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An exploration of the relationship among online social network usage, intimacy, social comparison tendencies, and relationship satisfaction

Matthew Hand

AN EXPLORATION OF THE RELATIONSHIP AMONG

ONLINE SOCIAL NETWORK USAGE, INTIMACY,

SOCIAL COMPARISON TENDENCIES, AND

RELATIONSHIP SATISFACTION

by

Matthew Hand, B.A., M.A.

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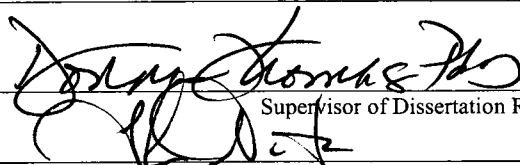
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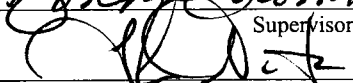
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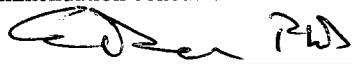
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An Exploration of the Relationship Among Online Social Network Usage,

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ABSTRACT

The popularity of online social networks prompts an examination of the effects these websites have on intimate relationships. While these networks have received a considerable amount of attention in mainstream media, peer-reviewed research examining the effects these websites have on users is sparse. By their very nature, online social networks inv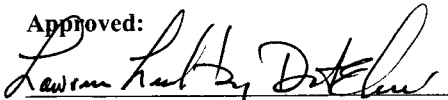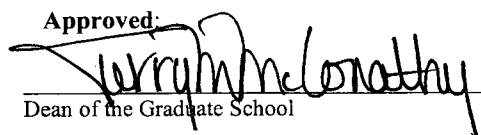olve the creation and maintenance of interpersonal relationships. As such, the effect of these networks on relationships may be profound and with the paucity of research on the topic, the relationship between online social networks and interpersonal relationships is an important area of study. The present study sought to examine relations among online social network usage, relationship satisfaction, intimacy, and social comparison tendencies in intimate relationships. While initial analyses only found support for a relationship between intimacy and relationship satisfaction, post hoc analyses found a negative relationship between intimacy and perception of a partner's use of online social networks. It was also found that intimacy mediates the relationship between online social network usage and overall relationship satisfaction.

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Author **Matthew Hand**

Date **07/25/2010**

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ACKNOWLEDGMENTS

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CHAPTER ONE

INTRODUCTION

Online social networks are a relatively new and increasingly popular way for people to communicate. What started with instant messaging and chat rooms has evolved into websites devoted to social networking. Online social networks are typically free websites where individuals can set up an individualized profile and communicate with others (Whitty & Joinson, 2009). Popular examples of online social network communities include MySpace (www.myspace.com) and Facebook. (www.facebook.com). While these networks have received a considerable amount of attention in mainstream media (e.g., Pew Research Center for the People and the Press, 2009) peer-reviewed research examining the effects these websites have on users is sparse. As such, any number of issues could be examined in relation to these networks. By definition, social networks involve the creation and maintenance of interpersonal relationships. As such, the effect of these networks on relationships may be profound and with the paucity of research on the topic, relationship between online social networks and interpersonal relationships is an important area of study.

The growing popularity of online social networks as well as the frequency of use of these websites illustrates the potential for these networks to affect the interpersonal

relationships of users. The popularity of online social networks is growing at a rapid rate. By the end of 2008, Facebook became the most popular social network with 140 million active users (Rayport, 2009). Over 55% of American adolescents between the ages of 12-17, use online social networks (Pew Research Center for the People and the Press, 2007). Adolescents are not the only age group using online social networks as adults usage is increasing (Pew Research Center, 2009). Between 2005 to early 2009, the amount of adult internet users who have joined an online social networking site and have created a profile has quadrupled. For adults between the ages of 18-24, 75% have a profile on an online social network. Those who use online social networks log into these sites regularly. Half of all users log into an online social network at least once a day (Peluchette & Karl, 2008) and on average, users log in an average of 4 times daily (Raacke & Bonds-Raacke, 2008). Users may spend between an average of 47 minutes (Sheldon, 2008) to 3 hours a day (Raacke & Bonds-Raacke, 2008) on an online social network.

There are various ways to examine the extent to which online social networks affect interpersonal relationships. One way to assess any significant effects is to examine the relationship between online social network usage and overall relationship satisfaction for romantic couples. An important issue related to interpersonal relationships is satisfaction. Relationship satisfaction can be defined as a person's overall affect towards a relationship or the level of attraction towards a relationship (Clark, Helgeson, Mickelson, & Pataki, 1994). Because there is little current research on the effect online social networks have on interpersonal relationships, there have not been any studies located that have directly examined how usage of these networks affect relationship satisfaction in offline intimate relationships. An important research question is whether online social

network usage is related to relationship satisfaction in offline intimate relationships. Numerous factors are involved in the justification as to why it is important to understand how online social networks affect relationship satisfaction. Relationship satisfaction is associated with positive benefits for the individual. Individuals who report being satisfied in a relationship tend to be physically healthier (Kiecolt-Glaser & Newton, 2001) and tend to live longer (House, Landis, & Umberson, 1988). Relationship satisfaction is a better predictor of general life satisfaction than financial success, job satisfaction, and good physical health.

Both partners in an intimate relationship receive positive effects from higher levels of relationship satisfaction and the relationship itself benefits. Partners with higher relationship satisfaction tend to be more committed and they also tend to be more invested in the relationship (Hendrick, 1988). Measuring a couple's level of relationship satisfaction can reliably predict whether the couple will remain together or separate. Partners who report a higher level of relationship satisfaction also tend to report more sexual satisfaction (Blumstein & Schwartz, 1983; Santtila, Wager, Witting, Harlaar, Jern, Johansson, Varjonen, & Sandnabba, 2008; Sprecher, 2002) and tend to report that their frequency of sexual activity matches their level of sexual desire (Lawrence & Byers, 1995; Santtila, et al., 2008).Warmth, self-disclosure, and the perception that the relationship is fair are all related to a high degree of relationship satisfaction (Kamo, 1993).

Certain styles of relating between partners have been associated with a satisfying relationship. A passionate or altruistic love style is associated with being more satisfied in a relationship (Hendrick, 1988). Being equally involved in the relationship and sharing in

the decision making process are associated with a higher degree of relationship satisfaction (Kurek & Schmitt, 1986). Conflict styles that are more integrative of both partner's perspectives and styles that are obliging of a partner's perspective are associated with higher satisfaction in the relationship while styles that are more dominating are associated with less satisfaction (Cann, Norman, Welbourne, & Calhoun, 2008). The tendency to use prayer is associated with satisfaction as partners who pray about the other partner report being more satisfied (Fincham, Beach, Lambert, Stillman, & Braithwaite, 2008).

Considering the positive benefits of relationship satisfaction and the growing use of social networks, it is important to determine if online social networks relate to levels of satisfaction experienced by partners. Also, if it is found that there is an association between relationship satisfaction and online social network usage, it can be helpful to discern if the effect is positive or negative and what factors of relationship satisfaction are affected.

In order to profit from a comprehensive examination of online social network's relationship with satisfaction, it is necessary to assess the usage of these networks with other factors that are strongly related to satisfaction in relationships. While any number of factors could be chosen to help with the analysis of how social networks affect relationships, it is important to use constructs that both have a strong effect on relationship satisfaction and could logically be associated with these networks. Two such concepts include intimacy and social comparisons.

Intimacy is characterized by a feeling of closeness with another person (Reis and Shaver, 1988) as well as a tendency to self-disclose (Schaefer & Olson, 1981) to the other

individual. Partners who report having intimacy are affectionate, validating, and trusting of one another (Aron & Wesbay, 1996). Intimacy is a concept that plays a role in prominent developmental theories (e.g., Maslow, 1954; Erikson, 1950) and it is associated with relationship quality (Schaefer & Olson, 1981).

Much like relationship satisfaction, higher levels of intimacy are associated with positive benefits for the individual and the relationship. Intimacy can serve as a buffer against negativity that can be destructive in the relationship (Huston & Chorost, 1994) and researchers have found evidence for a positive relationship between intimacy and relationship satisfaction. In comparison with factors such as agreement, independence, and sexuality, intimacy has been found to be the factor most central to relationship quality (Hassebrauck & Fehr, 2002). Components of intimacy such as empathy, listening to one another, taking interest in each other, consideration, and talking with the partner have been found to be strongly related to relationship satisfaction. The relationship between intimacy and satisfaction appears to be significant regardless of sexual orientation (Shreurs & Buunk, 1996). There does seem to be some difference in gender regarding the role that intimacy plays in relationship satisfaction (Hassebrauk & Fehr, 2002). While intimacy is related to relationship satisfaction for both men and women, intimacy is more likely to be viewed as central to the relationship by women.

Intimacy is an ongoing process which requires constant maintenance (Schaefer & Olson, 1981).This raises the question of whether online social network usage has an effect on the creation and maintenance of intimacy. While intimacy has not been studied directly in relation to online social networks, findings regarding intimate relationships on the internet and characteristics of social networks users offer some clues as to how the

concept of intimacy will be related to usage on these networks. Some researchers have found evidence that communicating online and pursuing relationships over the internet is associated with a tendency to shy away from face-to-face relationships (Curtis, 1997; McKenna, 1998; Ward & Tracey, 2004). Because openness and self-disclosure are positively associated with intimacy (Schaefer & Olson), it can be assumed that if a tendency exists for online users to avoid communication and face-to-face interaction, then intimacy will be negatively affected by internet usage. The nature of online social networks provides additional opportunities to avoid face-to face interaction which may increase avoidance behaviors of users. If similar characteristics are found for network users as those found for the internet then these networks could have a negative effect on intimacy in relationships. However, the relationship between intimacy and internet usage is not clear cut as other studies have found evidence that does not support the idea that individuals who communicate over the internet are introverted, socially anxious, and avoidant (Bonebrake, 2002; McCown, Fisher, Page, & Homant, 2001; Peter, Valkenburg, & Schouten, 2005; Sheldon, 2008). To date, only one study could be located that looked at individual characteristics of online social network users which may help in predicting the relationship of usage with intimacy (Sheldon, 2008). This study found an indirect link which suggested a negative relationship between online social network usage and intimacy. It can be assumed that frequent online social network usage will be associated with a tendency to shy away from face-to-face interaction with a partner. With less time being spent with the partner, it is likely that intimacy in the relationship will be negatively affected.

Because intimacy is highly associated with relationship satisfaction, researching intimacy's relationship to online social network usage can be very useful. Additionally, intimacy reflects a concept that is interpersonal in nature, meaning that it is very much influenced by the interaction of both partners. In gaining a comprehensive understanding of the effect online social networks have on relationship satisfaction, it would be useful to examine the effect that usage would have on behavior which is influenced by factors external to the relationship. A tendency to use social comparisons in relationship evaluations is a concept that meets this criterion.

The theory of social comparisons is built upon the assumption that individuals tend to compare themselves with others when there is not an objective standard available (Festinger, 1954). This relates to interpersonal relationships as partners who use social comparisons will compare their relationship with the relationship of others (Broemer & Diehl, 2003; Kelley & Thibault, 1978; VanYperen and Buunk, 1994). Social comparisons may be upward or downward in direction (Buunk, Collins, Taylor, VanYperen, & Dakof, 1990). If the comparison is downward in direction then partners perceive someone else's relationship as being inferior in some way to their own. If the comparison is upward in direction then partners perceive another relationship as superior to their own in some way.

The use of social comparison is related to relationship satisfaction. People report higher relationship satisfaction when they identify their relationship with a high standard, such as a romantic stereotype, or when they contrast their relationship from a low standard (Broemer & Diehl, 2003). Similarly, relationship satisfaction is associated with comparing a couple's relationship with another relationship. In perceiving their relationship as superior or advantaged compared to others, in what amounts to downward

comparisons, a couple may experience greater satisfaction (VanYperen & Buunk, 1994). It has been posited that partners may engage in these types of social comparisons to develop and maintain a positive view of their relationship. A couple also may utilize upward comparisons to positively affect the relationship as a comparison with another couple can inspire the couple to work towards a goal in improving their own relationship (Buunk, 2006). These upward comparisons will more likely have a positive effect on the relationship if the other couple is seen as similar and the outcome can be reached with a low amount of effort.

While both downward and upward social comparisons can be used to increase relationship satisfaction, the effect is not always positive. Couples who have a low degree of satisfaction and a high amount of uncertainty are likely to be negatively affected by both upward and downward comparisons (Buunk, Collins, Taylor, VanYperen, & Dakof, 1990).With partners in these couples, upward comparisons may result in envy while downward comparisons may produce feelings of fear that their relationship will turn out similarly.

Partners differ in their tendency to make social comparisons. In general, uncertainty seems to play a role in the tendency to make social comparisons (Festinger, 1954; VanYperen & Buunk, 1994). Also, individuals with an orientation to use social comparisons have a tendency to evaluate their performance in relation to others, compare their characteristics with the characteristics of others, and relate what happens to others to themselves (Gibson & Buunk, 1999). Intrapersonal factors that are associated with the tendency to use social comparisons in relationships include low self-esteem, an anxious attachment style, and insecurity about the relationship (Buckingham, 2008).

While social comparisons can be used to increase relationship satisfaction (Buunk, 2006; VanYperen & Buunk, 1994) a general tendency to utilize these comparisons is associated with decreased satisfaction in the relationship (Lebeau & Buckingham, 2008). In other words, while using social comparisons occasionally can help to maintain the relationship, frequent use of these comparisons is associated with decreased satisfaction in the relationship. Partners with a tendency to utilize social comparisons in their relationship also tend to perceive the relationships of others as of higher quality than their own relationship. It has been posited by Lebeau and Buckingham that frequency in using these comparisons can create insecurity in relationships. In addition to an association with relationship satisfaction, the tendency to utilize social comparisons appears to be related to intimacy. Lebeau and Buckingham found that partners with a social comparison orientation tend to report decreased intimacy compared to partners that do not frequently use these types of comparisons.

Online social networks offer ample opportunity for social comparisons between couples. These networks allow users to post information about their relationship as well as pictures, videos, and couples can even interact with each other on these networks by posting on their partner's profile. On some networks such as Facebook, a partner can provide users with a direct link to their partner's profile under a section which details relationship status. Additionally, some networks allow for users to receive newsfeeds which detail various updates from other users on their friends lists and includes updates regarding friends' relationship changes. All of these features increase the opportunities available for users of online social networks to utilize social comparisons. Considering that it has been suggested that a social comparisons orientation is a dispositional tendency

(Lebeau and Buckingham, 2008), it can be logically assumed that online social networks would attract those who tend to use social comparisons. Currently, no study could be located that examined the relationship between online social network usage and social comparisons. Considering the nature of online social networks, it is possible that a relationship exists between these two variables. Furthermore, it is possible that a greater tendency to use social comparisons will be associated with a higher amount of online social network usage. Because a general tendency to use social comparisons has been associated with decreased relationship satisfaction (Lebeau & Buckingham, 2008), online social network usage may mediate the effects of social comparison tendencies on relationship satisfaction. Individuals who engage in social comparison tendencies may be likely to engage in greater online social network usage, which may in turn lead to less relationship satisfaction. Additionally, individuals who report more frequent use of online social networks will spend less face-to-face time with partners and thus will show a decrease in the amount of intimacy in the relationship.

The purpose of this study is to examine online social network usage and its relationship to relationship satisfaction with intimate partners. To gain a comprehensive view of the relationship between the variables, online social network usage also will be examined in relation to two concepts that are highly associated with relationship satisfaction. The concepts of intimacy and social comparison tendencies have been chosen from a multitude of options as they are closely associated with relationship satisfaction and the likelihood that a relationship with social networks exists is strong. Additionally, intimacy represents a component of relationship satisfaction that is created and maintained within the relationship while social comparisons involve ways in which inter-

relationship factors affect couples. Examining these concepts allows a look into the relationship between online social networks and intra-relationship and inter-relationship factors of relationship satisfaction.

<div align="center">Literature Review</div>

Relationship Satisfaction

   Definition of Relationship Satisfaction. Relationship satisfaction is a construct that is not easily defined (Vaughn & Matyastik, 1999). While many of the concepts related to relationship quality and satisfaction are widely researched, there is little consensus on how to define and measure many of them. Satisfaction is one of these concepts in which there is debate as to the definition of the construct as well as the best way to measure it. Relationship satisfaction has been called other names in the literature such as relationship stability, quality, adjustment, and happiness with the assumption that these labels are defining the same construct (Heyman, Sayers, & Bellack, 1994). This is an assumption that Heyman et al. believe to be false. A particular difficulty arises in differentiating relationship satisfaction from adjustment (Vaughn & Matyastik). Some researchers do not distinguish between satisfaction and adjustment due to the two concepts being highly correlated with each other (Fowers, Applegate, Olson, & Pomerantz, 1994). Others may believe that a well-adjusted couple is also satisfied and vice versa (Ptacek & Dodge, 1995; White & Hatcher, 1984).

   What has been agreed upon generally in defining and measuring relationship satisfaction is that the concept is usually limited to subjective evaluations from one or both of the partners in a relationship (Thibaut & Kelley, 1959). Theories that derive from this assumption posit that there is a high degree of relationship satisfaction if a partner

believes the relationship is meeting a set of internal standards. Relationship satisfaction increases when a partner perceives fairness, warmth as well as when self-disclosure increases (Kamo, 1993). Relationship satisfaction comes from an individual's affect or attraction to a relationship (Clark, Helgeson, Mickelson, & Pataki, 1994). This satisfaction concerns the degree to which an individual feels his or her needs are met by a partner.

Research on Relationship Satisfaction. Relationship satisfaction has been related to a variety of concepts including love attitude styles, and self-disclosure (Hendrick, 1988). Regarding love attitude styles, relationship satisfaction has been found to be positively correlated with the styles of Eros (passionate love) and Agape (altruistic love) and negatively correlated with Ludus (game-playing love). Satisfaction in the relationship is related to overall relationship quality with a higher degree of satisfaction being correlated with a higher level of relationship quality (Hassebrauck & Fehr, 2002).

It was mentioned earlier that some researchers view the concepts of relationship satisfaction and adjustment as either synonymous or very highly related (Fowers, Applegate, Olson, & Pomerantz, 1994; Ptacek & Dodge, 1995). While there is disagreement as to whether satisfaction and adjustment are distinct constructs (i.e., Vaughn & Matyastik, 1999), there is evidence that adjustment and satisfaction are very closely associated. Ptacek and Dodge have found that couples who perceive they have problem solving strategies that are similar are likely to rate their relationship as being highly satisfied compared to couples that perceive their ways of coping with problems as being dissimilar from each other.

In addition to being related to love, overall relationship quality and better adjustment, relationship satisfaction is associated with other positive factors involved in relationship maintenance. Relationship satisfaction is associated with commitment and relationship investment (Hendrick, 1988). Partners that report more relationship satisfaction also report being more committed and being more invested in the relationship. Measuring a couple's level of relationship satisfaction can reliably predict whether the couple will remain together or separate. Hendrick (1988) found that the reported level of relationship satisfaction could predict whether a couple would remain together in 91% of couples and when they would separate in 86% of cases.

Research has focused on the role of equity in relationship satisfaction. According to equity theory, a high degree of relationship satisfaction will be reported when both partners in a couple perceive that the ratio between what is input into the relationship and the outcomes is equal (cf. Buunk & van Yperen, 1989; Hatfield, Traumann, Sprecher, Utne & Hay, 1984; Shreurs & Buunk, 1996). Partners who feel that they have underbenefitted in the relationship generally report lower satisfaction (Hatfield et al.). Being equally involved in the relationship and sharing in the decision making process are both associated with a higher degree of relationship satisfaction (Kurek & Schmitt, 1986). While Schreurs and Buunk acknowledge that equity is operationally and conceptually further from relationship satisfaction as other variables such as intimacy, a partner's perception of how much they invest and profit from the relationship is important in satisfaction. In a study that examined marital satisfaction and power strategies, Aida and Falbo (1991) found that when couples saw each other as equal, they tended to use fewer self-serving power strategies and they reported being more satisfied in the relationship.

Relationship satisfaction does not come necessarily from realistic perceptions of the relationship. Murray and Holmes (1993) argued that relationship satisfaction comes from an idealistic perception of the partner rather than a realistic one. They explained that idealistic representations of a partner may develop to rid the individual of doubts about their partner's faults. Their study demonstrated that this effect can be so great that a partner may transform their perceptions of their partner's faults into virtues. In these cases, relationship satisfaction is influenced by a positive representation of a partner that develops not in spite of the partner's faults, but because these faults have been transformed into positive attributes. Harvey and Omarzu (1997) posit that a couple may spend their entire life transforming negative perceptions of their partner into positive ones.

In examining the trajectory of change in relationship satisfaction, Kurdek (1998) found that over a 5 year period the degree of relationship satisfaction reported by partners decreased. In the same study, Kurdek found that lesbian, gay, and heterosexual partners reported similar levels of relationship satisfaction at the beginning of the relationship and that the rate of change in satisfaction did not differ among the three types of couples. Overall, it was found that while lesbian, gay, and heterosexual couples differed in some areas of the relationship (i.e. level of autonomy experienced by partners, rate of dissolution) they were more alike than different in their reported degree of relationship satisfaction. Kurdek asserted that the self appraisals of one partner, containing his or her view of the relationship, and the appraisals of the other partner concerning equality, intimacy, and constructive problem-solving could be used to predict the trajectory of change in overall relationship satisfaction. Age seems to play a role in the trajectory of

change in relationship satisfaction. In a study examining the relationships of lesbian couples, Schreurs and Buunk (1996) found that the degree of reported relationship satisfaction increased with age. However, an association has not been found with certain other relationship characteristics. Shreurs and Buunk found that socioeconomic status, duration of the relationship, and the presence of children in the house did not seem to be highly associated with relationship satisfaction.

In an examination of factors related to relationship quality and relationship satisfaction, Hassebrauck and Fehr (2002) found that intimacy, agreement between partners, personal independence, and sexuality in the relationship all affected relationship satisfaction. The strongest relationship was found between intimacy and relationship satisfaction while weaker associations were found for agreement, independence, and sexuality.

Certain behaviors in the relationship are linked with relationship satisfaction. Butzer and Kuiper (2008) found humor to be related with relationship satisfaction. They discovered that humor was most often used to enhance closeness and ease tension but they also found that humor was sometimes used to change the topic or put the other partner down. When humor was more often used in a positive way, the relationship was rated as more satisfying. Spiritual payer appears to be related to relationship satisfaction. Fincham, Beach, Lambert, Stillman, and Braithwaite (2008) found that prayer for a partner preceded a positive change in relationship satisfaction. They noted that this was a directional effect as increased relationship satisfaction was not associated with a higher tendency to use prayer. Cann, Norman, Welbourne, and Calhoun (2008) found that conflict styles are related to satisfaction in the relationship. Conflict styles that were more

integrating and obliging led to higher satisfaction in the relationship while styles that were more dominating were associated with less relationship satisfaction. Sexual satisfaction is positively associated with relationship satisfaction (Blumstein & Schwartz, 1983; Santtila, et al, 2008; Sprecher, 2002). Relationship satisfaction is higher in couples whose sexual activity matches their sexual desire (Lawrence & Byers, 1995; Santtila, "et al."). However, sexual satisfaction does not appear to be as related to relationship satisfaction as certain other factors. Boul (2007) found that for men, security and intimacy were more related to relationship satisfaction than sexual satisfaction.

Relationship satisfaction is associated with numerous positive effects on the couple and the individual. Individuals who report a higher degree of relationship satisfaction tend to be more physically healthy (Kiecolt-Glaser & Newton, 2001). These individuals also tend to live longer (House, Landis, & Umberson, 1988). Glenn & Weaver (1981) found that relationship satisfaction was better at predicting general life satisfaction than other achievements such as financial success, job satisfaction, and good physical health.

Intimacy

Definition of Intimacy. Intimacy is a concept frequently associated with relationship quality (Schaefer, 1981). Intimacy is an important component of normal development and the concept has been a part of prominent theories by developmentalists (Maslow, 1954; Erikson, 1950; Sullivan; 1953). Much like other concepts dealing with interpersonal qualities, various researchers and theorists have offered a definition to intimacy. Kurdek (1998) focuses on the closeness involved in relationships as he explains intimacy as the merging of the self and the other partner. Aron and Wesbay (1996) point

out that intimacy is comprised of openness between partners as well as supportiveness, honesty, and trust and the feeling to freely talk about personal things. Hook, Gerstein, Detterich, Gridley (2003) proffer an explanation of intimacy that centers on behaviors and feelings associated with the concept as they state that intimacy consists of a combination of four components; affection, validation, trust, and self-disclosure. Reis and Shaver's (1988) conceptualization of intimacy has been much cited in research on the topic. They define intimacy as the following:

> Intimacy is an interpersonal process within which two interaction partners experience and express feelings, communicate verbally and nonverbally, satisfy social motives, augment or reduce social fears, talk and learn about themselves and their unique characteristics, and become "close" (psychologically and often physically: touching, using intimate names and tones of voice, perhaps having sex). Under certain conditions, repeated interactions characterized by this process develop into intimate relationships. Within an intimate relationship, some interactions will be intimate in the sense of our process model and many will not. If the frequency and quality of intimate interactions fall decline below some level which is probably unique to different couples and individuals, the relationship will no longer feel and be perceived as intimate by one or both partners. (pp. 387-388).

Their definition focuses on both the affective and behavioral components of intimacy and they define how intimacy may exhibit in a relationship. The conceptualization of intimacy was furthered by Reis and Patrick (1996) as they characterized intimacy as the process by which partners come to feel cared for in the relationship as well as being understood and validated by the other partner. They

prioritized the shared meaning systems of a couple as well as the level of responsiveness by the partners as being central to experiencing intimacy. Prager (1995) argued that intimacy is a superordinate concept and is not easily amenable to precise definition. Rather, she argues that intimacy should be researched by examining concepts that fit within the overall superordinate structure. Harvey and Omarzu (1997) contend that while subordinate concepts can be studied separately, the overall concept must also be looked at as a whole if the research is to have any value. Schaefer and Olson (1981) offer a conceptualization of intimacy that takes into account Prager's concerns as well as Harvey and Omarzu's assertion about keeping the concept intact. Intimacy is conceptualized by Schaefer and Olson as involving the sharing of a variety of activities, the exchange of personal feeling towards each other, and the participation in joint activities. In an effort to more precisely define intimacy, and to allow for direct measurement of the concept, Schaefer and Olson identify various types of intimacy that can be distinguished from each other. These types include emotional intimacy, social intimacy, recreational intimacy, and sexual intimacy. Emotional intimacy involves the sharing of personal feelings and intimate information. Social intimacy concerns a couple's sharing of friends and the concept of visiting friends as a pair. Recreational intimacy relates to the sharing of hobbies and the engagement in leisure time together. Sexual intimacy involves sexual contact and the feeling of being comfortable with the partner in sexual matters.

Research on Intimacy. Research on intimacy has covered a variety of areas and the concept has been associated with development, attachment, and numerous positive effects on the relationship. Intimacy has played an important role in research dealing with human development. Erikson (1950) believed that intimacy was integral for normal psychosocial

development, involved in the transition from adolescence to adulthood. Research also has identified the importance of intimacy during the later stages of the lifespan (Lowenthal & Haven, 1968). In commenting on the nature of intimacy, Schaefer and Olson (1981) argue that the development of intimacy is a process that never completely ends. They claim that intimacy maintenance and growth requires time, work, and effort. They contend that a couple is creating a false expectation for their relationship if they believe that they do not need to work to maintain intimacy.

Self disclosure is an important component of intimacy and is a part of most conceptualizations of the term (Aron & Aron, 1996; Reis & Shaver 1988; Schaefer & Olson, 1981). Reis and Shaver state that as reciprocal self-disclosure increases between individuals, intimacy is created. This emphasis on self-disclosure is consistent with Schaefer and Olson's conceptualization of intimacy in which there is an emotional intimacy involving the sharing of feelings and intimate information. Aron and Aron go further in stating that the intimacy that is created from self-disclosure is a part of the process involved in falling in love. They describe the concept of love as one of self-expansion and state that as people fall in love there is self-disclosure between partners in an effort to merge with each other. As a concept, self-disclosure is so closely associated with intimacy that the two terms are sometimes thought of as synonymous (cf., Shaefer & Olson, 1981). Gilbert (1976) explains that while self-disclosure and intimacy are closely linked, they are not the same and one is not necessarily contingent on the other. He explains that the relationship between intimacy and self-disclosure may actually be curvilinear. There are some instances in which a high degree of self-disclosure is not associated with an increased amount of intimacy. Indeed in some cases, a high amount of

self-disclosure by a partner may actually result in decreased intimacy. An example of this may be during a period in the relationship in which there is considerable negativity. For example, in the pre-divorce period there may be a high amount of self-disclosure between partners but not necessarily a high degree of intimacy. Overall, while intimacy and self-disclosure are not synonymous and the positive effects of intimacy do not always translate to self-disclosure, generally the effects of self-disclosure on relationships are positive (Hendrick, 1981). Hendrick found that self-disclosure is positively related to relationship satisfaction.

Similar in distinguishing intimacy from strict self-disclosure, it is important to differentiate between intimacy and another form of closeness, emotional dependency. Emotional dependency is the degree to which partners need each other, have the feeling that they cannot live apart, have difficulty being alone, and feel as though their relationship is superior to living alone or with another partner (Schreurs & Buunk, 1996). One of the main distinctions between intimacy and emotional dependency relates to its relationship to the concept of autonomy. While a higher level of emotional dependence is associated with lower levels of autonomy, the same cannot be said for intimacy and autonomy (Schreurs & Buunk). Schreurs and Buunk argue that intimacy and autonomy are independent dimensions and that a high degree of intimacy may be associated with a lower or higher degree of autonomy. The authors contend that intimacy may occasionally negatively affect the autonomy of partners but intimacy may also have a positive effect in which the relationship offers opportunities for individual growth.

Attachment is one of several factors related to intimacy. Reis and Patrick (1996) argue that there are some commonalities involved in intimacy and attachment. They argue

that both concepts involve the regulation of emotion through an interpersonal means. They are also both heavily influenced by the responsiveness of the partners. With both of the concepts, experiences in past relationships play a significant role on current beliefs about relationships as well as the emotions and behaviors of a partner. Additionally, both intimacy and attachment are influenced by the appraisals and mental representations of the partner.

An important factor involved in relationship quality and health is intimacy (Mosier, 2006). Intimacy can serves as a buffer against factors that would negatively affect a relationship. Huston and Chorost (1994) found that emotional intimacy moderated the association of negative behavior and relationship satisfaction. However, it is important to note that the absence of conflict does not mean an increase in intimacy (Herrington, Mitchell, Castellani, Joseph, Snyder, & Gleaves, 2008) and that conflict is not necessarily a block to becoming more intimate (Clinebell & Clinebell, 1970).

For both men and women, intimacy is positively related with relationship satisfaction (Dandeneau & Johnson, 1994; Greeff & Malherbe, 2001). In a study examining various components of relationship quality and satisfaction, Hassebrauck and Fehr (2002) found intimacy to be central to relationship quality and highly correlated with relationship satisfaction. In comparison with factors such as agreement, independence, and sexuality, it was found that intimacy is the most central to relationship quality. Regarding factors of intimacy that lead to relationship satisfaction, Hassebrauck and Fehr found the strongest loadings are for empathy, listening to one another, taking interest in each other, consideration, and talking with the partner.

The relationship between relationship satisfaction and intimacy applies to more than just heterosexual couples. In a study by Kurdek & Schmitt (1986), lesbian couples who report being very intimate also report a higher level of satisfaction. Additionally, partners who report being very satisfied both report a similar level of closeness. Shreurs and Buunk (1996) found that lesbian couples who reported a high degree of relationship satisfaction reported high degrees of emotional, social, recreational, and sexual intimacy. Kurdek (1998) found that lesbian partners reported more intimacy than married heterosexual partners. This difference between reported levels of intimacy in married couples compared with lesbian couples is explained as being related to the gender of the partners. Kurdek asserts that women are socialized to place a priority on relationships and define themselves in terms of their relationships and as such, a couple consisting of two women will receive relationship enhancing factors from both partners as opposed to a married couple. Gender does seem to play a role in perceived intimacy. Women are more likely than men to regard intimacy as being central to the relationship (Hassebrauk & Fehr, 2002). Additionally, with women there is a stronger link between intimacy and relationship satisfaction. However, while women regard intimacy more so then men, with both sexes intimacy is the factor most correlated with relationship satisfaction.

There appears to be a relationship between relationship longevity, satisfaction, and intimacy. Regarding relationship satisfaction, newlyweds (of up to two years) and couples that have been together for a longer period of time reported similar levels of relationship satisfaction in a study by Hassebrauk and Fehr (2002). However, while the two types of couples reported similar levels of relationship satisfaction, they differed in the degree of intimacy shared with newlyweds reporting significantly more intimacy.

While intimacy has not been studied directly in relation to online networks, the concept of intimacy has been examined in regards to the internet. It has been found that online relationships are associated with less intimacy (Scott, Mottarella, & Lavooy, 2006). In computer mediated relationships, greater intimacy was found in the users' face-to-face relationships compared to the online relationships. Additionally, users that reported having online relationships tended to experience less intimacy compared to others who do not engage in these internet based relationships. Some findings suggest that internet usage is associated with a tendency to shy away from relationships (Curtis, 1997; McKenna, 1998; Scott, Mottarella, & Lavooy, 2006; Ward & Tracey, 2004) while other findings fail to find such a relationship (Bonebrake, 2002; McCown, Fisher, Page, & Homant, 2001; Peter, Valkenburg, & Schouten, 2005). It is important to note that these findings examine online relationships in all capacities and not exclusively online social networks. There is not currently any research that has directly examined the relationship between heavy usage of social networking websites and intimacy. However, a relationship can be established by looking at variables associated with both intimacy and online social network usage. Sheldon (2008) found that socially anxious individuals tended to use online social networking sites more frequently than those who are not socially anxious. Lutejin (1994) found that social anxiety was negatively related to intimacy. Additionally, Meleshko and Alden (1993) found that socially anxious individuals typically disclosed less than those who are not anxious and that these individuals did not reciprocate disclosure as well as not-anxious individuals. Self-disclosure is an important component of intimacy (Aron & Aron, 1996; Reis and Shaver 1988; Schaefer and Olson, 1981) and a negative relationship to disclosure suggests a

negative relationship to intimacy. Consequently, it can be argued that an increase in online social network usage will be related to a decrease in intimacy.

Social Comparison Tendencies

Definition of Social Comparison. The concept of social comparisons has a long history in the literature and most modern definitions build upon Festinger's (1954) social comparison theory. According to this theory of social comparison, individuals have a tendency to compare themselves with others when there is no objective standard available. Festinger claimed that these comparisons are made for the purpose of self-evaluation and comparisons will be limited to those who are similar to the individual. In regards to the tendency to use social comparisons in interpersonal relationships, the major types of social comparisons discussed in the literature are relational comparisons and referential comparisons (VanYperen & Buunk, 1994). Relational comparisons are those that are made between partners in a dyad. A popular way of examining these comparisons is through the lens of equity theory. This perspective looks at the input-output ratio and assumes that satisfaction is directly related to whether a partner feels overbenefited, underbenefited, or equitably treated in the relationship.

Referential comparisons involve the comparison of the couple's relationship with other relationships (VanYperen & Buunk, 1994). These comparisons are made with those of a reference group with people that have similar roles. For instance, a couple in a relationship is likely to compare his or her relationship with other similar couples. Due to the nature of online social networks, there is ample opportunity for partners to make referential social comparisons. As such, these types of comparisons will be examined in this study and discussed in the remainder of this literature review.

Research on Social Comparison. Various theorists have expanded upon the concept of social comparisons and examined the concept's association with interpersonal relationships. Broemer and Diehl (2003) discuss how the tendency to use social comparisons relates to intimate relationships. Like Festinger, they state that couples evaluate their relationship in relation to their overall expectations and standards. These expectations are influenced by a variety of factors including past experiences and by observing other relationships (Broemer & Dieh, 2003; Kelley & Thibault, 1978). Couples use social comparisons when they evaluate their own relationships while comparing them to standards set by outside relationships. Hassebrauck and Aron (2001) found that in evaluating their relationship, couples compare their actual relationships with their knowledge of a good relationship. The more their relationship matches their preconceived prototype, the greater their relationship satisfaction. What the couple perceives as features of the prototype relationship are important factors in influencing the quality of the relationship. While previously, standards may have come from traditional gender roles, VanYperen and Buunk (1994) posit that as gender-role conceptions of partners have changed over time, as well as the occurrence of partners becoming increasingly similar, there are fewer specific objective standards couples can utilize to determine if their relationship is good.

Festinger (1954) argued that uncertainty plays a key role in social comparisons. He argued that uncertainty fosters the necessity of social comparisons to evaluate whether one's reactions are appropriate. VanYperen and Buunk (1994) posit that in modern, egalitarian relationships, a higher degree of uncertainty will be found and a greater tendency to utilize social comparisons. They argue that the uncertainty surrounding roles

in the relationship contribute to this increased need to use social comparisons. In modern egalitarian relationships, role based dilemmas arise as men are more likely to be involved in family related tasks while women are more likely to be more involved with a career (VanYperen & Buunk, 1991). Individuals may also face a dilemma in juggling their desires to have both a career and family (Sekaran, 1983). There may be a dilemma in that partners have limited free time in which they can interact with each other due to the demands of both a job and family. VanYperen and Buunk (1994) add that in egalitarian relationships, there are no standard role models with which to base reactions on and partners have to develop their own guidelines for the relationship. All of these dilemmas can create uncertainty for partners that can result in a greater need to utilize social comparisons. VanYperen and Buunk (1991) found evidence for uncertainty in egalitarian marriages. They found that in marriages with egalitarian gender-role beliefs, there was a higher degree of uncertainty and there was a lower level of relationship satisfaction compared to marriages in which partners held more traditional gender-role beliefs. These findings were especially true for women. VanYperen and Buunk (1991) argued that for women more so than for men, egalitarian marriages with relatively unstructured role expectations, resulted in feelings of uncertainty.

In describing his theory of downward social comparisons, Wills (1981) proposed that distressed individuals may attempt to improve their perception of their well-being by subjectively comparing themselves with others who are doing worse. In examining this self-serving bias, VanYperen and Buunk (1994) concluded that a person may have a tendency to engage in social comparisons to develop and maintain a positive view of their relationship. VanYperen and Buunk (1994) argued that in perceiving their relationship as

superior or advantaged compared to others, the couple may experience greater satisfaction. In a study that examined this assumption, Buunk and VanYperen (1991) found that when comparing themselves with others of the same-sex, partners were more likely to report a higher degree of relationship satisfaction when they felt that they were better off than the reference group. Additionally, the study found that when partners feel as though they invested more into their relationship compared with others, they reported a higher degree of relationship satisfaction. In addition to making downward social comparisons, couples also can make upward comparisons in which they perceive another relationship as being superior to their own in some way (Buunk, Collins, Taylor, VanYperen, & Dakof, 1990).

While social comparisons may be used to maintain a positive view of the relationship, the effects of utilizing these comparisons are not always beneficial. Buunk, Collins, Taylor, VanYperen, and Dakof (1990) found that partners with a low degree of satisfaction and a high amount of uncertainty are likely to be negatively affected by both upward and downward comparisons. They explained that with these partners, upward comparisons result in envy while downward comparisons produce feelings of fear that their relationship will turn out similarly.

It has been found that people report higher relationship satisfaction when they identify their relationship with a high standard or when they contrast their relationship from a low standard (Broemer & Diehl, 2003). Comparing the relationship to some idealized standard, such as a romantic stereotype, is associated with higher relationship satisfaction when the couple compares their own relationship favorably to the stereotype as opposed to when they contrast their relationship to that of the romantic stereotype.

Relationship satisfaction is negatively affected when couples favorably compare the romantic stereotype with that of an alternative relationship rather than their current relationship. Broemer and Diehl found that when comparing the current relationship to others with a similar relationship, partners usually report less relationship satisfaction when they perceive themselves similar to an unhappy couple and more satisfied when they contrast their relationship away from the other unhappy partners.

The amount of effort that a similar couple seems to be exerting to acquire an outcome is related to how relationship satisfaction is affected. If it is perceived that a similar couple achieved a standard with a low amount of effort then a couple that has not achieved the standard may see the same outcome as achievable and relationship satisfaction is positively affected (Buunk, 2006). However, if the similar couple is perceived to have exerted a high amount of effort in achieving the outcome, then the current couple may perceive the goal as unattainable and relationship satisfaction may be negatively affected.

In a series of three experiments, Buunk and Oldersma (2001) examined the association between relationship satisfaction and downward social comparisons by factoring in relational discontent. They found that downward social comparisons served as a buffer for the couple that moderated the negative effects of relational discontent on relationship satisfaction. This moderating effect only occurred in individuals with a high social comparison orientation. They explained that for these individuals, the comparison of their relationship with the relationships of others was a major evaluating tool and that would benefit them when they saw others doing worse. Conversely, individuals low in social comparison orientation were not likely to utilize information about the relationships

of others as a way of evaluating their own relationships, so these comparisons could not be used as a buffer against relational discontent. These findings were consistent with theories about downward comparisons and the social comparison orientation (Gibson & Buunk, 1999; Taylor, Wood, & Lichtman, 1983; Wills, 1981; Wills, 1997). Furthermore, Buunk and Oldersma found that after a task in which partners made a downward comparison, there were shorter response latencies when answering questions about their own relationships. The authors suggest that this occurred as social comparisons made information about the partners' relationships more immediately accessible.

Not all people will be equally inclined to use social comparisons (Buunk, 2006; Hemphill & Lehman, 1991). Some will have a greater tendency to use social comparisons than others. This may be due to both situational and dispositional factors. The concept of social comparison orientation refers to the disposition of some individuals who have a tendency to compare themselves with others (Gibson & Buunk, 1999). Individuals with this orientation tend to evaluate their performance in relation to others, compare their characteristics with the characteristics of others, and relate what happens to others to themselves. Lebeau and Buckingham (2008) found that factors associated with the tendency to use social comparisons in relationships include low self-esteem, an anxious attachment style, and insecurity about the relationship.

In a study examining the tendency to use social comparisons in relationships, Lebeau and Buckingham (2008) found that a general tendency to utilize social comparisons was associated with lower satisfaction in the relationship as well as decreased intimacy and commitment. These partners also tended to perceive relationships alternatives as higher quality compared to partners that did not tend to use social

comparisons. Lebeau and Buckingham explained these findings by pointing out that most people will use both upward and downward social comparisons. For people that frequently compare their own relationship with the relationships of others, this variability of upward and downward comparisons is likely to create feelings of relationship insecurity. Also, the authors point out that others are likely to disclose more positive than negative information about their relationship which may distort the view of relationships from the perception of someone who tends to frequently utilize social comparisons.

In addition to providing evidence for factors associated with relationship social comparisons, Lebeau and Buckingham (2008) also found evidence for the direction between social comparison tendencies and relationship satisfaction. They found that frequent use of social comparisons leads to less relationship satisfaction and greater relationship insecurity. However, lower relationship satisfaction and greater relationship insecurity did not increase the tendency that a partner would utilize relationship social comparisons. This suggests that a tendency to use social comparisons may result in lower relationship satisfaction but that being dissatisfied in the relationship does not necessarily mean that a partner is more likely to use social comparisons.

The nature of online social networks increases the availability of interpersonal contacts to which social comparisons can be made. As part of participating in a social network, users post profiles which may detail information about relationship status and quality. Some social networks, such as Facebook inform users when their contact's change the status of their relationships. While there is currently a lack of research relating to online social network usage and social comparisons, it is a topic that is ripe for exploration.

Online Social Networks

Definition of Online Social Networks. Online social networks are websites that allow an individual to create personal profiles and connect with the profiles of others. Over the last few years, the popularity of these networks has become immense (Peluchette & Karl, 2008). Online social networks are typically free websites where individuals can set up an individualized profile and communicate with others (Whitty & Joinson, 2009). The profiles on these sites may consist of an individual's interests, pictures, mood, and other personal information (Dale, 2006; Spanbauer, 2008). Some social networks allow an individual to attach journal-like entries called Blogs to his or her personal profile (Baker & Moore, 2008). A profile can be updated and changed as often as an individual wishes (Dale). Once a person has created a profile on one of these websites he or she is able to search for previous and new friends and contacts. Users can create a network of associated users, or friends, by inviting other users to link with their profile (Whitty & Joinson). There are various means by which users can interact with others. Ways in which individuals can communicate in these online social networks include email, instant messaging, weblogs, mood updates, audio recordings, video recordings, posting on another person's profile, and word or picture descriptors meant to convey non-verbal communication. Examples of online social network communities include MySpace (www.myspace.com) and Facebook. (www.facebook.com).

Research on Online Social Networks. A discussion about online social networks begins with an examination of the impact of the internet because the internet is the mode in which social networks are delivered and there is substantial overlap in users. Gender differences in internet use have been found (Weiser, 2000). Men are more likely than

women to use the internet for discovering romance and pursuing sexual interests while women are more likely to use the internet as a means of connecting with family friends and coworkers. Additionally, there is a relationship between age and the internet. Young adults are likely to use the internet more often than older adults (Thayer & Ray, 2006).

Communication via the internet and online social networks is different than communication in person. Online social network communications fall under the term of computer mediated communications. A difference between computer mediated communication and in-person communication is that there is a lack of non-verbal cues when conversing online (Whitty & Joinson, 2009). It was previously believed that this lack of non-verbal communication would reduce all computer mediated interactions to being task-oriented and that the medium was unsuitable for building socio-emotional ties (Rice & Love, 1987). However, the prevalence of significant relationships that are reportedly founded and maintained over the internet contradicts the notion that computer mediated communication is just suitable for task-oriented interaction (Whitty & Joinson). Putnam (2001) argued that time spent on the internet negatively affects offline communities. It has been posited that as internet usage increases, social trust and community participation decreases. It is argued that the internet increases alienation and that time spent on the internet keeps people from interacting in places such as cafes, parks, and bars (Hampton & Wellman, 2003).

There are a few ways in which interaction in online social networks differ from that of the internet. On the internet, communication is often anonymous. This is less likely to be the case on an online social network as most users have their identity revealed by means of a profile (Whitty & Joinson, 2009). As such, what is disclosed and the amount

of self-disclosure is likely to be different between online social networks and other means of communicating on the internet such as chat rooms and message boards. Because it is often the case that users of online social networks know some of the people connected to their profile, Whitty and Joinson argue that users of online social networks will be less likely to self-disclose and disclosures will consist of less exaggerated details compared to disclosures using other, more anonymous, means of the internet.

To understand the influence online social networks have on relationships, it is important to first examine the prominence of social community networks. The first online social network was introduced in 1997 and was based upon the "circle of friends" principle whereby the community would be built around friendships (Dale, 2006). These websites experienced a surge of popularity in 2003, and there are currently over 200 online communities. While previous methods of communicating and socializing over the internet were limited to e-mail, instant messaging, chatrooms, personals sites, and message boards, people are now able to socialize in more diverse ways with social community networks.

The popularity of online social networks has increased dramatically in recent years (Miller, 2006). In July of 2006 MySpace became the most visited website in the United States, surpassing Yahoo! Mail. During this time MySpace accounted for over 4.5% of all internet use. By the end of 2008, Facebook surpassed even MySpace's popularity with 140 million active users (Rayport, 2009).

The popularity of online social networks crosses a variety of age ranges. These online communities are very popular among adolescents. Over 55% of American adolescents between the ages of 12-17, use online social networks (Pew Research Center

for the People and the Press, 2007). Among this group of users, older teens and girls are more likely to use these communities compared to younger adolescents and males. Of these adolescent users, 48% report visiting one of these sites daily while 22% reportedly frequent these sites several times a day. Adults are increasingly using online social networks (Pew Research Center for the People and the Press, 2009). Between 2005 to early 2009, the number of adult internet users who have joined an online social networking site and have created a profile has quadrupled. Adults between the ages of 18-24 who use the internet represent the largest demographic of online social network users. Of these adults, 75% have a profile on an online social network. The next largest age range of adult users are those between the ages of 25-34 with 57% of them having a profile. As of 2009, Adults over the age of 25 are the fastest growing segment of new users (Rayport, 2009). The likelihood that an adult will have a profile lessens with age and only 7% of online adults 65 and older have a profile (Pew Research Center for the People and the Press, 2009).

As stated, online social networks can be used for a variety of purposes and interestingly they are often used in conjunction with maintaining interpersonal relationships. A study by the Pew Research Center for the People and the Press (2007) found that among adolescent users, 91% use these websites to keep in touch with friends they see regularly while 82% use online communities to stay in touch with friends that are rarely seen in person. Of these adolescent users, 72% utilize these sites to make plans with friends while 49% of them use the networks to make new friends. Raacke and Bonds (2008) found similar results as they discovered that over 90% of users utilize these websites to keep in touch with old and current friends and over 50% use these

communities to make new friends. Other popular uses include posting and viewing pictures, learn and post about social events, and for academic purposes.

In a study that examined college student Facebook usage, Sheldon (2008) found that 93% of students had a Facebook account. A primary use of the site was to maintain relationships with people the students already know. Another use of the site was to allow students something to do to pass time. Students also used the site for entertainment and a smaller proportion utilized Facebook to establish new relationships.

Raacke and Bonds-Raacke (2008) found that users of online social networks spend on average 3 hours a day tending to their profile and the accounts of others. They also found that users logon to their account an average of 4 times a day. Approximately half of all users know all of the friends linked to their profile and 79% had additional friends outside of an online social network. Peluchette and Karl (2008) found that 50% of users logon to a social networking site once a day. Sheldon (2008) examined social network usage and found that college students spent an average of 47 minutes a day on social networking site, Facebook. She also discovered that the majority of these students had between 200 and 350 Facebook friends.

As for gender related characteristics, men and women are equally likely to have an account at one of the online social networking websites (Raacke & Bonds-Raacke, 2008). However, men tend to have more friends linked to their account than women users. For adolescent users, boys are more likely to report that they use these sites to make friends and they are more likely to use the sites to flirt (Social network Websites, 2007).

Characteristics of individuals who pursue relationships and communicate online is a topic that is much debated in the literature. Some researchers have found evidence that

communicating online and pursuing relationships over the internet is associated with a tendency to shy away from face-to-face relationships (Curtis, 1997; McKenna, 1998; Ward & Tracey, 2004). According to these findings, individuals who use the internet to pursue relationships and communicate online are likely to be introverted and avoid interaction when offline but pursue communication when on the internet. Communicating through the internet provides less social risk than interacting in person which makes it an appealing means of communicating (Curtis, 1997). However, other studies have found evidence that does not support the idea that individuals who communicate over the internet are introverted, socially anxious, and avoidant. These studies have found that those who communicate online are no less socially anxious to those who communicate face-to-face and these individuals are not more likely to be introverted (Bonebrake, 2002; McCown, Fisher, Page, & Homant, 2001; Peter, Valknburg, & Schouten, 2005; Sheldon, 2008). Peter et al. found that being introverted resulted in less frequent online and offline communication. The internet was not used as a means for introverted individuals to communicate what they did not in face-to-face interactions. Ma and Leung (2005) found similar results in that people who were unwilling to disclose opinions in person were less likely to communicate online compared to people who did openly disclose opinions. Bonebrake found that there are no differences between individuals who form new relationships online as opposed to those who do not. Additionally, it was found that a person who interacted with one person over the internet was more likely to form relationships with others.

Sheldon (2008) found that college students who are socially anxious may be more likely to use online the social networking site Facebook to pass time and feel less lonely

compared to students that are not socially anxious. These individuals tended to log on to Facebook more frequently than other users. However, these anxious students tended to have fewer friends on Facebook than less anxious users. Relevant to these findings and important to the current study is the question as to whether online social network users with social anxiety are likely to be in a romantic relationship. Erwin (2007) found that individuals who reported social anxiety were just as likely to be in a romantic relationship as those without social anxiety. Because social anxiety is linked to intimacy (Lutejin, 1994; Meleshko & Alden, 1993), these findings related to social anxiety and online social network usage suggests a relationship between intimacy and social network usage.

Hypotheses

The purpose of the present study is to examine the relationship between the use of online social networks and relationship satisfaction experienced by couples. The relationship between social networking websites usage and relationship satisfaction was examined with couples who maintain an offline relationship as well as couples who communicate primarily online. To gain a better understanding of how online social networks affect relationship satisfaction and to better understand how these communities affect interpersonal relationships as a whole, the effect on intimacy and the tendency to use social comparison was studied. This allowed for the study of relationship satisfaction from both intra-couple (intimacy) and inter-couple (social comparisons) perspectives and offers a more comprehensive examination of the association between online social networks use and intimate relationships.

In examining the relationship between the factors, a model was derived that attempted to explain the association between online social networks and relationship

satisfaction, level of intimacy, and tendency to utilize social comparisons. This model utilized a form of mediational analysis to predict the relationships between the variables (Baron & Kenny, 1986). Since not all the variables in the current study have been specifically researched in relation to online social networks, the predicted model was derived from examining factors common to the variables, as well as an examination of logical connections among the variables. The review of related literature led to the following hypotheses.

Hypothesis 1

Social comparison tendencies will negatively predict relationship satisfaction.

General social comparison tendencies have been found to be negatively related to relationship satisfaction (Lebeau & Buckingham, 2008). Additionally, a tendency to use social comparisons has been found to be related to insecurity (Gibbons & Buunk, 1999) which in turn has been found to be negatively related to satisfaction in the relationship (Attridge. Berscheid, & Sprecher, 1998). Lebeau and Buckingham posited a causal link between social comparison tendencies and relationship satisfaction as they found that social comparison tendencies serve as a predictor for a decrease in relationship satisfaction. It was found that social comparison tendencies remained stable over time while relationship satisfaction between partners decreased. Similarly, the current study hypothesized that social comparison tendencies would negatively predict relationship satisfaction.

Hypothesis 2

Social comparison tendencies will be a negative predictor of intimacy.

The tendency to use social comparisons is associated with increased uncertainty in the relationship (Buunk, Collins, Taylor, VanYperen, & Dakof, 1990; Festinger, 1954; VanYperen and Buunk, 1991; VanYperen & Buunk, 1994). This increased uncertainty is likely to negatively affect the intimate bond between partners. A recent study by Lebeau and Buckingham (2008) found that this higher degree of uncertainty increased the level of insecurity regarding the relationship and the level of intimacy between partners decreased. It was predicted that in the current study, a tendency to use relationship oriented social comparisons would similarly result in a decrease in intimacy between partners.

Hypothesis 3

Intimacy will be a positive predictor of relationship satisfaction.

The research is clear that there is a positive relationship between intimacy and relationship satisfaction (Hassebrauck & Fehr, 2002; Huston & Chorost, 1994; Lebeau & Buckingham, 2008; Shreurs & Buunk, 1996). According to Hassebrauck and Fehr (2002) intimacy has been found to be the factor most central to relationship quality in comparison with factors such as agreement, independence, and sexuality. It was predicted that the current study would find that, as in previous studies, there would be a significant and positive relationship between intimacy and relationship satisfaction.

Hypothesis 4

Online social network usage will be a negative predictor of intimacy.

Currently, research has not directly examined the relationship between heavy usage of social networking websites and intimacy. However, a relationship can be established by looking at variables associated with both intimacy (Lutejin, 1994; Meleshko & Alden, 1993) and online social network usage (Sheldon (2008). Findings

from these studies indirectly imply a negative relationship between online social network usage and intimacy. Consequently, it can be argued that an increase in online social network usage will be related to a decrease in intimacy. It makes logical sense that as individuals spend more time on social network websites, face-to-face interaction with the partner will decrease. Time spent online means there could be less time spent with the partner and this in turn means less opportunity to engage in activities that would enhance the intimate bond. As such, intimacy in the relationship will decrease. This decrease in intimacy will likely occur for all of the various subtypes of the concept. As partners spend less time with each other, their emotional, sexual, social, intellectual and recreational bond is likely to decrease. Less time together could result in decreased disclosure; decreased opportunity to feel sexually close; decreased time to spend with mutual friends; decreased time to engage in intellectually stimulating conversation; and decreased time to take part in engaging activities. Consistent with this reasoning, the current study predicted that online social network usage would be a negative predictor of intimacy.

Hypothesis 5

Online social network usage will negatively predict relationship satisfaction.

Without current research on the relationship between online social network usage and relationship satisfaction, the nature of their relationship to each other must be predicted by examining variables associated with both variables. As stated previously, online social network usage is positively related to social anxiety which in turn is negatively related to intimacy (Lutejin, 1994) and self-disclosure. (Meleshko and Alden, 1993). Research suggests a positive relationship between relationship satisfaction and intimacy (Hassebrauck & Fehr, 2002; Huston & Chorost, 1994; Lebeau & Buckingham,

2008; Shreurs & Buunk, 1996) as well as between satisfaction and self-disclosure (Hendrick, 1981). Consequently, a negative relationship between online social network usage and relationship satisfaction can be implied. Additionally, it can be logically argued that the lessened interaction with the partner that would likely come from heavy usage of online social networks, could negatively affect relationship satisfaction. When using an online social network, couples are unlikely to be simultaneously communicating and spending time with each other. Just as it is predicted that this usage will negatively affect intimacy, it can also be assumed that heavy usage will have a negative effect on the couple's overall level of relationship satisfaction. Thus, it was predicted in the current study that online social network usage would be a negative predictor of relationship satisfaction.

Hypothesis 6

Intimacy will mediate the relationship between online social network usage and relationship satisfaction.

The relationship between online social network usage and relationship satisfaction could be affected by a couple's level of intimacy. As online social network usage of one partner increases, the level of intimacy between partners will determine the extent to which overall relationship satisfaction is affected. Thus, it was predicted in the current study that intimacy would mediate the relationship between online social network usage and relationship satisfaction.

Hypothesis 7

Social comparison tendencies will be a positive predictor of online social network usage.

While research has not directly examined the relationship between online social network usage and social comparison tendencies, the association between the variables can be predicted by examining findings that indirectly suggest a relationship. As stated previously, online social networking usage can be indirectly and negatively associated with intimacy and relationship satisfaction. Both intimacy and relationship satisfaction have been negatively associated with social comparison tendencies (Lebeau & Buckingham, 2008). As such, it can be predicted that online social networking usage will be positively related to social comparison tendencies. A positive relationship between online social network usage and social comparison tendencies also makes logical sense. Online social networks focus on building and maintaining relationships over the internet and allows for users to view information about other users. The features of these networks would seemingly appeal to individuals who tend to use social comparison in evaluation of their relationship. Consequently, it was predicted in the current study that an individual who is oriented to use social comparisons frequently to evaluate their relationship would be likely to report more usage of online social networks.

Hypothesis 8

Online social network usage will mediate the relationship between social comparison tendencies and relationship satisfaction.

It can be logically theorized that the relationship between social comparison tendencies and relationship satisfaction is affected by the extent to which individuals use social networking websites. It can be predicted that increased online social network usage will result in less face-to-face time between partners. Also, this increased social network usage could offer attractive opportunities for individuals who tend to use social

comparisons in evaluating their relationship by offering a wide range of relationship alternatives. Consequently, increased online social network usage might result in increased uncertainty and insecurity in the relationship. As such, it was predicted in the current study that online social networking usage would mediate the relationship between social comparison tendencies and relationship satisfaction.

Figure 1 represents a hypothesized model that demonstrates the predicted relationships.

Hypothesis 9

The hypothesized model will serve as a better fit for the relationship between the variables compared to the alternative model.

Because of the lack of research on the relationship between online social network usage and the other variables in this study, it makes logical sense to consider an alternative model that places online social network usage as the exogenous variable. With the dearth of research on the subject, it is difficult to know with certainty if online social networks mediate the relationship between intimacy, social comparison tendencies and relationship satisfaction or if social comparison tendencies and intimacy mediate the relationship between online social network usage and relationship satisfaction. The direction between social comparison tendencies and online social network usage could also be reversed. It could be argued that since online social networks allow individuals a large amount of information about other people in relationships, the tendency to use social comparisons could increase. In this scenario, social comparison tendencies would mediate relations between online social networking usage and relationship satisfaction.

While a plausible argument can be made for an alternative model in which social comparison tendencies mediate relations between online social networking usage and relationship satisfaction, research and logical deduction seem to better support the hypothesized model. Even though it is possible that social comparison tendencies serves as a mediator between online social network usage and relationship satisfaction, research indicating that social comparison tendencies remain stable over time run contrary to this argument (Lebeau & Buckingham, 2008). Lebeau and Buckingham found that as relationship satisfaction changes, social comparison tendencies tend to remain stable. Because of this stability, it can be logically deduced that when individuals start using online social networks, they are likely already oriented to use or not use social comparison tendencies in evaluating their relationship. Thus, it is more likely that social comparison tendencies predict usage of online social networking websites than the reverse. Evidence that social comparison tendencies temporally precede relationship satisfaction and likely online social network usage allows for the assumption of a causal link (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Even though the hypothesized model has more logical support than the alternative model, with so little research detailing the direction of the relationship between online social network usage and other the variables, it makes logical sense to look at both scenarios. As such, in addition to testing the hypothesized model, the study will assessed an alternative model in which social comparison tendencies and intimacy serve as mediators and it was predicted that the hypothesized model would serve as a better fit for the relationships among the variables. Figure 2 represents the alternative model.
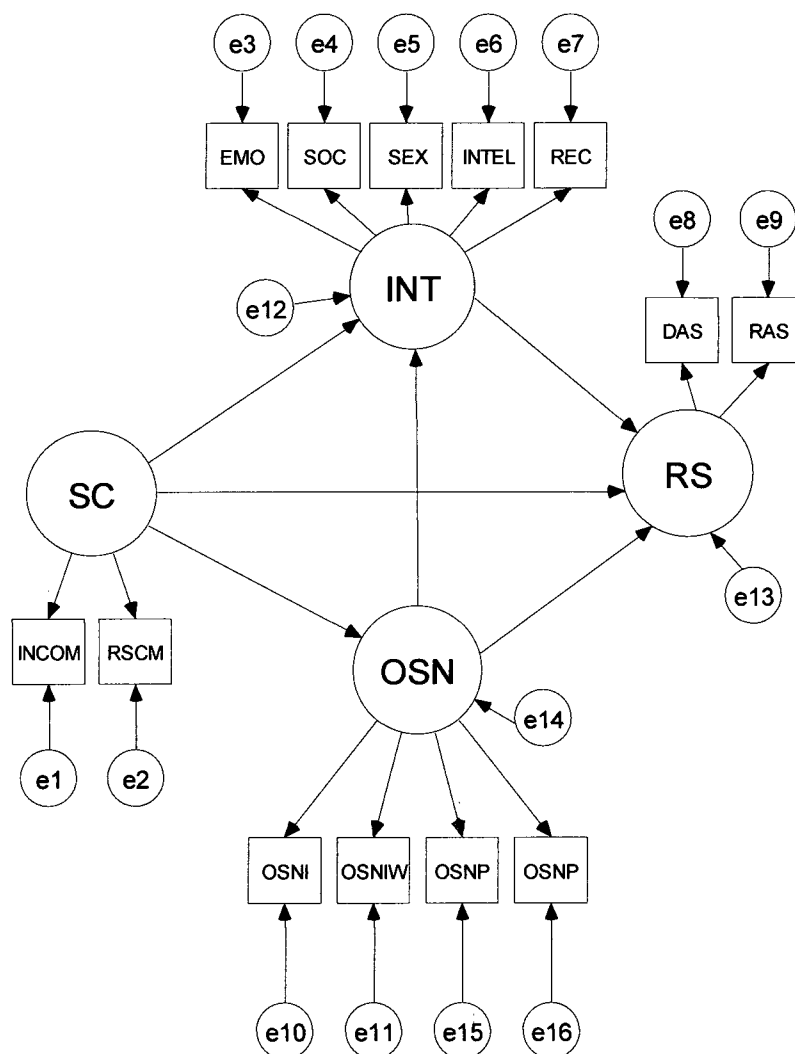
Figure 1. Hypothesized model

RS = Relationship Satisfaction; INT = Intimacy; SC = Social Comparison Tendencies; EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = social intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; INCOM = Iowa-Netherlands Orientation Measure; RCSM = Relationship Social Comparison Measure; RAS = Relationship Assessment Scale; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; OSN = Online Social Network Usage; OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage.
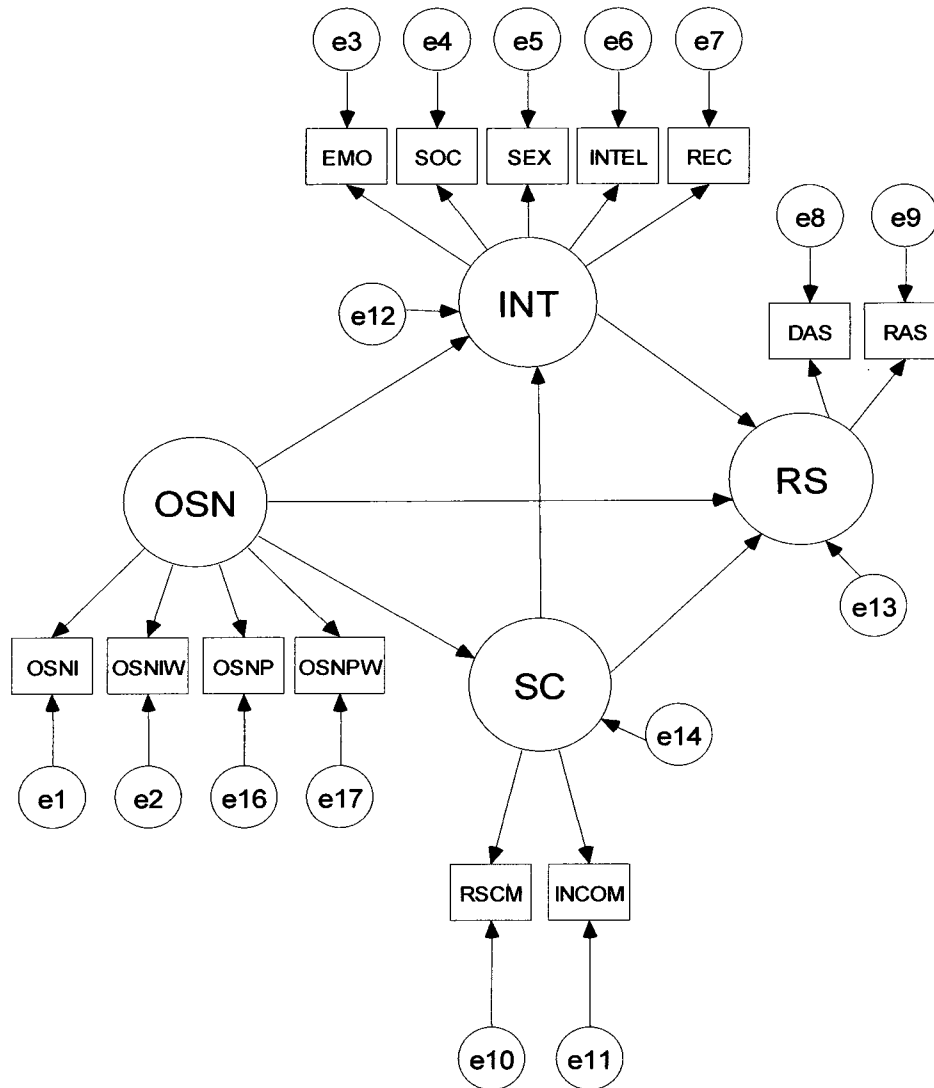
Figure 2. Alternative model

RS = Relationship Satisfaction; INT = Intimacy; SC = Social Comparison Tendencies; EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = social intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; INCOM = Iowa-Netherlands Orientation Measure; RCSM = Relationship Social Comparison Measure; RAS = Relationship Assessment Scale; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; OSN = Online Social Network Usage; OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage.

CHAPTER TWO

METHOD

Participants

Participants were undergraduate students at a medium-sized, Southern, university. Participation was voluntary, and participants were treated in accordance with the ethical guidelines established by the American Psychological Association (APA, 1992). The original sample consisted of 253 participants. If a participant was missing more than 10% of scores for a given measure, they were excluded from final analyses. After identifying and deleting cases that exceeded the 10% cutoff, a final sample of 233 was obtained. A criterion for participation was that participants had to currently be in a relationship. All age ranges were accepted, and volunteers ranged from 18-57 ($M = 20.82$, $SD = 3.91$) years of age. Reported ethnicities were as follows: Caucasian ($n = 177$, 76%), with being African American ($n = 44$, 18.90%), Hispanic (n = 8, 3.40 %), Asian ($n = 2$, .90 %), and identified as "other" ($n = 2$, .90%). Regarding sex, 60.50% were female ($n = 141$) while 39.50% were male ($n = 92$). The types of relationship reported by participants were as follows: Dating exclusively ($n = 187$, 80.30%), Dating not exclusively ($n = 29$, 12.40%), and Married ($n = 17$, 7.30%). The average length of relationship reported by participants was 22.52 months ($SD = 34.95$)

Measures

Demographics Questionnaire. The demographics questionnaire included questions that ascertain age, sex, and ethnicity of the couples as well as relationship status.

Online Survey. The online usage survey addresses the level of usage of both partners in the relationship for both the internet and social networking websites as well as whether the current relationship is primarily online or offline in method of communication. This measure was created through consultation with other faculty members as well as reviewing questions asked of participants in other studies pertaining to online social network usage (Raacke & Bond, 2008; Sheldon, 2008). For the current study, four items relating to time spent on social network websites were used to examine the hypotheses. An example of an item used in the current study includes "How much time on an average day during the week do you spend on Facebook and MySpace?"

Relationship Assessment Scale. The Relationship Assessment Scale (RAS) is an instrument designed to measure relationship satisfaction (Hendrick, 1988). There are 7 items in the RAS that assess the participants' attitudes towards their relationships and their partners. Responses are given on a 5-point Likert scale which ranges from 1 *(very dissatisfied)* to 5 *(very satisfied)*. Internal consistency of the RAS is high (α = .86) and test-retest reliability has been estimated at .85. The instrument has demonstrated good convergent validity with a .80 correlation with the Dyadic Adjustment Scale (Spanier, 1976). The Relationship Assessment Scale has been used in numerous studies that have examined satisfaction between partners (e.g. Cramer, 2004; Schaefer-Porter, & Hendrick, 2000; Siavelis, & Lamke, 1992; White, Hendrick, & Hendrick, 2004).

Dyadic Adjustment Scale. The Dyadic Adjustment Scale (DAS) is an instrument designed to measure relationship quality (Spanier, 1976). The scale has four subscales including dyadic satisfaction, dyadic cohesion, dyadic consensus, and affectional expression. The instrument has demonstrated evidence of concurrent validity, positively correlating with the Locke-Wallace Marital Adjustment Scale. The DAS has demonstrated very strong internal consistency with an alpha of .96. For the purpose of the current study, 8 items related to dyadic satisfaction were used to assess relationship satisfaction. The Dyadic Adjustment Scale was originally designed to measure relationship quality between married couples. So that the instrument would be applicable to the population in the current study, wording pertaining to being married was changed to include all types of romantic relationships. For example, one question was changed from "Do you ever regret that you married or lived together" to "Do you ever regret getting into a relationship with your partner".

Personal Assessment of Intimacy in Relationships Inventory. The Personal Assessment of Intimacy in Relationships (PAIR) inventory is designed to measure intimacy along five dimensions (Schaefer & Olson, 1981). The scale consists of 36 items which measure dimensions of intimacy including emotional intimacy, sexual intimacy, social intimacy, recreational intimacy, and intellectual intimacy. Emotional intimacy involves the sharing of personal feelings and intimate information. Social intimacy concerns a couple's sharing of friends and the concept of visiting friends as a pair. Recreational intimacy relates to the sharing of hobbies and the engagement in leisure time together. Sexual intimacy involves sexual contact and the feeling of being comfortable with the partner in sexual matters. Additionally, the scale includes a six-term

conventionality scale measuring social desirability. Concurrent validity of the PAIR was obtained with a significant correlation with the Moos Family Environment Scale and the Locke-Wallace Marital Adjustment Scale. The instrument has adequate internal consistency with an alpha of .70. The PAIR Inventory has been used in numerous studies that have examined the relationship between intimacy and relationship satisfaction (e.g. Greeff & Malherbe, 2001; Lebeau & Buckingham, 2008; Schreurs & Buunk, 1996; White, Hendrick, & Hendrick, 2004)

Iowa-Netherlands Orientation Measure. The Iowa-Netherlands Orientation Measure (INCOM) is designed to measure an orientation to utilizing social comparisons (Gibbons & Buunk, 1999). The scale consists of 11 items and responses are given on a 5-point Likert scale ranging from 1 *(strongly disagree)* to 5 *(strongly agree)*. Construct validity for the INCOM has been demonstrated with a positive correlation to the Attention to Social Comparison Information Scale. (Bearden & Rose, 1990). The instrument has good general reliability (greater than .80) and over an 8 month time span, INCOM has a test-retest reliability of .72. The INCOM has good internal consistency with an alpha of .85. Also, the INCOM does not correlate with social desirability suggesting that the measure possesses good discriminate validity. The instrument has been used in a variety of studies examining social comparison tendencies and intimate relationship variables (e.g., Buunk, 2005; Buunk, 2006)

Relationship Social Comparison Measure. The Relationship Social Comparison Measure (RCSM) is designed to measure social comparison tendencies pertaining to dyadic relationships (Lebeau & Buckingham, 2008). The scale consists of 24 items and responses are given on a 5-point Likert scale ranging from 1 *(never)* to 5 *(always)*.

Internal consistency of the RCSM is high ($\alpha = .92$) and test-retest reliability has been estimated at .86. The measure has been found by the scale creators to be a more accurate predictor of the association between social comparison tendencies and relationship factors compared to more general social comparison measures such as the INCOM.

Procedure

Participants read and signed an informed consent form that detailed the purpose of the study and guaranted their anonymity. Anonymity was accomplished by including no identifying information on survey packets and by keeping separate the signed informed consents from the packets. Participation was voluntary and participants were informed that they could refuse to participate or discontinue at any time. Participants were given a packet including a demographics questionnaire (Appendix A), online usage survey (Appendix B), the Relationship Assessment Scale (Appendix C), the satisfaction subscale of the Dyadic Adjustment Scale (Appendix D), the Personal Assessment of Intimacy in Relationships (Appendix E), the Iowa-Netherlands Comparison Orientation Measure (Appendix F), and the Relationship Social Comparison Measure (Appendix G).

Data Analysis

Structural Equation Modeling. The relationships between the variables were analyzed using structural equation modeling. Structural equation modeling allows for the examination of the covariance structure of a set of variables (Kline, 2005). The two main goals of this type of analysis are to gain a better understanding of the relationships between variables and to attempt to explain as much variance as the model will allow. Structural equation modeling has been chosen as the main method of data analysis because it allows for flexibility in testing hypotheses which is important considering the

logical connections used to predict outcomes. Additionally, structural equation modeling has an advantage over regression in that it takes into account measurement error (Bollen, 1989). Structural equation modeling has another advantage over regression in that it allows for the simultaneous analysis of multiple dependent variables while regression only allows for the examination of one dependent variable at a time.

The current study includes 13 observed variables and 4 latent variables. The latent variables in the study include intimacy, relationship satisfaction, online social network usage and social comparison tendencies. Among the latent variables in the hypothesized model, social comparison tendencies exogenous while relationship satisfaction, intimacy, and online social network usage are endogenous. Each of the latent variables will have multiple indicators. Indicators for intimacy include subscale items from the Personal Assessment of Intimacy in Relationships (PAIR) inventory, including emotional intimacy, sexual intimacy, social intimacy, recreational intimacy, and intellectual intimacy (Schaefer & Olson, 1981). For social comparison tendencies, indicators include items from the Iowa-Netherlands Orientation Measure (INCOM) (Gibbons & Buunk, 1999) and the Relationship Social Comparison Measure (Lebeau & Buckingham, 2008). The Relationship Assessment Scale (RAS) (Hendrick, 1988) and the Dyadic Adjustment Scale (DAS) (Spanier, 1976) will serve as indicators for relationship satisfaction. For online social network usage, the indicators include self-reported participant usage on an average weekday, self-reported participant usage on an average weekend day, perceived partner usage on an average weekday as reported by the participant, and perceived partner usage on an average weekend day as reported by the participant.

The method of estimation used in the study is the maximum likelihood method. This estimation technique is useful in increasing the probability that the observed covariances from the model reflect the target population (Kline, 2005). Using this method of estimation allows for the minimization of differences between the sample covariance structure and that of the study's hypothesized model.

Direct and Indirect Effects Testing. The hypothesized model assumes various direct effects between the variables. The model posits a direct effect between social comparison and relationship satisfaction; between intimacy and relationship satisfaction; between intimacy and social comparison tendencies; and between online social network usage and relationship satisfaction. Path coefficients were used to compare the direct effects that occur between these variables. For these effects, t-tests were conducted on the path coefficients associated with the variable-level hypotheses. In addition to direct effects, the inclusion of mediation introduces indirect effects. Indirect effects were calculated by using the product of coefficients approach (Sobel, 1982). In this approach, the path coefficient that represents the relationship between a variable and the mediator is multiplied by the path coefficient that represents the relationship between the mediator and another variable. In this study, the products of coefficients approach aided in assessing hypotheses 6 and 8. For hypothesis 6, the path coefficient that represents the relationship between social network usage and intimacy was multiplied by the path coefficient that represents the relationship between intimacy and relationship satisfaction. In testing hypotheses 8, the path coefficient that represents the relationship between social comparison tendencies and social network usage was multiplied by the path coefficient that represents the relationship between social network usage and relationship

satisfaction. The product of coefficients approach was also used to calculate indirect effects in the alternative model. For this model, intimacy and social comparison tendencies are the mediators. As such, the path coefficient that represents the relationship between social network usage and social comparison tendencies were multiplied by the path coefficient that represents the relationship between social comparison tendencies and relationship satisfaction. Additionally, the path coefficient that represents the relationship between social network usage and intimacy were multiplied by the path coefficient that represents the relationship between intimacy and relationship satisfaction.

Models of Fit. A number of fit indexes were used to fit the data to the hypothesized model. With dozens of fit indexes reported in the literature choosing the best indexes in determining model fit can be a monumental task (Kline, 2005). The choice of indexes used in this study was guided by Kline's recommendations pertaining to fit indexes that should always be used. The fit indexes that were used in this study include the model chi square test (Joreskog, 1969), the root mean square error of approximation index (RMSEA; Steiger, 1990), the comparative fit index (CFI; Bentler, 1990), and the standardized root mean square residual (SRMR; Bentler, 1995).

The most basic index used to assess for the fit of the model is the model chi square test (Joreskog, 1969). If the model chi square statistic calculated in this index equals zero then the hypothesized measurement model will perfectly fit the data. The higher the statistic, the further away the model is from fitting the data. Finding a chi square that is not significant implies that there is little difference between the covariance structure of the observed data compared to the covariance structure of the hypothesized model. While useful, there are some problems in using the model chi square test as the sole model of fit.

Two issues with this index include sensitivity to larger sample sizes and the unlikelihood that a model will perfectly fit the population (Hu & Bentler, 1999). With large sample sizes, the model may be rejected even though the differences between the observed and hypothesized covariances are very small (Bentler, 1990; Bentler & Bonett, 1980). This creates a significant problem as studies utilizing structural equation modeling require large sample sizes.

The root mean square error of approximation is a fit index that was utilized as a measure of the error of approximation, meaning that this index will approximate the mismatch between the hypothesized model and the population covariance matrix (Steiger, 1990). An important advantage to using the RMSEA is that it is a parsimony adjusted index meaning that if two models provide a similar fit, the simpler model will be favored (MacCallum et al., 1996). Additionally, since it uses a noncentral chi-square distribution and does not require a true null hypothesis, the hypothesized model does not need to perfectly fit the population. RMSEA values that are less than .05 indicate than the model is a good fit. Values between .05 to .08 indicate that the fit is fair while values from .08 to .10 indicate mediocre fit and values greater than .10 are indicative of poor fit (Browne & Cudeck, 1993; MacCallum et al., 1996; Steiger, 1995).

The comparative fit index was used to compare the hypothesized model with the null model. This index compares the hypothesized model with a baseline model to find the best model fit for the data (Bentler, 1990). Because the baseline model in this study was the alternative model, the covariances among the observed variables were required to be equal instead of zero to allow for realistic results as covariances of zero would be very unlikely. Generally, values greater than or equal to .90 indicate a good fit with this index

(Bentler, 1990). However, it has been suggested that a value that is greater than or equal .95 is needed to indicate a good fit (Hu & Bentler, 1999).

The standardized root mean square residual is a fit index that was used to assess the differences between observed and predicted correlations (Bentler, 1995). A value equal to or less than .08 is considered a good fit with this index as with that value, the differences between hypothesized and predicted correlations would be assumed to be small (Hu & Bentler, 1999).

Model Identification. The identification step in structural equation modeling involves the derivation of a unique estimation of each parameter in the model (Kline, 2005). As a general requirement of identification, each latent variable in the model must be scaled. The exogenous variable's variance were scaled to 1 and the factor loadings of the variables were freely estimated. To avoid a type II error, a sample size was obtained that allowed for adequate power. Kline posits that in using structural equation modeling, a minimum sample size of 200 should be obtained.

Descriptive Statistics and Comparison of Means. Descriptive statistics such as mean, median, and mode were performed with all demographic information (age, gender, sexual orientation, ethnicity) obtained for the participants. Additionally, T-tests were performed to compare the means for gender and sexual orientation. For all variables, mean scores and standard deviations were obtained. Pearson product moment correlations were used to assess the degree of association among the variables.

CHAPTER THREE

RESULTS

Missing Values, Descriptive, and Correlational Data

Prior to data analysis, outliers and missing values were examined. For each missing value within a scale, the linear interpolation method was used for imputation. Participants who omitted more than 10% of scores on a given measure, were excluded from final analyses.

The data was assessed for normality and homoscedasticity. A visual inspection of the data by means of histograms showed that all of the variables were normally distributed with the exception of participant online social network usage and perceived partner online social network usage. These two variables were negatively skewed. A base 10 logarithmic transformation was conducted on participant usage and partner usage to approximate a more normal distribution. Descriptive statistics including means, standard deviations, ranges, and internal consistency are presented in Table 1. All measures used in the study were found to demonstrate adequate internal consistency.

T-tests were used to compare the means of the measures in the current study with instrument means from previous research. Participants reported significantly higher scores on the satisfaction subscale of the Dyadic Adjustment Scale (DAS), Relationship Assessment Scale (RAS), and the Personal Assessment of Intimacy in Relationships (PAIR). With the PAIR, participants in the current study reported significantly higher

scores on the subscales for emotional intimacy, sexual intimacy, recreational intimacy, and conventionality. Significantly lower scores were reported in the current study for the social intimacy subscale of the PAIR inventory. Additionally, significantly lower scores were reported for the Iowa-Netherlands Comparison Orientation Measure (INCOM), and the Relationship Social Comparison Measure (RSCM).

Bivariate correlation analyses were performed for all variables in the study and the results of these analyses are given in Table 2. Participant online social network usage was significantly positively correlated with perceived partner online social network usage for both average weekday usage ($r = .26, p < .01$) and weekend usage ($r = .40, p < .01$). Perceived partner usage on the weekend was significantly correlated with the dyadic subscale of the DAS ($r = .14, p < .05$). Significant positive correlations were also found between the dyadic satisfaction subscale of the DAS and the RAS ($r = .76, p < .01$). A significant positive relationship was found between INCOM and RSCM ($r = .66, p < .01$) and between RSCM and the emotional intimacy subscale of the PAIR ($r = -.18, p < .05$). Perceived partner usage of online social networks on a weekday was found to be significantly negatively correlated with some of the PAIR inventory including those pertaining to social intimacy ($r = -.18, p < .01$), sexual intimacy ($r = -.14, p < .05$) intellectual intimacy ($r = -.20, p < .01$), and recreational intimacy ($r = -.14, p < .05$). Perceived partner usage of online social networks on an average weekend day was found to be significantly negatively correlated with some of the subscales of the PAIR inventory including those pertaining to sexual intimacy ($r = -.16, p < .05$) intellectual intimacy ($r = -.24, p < .01$), and recreational intimacy ($r = -.20, p < .01$). Both the dyadic satisfaction subscale of the DAS and the RAS significantly and positively correlated with all of the

PAIR inventory subscales. For the dyadic satisfaction subscale of the DAS intercorrelations with the PAIR subscales were as follows: emotional intimacy ($r = .61$, $p < .01$); sexual intimacy ($r = .23$, $p < .01$); social intimacy ($r = .51$, $p < .01$); recreational intimacy ($r = .52$, $p < .01$); and intellectual intimacy ($r = .62$, $p < .01$). Significant correlations between the RAS and the PAIR subscales were as follows: emotional intimacy ($r = .63$, $p < .01$); sexual intimacy ($r = .29$, $p < .01$); social intimacy ($r = .49$, $p < .01$); recreational intimacy ($r = .54$, $p < .01$); and intellectual intimacy ($r = .62$, $p < .01$). All of the PAIR subscales significantly correlated with each other.

Table 1.
Descriptive and Reliability Statistics

Variable	Mean	SD	Observed Range	Cronbach's α
OSNI	131.58	162.62	0-1080	--
OSNIW	113.25	157.52	0-840	--
OSNP	93.75	106.73	0-720	--
OSNPW	93.49	123.37	0-720	--
DAS	47.18	5.74	20-56	0.80
RAS	30.11	4.10	12-35	0.82
INCOM	36.80	6.90	15-54	0.84
RSCM	60.13	20.28	24-120	0.96
PAIR	142.52	20.02	77-178	0.93
EMO	24.48	4.27	10-30	0.80
SOC	21.96	4.33	9-30	0.70
SEX	24.75	4.19	12-30	0.79
INTEL	23.92	4.15	10-30	0.75
REC	24.46	4.04	11-30	0.78
CONV	22.95	4.34	8-30	0.78

Note. OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; RAS = Relationship Assessment Scale; INCOM = Iowa-Netherlands Orientation Measure; RCSM = Relationship Social Comparison Measure; PAIR = Personal Assessment of Intimacy in Relationships inventory EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = Social intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; CONV = Conventiality.
* P < .05 ** p < .01 *** p < .001

Table 2.
Intercorrelations among all Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. OSNI	--														
2. OSNIW	.66**	--													
3. OSNP	.26**	.24**	--												
4. OSNPW	.28***	.40***	.77**	--											
5. DAS	.02	-.04	-.13	-.14*	--										
6. RAS	.06	-.02	-.08	-.11	.76**	--									
7. INCOM	.05	.07	-.01	.01	.06	-.02	--								
8. RSCM	.07	.11	.03	.03	-.01	-.05	.66**	--							
9. PAIR	.07	-.01	-.18**	-.20**	.68**	.70**	.03	-.08	--						
10. EMO	.05	-.03	-.08	-.11	.61**	.63**	-.02	-.13*	.88**	--					
11. SOC	.08	.08	-.18**	-.11	.51**	.49**	.06	-.07	.71**	.54**	--				
12. SEX	.07	-.03	-.14*	-.16*	.23**	.29**	-.02	-.09	.61**	.44**	.25**	--			
13. INTEL	.06	-.02	-.20**	-.24***	.62***	.62***	.07	-.06	.86***	.75***	.53***	.38**	--		
14. REC	.06	-.02	-.14*	-.20**	.52**	.54***	-.02	.01	.83***	.65***	.52***	0.43***	.68**	--	
15. CONV	-.01	-.04	-.12	-.15*	.71***	.75***	.06	-.01	.86***	.76***	.53***	0.39***	.74**	.67**	--

Note. OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; RAS = Relationship Assessment Scale; INCOM = Iowa-Netherlands Orientation Measure; RCSM = Relationship Social Comparison Measure; PAIR = Personal Assessment of Intimacy in Relationships inventory EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = Social Intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; CONV = Conventiality.
* P < .05 ** p < .01 *** p < .001

Emotional intimacy was significantly and positively correlated with social intimacy ($r = .54, p < .01$), sexual intimacy ($r = .44, p < .01$), recreational intimacy ($r = .65, p < .01$), and intellectual intimacy ($r = .75, p < .01$). Social intimacy was also significantly related to sexual intimacy ($r = .25, p < .01$), recreational intimacy ($r = .52, p < .01$), and intellectual intimacy ($r = .53, p < .01$). Sexual intimacy was additionally related to recreational intimacy ($r = .43, p < .01$), and intellectual intimacy ($r = .38, p < .01$). Recreational intimacy was also related to intellectual intimacy ($r = .68, p < .01$). The conventionality subscale of the PAIR inventory was significantly and positively correlated with all of the PAIR subscales (emotional intimacy, $r = .76, p < .01$, social intimacy $r = .53, p < .01$, sexual intimacy $r = .39, p < .01$; recreational intimacy $r = .67, p < .01$; intellectual intimacy $r = .74, p < .01$), the DAS ($r = .71, p < .01$), RAS ($r = .75, p < .01$), and Perceived partner usage of online social networks on an avg. weekend day ($r = .-.15, p < .05$). When scored as a whole inventory, the PAIR was significantly correlated with perceived partner usage of online social networks on an average weekday ($r = .-.18, p < .01$)., perceived partner usage of online social networks on an average weekend day ($r = .-.20, p < .01$), the satisfaction subscale of the DAS ($r = .68, p < .01$), the RAS ($r = .70, p < .01$), and all of the PAIR subscales (emotional intimacy, $r = .88, p < .01$, social intimacy $r = .71, p < .01$, sexual intimacy $r = .61, p < .01$; recreational intimacy $r = .83, p < .01$; intellectual intimacy $r = .86, p < .01$; conventionality $r = .86, p < .01$).

Hypothesized Model Fit

Using AMOS statistical software to analyze the structural model, the hypothesized model represented a mediocre fit of the data, χ^2 (59, $N = 233$) $= 361.46, p < .01$, CFI $= .971$, RMSEA $= .149$, SRMR $= .12$. As discussed previously, the model chi square test is

sensitive to sample size and so the other accompanying measures of fit were also used to indicate whether the model is an acceptable fit for the data. Unstandardized and standardized regression coefficients as well as standard errors for direct and indirect paths are reported in Figure 3. Non-significant paths in the hypothesized model included the SC → INT path (β = .09, p = .22, ns), SC → OSN path (β = -.08, p = .29, ns), OSN → INT path (β = -.07, p = .31, ns), SC → RS path (β = -.04, p = .44, ns), OSN → RS path (β = .01, p = .82, ns). The significant path in the model was the INT → RS path (β = .82, p < .001).

Results for Hypotheses

Hypothesis 1. Hypothesis 1 predicted that social comparison tendencies would negatively predict relationship satisfaction. In the hypothesized model, the SC → RS path (β = -.04, p = .44) was not significant. Hypothesis 1 was not supported in the study.

Hypothesis 2. In the hypothesized model, the SC → INT path (β = .09, p = .22, ns) was not significant. Because there was not a significant relationship between intimacy and social comparison tendencies, hypothesis 2 was not supported.

Hypothesis 3. Hypothesis 3 predicted that intimacy would positively predict relationship satisfaction. In the hypothesized model, the INT → RS path (β = .82, p < .001) was significant. Hypothesis 3 was supported by the hypothesized model.

Hypothesis 4. In the hypothesized model, the OSN → INT path (β = -.07, p = .31) was not significant. Because a significant relationship was not found between online social network usage and intimacy, Hypothesis 4 was not supported.

Hypothesis 5. Hypothesis 5 predicted a significant relationship between online social network usage and relationship satisfaction. In the hypothesized model, the OSN →

RS path (β = .01, p = .82) was not significant. Hypothesis 5 was not supported in the study.

Hypothesis 6. A primary goal of this study was to examine whether mediation occurred among online social networking usage, social comparison tendencies, relationship satisfaction, intimacy and relationship satisfaction. The hypothesized model examined whether intimacy served as a mediator between online social network usage and relationship satisfaction. The Sobel test was conducted to assess magnitude of the indirect effects. Results of the indirect OSN→INT→RS relationship were not significant, z = -.22, p = .83. Hypothesis 6, which predicted that intimacy would mediate the relationship between online social network usage and relationship satisfaction, was not supported.

Hypothesis 7. Hypothesis 7 also lacked supported as there was not a significant relationship found between online social network usage and the tendency to make social comparisons. In the hypothesized model, the SC → OSN path (β = -.08, p = .29) was not significant.

Hypothesis 8. Results of the indirect SC→OSN→RS relationship were not significant, z = -.22, p = .83. Online social networking usage did not mediate the relationship between social comparison tendencies and relationship satisfaction. Therefore, hypothesis 8 was not supported.

Hypothesis 9. Hypothesis 9, which predicted that the hypothesized model would serve as a better fit for the relationship between the variables compared to the alternative model, was not supported. In addition to the hypothesized model, an alternative model was assessed. It was hypothesized that the original model would represent a better fit for

the data compared to the alternative model. The alternative model represented a mediocre fit for the data, χ^2 (59, $N = 233$) $= 361.46, p < .01$, CFI $= .971$, RMSEA $= .149$, SRMR $= .12$. Unstandardized and standardized regression coefficients as well as standard errors for direct and indirect paths are reported in Figure 4. Non-significant paths in the alternative model included the OSN $\rightarrow$ SC path ($\beta = -.08, p = .25, ns$), OSN $\rightarrow$ INT path ($\beta = -.07, p = .31, ns$), SC $\rightarrow$ INT path ($\beta = .09, p = .25, ns$), OSN $\rightarrow$ RS path ($\beta = .01, p = .82, ns$), SC $\rightarrow$ RS path ($\beta = -.04, p = .44, ns$). The significant path in the model was the INT $\rightarrow$ RS path ($\beta = .82, p < .001$).

In the alternative model, intimacy and social comparison tendencies were predicted to serve as mediators between online social network usage and relationship satisfaction. The Sobel test was conducted to test for mediation between the variables. Results of the indirect OSN$\rightarrow$ INT $\rightarrow$RS relationship were not significant, $z = -.43, p = .67$. Intimacy did not mediate the relationship between online social network usage and relationship satisfaction. Results of the indirect OSN$\rightarrow$ SC $\rightarrow$RS relationship were not significant, $z = .64, p = .52$. Social comparison tendencies did not mediate the relationship between online social network usage and relationship satisfaction.
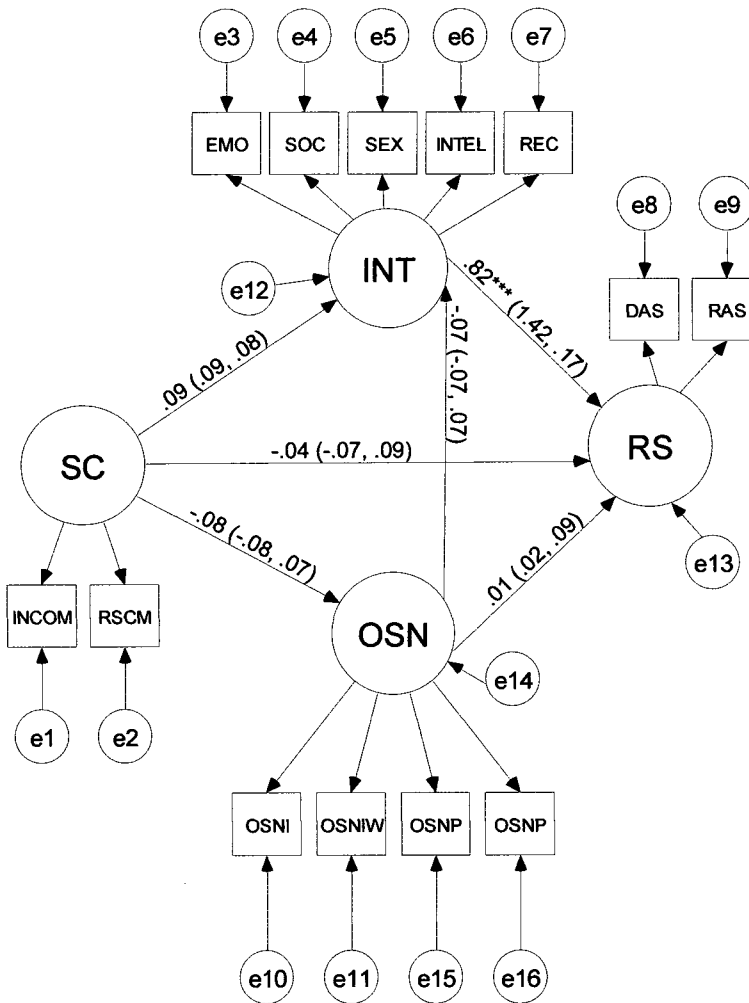
Figure 3. Hypothesized model including all path coefficients and standard errors.

Standardized regression coefficients are shown first for each path; unstandardized coefficients followed by standard errors are presented in parentheses. RS = Relationship Satisfaction; INT = Intimacy; SC = Social Comparison Tendencies; EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = social intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; INCOM = Iowa-Netherlands Orientation Measure; RCSM = Relationship Social Comparison Measure; RAS = Relationship Assessment Scale; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; OSN = Online Social Network Usage; OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage.
* P < .05 ** p < .01 *** p < .001

Figure 4. Alternative model including all path coefficients and standard errors.

Standardized regression coefficients are shown first for each path; unstandardized coefficients followed by standard errors are presented in parentheses. RS = Relationship Satisfaction; INT = Intimacy; SC = Social Comparison Tendencies; EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = social intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; INCOM = Iowa-Netherlands Orientation Measure; RCSM = Relationship Social Comparison Measure; RAS = Relationship Assessment Scale; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; OSN = Online Social Network Usage; OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage.
* P < .05 ** p < .01 *** p < .001

Post Hoc Analyses

Because many of the relationships between variables were not significant in both

the hypothesized and alternative models, post hoc analyses were performed to find the

most parsimonious model. The social comparison variable was trimmed from the model

as social comparison tendencies were not found to be significantly related to any of the

other variables. Although participant online social network usage and perceived partner

online social network usage were significantly correlated (Table 1), it was decided that a

new model could separate participant and partner usage as two variables to determine

whether one was more significantly related than the other with intimacy and relationship

satisfaction. Additionally, both participant usage and partner usage were divided into

weekday usage and weekend usage to account for differences. Intercorrelations associated

with online social network usage can be found in Table 2. Participant and perceived

partner usage were set to covary with one another, representing the significant positive

correlation between the two variables (Table 1). A representation of this post hoc model

can be found in Figure 5. Unstandardized and standardized regression coefficients as well

as standard errors for direct and indirect paths are reported in Figure 6. Non-significant

paths in the post hoc model included the SNI → INT path ($\beta = .00, p = 1.00, ns$), SNP →

RS path ($\beta = .03, p = .64, ns$), SNI → RS path ($\beta = .01, p = .89, ns$). Significant paths in

the model included the SNP → INT path ($\beta = -.28, p < .001$) and INT → RS path ($\beta = .82$,

$p < .001$). The relationship between participant online social network usage and intimacy

was not significant. Also, the relationship between participant usage and relationship

satisfaction was not significant. As such, the paths from participant usage to intimacy and

relationship satisfaction were trimmed in an effort to represent the most parsimonious

model for the data. The result was a revised post hoc model, which is represented in

Figure 7. The revised post hoc model represented a good fit for the data, χ^2 (40, $N = 233$)

$= 65.69, p < .01$, CFI $= .997$, RMSEA $= .053$, SRMR $= .05$. Unstandardized and

standardized regression coefficients as well as standard errors for direct and indirect paths

are reported in Figure 8. The non-significant path found in the revised post hoc model was

the SNP $\rightarrow$ RS path ($\beta = .03, p = .60, ns$). Significant paths in the model included the

SNP $\rightarrow$ INT path ($\beta = -.28, p < .001$) and INT $\rightarrow$ RS path ($\beta = .82, p < .001$).

In the revised post hoc model, a significant negative relationship was found

between perceived partner online social network usage and intimacy (Figure 8).

Additionally, the relationship between intimacy and relationship satisfaction was

significant and positive. The relationship between perceived partner usage and

relationship satisfaction was not significant. Utilizing the Sobel test, it was found that the

SNP$\rightarrow$INT$\rightarrow$RS indirect path was significant, $z = -3.51, p < .001$. Intimacy was found to

mediate the relationship between perceived partner usage and relationship satisfaction.

Figure 5. Post Hoc model

RS = Relationship Satisfaction; INT = Intimacy; EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = social intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; RAS = Relationship Assessment Scale; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; OSN = Online Social Network Usage; OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage.

Figure 6. Post Hoc model including all path coefficients and standard errors.

Standardized regression coefficients are shown first for each path; unstandardized coefficients followed by standard errors are presented in parentheses. RS = Relationship Satisfaction; INT = Intimacy; EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = social intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; RAS = Relationship Assessment Scale; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; OSN = Online Social Network Usage; OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage.
* P < .05 ** p < .01 *** p < .001

Figure 7. Post Hoc model-revised

Standardized regression coefficients are shown first for each path; unstandardized coefficients followed by standard errors are presented in parentheses. RS = Relationship Satisfaction; INT = Intimacy; EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = social intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; RAS = Relationship Assessment Scale; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; OSN = Online Social Network Usage; OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage.
* P < .05 ** p < .01 *** p < .001

Figure 8. Post Hoc model-Revised including all path coefficients and standard errors.

Standardized regression coefficients are shown first for each path; unstandardized coefficients followed by standard errors are presented in parentheses. RS = Relationship Satisfaction; INT = Intimacy; EMO = Emotional Intimacy; SEX = Sexual Intimacy; SOC = social intimacy; REC = Recreational Intimacy; ITL = Intellectual Intimacy; RAS = Relationship Assessment Scale; DAS = Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale; OSN = Online Social Network Usage; OSNI = Avg. weekday participant OSN usage; OSNIW = Avg. weekend day participant usage; OSNP = Avg. weekday perceived partner usage; OSNPW = Avg. weekend day perceived partner usage.
* P < .05 ** p < .01 *** p < .001

CHAPTER FOUR

DISCUSSION

The primary purpose of this study was to examine the relationship between online social network use and relationship satisfaction experienced by couples. To further understanding of the relationship between the variables, intimacy and social comparison tendencies also were examined. Discussed in this section will be interpretations for each hypothesis, interpretations of the post hoc analyses, implications of results, limitations of the study, and suggestions for future research.
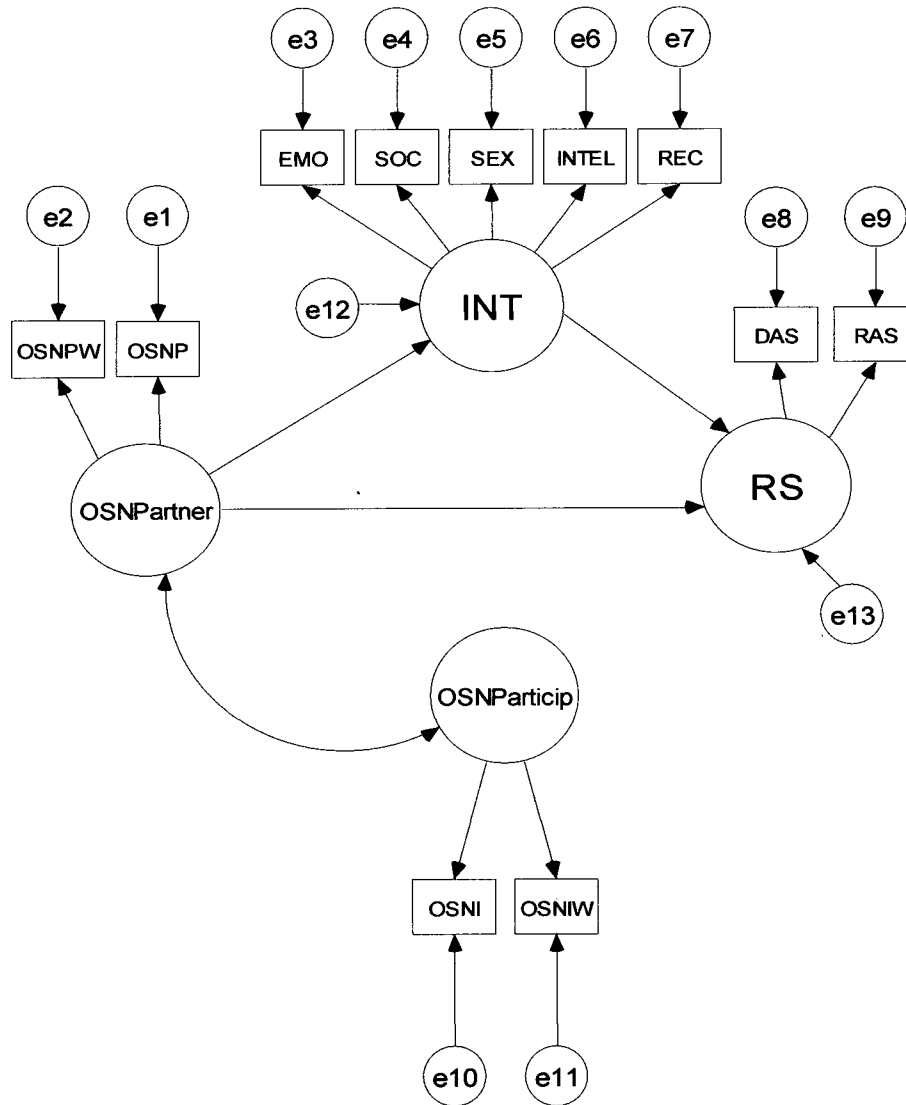
Discussion of Hypotheses

Hypothesis 1. Hypothesis 1 predicted social comparison tendencies would negatively predict relationship satisfaction. Previous research has found a significant negative relationship between social comparison tendencies and relationship satisfaction (Lebeau & Buckingham, 2008). However, the current study did not replicate the previous findings. The hypothesized model predicted that social comparison tendencies would precede relationship satisfaction which is in accordance with findings by Lebeau and Buckingham. However, it was found that social comparison tendencies were not related to any of the other variables in the model. Additionally, social comparison tendencies were not related to the other variables in the alternative model either. The lack of relationship between social comparison tendencies and relationship satisfaction could be due to a variety of factors. Both upward and downward social comparisons are typically used by

people who have an orientation to utilize social comparisons (Lebeau & Buckingham). The type of evaluation a person makes from either an upward or downward comparison about the relationship can be positive or negative (Broemer & Diehl, 2003; Buunk, 2006; Buunk & Oldersma, 2001; Buunk, Collins, Taylor, VanYperen, & Dakof, 1990). It is possible that since various types of comparisons can be made with varying potential to affect the relationship, any positive or negative effect on the relationship is cancelled out by comparisons that would influence the relationship in the other direction. Lebeau and Buckingham argued that a tendency to use social comparisons in the relationship would result in increased insecurity and uncertainty which would in turn negatively affect overall relationship quality. Increased uncertainty plays a key role in making social comparisons (Festinger, 1954) and it has been argued that in modern egalitarian relationships, increased uncertainty is likely to occur (VanYperen & Buunk, 1991). Conversely, it has also been posited that the purpose of social comparisons are to maintain the relationship (VanYperen & Buunk, 1994). It is possible that the positive benefits incurred from social comparisons mediate the relationship between insecurity, uncertainty, and relationship satisfaction. Additionally, the lack of a relationship between social comparison tendencies and relationship satisfaction could relate to the population used in the study. The study consisted of undergraduate college students and these students are constantly in an environment that would encourage social comparisons. If this is indeed a factor of importance, a relationship between social comparison tendencies and the other variables would not be evident unless the sample was widened to consider people outside of the college environment.

Hypothesis 2. Hypothesis 2 predicted that social comparison tendencies would be a negative predictor of intimacy. It has been hypothesized that the purpose of using social comparisons is to maintain a relationship (Festinger, 1954). While it was predicted that utilizing these social comparisons frequently would lead to more uncertainty in the relationship and less closeness, it appears that in this study the hypothesis was not supported. Lebeau and Buckingham (2008) argued that the tendency to use social comparison in romantic relationships would increase insecurity and uncertainty. This in turn would negatively affect overall relationship quality, including the level of intimacy experienced by both partners. While relationship insecurity and uncertainty may be increased, it is possible that some of the positive effects of using social comparisons mediate the negative effects that may have otherwise occurred. The lack of a relationship between social comparison tendencies and intimacy may be related to this mediating effect. The reported levels of intimacy by participants may point to another possible explanation for the current findings. The mean for overall intimacy was significantly high compared to previously research (Shaefer & Olson, 1981). Also, the means for each of the different subtypes were higher in this study than previously, except for social intimacy. This includes the mean for conventionality, which measures social desirability. It is possible that certain qualities of the population used in this study make it more likely that participants will report a higher degree of intimacy when compared to other populations. Another possible explanation for the lack of relationship between social comparison tendencies and intimacy is that utilizing a college-age sample increases the chance that participants are likely to use social comparisons in general. In this scenario, the effect of

social comparison tendencies on intimacy is reduced because of the common nature of these tendencies.

Hypothesis 3. Hypothesis 3 predicted that intimacy would be a positive predictor of relationship satisfaction. A significant relationship was found in the hypothesized model, alternative model, and the post hoc model. The relationship between intimacy and relationship satisfaction is well established in the literature (ie, Dandeneau & Johnson, 1994; Greeff & Malherbe, 2001; Hassebrauck & Fehr, 2002; Hendrick, 1981; Huston and Chorost, 1994) and the current study has replicated these findings with a new population. The current study included participants in varying types of romantic relationships. The significant relationship between intimacy and relationship satisfaction suggests that these two variables are closely associated with each other in multiple types of relationships including dating exclusively, non-exclusively, or married. When examining correlations between the measures of relationship satisfaction and intimacy, it is apparent that the types of intimacy that are most closely associated with relationship satisfaction include emotional intimacy and intellectual intimacy. This suggests that emotional closeness and intellectually stimulating discourse are the types of intimacy most associated with satisfaction. Conversely, sexual intimacy seems to be the least associated with relationship satisfaction. This suggests that with the population of the current study, feeling connected in sexual activities and interests with a partner is not as positively related to satisfaction in the relationship as other types of intimacy. A potentially influential factor of these findings is that the sample was derived from a southern university where undergraduate participants are likely to engage in frequent intellectual discussions and may have strong opinions about sexual activities or do not view sex as

intimate. Additionally, it should be noted that on average, participants in the present study reported higher scores than in previous studies on the measure of intimacy (Schaefer & Olson, 1981), as well as on both measures of relationship satisfaction (RAS: Hendrick, 1988; DAS: Spanier, 1976). Additionally, participants reported higher scores on average for emotional, sexual, intellectual, and recreational intimacy (Schaefer & Olson). They reported significantly lower scores, compared to earlier research, on social intimacy. These higher means on the measures for intimacy and relationship satisfaction may be related to participants responding with more socially desirability when compared to previous studies. Participants reported higher scores on a measure of social desirability than in previous research, suggesting that in this study, partners may have been trying to present their relationship in a favorable light. Characteristics of the population may have contributed to the higher scores on social desirability.

Hypothesis 4. Hypothesis 4 predicted that online social network usage would be a negative predictor of intimacy. In both the hypothesized and alternative structural model, online social network usage did not negatively predict intimacy. While research has not directly examined the relationship between usage of social networking websites and intimacy it was predicted that relationships between variables common to online social network usage and intimacy would indicate a negative relationship. Social anxiety has been found to be positively related to online social network usage (Sheldon, 2008) and negatively related to intimacy (Lutejin, 1994). Prior research has found that individuals who are socially anxious tend to self-disclose less (Meleshko & Alden, 1993) and since social anxiety is positively related to online social network usage, it can be assumed that self-disclosure would be negatively related to usage. This presents more evidence of a

relationship between online social network usage and intimacy as disclosure is an important component of the latter (Aron and Aron, 1996; Reis and Shaver 1988; Schaefer and Olson, 1981). While previous findings indirectly suggest a relationship between online social network usage and intimacy, findings that presented a more direct relationship would have provided more guidance. It is possible that as these variables have not been examined directly, there is an unknown variable mediating the relationship between online social network usage and intimacy. Post hoc analyses from the current study offer evidence that this may indeed be the case. Results of these analyses will be discussed later. It is also possible that a relationship does not exist between the variables.

Hypothesis 5. Hypothesis 5 predicted that online social network usage would negatively predict relationship satisfaction. Analysis of the data utilizing correlations as well as the hypothesized and alternative models did not find that online social network usage negatively predicted relationship satisfaction. The literature has acknowledged that as a construct, relationship satisfaction is not easily defined (Fowers, Applegate, Olson, & Pomerantz, 1994; Heyman, Sayers, & Bellack, 1994; Vaughn & Matyastik, 1999). To simplify the construct, many studies focus only on married populations. The current study included participants in a variety of romantic relationship types and with varying durations. With a diverse range of relationship possibilities comes the potential that participants vary in how they conceive of relationship satisfaction. Reports of relationship satisfaction with this population may encompass more than one construct. A Participant's age, expectations of commitment, self-esteem, level of identity development and duration of the relationship may all factor into the individual's definition of relationship

satisfaction. The lack of a significant relationship found between relationship satisfaction and online social network usage may have been influenced by these factors.

Hypothesis 6. Hypothesis 6 predicted intimacy would mediate the relationship between online social network usage and relationship satisfaction. This hypothesis was not supported in the current study. The hypothesized structural model assessed this hypothesis and mediation did not occur. The difficulty in defining the construct of relationship satisfaction, especially in a population where varying types of relationships exist, may have contributed to the lack of a relationship between relationship satisfaction and online social network usage. Additionally, the difficulty in ascertaining how participants in the current study perceive satisfaction as it relates to the relationship may have also influenced the mediating effect of online social network usage on intimacy and relationship satisfaction. It is also possible that a mediating effect was not found because another variable, mediates or moderates the relationship between online social network usage and relationship satisfaction. Previous studies have firmly established the relationship between intimacy and satisfaction and hint to the relationships among online social network usage, relationship satisfaction, and intimacy. These studies have not directly examined which variables serve as mediators. Additionally, online social network usage was assessed by combining self-reported participant usage and perceived partner usage. The possible discrepancy between self-report and perceptions of another individual's behavior can significantly affect results. This possibility was examined in a post hoc analysis and will be discussed later.

Hypothesis 7. Hypothesis 7 predicted that Social comparison tendencies would be a positive predictor of online social network usage. This hypothesis was not supported by

the data. Social comparison tendencies were not significantly related to any of the variables in the study. Because there is no current research regarding the direct relationship between social comparison tendencies and online social network usage, predictions for hypothesis 7 came from indirect associations relating to the other variables in the study. It was assumed that since an indirect negative relationship could be assumed among online social network usage, intimacy, and relationship satisfaction, and social comparison tendencies have been found to be positively related the latter two variables, then a positive relationship could be predicted between online social network usage and social comparison tendencies. Also, it was predicted that the social environment found in online social networks would attract individuals with a significant tendency to use social comparisons in evaluating their relationship. It is possible that this assumption was incorrect. Because online social networks have become so prominent among the population being studied, it is possible that at this point it would be hard to differentiate usage from those who use have a tendency to use social comparisons and those who do not. If this is indeed the case, then a relationship between social comparison tendencies and online social network usage would only be found in populations where social network websites have not become as prominent. It is possible that as stated before, the social climate of the populations environment might have contributed to the lack of findings. It is also feasible that there is no relationship between social comparison tendencies and online social network usage.

Hypothesis 8. Hypothesis 8 predicted that online social network usage would mediate the relationship between social comparison tendencies and relationship satisfaction. This hypothesis was not supported in either the hypothesized model or the

alternative model. Considering that significant relationships were not found among any of these three variables, the lack of mediation is not surprising. The lack of relationships between social comparison tendencies and the other two variables may be related to specific characteristics of the population used for the current study. It is also possible that mediation did not occur as there is some other factor, or factors, involved which are unaccounted for in the hypothesized and alternative models. Establishing these factors may lead to a clearer understanding of whether relationships between these variables exist.

Hypothesis 9. Hypothesis 9 predicted that the hypothesized structural model would serve as a better fit for the relationship among the variables compared to the alternative model. Neither of the two models provided a good fit for the data and the hypothesized model did not provide a significantly better fit than the alternative model. Considering that most paths in the models were not significant, finding that neither model provides a good fit for the data is expected. However, in post hoc analyses, a model that served as a good fit for the data was formulated.

Discussion of Post Hoc Analyses

In addition to analyzing the data for the hypothesized and alternative structural models, further analyses were conducted post hoc. A new structural model was created using knowledge gained from examining the hypothesized and alternative models. These post hoc analyses should be interpreted with caution as they were derived through statistical analysis rather than on theoretical basis. With that disclaimer, the post hoc model will be discussed as it relates to the original nine hypotheses.

In constructing a post hoc structural model, an effort was made to create a model that would provide a good fit for the data and be parsimonious. With the trimming of paths, there exists the potential for capitalizing on chance as the likelihood that a good fit will be found increases. Because social comparison tendencies were not related to any of the other variables, it was trimmed from the post hoc structural model. As such, hypotheses 1, 2, 7 & 8 do not relate to the discussion of the post hoc model.

In both the original hypothesized and alternative models, intimacy and relationship satisfaction were significantly and positively related. Similar to the original models, the post hoc structural model also supported hypothesis 3. This finding is not surprising considering that the relationship between intimacy and relationship satisfaction has been well documented (ie, Dandeneau & Johnson, 1994; Greeff & Malherbe, 2001; Hassebrauck & Fehr, 2002; Hendrick, 1981; Huston & Chorost, 1994).

It was originally predicted in hypothesis 4 that online social network usage would be a negative predictor of intimacy. In both the hypothesized and alternative structural model, a significant relationship was not found between the two variables. However, in the post hoc structural model, a significant negative relationship was found between perceived partner usage and intimacy while a significant relationship did not exist between participant usage and intimacy. Because participants are self-reporting in their own usage and reporting on the behalf of their partner, this difference between participant usage and perceived partner usage may be linked to the tendency to attribute behavior that is problematic in the relationship to the other partner. The significant relationship found in the post hoc model suggests further need to explore the relationship between the two variables.

Hypothesis 5 predicted that online social network usage would negatively predict relationship satisfaction. The hypothesized and alternative models did not find a significant relationship between relationship satisfaction and either participant usage or perceived partner usage. However, in the post hoc model, it was found that intimacy mediates the relationship between perceived partner usage and relationship satisfaction. It is possible that the lack of significance found between online social network usage and relationship satisfaction could be due to this mediating effect. Although the literature has not examined the relationship between satisfaction and online social network usage, previous findings indirectly suggest that the two variables would be negatively related. Results of the current study imply that while online social network usage may be negatively related to certain components of relationship satisfaction, as a whole, satisfaction in the relationship is not significantly affected.

It was predicted in hypothesis 6 that intimacy would mediate the relationship between online social network usage and relationship satisfaction. This hypothesis was not supported by the hypothesized and alternative models as mediation did not occur. However, the post hoc structural model found that intimacy served as a mediator between perceived partner usage and relationship satisfaction. This mediating effect suggests that while perceived partner usage negatively affects intimacy, intimacy may serve a protective function such that relationship satisfaction is not significantly affected by this perception of partner usage. This mediating effect was not however significant for participant self-reported usage of online social networking sites. As stated previously, the difference between the participant's self-reported usage and perceived partner usage may

be related to an attributional bias that assigns a more negative connotation to the partner's usage.

An important consideration in the current study was to find a model that would serve as a good fit for the relationships among the variables. Hypothesis 9 predicted that the hypothesized structural model would serve as a better fit for the relationship among the variables compared to the alternative model. It was discovered that neither the hypothesized model nor the alternative model provided a good fit for the data. As such, a post hoc structural model was created by trimming relationships that were not significant and dividing online social network usage into self-report participant usage and perceived partner usage. While the original hypothesized and alternative models did not serve as a good fit for the relationships among the variables, the final post hoc structural model did however provide a good fit for that data. In the post hoc model, social comparison tendencies were dropped, and online social network usage was separated into two variables of self-reported participant usage and perceived partner usage. Additionally, in this model, intimacy was the mediator as opposed to online social network usage, which served as the mediator in the original hypothesized model. In allowing for a distinction between participant and perceived partner usage, this post hoc model was able to find that intimacy meditated the relationship to one and not the other.

Implications

Considering the immense popularity of online social networks, it is important to better understand the effect that use of these websites have on individuals and their relationships. Little research has focused on the effect using online social networks have on romantic relationships. As such, any findings that further an understanding of how

network usage affects relationships are important. While the current study found support for only one of the hypotheses, the lack of significant results as well as the post hoc findings provides direction for future studies.

The relationship between intimacy and relationship satisfaction has been widely researched (ie, Dandeneau & Johnson, 1994; Greeff & Malherbe, 2001; Hassebrauck and Fehr, 2002; Hendrick, 1981; Huston and Chorost, 1994). The present study found evidence that intimacy and relationship satisfaction are significantly and positively related, which is similar to findings from previous studies. Significant to these findings is that in this study they apply to multiple types of romantic relationships. Whether partners are dating exclusively, non-exclusively, or married, a positive relationship between intimacy and relationship satisfaction was found. This adds to the assumption that these two variables are closely related across varying types of relationships.

An important discovery in this study is that social comparison tendencies were not related to any of the other variables. This conflicts with previous research on social comparison tendencies and relationship quality (Lebeau & Buckingham, 2008). A possible implication of these findings is that there is some unknown variable mediating the relationship among social comparison tendencies and the other variables. This unknown variable could suggest that either the characteristics of the sample are unique, or some other variable related to social comparison tendencies or relationship quality is affecting the results. Of course, it is also possible that the previously reported relationships among social comparison tendencies, intimacy and relationship satisfaction may have been overstated.

Findings from the post hoc analyses offer further guidance in establishing the relationship between online social network usage, intimacy and relationship satisfaction. Post hoc analyses found a significant and negative relationship between perceived partner online social network usage and intimacy. Further, it was found that intimacy mediates the relationship between this perceived partner usage and relationship satisfaction. Interestingly, a similar relationship did not apply to self-reported participant usage. This implicates a possible attributional bias by the participant in which he or she is more likely to rate their partner's usage as negatively affecting the relationship than their own usage.

In general, findings from the post hoc analyses demonstrate the power of perceptions in judging online social network usage. Finding that participants are less likely to judge their own usage as negative compared to the usage of their partners implies that perception of usage may be as important as actual usage. It would be important to discover how perceptions of own use as well as perceptions of partner's usage matches up with the actual amount of usage from each partner.

The mediating effect of intimacy between online social network usage and relationship satisfaction offers guidance in treating individuals who report heavy use of social networking websites. If intimacy serves as a protective buffer that prevents online social networking usage from significantly affecting overall relationship satisfaction, then focusing on strengthening intimacy in the relationship can help to increase relationship satisfaction. For couples coming to therapy with complaints of online social network usage affecting their relationship, a possible route for a mental health professional to take would be to work with the couple to strengthen their level of intimacy.

Limitations

The current study had some limitations which need to be taken into account. The population sampled for the study may have contributed to the lack of significant relationships between and among some of the variables. The population was chosen based on the likelihood that college-age participants would be members of an online social network. Wider population parameters might establish more definitive results regarding the relationships between the variables.

The logical connections used to derive the hypotheses pertaining to online social network usage are another limitation of the study. With a dearth of research available on social network usage, the predicted relationships among usage, intimacy, and relationship satisfaction were hypothesized on the basis of indirect relationships. Variables associated with both social online usage and the other variables were used as the basis for predictions. The relationship between online social network usage and social comparison tendencies were derived from indirect relationships and logical deduction. Previous research with direct relationships among the variables could have offered further guidance in predicting relationships. As more findings are published regarding the effects of online social network usage, hypotheses will become more clearly established by findings.

While the nine original hypotheses were not supported in either the hypothesized or alternative structural models, significant relationships among the variables were found in post hoc analyses. A limitation to these findings is that they were derived from statistical analysis rather than theoretical considerations. The nature in which the post hoc model was derived increases the chance of a type 1 error. As such, an interpretation of the results pertaining to the post hoc analyses should be done with caution. Additionally,

inferences of causality would be stronger if a longitudinal design was used to assess the relationships among the variables.

An interesting finding in this study was the differential effect that perceived partner usage had on intimacy compared to self-reported participant usage. The possible attributional bias affecting these results suggests a problem with solely using self-report measures in ascertaining social network usage. Additionally, while focusing on perceptions of partner usage was an important component of this study, as it allowed an examination between self-reporting and perceptions of another, the study could have benefited from having the partner's input as well.

Conceptualizing romantic relationships presents another limitation for the current study. How participants conceptualize their relationships was narrowed down to four types in the current study: not dating, dating non-exclusively, dating exclusively, and married. Within these types there likely exists a wide range of variability that is difficult to adequately account for in studies that assess romantic relationships. The variability in the way that participants conceptualize relationships may have contributed to the current findings.

Suggestions for Future Research

An important concern in the study of online social network usage is the lack of an instrument measuring usage. In the current study, online social network usage was measured by self-report of time spent on these sites. However, future research could work to identify other aspects of online social network usage that may affect users. Along these lines, future research may wish to develop ways to assess online social network usage

without relying on self-report by the participant. Involving the partners of participants is one way that can reduce the effect of attributional bias.

Contrary to initial predictions, relationships among social comparison tendencies and the other variables in the study were not found. As discussed previously, the lack of relationships could be due to a number of factors which should be explored further. It is possible that there is an unknown factor, or factors, that mediate or moderate the relationship between social comparison tendencies and overall relationship quality. Some potential candidates for these unknown factors include self-esteem, attachment style, personality, and self-efficacy. Any variable with a strong relationship to relationship quality or social comparison tendencies could be serving as a mediator. One such variable is uncertainty. Uncertainty about the relationship has had a long history of being associated with social comparisons (Festinger, 1954). In relation to romantic relationships, Buunk, Collins, Taylor, VanYperen, and Dakof (1990) found that partners with a low degree of relationship satisfaction and a high amount of uncertainty are likely to be negatively affected by both upward and downward social comparisons. They explained that with these partners, upward comparisons result in envy while downward comparisons produce feelings of fear that their relationship will turn out similarly. It is suggested that future research could focus on the role that uncertainty and low relationship satisfaction play in the effect that social comparison tendencies are related to intimacy and online social network usage. In general, to better understand the relationship between social comparison tendencies and relationship quality, future research should focus on finding other variables that mediate the relationships among social comparison tendencies and the other variables.

Closely defining what constitutes relationship satisfaction for different types of romantic relationships and diverse groups of people could be an area of further study. The problem of defining relationship satisfaction may be lessened in studies that significantly restrict the types of romantic relationships examined in the study. However, these types of studies are limited in their ability to generalize to a larger population. Another option would involve defining the construct of relationship satisfaction as it relates to individuals with diverse personal characteristics and in various types of relationships. Future studies could examine whether constructs closely related to relationship satisfaction such as intimacy, commitment, and adjustment are similarly related with various populations. A better idea of how various populations define relationship satisfaction can help in furthering research on relationships among online social network usage, social comparison tendencies, and relationship quality. While significant relationships were not found among these variables in this study, there may be more significant associations between the variables when it is assured that the concept of relationship satisfaction measured in the study closely matches the definition of the concept as defined by the participants.

Since online social networking sites have become very prominent in a short amount of time, these sites are constantly expanding and evolving. Factors such as how profiles are viewed, the amount of advertising present, and who is allowed to join have continually varied across time as well as across the various popular networking websites. Additionally, the methods in which people interact with others on these websites is changing. While previously, interaction was limited to online computer usage, individuals are now able to access the most popular websites through their mobile phones (Kincaid,

2009), Television sets (Reardon, 2009), and video game systems (McElroy, 2009). This presents the question of whether these evolutions in online social networking affect the types of people that use the sites as well as the activities performed. To better understand the effects that online social network usage has on individuals and romantic relationships, it may be important to examine whether continual evolutions play a significant role.

Participants in the current study reported a relatively high degree of social desirability regarding their romantic relationship. The measure of social desirability used in this study assessed whether participants were attempting to create a favorable impression regarding their relationship (Schaefer & Olson, 1981). The high degree of social desirability reported could be related to a variety of factors. Characteristics of the population, such as age and location, may have contributed to the higher levels or social desirability reported. While participants over a wide range of ages volunteered, most participants were between 18-22 years of age. A future study may wish to examine the role of social desirability and the variables included in this study with a population that includes more diversity in age. The location in which this study was conducted may have also played a role in the high degree of social desirability reported. Participants in this study volunteered from a southern university. A study, with similar variables, utilizing a population in another region may help to gain a better understanding of how influential regional differences are in the desire of participants to create a favorable impression regarding their romantic relationship. Additionally, social desirability could be related to online social network usage. Most participants in the current study use at least one online social network. It is possible that factors of online social network usage, such as individual characteristics of users or activities during usage, may be positively related to

social desirability. Future research on online social networks may wish to examine whether a relationship exists between network usage and social desirability.

It is suggested that future research examine the effects of online social networks with other populations. Online social network usage is growing among various age groups and the effects this usage has on people of different ages may or may not be the same as those in a university setting. In the last four years, the number of adult internet users who have joined an online social networking site and have created a profile has quadrupled (Pew Research Center for the People and the Press, 2009). Most of the participants in the current study fall into the largest demographic group of online social network users, a reason that contributed to the justification of why this population was chosen for the study. However, other populations are rapidly growing in online social network usage. Adults over the age of 25 represent the fastest growing segment of new users (Rayport, 2009) and the second largest demographic with 57% of adults between the ages of 25-34 having a profile (Pew Research Center for the People and the Press). Future research on social network usage may wish to examine the differences between users in various age demographics.

The findings from the post hoc analyses offer further avenues of exploration. In the post hoc analyses it was discovered that in contrast to perceptions of their own usage, participants were more likely to perceive their partner's online social network usage as having a negative effect on intimacy in their relationship. This suggests an attributional bias in which the behavior of online social network usage is harmful only when it is attributed to someone else. It is suggested that future research examine the relationship between attributional bias and online social network usage.

The mediating effect among online social network usage, intimacy, and relationship satisfaction found in the post hoc analyses also offers direction for future research. In these analyses, intimacy mediated the relationship between online social network usage and relationship satisfaction. Also, while the effect that online social network usage had on intimacy was significantly negative, factors associated with intimacy and relationship satisfaction seemingly protected the couple from being negatively affected as a whole in their ratings of relationship satisfaction. It is suggested that future research focus on the relationships among these three variables, and work to assess what comprises these protective buffers. Considering the increasing prominence of online social networks, it is important to discover any factors that may help couples maintain satisfaction in their relationship.

Inferences made about causality among the variables would be stronger if the relationships among the factors were analyzed using a longitudinal design. To determine how online social network usage affects, or is affected by intimacy, social comparison tendencies, and relationship satisfaction, it is suggested that future research use a longitudinal or cross-sequential design. Examining increasing levels of online social network usage for couples in different stages of their romantic relationships could help in increasing knowledge of the relationships among the variables.

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APPENDIX A

DEMOGRAPHICS QUESTIONNAIRE

Demographics Questionnaire

PLEASE EITHER FILL IN THE BLANK OR CIRCLE THE OPTION THAT BEST FITS YOU.

1. What is your age? _____

2. Please indicate your sex: _____Male   _____Female

3. Please indicate the sex of your partner: _____Male   _____Female

4. Which Ethnic Group do you most identify?
1) Asian
2) African American
3) Caucasian
4) Hispanic / Latino
5) Other

5. How would you describe your current living status?
1) Living with parents
2) Live by self
3) Live with roommates
4) Live with a significant other
5) Live with a spouse

6. What is your current relationship status and approximately how long have you been with your partner?

   1) Not Dating

   2) Dating, NOT in an exclusive relationship   _____ years
                _____months

   3) Dating, In an exclusive relationship   _____ years
                _____months

   4) Married,   _____ years
                _____months

7. Do you live with your partner?

____Yes   _____No

8. How do you typically communicate with your partner?
1) Primarily Face to face
2) Primarily on the phone
3) Primarily Online
4) Primarily online or on the phone
5) Primarily face to face but sometimes online

APPENDIX B

ONLINE USAGE SURVEY

Online Usage Survey

The following questions pertain to your internet and social network usage (ie: Facebook, MySpace).

*1. Please rate how often you do different activities on the **Internet**? Circle the number for each item which best answers that item for you:*

Item	Never	Rarely	Sometimes	Often	Always
A) Visit chat rooms	1	2	3	4	5
B) Use instant messaging	1	2	3	4	5
C) Search for fun	1	2	3	4	5
D) Use Social Networking websites (Facebook, MySpace)	1	2	3	4	5
E) Do research	1	2	3	4	5
F) Shop online	1	2	3	4	5
G) Sell merchandise	1	2	3	4	5
H) Play games online	1	2	3	4	5
I) Read and post on Message Boards	1	2	3	4	5
J) Read the News	1	2	3	4	5
K) Blog	1	2	3	4	5
L) Other, Please Specify_____	1	2	3	4	5

*2. How much time on an **average day during the week** do you spend on the internet?*

_____ Hours   _____ Minutes

*3. How much time on an **average day during the weekend** do you spend on the internet?*

_____ Hours   _____ Minutes

*4. How much time on an **average day during the week** do you spend on Facebook and MySpace?*

Facebook: _____ Hours   _____ Minutes

MySpace: _____ Hours   _____ Minutes

5. *How much time on an **average day during the weekend** do **you** spend on Facebook and MySpace?*

Facebook: _____ Hours   _____ Minutes

MySpace: _____ Hours   _____ Minutes

6. *On a typical day **during the week**, how many times do **you** visit Facebook and MySpace?*

Facebook: _____ times
MySpace: _____ times

7. *On a typical day **during the weekend**, how many times do **you** visit Facebook and MySpace?*

Facebook: _____ times
MySpace: _____ times

8. *Approximately, how long ago did **you** start using Facebook and MySpace?*

Facebook: _____ years _____ months

MySpace: _____ years _____ months

9. *Do you mention your significant other in your profile?*
Yes
No

10. *Do you Access Facebook or MySpace on a Mobile device (For example: a cell phone)?*
Yes
No

11. *Approximately how many friends do you have on Facebook and MySpace?*

Facebook _____ friends

MySpace _____ friends

12. Approximately what percentage of the people on your friends list have you met in person?

Facebook _____%

MySpace _____%

*13. Please rate how often you do different activities on **MySpace and Facebook**?*
Circle the number for each item which best answers that item for you:

Item	Never	Rarely	Sometimes	Often	Always
A) Keep in touch with old friends	1	2	3	4	5
B) Keep in touch with current friends	1	2	3	4	5
C) Post/look at pictures	1	2	3	4	5
D) Make new friends	1	2	3	4	5
E) Locate old friends	1	2	3	4	5
F) Learn about events	1	2	3	4	5
G) Post social functions	1	2	3	4	5
H) Share information about yourself	1	2	3	4	5
I) Academic purposes	1	2	3	4	5
J) Dating purposes	1	2	3	4	5
K) Fill out surveys	1	2	3	4	5
L) Play games	1	2	3	4	5

14. What information do you post about yourself on Facebook and MySpace? Please circle all that apply:
1) Photos
2) Address
3) Status updates
4) Relationship Status
5) "About me" info
6) Interests

15. On Facebook and MySpace, who do you make your information about yourself available to:
1) Everyone/everyone on the network
2) Friends only
3) No one

The following questions pertain to your _partner's_ internet and social network usage (ie: Facebook, MySpace). Please answer to the best of your knowledge concerning your partner's activities.

*1. Please rate how often your partner does different activities on the **Internet**?*
Circle the number for each item which best answers that item for you:

Item	Never	Rarely	Sometimes	Often	Always
A) Visit chat rooms	1	2	3	4	5
B) Use instant messaging	1	2	3	4	5
C) Search for fun	1	2	3	4	5
D) Use Social Networking websites (Facebook, MySpace)	1	2	3	4	5
E) Do research	1	2	3	4	5
F) Shop online	1	2	3	4	5
G) Sell merchandise	1	2	3	4	5
H) Play games online	1	2	3	4	5
I) Read and post on Message Boards	1	2	3	4	5
J) Read the News	1	2	3	4	5
K) Blog	1	2	3	4	5
L) Other, Please Specify_____	1	2	3	4	5

*2. How much time on an **average day during the week** does **your partner** spend on the internet?*

_____ Hours   _____ Minutes

*3. How much time on an **average day during the weekend** does **your partner** spend on the internet?*

_____ Hours _____ Minutes

*4. How much time on an **average day during the week** does **your partner** spend on Facebook and MySpace?*

Facebook: _____ Hours _____ Minutes

MySpace: _____ Hours _____ Minutes

*5. How much time on an **average day during the weekend** does **your partner** spend on Facebook and MySpace?*

Facebook: _____ Hours _____ Minutes

MySpace: _____ Hours _____ Minutes

*6. On a typical day **during the week**, how many times does **your partner** visit Facebook and MySpace?*

Facebook: _____ times
MySpace: _____ times

*7. On a typical day **during the weekend**, how many times does **your partner** visit Facebook and MySpace?*

Facebook: _____ times
MySpace: _____ times

*8. Approximately, how long ago did **your partner** start using Facebook and MySpace?*

Facebook: _____ years _____ months

MySpace: _____ years _____ months

9. Does your significant other mention you in his/her profile?
Yes
No

10. Does your partner access Facebook or MySpace with a mobile device (For example: a cell phone)?
Yes
No

11. Approximately how many friends does your partner have on Facebook and MySpace?

Facebook   _____ friends

MySpace   _____ friends

12. Approximately what percentage of the people on your partner's friends list have been met with in person?

Facebook   _____ %

MySpace   _____

*13. Please rate how often <u>your Partner</u> does different activities on **MySpace and Facebook**? Circle the number for each item which best answers that item for you:*

Item	Never	Rarely	Sometimes	Often	Always
A) Keep in touch with old friends	1	2	3	4	5
B) Keep in touch with current friends	1	2	3	4	5
C) Post/look at pictures	1	2	3	4	5
D) Make new friends	1	2	3	4	5
E) Locate old friends	1	2	3	4	5
F) Learn about events	1	2	3	4	5
G) Post social functions	1	2	3	4	5
H) Share information about yourself	1	2	3	4	5
I) Academic purposes	1	2	3	4	5
J) Dating purposes	1	2	3	4	5
K) Fill out surveys	1	2	3	4	5
L) Play games	1	2	3	4	5

14. What kind of information does your partner post on Facebook and MySpace? Please circle all that apply:
1) Photos
2) Address
3) Status updates
4) Relationship Status
5) "About me" info
6) Interests

15. On Facebook and MySpace, who does your partner make his/her information available to:
1) Everyone/everyone on the network
2) Friends only
3) No one
4) I don't know

APPENDIX C

THE RELATIONSHIP ASSESSMENT SCALE

The Relationship Assessment Scale

Please mark on the answer sheet the letter for each item which best answers that item for you:

1. How well does your partner meet your needs?

1	2	3	4	5
Poorly		Average		Extremely well

2. In general, how satisfied are you with your relationship?

1	2	3	4	5
Unsatisfied		Average		Extremely Satisfied

3. How good is your relationship compare to most?

1	2	3	4	5
Poor		Average		Excellent

4. How often do you wish you hadn't gone into this relationship?

1	2	3	4	5
Never		Average		Very often

5. To what extent has your relationship met your original expectations?

1	2	3	4	5
Hardly at all		Average		Completely

6. How much do you love your partner?

1	2	3	4	5
Not much		Average		Very much

7. How many problems are there in your relationship?

1	2	3	4	5
Very few		Average		Very many

APPENDIX D

THE DYADIC ADJUSTMENT SCALE: DYADIC SATISFACTION SUBSCALE

The Dyadic Adjustment Scale

Please indicate below approximately how often the following items occur between you and your partner.

1 = All the time
2 = Most of the time
3 = More often than not
4 = Occasionally
5 = Rarely
6 = Never

_____ 1.   How often do you discuss or have you considered divorce, separation, or terminating the relationship?

_____ 2.   How often do you or your partner leave the house after a fight?

_____ 3.   In general, how often do you think things between you and your partner are going well?

_____ 4.   Do you confide in you partner?

_____ 5.   Do you ever regret getting into a relationship with your partner?

_____ 6.   How often do you and your partner quarrel

_____ 7.   How often do you and your partner "get on each other's nerves?"

8.   Do you kiss your partner?

Every day	Almost every day	Occasionally	Rarely	Never
4	3	2	1	0

9.   The numbers on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Please circle the number that best describes the degree of happiness, all things considered, of your relationship.

0	1	2	3	4	5	6
Extremely unhappy	Fairly unhappy	A little unhappy	Happy	Very happy	Extremely happy	Perfect

10.   Please circle the number of *one* of the following statements that best describes how you feel about the future of your relationship.

5   I want desperately for my relationship to succeed, and *would go to almost any length* to see that it does.

4   I want very much for my relationship to succeed, and *will do all that I can* to see that it does.

3   I want very much for my relationship to succeed, and *will do my fair share* to see that it does.

2   It would be nice if my relationship succeeded, *but I can't do much more than I am doing* now to make it succeed.

1   It would be nice if it succeeded, but *I refuse to do any more than I am doing* now to keep the relationship going.

0   My relationship can never succeed, and *there is no more that I can do* to keep the relationship going.

APPENDIX E

THE PERSONAL ASSESSMENT OF INTIMACY IN RELATIONSHIPS

The Personal Assessment of Intimacy in Relationships

Please answer each question in response to both your current relationship with your partner and how you view your ideal relationship.

Item

1. My partner listens to me when I need someone to talk to.

2. We enjoy spending time with other couples.

3. I am satisfied with our sex life.

4. My partner helps me clarify my thoughts.

5. We enjoy the same recreational activities.

6. My partner has all the qualities I've ever wanted in a mate.

7. I can state my feelings without him/her getting defensive.

8. We usually "keep to ourselves".

9. I feel our sexual activity is just routine.

10. When it comes to having a serious discussion it seems that we have little in common.

11. I share in very few of my partner's interests.

12. There are times when I do not feel a great deal of love and affection for my partner.

13. I often feel distant from my partner.

14. We have very few friends in common.

15. I am able to tell my partner when I went sexual intercourse.

16. I feel "put-down" in a serious conversation with my partner.

17. We like playing together.

18. Every new thing that I have learned about my partner has pleased me.

19. My partner can really understand my hurts and joys.

20. Having time together with friends is an important part of our shared activities.

21. I "hold back" my sexual interest because my partner makes me feel uncomfortable.

22. I feel it is useless to discuss some things with my partner.

23. We enjoy the out-of-doors together.

24. My partner and I understand each other completely.

25. I feel neglected at times by my partner.

26. Many of my partner's closest friends are also my closest friends.

27. Sexual expression is an essential part of our relationship.

28. My partner frequently tries to change my ideas.

29. We seldom find time to do fun things together.

30. I don't think anyone could possibly be happier than my partner and I when we are with one another.

31. I sometimes feel lonely when we're together.

32. My partner disapproves of some of my friends.

33. My partner seems disinterested in sex.

34. We have an endless number of things to talk about.

35. I think that we share some of the same interests.

36. I have some needs that are not being met by my relationship.

APPENDIX F

THE IOWA-NETHERLANDS
COMPARISON ORIENTATION MEASURE

The Iowa-Netherlands Comparison Orientation Measure

Most people compare themselves from time to time with others. For example, they may compare the way they feel, their opinions, their abilities, and/or their situation with those of other people. We would like to know how often you compare yourself with other people. To do that we would like to ask you to indicate how much you agree with each statement below, by using the following scale.

Item

1. I often compare how my loved ones (boy or girlfriend, family members. etc.) are doing with how others are doing.

2. I always pay a lot of attention to how I do things compared with how others do things.

3. If I want to find out how well I have done something, I compare what I have done with how others have done.

4. I often compare how I am doing socially (e.g., social skills, popularity) with other people.

5. I am not the type of person who compares often with others.

6. I often compare myself with others with respect to what I have accomplished in life.

7. I often like to talk with others about mutual opinions and experiences.

8. I often try to find out what others think who face similar problems as I face.

9. I always like to know what others in a similar situation would do.

10. If I want to learn more about something, I try to find out what others think about it.

11. I never consider my situation in life relative to that of other people.

APPENDIX G

THE RELATIONSHIP SOCIAL COMPARISON MEASURE

The Relationship Social Comparison Measure

We are interested in if and when people compare their relationships to other couples' relationship. Please think about your current relationship when answering following questions.

Item

1. I compare how happy I am in my relationship to how happy I think others are in their relationships.

2. I pay a lot of attention to how well my partner and I resolve problems compared to how well other couples solve their problems.

3. I think about what types of activities my partner and I participate in together compared to what other couples do together.

4. I compare how my partner and I treat each other to how other couples treat each other.

5. I think about how well my partner and I communicate with each other compared to how well other couples communicate with each other.

6. I compare how satisfied I am with my relationship to how satisfied I think others are in their relationships.

7. I compare how much time my partner and I spend together to how much time other couples spend together.

8. When I am feeling bad about my relationship I compare my relationship to other peoples' relationships.

9. When I am feeling good about my relationship I compare my relationship with other peoples' relationships.

10. I think about how romantic my relationship is compared to how romantic other couples' relationships are.

11. I compare my relationship with other couples whose relationships are worse than mine.

12. I compare my relationship with other coupes whose relationships are better than mine.

13. I think about how romantic my partner is in comparison to other peoples' partners.

14. I compare the things that my partner does for me to what other peoples' partners do for them.

15. I think about how trustworthy my partner is in comparison to other peoples' partners.

16. I compare how supportive my partner is to other peoples' partners.

17. I think about how dependable my partner is in comparison to other peoples' partners.

18. I compare how attractive my partner is to how attractive other peoples' partners are.

19. I think about how successful my partner is in comparison to other peoples' partner.

20. I compare how considerate my partner is to how considerate other peoples'.

21. I think about how often my partner and I argue compared to how often other couples argue.

22. I compare my relationship to other peoples' relationships when I am in a good mood.

23. I compare my relationship to other peoples' relationships when I am in a bad mood.

24. I enjoy listening to other people talk about their relationships.