a greater variety of meaningful contacts should express greater relational satisfaction. Sharing physical activity should provide couples with more frequent and more intense interactions from which to experience closeness; particularly when compared to couples who share merely non-physical activity or those who do not share any leisure activity at all.

Attraction is another aspect of relationships that the IBCT model credits with contributing to relationship satisfaction (Jacobson & Christensen, 1996). IBCT states that attraction may be based on many things such as compatibilities, physical attraction, social status and power, among others. IBCT indicates that mate selection is based on the strength of these attractions. Even among established couples, Jacobson and Christensen state, "the higher the level of these attractions, the more likely that partners will put effort into coping with their incompatibilities" (p. 36). The allure of appearance, as an element of physical attraction, cannot be overstated. The physical interactions and potential individual fitness benefits derived from couples sharing physical activities may also enhance relational satisfaction on the basis of attraction.

Jacobson and Christensen (1996) also indicate that personality characteristics play a part in a couple's satisfaction with one another and their relationship.

Depression, the authors note, is a longitudinal predictor of relationship dissatisfaction, as well as neuroticism which can negatively affect the resolution of incompatibilities (Jacobson & Christensen). Conversely, agreeableness and conscientiousness are related

to increased relationship satisfaction and stability. The current study expects that the fact that couples who are able to have the conscientiousness to work out together regularly will prosper due to the emotionally beneficial aspects of regular exercise (Smits & Otto, 2009; Rethorst et al., 2012) as well as the added benefit of spending time together while exercising, and the physical benefits.

Conflict resolution skills are another critical aspect of increasing relational satisfaction as indicated in IBCT (Jacobson & Christensen, 1996). Having improved conflict resolution skills such as nonaggressive voicing of grievances, constructive problem solving, and listening to the other's point of view allows couples to better deal with the inconsistencies that will inevitably arise in their relationships. Stress has also been linked with a decrease in relational satisfaction (Jacobson & Christensen). "Stressful events can create negative emotions and fatigue in the stressed partner, increasing that partner's need for support and assistance while decreasing his or her ability to provide it" (Jacobson & Christensen, p. 39). Furthermore, IBCT states that when affect is totally lacking from a relationship it is an indication of decreased importance to the individual. Even the presence of anger can be preferable over a total lack of affect, as it can indicate the remaining presence of caring about the relationship (Jacobson & Christensen). Further, time spent together involved in shared physical activity allowing for more time to discuss issues as well as the potential for letting off steam in an appropriate, intentional, physical way rather than potentially displacing negative affect onto one's partner may have positive benefits for the relationship.

Integrative Behavioral Couple Therapy also incorporates some techniques of change: behavioral exchange (BE) and communication/problem-solving training (CPT)

(Jacobson & Christensen, 1996). Communication/problem-solving training is used only in cases where such skills are severely lacking, such as when there is little hope of a problem being effectively resolved because basic communication skills between the couple are not well-developed; however, BE is a fundamental portion of IBCT.

Jacobson and Christensen state that BE "helps couples increase the positive/negative behavior ratio in their relationship" (p. 155). As alluded to above, when partners have common experiences such as shared physical activity, they have an overlap in their lives that forms a basis for a better understanding of one another. This connection based on similarity is bound to contribute to identification with one another's sense of self, which is a powerful beginning place from which to approach problems. In accordance with the goal of BE, sharing physical activity may provide couples with a chance to increase the number of opportunities for positive behavior and decrease the instances of negative behavior in their relationship.

Integrative Behavioral Couple Therapy states that the goal of helping couples in distress is to increase the intimacy that the partners experience towards one another (Jacobson & Christensen, 1996). The aspects of IBCT mentioned above are either related to why partners may feel less intimacy towards one another, or they are aimed at assisting partners to feel greater intimacy toward one another. This study will explore whether sharing physical activity may be a vehicle for these aspects of IBCT in facilitating positive relationships amongst couples.

Literature Review

The literature on shared leisure activity between partners and its impact on relationship satisfaction spans nearly four decades. Orthner (1975) concluded that joint leisure activity—in which couples experience a high degree of interaction and communication—has the most significant positive impact on marital satisfaction among couples when compared with parallel activity (which is essentially individual activities being done in group settings) and individual activity (being done in absence of one's partner). Orthner also concluded that there was a difference in the impact of shared leisure activity on the marital satisfaction levels of men and women and placed importance on the stage of the 'marital career' (loosely and arbitrarily defined by Orthner) subjects were in at the time. Orthner's research was very influential and spurred subsequent research regarding relationship satisfaction related to shared leisure activity.

Holman and Jacquart (1988) obtained similar results to Orthner's with regard to joint leisure activity relating to increased relationship satisfaction. They also expanded Orthner's study by using four levels of leisure interaction (individual, low joint, moderate joint, and high joint), as well as controlling for the effects of stress levels in the relationship, perceived communication, and included five stages of the marital career at which to measure marital satisfaction, similar to Orthner's study. In contrast to Orthner's findings, Holman and Jacquart concluded that the relationship between leisure activity patterns and marital satisfaction did not have varying significance at different stages of the marital career. However, they did support Orthner's findings that couples who shared leisure activity reported more relationship satisfaction than those who spend less or no time together.

Schmitt, Kliegel, and Shapiro (2007) extended the research on relationship satisfaction to middle-aged and elderly age groups that had been largely overlooked in the existing research. Their study confirmed that in all age groups they studied, the variance in marital satisfaction was explained most significantly by interaction-specific variables than by any other variables they examined (i.e. socio-economic status). This study did indicate gender differences in their findings, noting that more of the variance in women's marital satisfaction was explained by interaction-specific variables than was the case for men; however, the relationship between these variables was still significant for men in all age groups.

Other examples of studies of relationship satisfaction that incorporate shared leisure activity include the Crawford et al. (2002) study measuring the impact of the *frequency* of leisure activity on marital satisfaction; the work of Reissman et al. (1993), and Johnson et al. (2006) regarding the *type* of leisure activity in which partners participate; and the work of Baldwin et al. (1999) that calls into question the *need* for shared leisure activity provided that the partner who is not participating in the activity remains supportive of the partner who is participating. All of these are examples of research that has focused on relationship satisfaction as it relates to spending time together, yet none of these studies provide a concrete idea of the specific activities that couples engage in and what particular activity might be especially beneficial to the couple's level of relationship satisfaction.

Communication Factors

Supporting the IBCT notion that affective communication is crucial for a successful and happy relationship, Teichner and Farnden-Lyster (1997) found that across groups of both younger and older men and women, expression of feelings was positively correlated with higher marital satisfaction; and for men in the younger age group, conflict-avoidant behavior was negatively correlated with marital satisfaction. Huston and Chorost (1994) found that husbands' negativity had less of an impact on wives' marital satisfaction when the men were higher in affectional expression.

Richmond (1995) conducted a study in which she concluded that couples who were more satisfied communicated significantly more than their less satisfied counterparts. Rehman and Holtworth-Munroe (2007), using a cross-cultural sample, found that communication correlated with relationship satisfaction, but did so most significantly in White American couples, less so in Pakistani couples, and even less so (although still at a significant level) in Pakistani couples who had immigrated to America. These results indicate that communication is crucial in couples from diverse cultures, and especially so in American couples.

Litzinger and Gordon (2005) conducted research that indicated that communication and sexual satisfaction contribute independently to overall relationship satisfaction levels. That is, in couples who demonstrated successful communication, sexual satisfaction did not contribute any further to their relationship satisfaction and vice-versa. The researchers make a case for the potential buffering effects of sexual satisfaction in relationships with poor communication patterns. Thus, both communication and sexual satisfaction seem important to happy relationships, and both of these aspects of a relationship may be enhanced by sharing other physical activities.

Rogge and Bradbury (1999) studied the effects of communication and aggression on marriages. They noted that communication had a stronger relationship with marital satisfaction while aggression correlated more strongly with dissolution of the marriage. The researchers emphasized the importance of attending to both aspects in couples counseling. Burlson and Denton (1997) noted that between distressed and non-distressed couples, communication skill level did not differ. The researchers posited that negative intentions in the distressed couples likely affected the message that was being communicated or the way it was received by the members of the distressed couples. In such couples, as mentioned above, shared physical activity may provide both an opportunity to increase the amount of positive communication between a couple, and a venue to channel aggression in a constructive and safe manner rather than projecting it onto one's partner.

Johnson et al. (2005) found that low positive affect and high negative problem-solving skills indicated rapid deterioration in satisfaction with the relationship. Johnson et al. also noted that high positive affect buffered the effects of high levels of negative problem-solving skills. Mirgain and Cordova (2007) also conducted research involving emotional skills and marital satisfaction. They concluded that emotional skills contribute to the intimacy experienced by the members of a couple. They also discovered gender differences with women being more emotionally skillful than men.

Mental Health Factors

Integrated Behavioral Couples Therapy states that increased stress levels are detrimental to relationships (Jacobson & Christensen, 1996). Brock and Lawrence

(2008) found that lower levels of marital satisfaction in husbands were correlated with escalations of role strain and, thusly, stress. Similarly, Graham and Conoley (2006) found that "the level of stress experienced by a couple was related to marital quality" (p. 237), noting an inverse correlation. Graham and Conoley also noted the positive effects of using relationship-enhancing attributions about one's partner's behaviors. Related to the focus of this study, engaging in regular physical activity has been found to contribute to an individual's ability to cope with emotional stress (i.e. Dyer III & Crouch, 1988; Keller & Seraganian, 1984; Salmon, 2001). Therefore, engaging in regular physical activity may also contribute to one's relationship satisfaction.

Regarding depression and other emotional issues that relate to relationship satisfaction, Uebelacker, Courtnage, and Whisman (2003) reported that depression symptoms in both men and women were correlated with self-silencing behaviors. Also, Kouros, Papp, and Cummings (2008) found a negative correlation between depressive symptoms and marital satisfaction. These researchers also noted a greater influx of depressive symptoms for husbands in longer-term relationships who reported greater marital dissatisfaction. Further backing for the idea of mental health issues relating to relationship satisfaction was demonstrated by Fisher and McNulty (2008) who found that "neuroticism predicted lower levels of concurrent marital and sexual satisfaction among husbands and wives, declines in sexual satisfaction among husbands and wives, and declines in marital satisfaction among wives" (p. 112).

Rethorst et al. (2012) demonstrated that physical activity had stronger positive effects on mood than did anti-depressant medication in some cases, supporting the notion of physical activity as an intervention for depression. This research, together

with Jacobson and Christensen's (1996) theory, lends support for the aim of this study, supporting the theory that sharing physical activity with one's partner could have positive effects on mental health which could be associated with greater relationship satisfaction.

Physiological Health Factors

The individual benefits of physical activity are well documented and frequently and widely discussed. Health-related advantages such as reduced risk for cardiovascular disease, lowered cholesterol, prevention of bone density loss, increased strength and muscle tone, and reduced stress levels are just some of the many benefits of an active lifestyle (Hahn & Payne, 1999). Considering the advantages individuals can reap from an active lifestyle, it is logical to wonder about the benefits a couple may garner, with particular regard to the satisfaction level of their relationship, if they both engage in regular physical activity. It is intriguing to consider the potential benefit for a couple who participate in physical activity together.

In their study on the physiology of marriage, Robles and Kiecolt-Glaser (2003) concluded that "marital strain has deleterious effects on cardiovascular, endocrine, and immune functions. Marital strain can be viewed as a repeated, perhaps even chronic, social stressor" (p. 414). Furthermore, in a similarly focused article, Meegan and Goedereis (2006) reported:

The positive relationship between spouse involvement and positive affect has practical implications for clinicians in that mood and well-being among married partners may be a function of their involvement in each others' day-to-day goal-directed strategies. This may be especially important in the health domain because spouse involvement may be a

potential positive influence on patients' mood as they deal with health-related stressors. (p. 326)

Also, Robles and Kiecolt-Glaser ponder the possibility of good health benefiting marital satisfaction rather than the other way around. They claim that there is preliminary evidence that this may be the case. Based on this research, it is exciting to consider that a couple who is actively engaged in physical activity together may experience health benefits that would in turn lead to a more positive perception of their relationship.

Related to physical health and its potential benefits, if sexual activity is in fact important to relationship satisfaction then the individual health benefits of physical activity should contribute to an improved sexual relationship and thus, improved relationship satisfaction between partners (provided that there are not extenuating circumstances causing other problems).

Donnelly (1993) conducted research regarding the factors influencing sexually inactive marriages. She found that lack of shared activity was one significant factor that contributes to sexually inactive marriages. Donnelly reported that "couples who shared activities in other areas of life were more likely to report sexual activity than those not sharing outside activities" (p. 173). Donnelly also discovered that health status was significant for males; indicating that a decreased level of health in males correlated with a decreased amount of sexual activity in those males' marriages. Also, the author noted that "sexually inactive marriages are not uncommon, they are not happy... In fact, lack of sexual activity appears to be associated with the existence of other problems in the relationship and may indicate serious marital difficulty" (p. 177). Donnelly summarized, "persons who were happy in their marriages, who shared activities, and

who did not plan to separate were more likely to be sexually active with their spouses" (p. 176).

Heiman et al. (2011) showed that sexual functioning predicted relationship satisfaction for men and women in a study of midlife and elderly couples. Also recently, Costa and Brody (2012) conducted research that showed a correlation between relationship satisfaction and sexual activity with one's partner. In summary, increased physical activity should lead to improved health, which could contribute to increased levels of sexual activity in a relationship, which has been shown to correlate with increased relationship satisfaction.

Dyadic Coping Factors

Dyadic coping (two individuals mutually coping with problems) is another area of related research that may indicate that a positive correlation may exist between shared physical activity and relationship satisfaction. Johnson and Booth (1998) studied the nature of marital satisfaction ratings over time related to individual personality factors versus the dyadic environment. Johnson and Booth determined that marital quality was determined more by the dyadic environment of the relationship than by the personality factors of the individuals they studied. In their study, one criterion for measuring marital satisfaction was the concept of marital interaction. Marital interaction was defined as "the extent to which both husband and wife participate jointly in daily activities (eating the main meal together, shopping, visiting friends, working on household projects)" (p. 890). Here, Johnson and Booth point out that interacting with one another was a significant determinant of marital satisfaction

amongst their subjects. However, the definition of marital interaction used for their study specifies mere interacting and does not provide specific guidelines for what the interactions should look like. Further definition of this criterion is needed.

Another study of dyadic coping was conducted by Bodenmann, Pihet, and Kayser (2006). This study was longitudinal in nature and took place over a two-year time period. As in the Johnson and Booth (1998) study, Bodenmann et al. found significant results indicating that dyadic coping was positively associated with marital satisfaction over the two-year period of their study. Further, Bodenmann et al. reported lower stress, and better psychological and physical well-being in the self-reports of subjects. Thus, in relation to the current study, participation in regular shared physical activity may, in addition to contributing to improved health, lead to the increased opportunity for couples to provide one another with avenues for dyadic coping which may lead to increased relationship satisfaction.

Companionship studies provide further support to the notion that shared physical activity may account for an increase in relationship satisfaction. Earlier studies such as Hawkins (1968) provided a foundation for the concept of companionship contributing to marital satisfaction. Hawkins defined marital companionship as "the degree of mutual expression by the spouses of affectionate behavior, self-revelatory communication, and mutual participation in other informal non-task recreational activities" (p. 647). Similar to the IBCT principle, Hawkins' study found that it was not necessarily the amount of companionship activities that couples engage in, but the lack of negative companionship interaction that led to an increase in marital satisfaction.

Gottman and Krokoff (1989) found results similar to Hawkins'; however, Gottman and

Krokoff's study also concluded that withdrawal from interaction as a result of marital hostility is an indication of an impending decline in marital satisfaction. Given that the research in the area of companionship indicates that lack of negative interaction is as much if not more important to relationship satisfaction as positive interaction, it seems likely that couples engaging in enjoyable physical activity together would have less cause or opportunity for negative interaction. Thus, considering the increased health benefits, reduced stress, and increased opportunities for positive dyadic interaction, shared physical activity may provide couples numerous benefits that may potentially strengthen their bond and lead to an increase in relationship satisfaction.

Meegan and Goedereis (2006) were interested in studying the degree to which spouses become involved in their partner's "life task pursuit strategies" (p. 320). A life task, defined in their study, is "a broad class of goals individuals use to guide, organize, and give meaning to their everyday activities and problem-solving efforts" (p. 319). The most frequently cited life tasks reported by the participants in Meegan and Goedereis's study "revolved around close relationships and leisure activities" (p. 322), other common life tasks were health related. The results of the study indicated positive relationships between husbands' marital satisfaction and their spouses' involvement in their life task pursuits; indicating, at least for husbands, the importance of their partners' involvement in some aspect of their daily lives.

Self-Esteem Factors

Studies relating the importance of self-esteem levels and body image dissatisfaction to relationship satisfaction also highlight the potential for relationships to benefit from their members maintaining a physically active lifestyle.

Sacco and Phares (2001) studied the role of self-esteem in partner appraisal style. Their results showed that "marital satisfaction was greatest in those whose spouses viewed them more positively and in those who viewed themselves more positively" (p. 508). Sacco and Phares make the suggestion that individuals with higher self-esteem perceive their partner's appraisal as more positive, which results in less depression, which is in turn associated with higher levels of marital satisfaction.

Though the subjects of their study were limited to a sample of dysphoric individuals, the thought is provoked that couples engaging in shared physical activity would have higher levels of individual self-esteem (as per the common result of physical activity in individuals), less depression, and would also view one another in a more positive light because of their partner's elevated self-esteem. Also, because of seeing their partners accomplish the feat of being active, healthy, and vigorous, an additional increase in relationship satisfaction may result.

Related to the research about self-esteem affecting relationship satisfaction, a study about body image dissatisfaction was conducted by Friedman, Dixon, Brownell, Whisman, and Wilfley (1999). They found that individuals experiencing higher levels of body dissatisfaction experienced lower levels of marital satisfaction even when controlling for other variables including Body Mass Index, self-esteem, age, and gender. The authors note that a causal relationship was unable to be determined by their study; however, it seems logical that a decrease in body image satisfaction would relate

to further dissatisfaction in other areas of one's life such as a romantic relationship.

Because of this, and the many other studies previously cited, the current study focuses on the possibility that engaging in shared physical activity with one's spouse could lead to increased relationship satisfaction due to increased body image satisfaction, among other things.

Other Relationship Satisfaction Findings

The research on shared leisure activity among couples has come a long way and is still evolving. Orthner (1975) served to break ground in conceptualizing different types of leisure activity (joint, parallel, and individual) and theorizing different effects of leisure activity in different stages of the marital career. He concluded that it was not merely important how often a couple participates in activities, but also that the type of activity should be one that allows for a high level of interaction and communication for a benefit to be realized.

Smith, Snyder, Trull, and Monsma (1988) confirmed that couples who participated in individual leisure activities rather than seeking activities that included their partner experienced a greater rate of marital dissatisfaction. They also noted that "wives appear particularly responsive to those activities seen as promoting the quality of the relationship (e.g., going out to dinner) compared to more task-oriented activities (e.g., sharing of household responsibilities)" (p. 11).

A slightly different approach was taken by Crawford et al. (2002), who discovered that the most significant factor relating shared leisure activity and relationship satisfaction was how often the activity took place. In addition, Crawford et

al. found that it was not crucial that couples engage in activities that both partners particularly enjoy. However, that study did not clearly define the groups of activities in which their subjects participated. It was left up to the participants to select an activity in which they participate, and to report whether one or both of the partners found it to be enjoyable. More experimental control over the type of activity in which the subjects participate might help to answer the question whether the activity itself has an impact on the resulting rating on relationship satisfaction.

Yet another approach taken in the research on shared leisure activity was that of Reissman et al. (1993), and Aron, Norman, and Aron (2001), who researched the level of excitement that the participants experienced related to activities in which they participated. In contrast with Crawford et al. (2002), the Reissman et al. study concluded that the most important factor relating shared leisure activity and relationship satisfaction is not how often the activity takes place, but how exciting the activity is to the participants. Of concern with this variable is the fact that the classifications of "exciting" or "pleasant" were applied by the participants rather than the researchers. The concern here is that the same activity might have been considered exciting by one participant and merely pleasant to another. In the Aron et al. study, the researchers concluded with convincing results that more exciting activities participated in by couples correlated more highly with relationship satisfaction than in those couples who performed only "pleasurable" activities. In their experiments, however, some of the pleasurable activities were physical in nature and some of the exciting activities were not. Again, the type of activity was not controlled for and therefore it cannot be clearly

determined whether activity of a physical nature would be more or less influential in couples' levels of relationship satisfaction.

In a related study, Berg, Trost, Schneider, and Allison (2001) found that among unmarried partners, leisure satisfaction was significantly related to relationship satisfaction while amount of leisure time spent together was not. Berg et al. also found that the individual members of a couple engaging in enjoyable, shared leisure activity reported higher relationship satisfaction; however, those individuals' relationship satisfaction did not significantly influence their partner's satisfaction.

Similarly, in 2006, Johnson et al. found that the most relevant factor influencing relationship satisfaction was the individual's satisfaction with the activity in which they were participating. Johnson et al. define their classifications of activities as "core" and "balance" activities (p. 72).

Core leisure involvement can be depicted by joint participation in activities that are common, regular, relatively accessible, and usually home/neighborhood based. This may include activities such as eating dinner together, watching television or videos together, and playing board games or going on walks together. They tend to require little planning and resources, and are often spontaneous and informal. They are consistent, safe, positive, and provide a context in which to foster relationships. (p. 73)

Balance couple leisure involvement can be depicted by joint participation in activities that are less common, less frequent, often out of the ordinary and provide novel experiences. This may include activities such as vacations, special events, most outdoor recreation like camping, fishing, and hiking, and trips to a sporting event or theatrical performance. These activities are likely to require greater investment of resources, such as effort, time, or money, and are usually not homebased. They often require more planning and are, therefore, less spontaneous and more formalized. (p. 74)

Once again, these categories are so broadly defined that it is difficult to infer the impact of any particular type of activity (i.e. activities that are physical in nature) on relationship satisfaction because there are a variety of activities in each of these categories.

It seems clear that there is more to be learned by studying couples' participation in specific types of activity (i.e. physical) and their levels of relationship satisfaction.

The current study compares the relationship satisfaction of individuals who share physical activity with their partners and relationship satisfaction of individuals who do not participate in physical activity with their partners. First, the study hypothesizes that the amount of time spent engaged in leisure activity of any kind with one's partner will positively correlate with the level of reported satisfaction within one's relationship. This hypothesis is similar to past studies and is meant to be a replication to compare the current sample with previous participants in relationship satisfaction studies.

Second, this study hypothesizes that couples who engage in physical activity with one another will report higher relationship satisfaction than couples who engage in no physical activity together.

The third hypothesis of the study is that relationship satisfaction will positively correlate with amount of time spent engaged in physical activity with one's partner.

The fourth hypothesis of the study is that relationship satisfaction will differ with engagement in the different levels of physical activity. Specifically, the more

vigorous the physical activity engaged in, the higher levels of relationship satisfaction individuals would report.

Finally, the fifth hypothesis of this study is that there will be a difference in the findings between men's and women's experiences and how they reported their levels of relationship satisfaction in relation to their levels of physical activity engaged in with their partners. Specifically, women will be more likely to report higher levels of relationship satisfaction while engaging in less vigorous physical activity while men will be more likely to report higher levels of relationship satisfaction while engaging in more vigorous physical activity.

Chapter 2: Method

Sample

Participants (N = 161) were recruited online via email during a two-month period. Snowball sampling was used in order to obtain sufficient volunteers who fit the criteria in the two groups: those who share physical activity with their partners and those who do not. Only completed surveys were accepted, which excluded 28 surveys due to incomplete data. Inclusion criteria specified that the participants be between eighteen and 64 years of age and that they be currently cohabitating with their significant other in a monogamous relationship. Respondents to the survey included 66.5% women (N = 107) and 33.5% men (N = 54).

Ethnicity demographic results indicated that 85.7% of the sample was Caucasian (N = 138), 6.8% Bi-racial/Multi-racial (N = 11), 2.5% African/African American (N = 4), 1.9% Asian/Asian American/Pacific Islander (N = 3), 1.9% Hispanic/Latin American (N = 3), 0.6% Native American/American Indian (N = 1), and 0.6% Other Race (N = 1). The mean age was 34.6 years with a mean length of relationship of 9.75 years. Only 0.6% of respondents (N = 1) reported being in a same-sex relationship. A large proportion (66.5%, N = 107) of respondents reported being married to their current partner, mean length of marriage was 9.77 years. Less than half (39.1%, N = 63) of the respondents had children currently living in the home, with four children being the highest number; the ages of the children ranged from one-half to 28 years of age with a mean age of 7.48 years.

Combined annual household income of the sample was as follows: 6.8% of the respondents (N = 11) reported an annual household income of less than \$25,000; 14.3% (N = 23) reported earning between \$25,000 and \$49,999.99; 19.3% (N = 31) reported earning between \$50,000 and \$74,999.99; 19.9% (N = 32) reported earning between \$75,000 and \$99,999.99; and 39.8% (N = 64) reported earning over \$100,000 annually.

Education demographics showed 5.6% of the sample (N=9) reported graduating high school or obtaining a high school equivalency diploma; 7.5% (N=12) reported attending some college; 42.9% (N=69) reported graduating college; 28.0% (N=45) reported attending some graduate school; and 16.1% reported having a graduate degree.

Of the 161 respondents, 52.8% (N = 85) comprised the group that had participated in shared physical activity with their partner in the previous two months; the remaining 47.2% (N = 76) had not shared any physical leisure activity with their partner.

Procedure

Consent forms and invitations to complete the electronic questionnaire were distributed via email to counseling, community, and school psychology graduate students who were also asked to distribute them to individuals whom they knew to be eligible to participate in the study. Surveys were completed and submitted electronically. All information collected was anonymous, voluntary, and participants were asked to complete the surveys only once.

Recruitment material stated that individuals had the opportunity to participate in research about relationship satisfaction and physical activity and an informed consent statement. Interested participants clicked a URL, which provided access to the online survey. All responses were collected anonymously.

Measures

Participants were asked to provide demographic information including age, gender, years involved in a relationship to current partner, years married to current partner (if applicable), whether or not children were living in the home, how many children currently lived in the home (if applicable), ages of children living in the home (if applicable), ethnicity, sexual orientation, highest level of education obtained by the respondent, and total annual household income.

Respondents were asked whether or not they had engaged in physical activity with their partner in the previous two months. If respondents had engaged in physical activity with their partner in the previous two months, they were asked to estimate the amount of time in minutes in an average week they engaged in the various levels of physical activity with their partner. *Low* physical activity was defined in the survey as, "activity equivalent to walking approximately 2.2 miles/day at a rate of 3-4 mph in addition to activities involved in independent living" (Hahn & Payne, 1999, p. 62). *Moderate* physical activity was defined as, "activity such as brisk walking or gardening at an intensity that involves a slightly increased rate of breathing and feels light to somewhat difficult; yet, one may still carry on a conversation while engaged in it" (p. 62). *Vigorous* physical activity was defined as,

Activity performed at a greater intensity level than *Moderate* physical activity, such as step aerobics or running, that involves increased rates of breathing, sweating, and heart rate and feels somewhat difficult to very difficult. Carrying on a conversation during these activities should be strained. (p. 62)

Relationship satisfaction of the respondents was measured using the *Couples Satisfaction Index 16 (CSI-16)* (Funk & Rogge, 2007; see Appendix A). The CSI-16 is a 16-item version of the full 32-item instrument; which assesses an individual's satisfaction with his or her relationship. Responses are given on a variety of Likert-type scales ranging from six to seven possible responses. Examples of questions are "In general, how often do you think that things between you and your partner are going well?" and "How rewarding is your relationship with your partner?" The CSI-16 demonstrates internal consistency superior to older, more commonly used relationship satisfaction scales (i.e. MSI-R, DAS, etc.) with an α of .98. The total 32-item instrument also has an α level of .98. Scoring was obtained by reversing five of the items and totaling the individual item scores. Higher scores indicate a higher level of marital satisfaction.

Chapter 3: Results

The data were analyzed using a variety of statistical analyses depending on the research question for each of the five hypotheses. SPSS software was utilized to perform the statistical analyses. An alpha level of .05 was used for all statistical tests.

 H_1 : Individuals who spend more time with their partners (regardless of leisure or physical in nature) will report greater relationship satisfaction than people who spend less time with their partners.

These data were analyzed using a simple correlation and a t-test. The correlation was significant at the p<.001 level with an r of .344. The t-test revealed a significant difference between the group that spent more time with their partners and the group that engaged in less leisure time activity (of any kind) (t = -.4009, p<.001) with good effect size (Cohen's d = .633). Hypothesis 1 was supported.

 H_2 : Individuals who engage in physical activity with their partner will report higher relationship satisfaction than individuals who engage in no physical activity with their partner.

These data were analyzed using a simple *t*-test. The *t*-test revealed a significant difference in relationship satisfaction between the group that shared physical activity (N = 85, 52.8% of the sample) with their partners and the group that shared only non-physical leisure activity with their partners (N = 76, 47.2% of the sample) (t = 3.816, p<.001) with good effect size (Cohen's d = 0.598). Hypothesis two was supported.

H₃: Relationship satisfaction will positively correlate with amount of time spent engaged in physical activity with one's partner.

These data were analyzed using a simple correlation. The correlation revealed a significant positive relationship between the amount of time an individual spends engaged in physical activity with his or her partner and his or her reported relationship satisfaction (r = .317, p < .001). Hypothesis three was supported.

H₄: The level of physical activity engaged in is related to relationship satisfaction. Specifically, the more vigorous the activity engaged in, the higher levels of relationship satisfaction individuals will report.

These data were analyzed using an ANCOVA. The ANCOVA revealed no significant difference between the levels of intensity of physical activity as independent variables even after controlling for time spent in physical activity [F(2,81) = .954, p = .389]. Hypothesis four was not supported.

H₅: Women will be more likely to report higher levels of relationship satisfaction while engaging in less vigorous physical activity, while men will be more likely to report higher levels of relationship satisfaction while engaging in more vigorous physical activity.

These data were analyzed using a t-test and a regression. The t-test revealed no significant difference between men and women on relationship satisfaction measured in relation to low and moderate levels of intensity of physical activity (low: t = -1.024, p = .309; moderate: t = -1.016, p = .313). The t-test revealed a significant difference between men and women on relationship satisfaction in relation to vigorous physical activity (t = -2.888, p = .006) with women reporting higher satisfaction than men. The interaction between gender and intensity of physical activity was not a significant

predictor of relationship satisfaction (β = -5.844, p = .054). Hypothesis five was not supported.

Descriptive data analysis also revealed that the group that shared physical activity with their partners participated in roughly the same amount of leisure activity as the group that does not share physical activity with their partners (Z = -1.063, p = .288). Further analysis revealed that the group that shared physical activity with their partners also spent significantly more time with their partners as a whole (leisure and physical activity combined) (Z = -11.103, p = .001). These results will be discussed further in the following section.

Chapter 4: Discussion

Research has shown that people who share leisure activity with their partner report higher levels of satisfaction in their relationship than individuals who do not share leisure activity with their partners. No specific shared activity or category of activity (i.e. physical activity) has yet been identified as more conducive to satisfaction in a relationship. The purpose of this study was to test the hypothesis that individuals who engage in shared activity of a physical nature with their partners will report higher levels of relationship satisfaction than individuals who share leisure activity of a nonphysical nature. This hypothesis was inspired by the current trend in research that explores the physiological benefits of a happy relationship and, inversely, the potential for improved health to positively impact relationship satisfaction; it was also inspired by recent research related to the positive mental health benefits individuals can garner from physical activity, and speculation about the benefits a couple might reap from sharing physical activity. The utility of this information could be applied to work with individuals with relationship problems and couples with usefulness as both a preventative or a reactive intervention by suggesting activity that may have a positive impact on a relationship.

The hypotheses of this study revealed interesting information about relationship satisfaction and involvement in physical activity. First, in accordance with many past studies, this study confirmed that spending time with one's partner engaged in leisure activity of any kind correlates with higher relationship satisfaction when compared with individuals who do not spend as much leisure time with their partners. Further, this study revealed that individuals who engage in leisure activity of a physical nature report

significantly higher relationship satisfaction than do those who engage in leisure activity of a non-physical nature. In addition, engaging in a greater amount of physical activity correlated significantly with higher relationship satisfaction. In summary, sharing physical activity was related more to relationship satisfaction than sharing non-physical leisure activity and, in this case, where some was good, more was better.

Despite the fact that those who shared physical activity with their partners were shown to spend significantly more time together in general, there is some room for interpretation of these results. Due to the wording on the survey, reporting time spent together was done in intervals of 60 minutes. Therefore, it is possible that the total amount of time spend in physical (or leisure) activity could have been misrepresented given the way it was reported on the survey.

This study also revealed that the intensity of physical activity engaged in does not seem to have any association with one's relationship satisfaction. Also, it appears that women report higher relationship satisfaction than men on average, even in the portion of the sample that engaged in vigorous physical activity with their partners. This finding is consistent with past studies that revealed women's relationship satisfaction to be higher than men's, even though both were at significant levels.

One unexpected yet interesting finding in the data was that overall time spent engaged in leisure activity had a significant negative correlation with length of the relationship; however, despite this decrease in time spent together, relationship satisfaction did not decline as the length of the relationship grew. Because this was not a longitudinal study, it is impossible to infer whether the relationships that were longer

in time actually experienced a decline in time spent together or if they had always had a lower amount of shared leisure time. However, it may indicate that engaging in physical activity is a beneficial intervention for couples of all ages to improve relationship satisfaction. Furthermore, other factors such as the presence of children may have affected the amount of time spent with one's partner, but were not explored for the purposes of this study.

The limitations to this study were as follows. The self-report nature of the surveys relied upon the honesty and understanding of the respondents as to what would qualify as low, moderate, and vigorous physical activity, and how much of the activity they had engaged in in an average week over the past two months. There is some room for interpretation of the definitions of these levels of physical activity, and some respondents could have reported engaging in activity that may have actually been classified as a different level of intensity by the researcher. Furthermore, an "average" week may have been difficult for some respondents to quantify accurately, thus resulting in a potentially inaccurate estimate. Also, there was possibility that respondents had engaged in multiple levels of physical activity, thus blurring the line between which level of physical activity may be most beneficial for relationship satisfaction if any, or if there were any gender differences between the various levels of intensity of activity.

Electronic snowball sampling was utilized for data collection, geographic location of the respondents cannot be known. However, the sample was likely unbalanced in favor of the Midwest region from which the survey originated. Different regions of respondent residence (mountainous, coastal, desert, etc.) could have had an

impact on how much and what type of physical activity the respondents had the opportunity in which to engage. Furthermore, the timing of the survey (summer months) could also have impacted the type and amount of physical activity the participants could have engaged in, with the possibility of very different responses from the same respondents at different times of the year. These factors may be nearly impossible to control for in future studies, but are worth noting.

Another limitation of the study is the unknown nature of any mental health issues of the respondents. The presence of mental health issues may have an impact on the individual's relationship satisfaction regardless of how much time the individual spends with his or her partner.

Finally, there were some demographic imbalances that existed in this study. Namely, the sample was largely Caucasian (85.7%), college educated (70.8%), and wealthy (78.9% reported an annual household income of \$50,000 or greater, 59.6% above \$75,000). A larger, more balanced sample or a smaller, more controlled sample in these areas would be useful in examining the results more thoroughly and across various demographic categories.

Future studies may benefit from utilizing an experimental design in which the participants' activities are controlled. This design would allow the researcher the ability to control the exact type and amount of physical activity in which respondents engage. Such an experimental design would also eliminate the overlap of groups of individuals who engaged in multiple levels of intensity of physical activity. Controlling the levels of intensity of physical activity could allow for a more precise analysis of the possible

benefits of the different levels physical activity on relationship satisfaction. It would also be helpful to gather information about time spent in leisure and physical activity more accurately than was done for this study, using exact measures rather than ordinal data. Future studies may also want to incorporate a mental health screening tool to assess for presence of mental health disorders that could affect the participants' feelings about their relationship, partner, or attitude toward engaging in physical activity.

The significance of this line of research relates to clinical work with individuals and couples alike. The implications of this study indicate that physical activity can and should be incorporated into treatment plans for a large number of clients with a range of mental health concerns. In the most basic sense, a therapist may take on the role of educator for clients whose knowledge of physical activity is lacking so that when a treatment recommendation of physical activity is made the therapist can advise the client on appropriate ways to begin being physically active. As Smits & Otto (2009) and Rethorst et al. (2012) indicate, physical activity can be beneficial for clients who present with certain mood disorders. Extending this line of research, the current study also indicates that shared physical activity may be beneficial for relationship satisfaction, and therefore, can be made part of a treatment plan or intervention strategy for therapists working with couples or individuals with relationship concerns.

Spending leisure time with one's partner has repeatedly been shown to have a strong correlation with one's relationship satisfaction. Given the growing body of evidence of the mental health benefits of physical activity, the results of this study support the idea that sharing physical activity with one's partner may be an even more beneficial way to spend leisure time together. Even participating in low-intensity

activity may have greater benefits for a relationship than simply engaging in activity of a non-physical nature. Research is showing more and more that physical health contributes to achieving mental health. This study provides further support that physical activity can be beneficial to mental health and should be considered an appropriate treatment intervention for some clients. Therapists should be cautious when recommending physical activity as an intervention depending on their own level of knowledge and comfort with physical activity. However, appropriate referrals and recommendations should be considered when incorporating physical activity into a client's treatment plan.

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Appendix A: CSI-16

Couples Satisfaction Index (CSI-16)

1. Please indicate the degree of happiness, all things considered, of your relationship.

Extremely Unhappy 0	Fairly Unhappy 1	A Little Unhappy 2	/ Нарру З		,	Very Happy 4	Extremely Happy 5		Perfect 6
2. In general, ho things between y going well?			ti tii	ne me	lost of the ime 4	More often than not 3	Occa siona Ily 2	Rare ly 1	Neve r 0
			Not at all TR UE	A littl e TR UE	Som e- wha t TRU	Mos tly TRU	Almos Compl ely TRUE	et el Ti	omplet y RUE
3.Our relationshi	p is strong		0	1	2	3	4	5	
	1. My relationship with my partner		0	1	2	3	4	5	
5. I have a warm relationship with	and comfortal	ble	0	1	2	3	4 5		
6. I really feel like my partner	part of a tea	<u>m</u> with	0	1	2	3	4	5	
			Not at all	A littl e	Som e- what	Most ly	Almo Comple		Complete y
7. How rewarding		onship	0	1	2	3	4	5	;
with your partner 8. How well does your needs?		meet	0	1	2	3	4	5	i

9. To what extent has your	0	1	2	3	4	5
relationship met your original						
expectations?						
10. In general, how satisfied are you	0	1	2	3	4	5
with your relationship?						

For each of the following items, select the answer that best describes <u>how you feel about your relationship</u>. Base your responses on your first impressions and immediate feelings about the item.

11.	INTERESTING	5	4	3	2	1	0	BORING
12.	BAD	0	1	2	3	4	5	GOOD
13.	FULL	5	4	3	2	1	0	EMPTY
14.	STURDY	5	4	3	2	1	0	FRAGILE
15.	DISCOURAGING	0	1	2	3	4	5	HOPEFUL
16.	ENJOYABLE	5	4	3	2	1	0	MISERABLE