TOWARD A NEW MODEL OF SEXUAL SATISFACTION

by

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(Under the Direction of David R. Shaffer)

ABSTRACT

In the literature on sexual satisfaction, correlational studies abound, but there is very little theory tying the findings of these studies together.  Of the theoretical models that do exist, the majority have utilized social exchange theories of sexual satisfaction. This study aimed at proposing a theoretical model of sexual satisfaction not grounded in exchange theory but in communal relationships theory.  To test a communal model of sexual satisfaction, 189 male and female undergraduates completed the Mutual Communal Behaviors Scale (MCBS; Williamson & Schulz, 1995), the Exchanges Questionnaire (Lawrence & Byers, 1992), a measure of sexual satisfaction, and a measure of relationship satisfaction.  The MCBS proved to be a superior predictor of relationship satisfaction as compared to the Exchanges Questionnaire, however, contrary to predictions, the MCBS was not a better predictor of sexual satisfaction.  Implications for the construction of a communal model of sexual satisfaction are discussed.

INDEX WORDS:     sexual satisfaction, relationship satisfaction, social exchange theory, communal relationships theory, mutual communal behaviors, Interpersonal Exchange Model of Sexual Satisfaction

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DEDICATION


    This work is dedicated to Ken, who was here through it all, and to my parents, who made their pride in me so clear that I felt moved to do something to deserve it.  Your faith in me knew no bounds and carried me through the times when I had lost faith in myself.  Thank you.

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CHAPTER 1

INTRODUCTION

Even in today's information overloaded society, sexuality often remains shrouded in a murky confusion of a culture that is at once sexually uninformed, sexually saturated, and sexually ambivalent (D. M. Hayes, personal communication, 2002). Images of sex and depictions of what is supposed to make it good surround us, yet many people harbor feelings of guilt and inadequacy about their sexual lives. These feelings can interfere with an individual's sexual functioning, sexual relationship, and satisfaction with that relationship. This dissatisfaction, in turn, can lead to general feelings of unhappiness that may affect other areas of functioning and overall quality of life. Clearly, an understanding of the components and mechanisms of sexual satisfaction is important for increasing a sense of personal well-being for many people in our society. Unfortunately, the focus of much of existent sexuality research has been on sexual dysfunction and deviancy (Hally & Pollack, 1993), rather than on normative sexual behavior and a healthy enjoyment of sexual activity.

The degree of satisfaction individuals have with their sexual relationships varies greatly and may potentially have far-reaching consequences for those relationships, as well as impacting intrapersonal factors such as overall happiness (Young, Denny, & Young, 1998). While on the surface it may appear easy to assess sexual satisfaction (either one is satisfied with one's sexual relations or not), measuring this construct can be a daunting task. For example, individuals may be satisfied with some aspects of their

sexual lives but not with others. Renaud, Byers, and Pan (1997) have noted that sexual

satisfaction has sometimes been conceptualized as the absence of dissatisfaction, which

certainly leaves much to be desired as a operational definition. Assessment of sexual

satisfaction should aim at measuring positive, present aspects of an individual's sex life,

not at measuring a negative construct such as the absence of dissatisfaction. Clearly, the

absence of dissatisfaction is not the same as the presence of satisfaction.

When discussing conceptual definitions of sexual satisfaction, it is also important

to note the difference between physiological sexual satisfaction (e.g., orgasm) and

psychological sexual satisfaction (i.e., sense of fulfillment or other affective responses).

While these two dimensions may overlap, these are nonetheless separate constructs that

may have very different effects on a given individual's overall level of sexual

satisfaction. Just as the absence of dissatisfaction is not a proper definition of

satisfaction, neither is the presence of orgasm; yet frequency of orgasm, frequency of

intercourse, and orgasm consistency have all been used as indices of sexual satisfaction

(Perlman & Abramson, 1982; Young et al., 1998). The use of such conceptualizations

may be inappropriate in the study of sexual satisfaction, because while physiological

indicators may be viewed as one of the few objective measures of sexual satisfaction,

they often fail to take into account psychological processes and affective responses which

may be more salient to an individual's sense of sexual satisfaction. For these reasons, the

following conceptual definition of sexual satisfaction, proposed by Lawrance and Byers

(1995), will be used for the purposes of this study. They define sexual satisfaction as "an

affective response arising from one's subjective evaluation of the positive and negative

dimensions associated with one's sexual relationship" (p. 268). This definition allows

each participant to define the degree of sexual satisfaction in his or her relationship using the variables most salient to that specific individual. These variables may be physiological or psychological, positive or negative, and self- or relationship-oriented. In short, it provides each person with the opportunity to assess the aspects of the sexual relationship that are most important to that person and, perhaps, provides the most accurate assessment of a given individual's sexual satisfaction.

CHAPTER 2

REVIEW OF THE LITERATURE

As Lawrance and Byers (1995) succinctly stated, "The study of sexual satisfaction has been hampered by poor conceptualization of the construct… sexual satisfaction is not explicitly defined, but is simply assumed to be equivalent to whatever the selected scale/items measure" (p. 267). Sexual satisfaction has been operationalized in various ways. Some researchers have used single-item measures of sexual satisfaction (e.g., Zhou, 1993). Others have employed measures that indicate the participants' enjoyment of specific sexual or sensual activities (e.g., The Sexual Interaction Inventory; LoPiccolo & Steger, 1974) or have used multi-item global affective measures (e.g., Index of Sexual Satisfaction; Hudson, Harrison, & Crosscup, 1981; Derogatis Sexual Functioning Inventory, Derogatis & Meyer, 1979). However, it is possible that not all of these measures provide an accurate assessment of an individual's level of sexual satisfaction. For example, when a single question regarding how satisfied a person is with his or her sex life is asked, most people will indicate that they are satisfied overall, as they will do with almost any aspect of their lives if asked in this manner (Perlman & Abramson, 1982). When measuring a construct as complex as sexual satisfaction, multi-item measures may be preferable. The use of multi-item scales allows consideration of various dimensions of a sexual relationship and the satisfaction with those components, and may provide a better assessment of a person's overall sexual satisfaction (Young et al., 1998). Unfortunately, some of these measures focus primarily on behavioral aspects

of sexual satisfaction, such as an individual's enjoyment of specific sexual activities.

Again, with the complex construct of sexual satisfaction, it is important to try to capture

as much depth and breadth of the variance as possible. Affective measures may be better

suited for this purpose. Whether affective and behavioral measures of sexual satisfaction

are even comparable is an empirical question that will not be addressed in this study, but

it is a question that should prompt reflection and future research. For the present study,

however, a multi-item affective measure will be employed.

*Correlates of Sexual Satisfaction*

Much of the research on sexual satisfaction is atheoretical and focuses on

presumed correlates thereof. Depending on the empirical definition of sexual

satisfaction, innumerable variables have been found to be correlated with this construct.

A brief list of some of the more common and salient variables correlated with sexual

satisfaction is examined below.

*Female masturbation.* In a study of a nonclinical sample of women, Hurlbert and

Whittaker (1991) found that women who were able to achieve orgasm through self-

stimulation (masturbation) had significantly more orgasms during sexual activity with

their spouses, greater sexual desire, higher self-esteem, greater marital and sexual

satisfaction, and required less time to achieve sexual arousal than women who were

unable to achieve orgasm through self-stimulation. Additionally, feelings of guilt about

one's own masturbation have been associated with lower levels of both physiological and

psychological sexual satisfaction (Davidson & Darling, 1993). Using an anonymous

questionnaire consisting of items pertaining to sexual attitudes, sexual behavior, female

sexual response, orgasm, and sexual satisfaction, Davidson and Darling (1993) obtained

responses from over 800 registered nurses. Women who reported feeling guilty about masturbating had lower levels of sexual adjustment, physiological satisfaction, and psychological satisfaction.

*Frequency of sexual activity.* Perlman and Abramson (1982) note that frequency of intercourse is sometimes used synonymously with the concept of sexual satisfaction, despite weak or nonexistent evidence supporting this identification. In their examination of sexual satisfaction in married and co-habitating individuals, Perlman and Abramson (1982) used self-reports to measure the frequency of sexual intercourse over the previous two weeks and a multi-item measure of sexual satisfaction. They found that frequency of sexual intercourse was positively correlated with sexual satisfaction. In a study with a larger, stratified sample of married adults, Young et al. (1998) measured frequency of sexual activity of 839 participants with a single question regarding the approximate number of times per month that the respondent engages in sexual activity with his or her spouse. Again, frequency of sexual activity was significantly positively correlated with sexual satisfaction. This pattern of results has also been reported by others (Haavio-Mannila & Kontula, 1997; Hurlbert, Apt, & Rabehl, 1993). However, in contrast with the previously mentioned studies, in their 1991 study of female masturbation and sexual satisfaction, Hurlbert and Whittaker found that women who masturbated were more sexually satisfied but found no significant difference in the frequency of intercourse between these women and women who did not masturbate. In this study, it appears that the key variable in the prediction of sexual satisfaction is masturbation, not frequency of sexual intercourse.

The evidence provided by these studies is confused by the multiple definitions of "sexual activity" employed. It may be that intervening variables, such as masturbation, are confounding the results. The potential for bi-directionality of causation seems particularly salient when studying the relation between frequency of sexual activity and sexual satisfaction, further complicating an understanding of the nature of this relation.

*Frequency of orgasm and orgasm consistency.* Even more than frequency of sexual activity, frequency of orgasm and orgasm consistency are used synonymously with sexual satisfaction, again despite some evidence to the contrary; achieving orgasm may not be strongly related to enjoyment of sex (Jobes, 1986). In one review of the literature, Waterman and Chiauzzi (1982) cited a number of studies that suggest that orgasm may play a minimal role in female sexual satisfaction. However, they also indicated that other researchers have found orgasm to be an important factor in sexual satisfaction. For example, Perlman and Abramson (1981) found that individuals who indicated the greatest sexual satisfaction had more orgasms than those who said they were dissatisfied sexually. Somewhat conflicting with this evidence, Hurlbert et al. (1993) found that the number of orgasms a woman had did not predict her level sexual satisfaction but that *orgasm consistency* (the proportion of sexual activity in which the woman experiences an orgasm) did uniquely contribute to the prediction of sexual satisfaction.

Darling, Davidson, and Jennings (1991) found that multi-orgasmic women report more physiological satisfaction with sexual intercourse than women who have only one orgasm per sexual encounter but that self-reported affective sexual satisfaction was not greatly affected by whether or not a woman has multiple orgasms (cited in Young et al.,

1998).  In this study, the relation between frequency of orgasms and sexual satisfaction clearly is highly dependent on the definition of sexual satisfaction.

Such conflicting evidence for a relation between orgasm frequency and sexual satisfaction suggests that this relation is poorly understood.  And again, the direction of such a relation is uncertain.  Further, most of the research in this area has focused on female orgasm and women's sexual satisfaction, with data for men being scant or nonexistent.

*Personality variables.*  Although not examined as often as some of the variables discussed above, certain personality traits have been associated with sexual satisfaction. Farley and Davis (1980) conducted a unique study of married couples to determine whether similarity or dissimilarity of partners' personalities affected their marital sexual satisfaction.  Gender differences were observed such that for females, the most sexual satisfaction occurred when the male's personality was identical or nearly identical to the female's personality on extraversion-introversion and neuroticism dimensions.  But for males, sexual satisfaction was not related to congruence on either of these dimensions but was, instead, positively related to matching on the dimension of psychoticism.

Assertiveness is another personality trait that may be related to sexual satisfaction. In their study of a small sample of professionally employed women, Whitley and Poulsen (1975) found that as levels of assertiveness increased, so did mean sexual satisfaction scores for participants.  Haavio-Mannila and Kontula (1997) found a similar effect in their study of the correlates of sexual satisfaction in Finland.  Their study revealed that women experience greater sexual dissatisfaction than men, and they posit that this may be due in part to a lack of female sexual assertiveness.  Further, Hurlbert et al. (1993) also

found that greater sexual satisfaction was associated with greater sexual assertiveness for women in nondistressed marriages.

Numerous studies (Hally & Pollack, 1993; Hurlbert & Whittaker, 1991; Larson, Anderson, Holman, & Niemann, 1998; Song, Bergen, & Schumm, 1995) provide convergent evidence for the role of self-esteem in predicting sexual satisfaction, indicating that higher self-esteem is associated with greater sexual satisfaction.  Other than some congruence on measures of assertiveness and sexual satisfaction, no theme appears in the study of personality factors and their bearing on sexual satisfaction.

*Sex-role.*  The impact of one's sex role on sexual satisfaction is still unclear, and findings vary.  Rosenzweig and Dailey (1989) found that as a whole, individuals who are more androgynous in the sexual situation (as opposed to a work or social situation) tend to have better dyadic relationship adjustment and greater sexual satisfaction than individuals who are more sex-role stereotypic.  They suggest this may be the case because "androgyny implies more flexibility," and more flexibility in the sexual situation is assumed to be related to greater sexual satisfaction.  Further, in his study of a homogenous sample of middle-aged Caucasian women, Jobes (1986) rejected the hypothesis that women who occupy more traditional sex-roles are more sexually satisfied.  Less traditional women reported a greater likelihood of experiencing orgasm and a greater enjoyment of the same sexual activities as their spouses, but they also found sex less personally satisfying than women who occupied more traditional gender roles.  However, traditionalism was not associated in any strong or consistent way with sexual satisfaction.

Other research has indicated that sex-role may indirectly affect sexual satisfaction by influencing related variables such as sexual expression and sexual attitude (Johnson, 1989), sexual behavior (Leary & Snell, 1988), and relationship satisfaction (Lamke, Sollie, Durbin, & Fitzpatrick, 1994). For example, Lamke et al. (1994) found that for both males and females, relationship satisfaction was related to their own expressive competence and to perceptions of their partner as feminine. The inconclusive nature of the results of the above studies may be due to differences across studies in the methods of measuring the construct of sex-role.

*Communication and self-disclosure.* Strong convergent evidence exists for the impact of effective communication on sexual satisfaction. Both sexual and nonsexual communication appear to play important roles in predicting sexual satisfaction (Banmen & Vogel, 1985; Chesney, Blakeney, Cole, & Chan, 1981; Cupach & Comstock, 1990; Larson et al., 1998; MacNeil & Byers, 1997). However, Byers and Demmons (1999) conducted a study that revealed that sexual exchanges and relationship satisfaction mediated the relation between sexual communication and sexual satisfaction.

*Relationship quality.* Perhaps more than any other single predictor of sexual satisfaction, relationship satisfaction is reliably associated with sexual satisfaction such that when one is high, the other is also high (and, conversely, when one is low so is the other). A wealth of research (Chesney et al., 1981; Cupach & Comstock, 1990; Henderson-King & Veroff, 1994; Hurlbert et al., 1993; Hurlbert & Whittaker, 1991; Perlman & Abramson, 1982; Renaud et al., 1997; Song et al., 1995; Young et al., 1998) shows this pattern, and Lawrance and Byers (1995) have suggested that relationship satisfaction and sexual satisfaction may not be independent concepts. The relation

between the two is likely to be bi-directional, such that general relationship satisfaction contributes to sexual satisfaction, and vice versa (Sprecher, 1998).

While these correlational studies are interesting and have sparked further research, the findings are often contradictory: what is confirmed in one study is not supported in another. Additionally, it is difficult to even attempt to theorize the nature of the relations between these variables and sexual satisfaction. That is, it is problematic to assert directionality, and one is left with the age-old question of correlational research, "Which came first?" Finally, many of these studies have focused on the correlates of *female* sexual satisfaction.

*Theoretical Approaches to Sexual Satisfaction*

One way to approach the concept of sexual satisfaction from a theoretical perspective is to utilize a social exchange framework. Social exchange frameworks focus on the exchange of resources between people (in this case, sexual partners) in the forms of rewards and costs. Rewards are conceptualized as resources that are pleasurable and gratifying, and costs are those events that result in loss of a resource or punishment (Sprecher, 1998). Social exchange theories assert that satisfaction with various aspects of relationships is based on the individual's perceptions of rewards and costs within the relationship. Major exchange perspectives and their contributions to the study of sexual satisfaction are discussed below.

*Reinforcement theory.* Perhaps the simplest and most straightforward example of an exchange theory is reinforcement theory with its emphasis on *absolute rewards*. That is, the more rewards a person receives in a relationship, the happier that person is with his or her relationship. This theory predicts that people will be most satisfied in relationships

where they receive the most benefits and incur the lowest costs (Clark & Chrisman, 1994). This theory best explains the results found by Michaels, Edwards, and Acock (1984) in their investigation of inequality, inequity, outcomes, and satisfaction in intimate relationships. Their results indicated that inequality accounted for 16% of the variance in relationship satisfaction, inequity accounted for 17.9% of the variance, outcome level minus comparison level accounted for 37.5%, and outcome level alone accounted for 42.4% of the variance (note that while the addition of these values appears to exceed 100% of the explained variance, they reflect some degree of shared variance and therefore the actual variance accounted for is less than 100%). These results show clear support for the reinforcement theory: the best predictor of relationship satisfaction was outcome level alone (absolute level of rewards).

Additional support for reinforcement theory can be found in Cate, Lloyd, and Henton's (1985) longitudinal study of the effects of equity, equality, and reward level on the stability of premarital relationships. Three months after the initial data collection, only reward level successfully discriminated between the individuals who were still in their relationships (higher reward levels) and those who were not (lower reward levels); neither equity nor equality of rewards discriminated between stable and unstable relationships when reward level was controlled. A follow-up seven months after the initial data collection yielded the same pattern of results. While these results and those of Michaels et al. (1984) provide support for reinforcement theory as a predictor of overall relationship satisfaction, its relation to sexual satisfaction has yet to be tested.

*Equity theory.* Equity theory asserts that relationship partners will be most satisfied when rewards have been distributed proportionally according to each partner's

inputs into the relationship (Clark & Chrisman, 1994), so that the greater the contributions of a given partner, the greater the rewards for that partner. In contrast, the perception of inequitably distributed rewards will result in dissatisfaction, either in the form of guilt when overrewarded or in the form of anger when underrewarded (Kahn, O'Leary, Krulewitz, & Lamm, 1980).

Walster, Walster, and Traupmann (1978) were the first researchers to test equity theory's applicability to intimate relationships. They examined the relations between relationship equity, relationship contentment/distress, level of sexual involvement, and relationship stability. They predicted that decreased equity in a relationship would be associated with greater distress regarding the relationship, which the partners would try to alleviate by attempting to control the level of sexual involvement in the relationship. Based on evidence that a sexual double-standard for men and women existed at the time of the study, Walster et al. expected that underbenefited men would feel justified in demanding sexual intimacy from their partners, while underbenefited women would feel justified in expecting their partners to wait for sexual involvement. Overbenefited men and women were expected to have guilt concerning their relationships and thereby acquiesce to their partners' sexual demands in order to reduce their own distress resulting from the inequity.

While Walster et al. found support for some of their hypotheses, namely that couples in inequitable relationships are more distressed and less stable, their main contention regarding the degree of sexual involvement in equitable vs. inequitable relationships was not supported. Contrary to their expectations, couples in equitable relationships were the most sexually involved. While men and women in inequitable

relationships did feel more distressed in their relationships than individuals in equitable relationships, it may be this very distress that keeps them from becoming sexually intimate. They suggested that couples in equitable relationships are more content in their relationships and, therefore, perhaps more willing to engage in premarital sexual relationships. They also noted that because equitable relationships are more stable, the participants in equitable relationships may have been willing to become sexually involved because they believed their dating relationships had a good chance of becoming permanent relationships. While their findings ran contrary to their specific predictions, the results of this study nonetheless provide support for the role of equity as a predictor of sexual involvement in intimate relationships, albeit not as the researchers expected.

In another study of dating couples, Traupmann, Hatfield, and Wexler (1983) attempted to go beyond previous study of equity and degree of sexual involvement (i.e., Walster et al., 1978) in order to determine the impact of relationship equity upon the quality of couples' sexual interactions. As in previous studies, Traupmann et al. found that men and women in more equitable relationships were more content, less distressed, and more satisfied with their relationships than those in less equitable relationships. Although they had predicted a similar relation between degree of equity and sexual satisfaction, they did not find support for this hypothesis. That is, respondents in more equitable relationships were not significantly more sexually satisfied than those in less equitable relationships. However, when additional measures of sexual satisfaction were examined (i.e., how loving and close participants felt after a sexual encounter with their partner and how sexually satisfied or sexually frustrated they felt after such an encounter), equity was found to be a significant predictor of post-coital emotion.

Participants in more equitable relationships felt closer and more loving (as opposed to distant and angry) toward their partners after sex than did men and women who were over- or under-benefited.

In order to examine the effects of equity on deeply intimate, committed relationships and to determine its effects on sexual satisfaction within these relationships, Hatfield, Greenberger, Traupmann, and Lambert (1982) interviewed recently married couples. As predicted, they found that husbands and wives in more equitable relationships were more content, less distressed, and more satisfied with their relationships than were those in inequitable relationships. Additionally, those individuals in more equitable relationships were also more satisfied with their lives in general, possibly indicating that relationship equity and satisfaction may influence life satisfaction. More importantly for this study, sexual satisfaction also was related to equity. The men and women in equitable relationships were more sexually satisfied overall and felt more loving and close to their partners after sex.

The studies described above illustrate an inconsistent relation between relationship equity and sexual satisfaction. While equity appears to predict sexual involvement (e.g., Walster et al., 1978) and some research has found a significant, positive relation between relationship equity and sexual satisfaction (e.g., Hatfield et al., 1982), other research has indicated that equity fails to significantly predict sexual satisfaction (e.g., Traupmann et al., 1983).

*Equality.* According to an equality rule, relationship partners will be happiest when rewards are distributed equally rather than proportionally to inputs (equity). In this way, regardless of the relative contributions of each partner, each partner would reap

equal benefits from the relationship. In their study of first- and third-graders, Pataki, Shapiro, and Clark (1994) found some evidence that an equality rule is more likely to be employed in closer relationships, at least among children's friendships, whereas an equity rule may be applied in less intimate relationships. Whether this is the case in adult versus children's relationships or in romantic versus friend relationships is not yet known.

*Investment model.* Another exchange-based theory is Rusbult's (1980) investment model. According to the investment model, satisfaction with a relationship is a function of a comparison of the relationship outcome value (both rewards and costs) with the individual's expectations, or comparison level (CL). Investments are defined as resources given that could not be retrieved if the relationship were to end (Sprecher 1998). This model differs from the previous theories in that it does not emphasize an individual's actual rewards and costs in a relationship but, rather, how the magnitude of those rewards and costs compares to what the individual expected from the relationship. Additionally, the investment model assesses commitment to the relationship by measuring the degree of an individual's investment in that relationship and subtracting the value of available alternatives (e.g., leaving the relationship). According to this model, the most satisfying relationships will be those in which the rewards are high, the costs are low, and comparison levels (expectations) are low. The most committed relationships would be those in which the partners have heavily invested, the rewards are high, costs are low, and alternatives (CL) are poor.

In a test of the investment model, Rusbult (1980) examined the effects of relationship outcome value, investment size, and alternative outcome value on satisfaction and commitment in romantic relationships using an experimental design. In

this experiment, Rusbult found that commitment increased with investment size and decreased with increasing value of alternatives. Contrary to predictions, relationship costs had only a weak effect on commitment. However, relationship costs were significantly and negatively related to relationship satisfaction. In an attempt to assess the model's ability to predict commitment and relationship satisfaction in real-life, on-going romantic relationships, Rusbult (1980) performed a second experiment. In this second experiment, commitment increased as relationship rewards and investment levels increased and values of alternatives and relationship costs decreased. However, the effect of relationship costs on commitment again was weak. And again, satisfaction was associated with both relationship rewards and relationship costs. That is, satisfaction was higher when rewards increased and costs decreased.

When these social exchange theories have been applied to the study of the exchange of resources within intimate relationships, exchanges that are equitable, equal, and/or maximally rewarding are associated with higher levels of relationship satisfaction. While most of these exchange theories have not been explicitly applied to sexual satisfaction, it is likely that these theories would predict the same pattern of results for sexual satisfaction as they have for relationship satisfaction. That is, the greater the levels of absolute rewards, the more equitable, and/or the more equal a sexual relationship is, the greater the sexual satisfaction partners in that relationship will experience. However, the exchange theories discussed above may be too simplistic in their conceptualizations of the dynamics of an intimate relationship, and the observed associations between the various exchange constructs (e.g., equity, rewards) and

relationship satisfaction may not be a direct relation (i.e., the relation may be mediated by other variables).

Another problem with exchange theory is the difficulty of measuring its basic constructs (rewards, costs, equity, etc.), especially in intimate relationships, where one or more of these constructs may be confounded.  Michaels et al. (1984) noted the problem of confounding inputs with outcomes when dealing with intimate relationships, stating that mutually enjoyable sexual intercourse is a frequent example of the confounding of contribution and outcome.  Additionally, exchange models have focused on only one causal direction (Sprecher, 1998).  That is, it is assumed that equitable or equal exchange leads to greater sexual satisfaction, rather than satisfaction with the sexual relationships leading to greater perceived equity or equality.  Finally, Sprecher (1998) notes that exchange theorists tend to look at the relationship in its entirety, failing to separate the sexual relationship.  However, there is one exchange theory that has been specifically developed for and applied to sexual relationships and predicting sexual satisfaction.  This model, the Interpersonal Exchange Model of Sexual Satisfaction (IEMSS; Lawrance & Byers, 1992) has elements in common with several of the exchange theories outlined above.

*Interpersonal Exchange Model of Sexual Satisfaction*

The Interpersonal Exchange Model of Sexual Satisfaction (IEMSS) proposed by Lawrance and Byers (1992, 1995) is perhaps the most highly developed exchange model in terms of its application to the study of sexual satisfaction per se.  It suggests that sexual satisfaction is dependent upon the levels of costs (CST) and rewards (REW) in a sexual relationship, and upon one's comparison levels for rewards ($CL_{REW}$) and costs ($CL_{CST}$)

and the equality of rewards and costs between partners ($EQ_{REW}$, $EQ_{CST}$). As in previous exchange models, *rewards* are the positive aspects in a relationship. They can be defined as exchanges that are pleasurable and/or gratifying, while *costs* (the negatives in a relationship) are those exchanges that cause pain, embarrassment, or anxiety or that demand physical or mental effort. A *comparison level* is the level of rewards and costs that an individual believes he or she should receive from the relationship (i.e., one's expectations). Lawrance and Byers assert that satisfaction is not based on absolute reward levels (see reinforcement theory, above) in a relationship but, rather, on the level of rewards and costs relative to one's comparison level. *Equality* in this model is the perception that one's own rewards and costs are equal to one's partner's rewards and costs.

According to the IEMSS, sexual satisfaction will be greatest when the level of relationship rewards exceeds the level of relationship costs, when one's comparison levels for rewards exceed one's comparison levels for costs, and when an interpersonal balance of rewards and costs (i.e., equality) exists. Lawrance and Byers (1992) also highlight the role of time in long-term relationships, stating that satisfaction is most likely a function of a couple's history (past exchanges) as well as the current state of exchange between the partners. Accordingly, if rewards, costs, or equality are temporarily unfavorable in a previously favorable, balanced relationship, satisfaction will not necessarily decrease immediately. For this reason, the balance of rewards, costs, comparison levels, and equality are summed over time. They have represented this formula algebraically in the following way:

Sexual Satisfaction = $\sum_{time}$ (REW - CST) + (CL$_{REW}$ - CL$_{CST}$) + (EQ$_{REW}$, EQ$_{CST}$).

In order to test this model, Lawrance and Byers (1995) conducted a longitudinal study of sexual satisfaction in long-term relationships. They mailed questionnaires to 1,656 individuals, including randomly selected university alumni, all university staff, and volunteers who responded to advertisements. During this initial mailing, they did not attempt to pre-select married or co-habiting people. However, only individuals in these types of relationships were eligible to participate further, and 244 married or cohabiting individuals responded to their request for participants and returned completed surveys. Three months later, follow-up measures were sent to these participants. One-hundred forty-three of the original sample completed the follow-up questionnaires. The questionnaires for Time 1 and Time 2 contained the same scales and measured the constructs (rewards, costs, comparison levels for rewards and costs, equality or rewards and costs, sexual satisfaction, and relationship satisfaction). Respondents' ages, the ages of their partners, type and length of relationship, number and ages of children (if any), frequency of affectionate behaviors, and frequency of sexual behaviors were also assessed.

Lawrance and Byers predicted that measuring exchanges over a longer period of time would predict sexual satisfaction better than over a shorter period of time due to the influence of a couple's previous history of exchange. Therefore, scores from Time 1 and Time 2 were summed from the measures of REW, CST, CL$_{REW}$, CL$_{CST}$, EQ$_{REW}$, EQ$_{CST.}$ As predicted, correlational analyses indicated that sexual satisfaction was greater when rewards were higher, costs were lower, relative reward levels (CL$_{REW}$) were higher,

relative cost levels were lower (CL$_{CST}$), and interpersonal equality of rewards and costs was greater. In short, all the IEMSS constructs were significantly correlated with sexual satisfaction. Furthermore, this model accounted for 76% of the sexual satisfaction variance.

This model may help elucidate the relation between relationship satisfaction and sexual satisfaction. After controlling for IEMSS components, Lawrance and Byers found that sexual satisfaction was still significantly related to relationship satisfaction and that adding relationship satisfaction to the model improved prediction of sexual satisfaction. They argue that relationship satisfaction and sexual satisfaction may not be independent constructs and should not be studied in isolation from one another. This argument is congruent with the studies cited above that have found a strong relation between overall relationship satisfaction and sexual satisfaction. It is likely that these two constructs mutually influence one another.

*An Alternative Perspective: The Theory of Communal Relationships*

An exchange model of sexual satisfaction, with its clean, mathematical reductionism, is very appealing. However, there is another model that may predict sexual satisfaction as well as (or perhaps better than) an exchange model. Such a model might be constructed based on communal relationships theory, which has received very little attention in the literature on sexual satisfaction. In this study, I will be focusing on the relations between sexual satisfaction, mutual communal behaviors, sexual exchange constructs, and relationship satisfaction. Certain exchange constructs (e.g., rewards, costs) and relationship satisfaction have both been shown to predict sexual satisfaction, but the relation between mutual communal behaviors and sexual satisfaction is unclear.

Do mutual communal behaviors also predict sexual satisfaction and/or relationship satisfaction and to what degree? What is the nature of the relation between these variables, if any? Answering these questions would expand the theoretical basis for examining sexual satisfaction and may also yield a more accurate predictor.

In order to appreciate the potential utility of a communal model of sexual satisfaction, it is helpful to understand what differentiates a communal relationship from an exchange-based one. In both exchange-based relationships and communal relationships there is an expectation of fairness, but what is considered "fair" is somewhat different depending on whether the relationship is more or less communal, or more or less exchange-based. An exchange-based relationship is characterized by partners exchanging benefits in such a way that for every benefit given, a similar benefit is expected to be received in turn. When one partner gives, he or she expects to receive. Likewise, when a partner receives, he/she understands that a debt to the other partner has been incurred. What is "fair" in a communal relationship is simply that both partners' needs are met over time (G. M. Williamson, personal communication, December 4, 2002). This is not just exchange over the long term: a communal relationship is characterized by partners meeting each others' needs as they arise, without concern for whose needs were met mostly recently or most frequently, even if the distribution of benefits is unequal or inequitable (i.e., one partner's needs are consistently greater). Additionally, a given relationship may be both communal and exchange depending on what aspect of the relationship is being examined. For example, married partners might have a relationship that could be characterized as communal when viewed as a whole, but

be very exchange-based within a particular domain (e.g., household chores).  These

subtle distinctions become clearer when the empirical literature is reviewed.

*Empirical Evidence for a Distinction Between Communal and Exchange Relationships*

Clark and Mills (1993) argued that there are observable differences between

communal and exchange relationships and that the distinction between the two is a useful

conceptual tool for understanding the giving and receiving of benefits in the relationships

that are most important to us.  A variety of distinctions between the two have been

demonstrated, including:

*Relationship costs and quality.*  There is consistent support for the view that the

more rewards received in a relationship, the higher the quality of the relationship  (e.g.,

Cate et al., 1985; Michaels et al., 1984).  However, support for the idea that relationship

costs ought to be negatively linked to relationship quality is mixed.  Costs are often non-

significant or inconsistent predictors, and some studies have actually found indices of

costs to be positively related to indices of relationship quality (e.g., Hays, 1985).  For

example, in a test of the generalizability of the Investment Model, Rusbult et al. (1986)

found all three relations (no association, positive correlation, and negative correlation)

between costs and relationship satisfaction and commitment, depending on which sub-

samples were examined.  Further, while examining the development of friendships Hays

(1985) noted that adding relationship costs to benefits received from the relationship

provided a better predictor of friendship intensity than subtracting relationship costs from

benefits received, and he suggested that costs and benefits were both inseparable aspects

of friendship.  Clark and Grote (1998) contend that measures of relationship costs have

tapped a variety of constructs and suggest that while some of these constructs should

indeed be negatively related to relationship quality (e.g., a partner's intentional poor behavior toward the other partner; negative things associated with the relationship but not directed at the partner), at least one construct- *behaving communally to meet the needs of the other*- should be positively or non-significantly associated with relationship quality. That is, Clark and Grote maintain that it would be possible to feel satisfied even when one is under- or over-benefited in a relationship if that relationship has historically been communal. In this way, relationship quality may be positively affected not only by what one receives from the partner (rewards/benefits) but also by what one gives to the partner in order to meet that person's needs (costs) if both parties have adhered to the communal norm.

   *Interpersonal attraction.* In their study on interpersonal attraction in exchange and communal relationships, Clark and Mills (1979) hypothesized that for individuals desiring an exchange relationship, receiving a benefit in response to a benefit given will increase attraction. However, for persons desiring a communal relationship, they predicted the opposite would be true: receipt of a benefit in return for a benefit given would decrease attraction. These predictions were based on the expected reaction to actions that are either appropriate or inappropriate to the type of relationship desired. In this case, a benefit given in response to a benefit received in the past is appropriate to an exchange relationship but not to a communal relationship, while a benefit given simply to meet the needs of another person would be appropriate to a communal relationship but not to an exchange relationship.

   To test these hypotheses, Clark and Mills conducted two studies, one using unmarried male participants and one using female participants. In the first study, the

male participants worked on a task while viewing a television monitor that showed an attractive woman also working on the task. Participants in the communal condition were told that the woman was unmarried, while those in the exchange condition were informed that she was married. All of the participants were led to believe that they would be interacting with the woman as part of a second study and that they would be expected to discuss common interests with her. Upon completion of the task, each participant was given credit and was also given the opportunity to help the woman (who he had been told was working on a more difficult task) by sending her some of his extra materials that she could use. After giving the aid, some of the participants simply received a thank-you note, and the rest received a thank-you note in which the woman also gave extra credit points to the participant.

Congruent with their hypotheses, Clark and Mills found that individuals in the exchange-benefit condition (the woman is married; participant received the note plus extra credit points) liked the woman better than those in the exchange-no benefit condition (note only). The opposite pattern was observed in the communal conditions (woman is unmarried): those in the communal-benefit condition (note plus extra credit) indicated liking the woman less than those in the communal-no benefit (note only) condition. The effect of the interaction between relationship type and benefit condition on liking was also significant. Participants in the exchange-benefit condition also thought that the interaction with the woman would be more pleasant than those in the exchange-no benefit condition, as did those in the communal-no benefit condition when compared to those in the communal-benefit condition.

In the second experiment, Clark and Mills again manipulated desire for communal or exchange relationships, this time with a group of female college students. The experimenter explained that the participant would be working on a task and then that she would have the opportunity to interact with another subject, visible on a television monitor. Participants in the communal condition were told they would be discussing common interests; participants in the exchange condition were told they would be discussing differences in interests.

While the participants worked on their task, they viewed the woman finish her task easily within the allotted time. Participants then saw the woman push some of her extra materials to the front of the table. At this point, the experimenter blocked the participants' view so that they could not see whether or not the woman had handed the materials to the experimenter. The experimenter then returned to the participant, and either gave the participant the extra materials, commenting that "Tricia asked me to give you these" (aid condition), or did not mention the materials (no aid condition). The participant was then given additional time to work on the task. At the end of this time, the participant was told she would have the opportunity to request points from the woman. Before doing so, the experimenter indicated that she would also be checking with the other woman to see if she wanted to request points from the participant. Upon returning from this consultation, the experimenter handed a note (supposedly from the other subject) to the participant in which the woman either requested one point from the participant (request condition), or no points (no request condition). The experimenter then took any requests for points from the participants.

Afterwards, the experimenter reminded the participant that she would now be interacting with the other woman, but that first she would be filling out two forms in order to indicate her first impressions of the other woman and her expectations for the discussion. She was told that her answers would be kept confidential. As predicted by exchange theory, participants in the exchange-aid-request condition liked the other woman more than those in the exchange-aid-no request condition (no opportunity to repay a perceived debt). However, participants in the communal-aid-request condition liked this woman *less* than those in the communal-aid-no request condition. According to exchange theory, when a debt has been incurred, individuals seek to repay that debt and prefer that others allow them to do so. Communal relationships theory suggests that under certain circumstances (e.g., when a communal relationship is desired), the desire to balance the scales will be absent and even frowned upon. This reverse in trend is evident in the communal conditions where the other woman provided aid but then requested points in return for the favor, an action inappropriate in a communal relationship. Contrary to prediction, no significant difference was found between the communal-no aid-request condition and the communal-no aid-no request condition. When aid and no aid conditions were compared, the results again favored a communal relationships explanation. Participants in the exchange-aid-request condition liked the other woman more than those in the exchange-no aid-request condition but so did the those in the communal-no aid-request condition compared to those in the communal-aid-request condition, a finding which runs contrary to predictions based on exchange theory. Finally, those in the exchange-no aid-no request condition liked the other woman more than those in the exchange-aid-no request condition. A comparison between communal-

aid-no request condition and communal-no aid-no request conditions yielded no significant difference.

In terms of expected pleasantness of the anticipated discussion, the responses of participants in all four exchange conditions were approximately the same, but the responses of those in the communal conditions varied. Anticipated pleasantness was also significantly greater in the communal-no aid-request condition than in the communal-no-aid-no request condition. Again, this finding can only be accounted for by communal relationships theory because it runs contrary to expectations based on exchange theory, which would predict that anticipated pleasantness would be greater in the communal-no aid-no request condition. No aid had been given, therefore no request would be justified in an exchange relationship where this "inappropriate" request should have decreased the anticipated pleasantness, yet it did not and thereby supported an interpretation based on communal relationships theory.

Exchange theory does not adequately explain the results obtained in any of the studies cited above. Communal relationships theory, on the other hand, is able to offer theoretical explanations for these unexpected patterns and may be a useful tool for predicting other relational constructs, such as sexual and relationship satisfaction. Additionally, other research has challenged the premises of exchange-based theories and found evidence for a distinction between exchange and communal relationships, lending support for predictors derived from communal relationships theory (see, for example, Clark, 1981; Clark & Taraban, 1991).

*Communalism and Sexual Satisfaction*

While the theory of communal relationships has been applied to a variety of topics, its application to sexual relationships and its potential relation to sexual satisfaction have yet to be examined in any detail. Hughes and Snell (1990) were the first to apply a modified version of this theory to sexual relationships. They focused on the relations between a *communal orientation to sex* (partners feel responsible for each other's sexual satisfaction and welfare; they wish to demonstrate a desire to respond to each other's sexual needs), an *exchange orientation to sex* (partners do not feel any responsibility for each other's sexual satisfaction; they give sexual pleasure only in response to sexual benefits previously received or promised), and relationship satisfaction for males and females. Hughes and Snell (1990) developed the Sexual Relationship Scale (SRS), which was designed to measure communal and exchange orientations to sex. The SRS is a 24-item Likert-type measure that assesses an individual's communal and exchange orientations to his or her sexual relationship rather than to the relationship as a whole. Hughes and Snell predicted that a communal approach to sex would be positively associated with a communal relationship orientation and that an exchange orientation to sex would likewise be positively related to an exchange relationship orientation. Furthermore, they predicted that a communal approach to sex would be positively associated with relationship satisfaction and that an exchange approach to sex would be negatively related to relationship satisfaction.

To test these hypotheses, Hughes and Snell surveyed 158 male and female undergraduates using the Communal and Exchange Orientation Scales (Clark, Ouellette, Powell, & Milberg, 1987; Clark, Taraban, Ho, & Weser, 1989), the Relationship

Assessment Scale (Hendrick, 1988), and the Sexual Relationship Scale. As predicted, higher scores on the measure of communal relationship orientation were positively associated with scores on the measure of communal orientation to sex for females and for the two sexes combined (for males alone, this relation was nonsignificant). Higher scores on the measure of exchange relationship orientation were also positively and significantly related to scores on the measure of exchange orientation to sex for females, males, and both sexes combined. The Communal and Exchange subscales of the SRS were not related to each other for females. However, for males, the two subscales were positively associated ($r = .28$, $p < .05$).

Hughes and Snell (1990) also found gender differences in the relations between communal orientations to sex, exchange orientations to sex, and relationship satisfaction. For males, a high exchange orientation to sex predicted decreased relationship satisfaction, although no significant positive relation was found between a communal orientation to sex and relationship satisfaction. For females, increased relationship satisfaction was associated with a communal approach to sex, but an exchange orientation to sex was not associated with decreased relationship satisfaction.

Other than in the Hughes and Snell study outlined above, the theory of communal relationships has not been applied to the study of sexual relationships. And even in their study, communal and exchange orientations were more narrowly defined in terms of an individual's orientation toward sex, not the relationship overall. Furthermore, this study measured the correlation between communal and exchange orientations to sex and relationship satisfaction, not sexual satisfaction. However, based on the high levels of

correlation between relationship satisfaction and sexual satisfaction, it is reasonable to expect that similar results may be predicted for sexual satisfaction as well.

*Overview of the Present Study*

The purpose of this study was to measure the degree of communality in on-going intimate relationships with the intention of predicting sexual and relationship satisfaction, as well as to compare the predictive capacity of communality with the predictive ability of certain exchange constructs (e.g., components of the IEMSS). For the purposes of this study *communality* is being defined as the extent to which partners *behave* communally toward one another (i.e., the extent to which mutual communal behaviors are present in the relationship). The assessment of mutual communal behaviors provides a measure of an interpersonal or relationship-centered variable more analogous to the interpersonal exchange constructs of interest (e.g., rewards, costs), as opposed to the assessment of an individual's *communal orientation*, which has been conceptualized as an intrapersonal or personality variable (G. M. Williamson, personal communication, December 4, 2002). For example, the Communal Approach to Sex subscale of the SRS (Hughes & Snell, 1990) assesses an individual's beliefs and expectations about the nature of sexual relationships, and respondents are instructed to decide to what extent various statements (e.g., "I believe sexual lovers should go out of their way to be sexually responsive to their partner") are characteristic of *them*, not of their relationship. By way of contrast, the modified Mutual Communal Behaviors Scale employed in this study (MCBS; Williamson & Schulz, 1995, see Appendix) measures interpersonal behaviors actually present in the relationship, and participants are asked to determine how accurately each

statement (e.g., "My partner responds to my needs") describes their *interactions* with their partners (i.e., their relationship).

In this study as in the literature, communality in a relationship is conceptualized on a continuum. A relationship is rarely 100% communal or exchange but, rather, has some degree of both attributes. It may be the case that the extent to which partners in a given relationship behave communally toward one another has the potential to moderate effects of other variables (e.g., equality of outcomes, relationship costs) on the prediction of sexual satisfaction. Based on the literature reviewed, which distinguishes communal relationships from exchange relationships, the following hypotheses will be tested:

*Hypothesis 1*

Mutual communal behaviors and exchange constructs each will be positively correlated with both sexual satisfaction and relationship satisfaction in bivariate correlational analyses.

*Hypothesis 2*

A communal model will predict sexual satisfaction and/or relationship satisfaction better than an exchange model in some or all cases. Specifically, mutual communal behaviors will mediate the relation between exchange constructs and sexual and relationship satisfaction. In this case, both exchange constructs and mutual communal behaviors will be positively related to sexual and relationship satisfaction. Mutual communal behaviors and exchange will also be positively related to each other, and when variance due to mutual communal behaviors is partialed out, exchange will no longer predict (be significantly related to) either sexual satisfaction or relationship satisfaction (see Figure 1a). However, the reverse will not be true. That is, when variance due to the

exchange constructs is removed, mutual communal behaviors will still be positively and significantly related to sexual satisfaction (see Figure 1b).

*Hypothesis 3*

Mutual communal behaviors will moderate the relation between exchange constructs and sexual and relationship satisfaction such that when mutual communal behaviors are low, exchange constructs will significantly predict sexual satisfaction and relationship satisfaction (Figure 2a), but when mutual communal behaviors are high, measures of exchange constructs will be less strongly and, possibly, even negatively associated with sexual satisfaction and relationship satisfaction (Figure 2b).
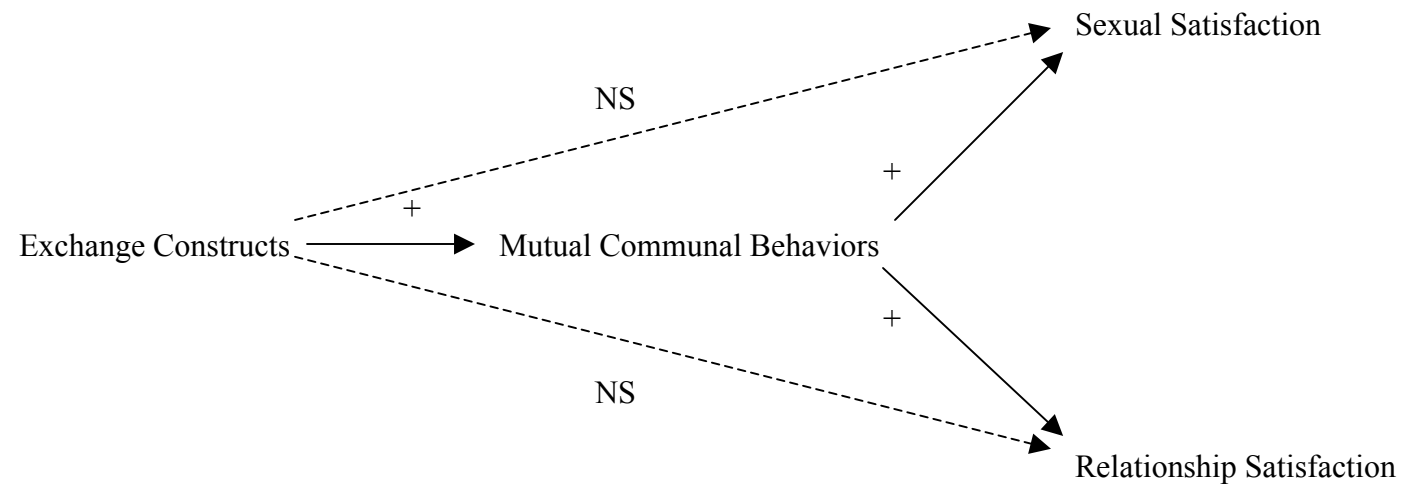
*Figure 1a.* Mutual communal behaviors will mediate the relation between exchange constructs and sexual satisfaction and

relationship satisfaction. Note: + = positive, significant correlation, NS = nonsignificant correlation.
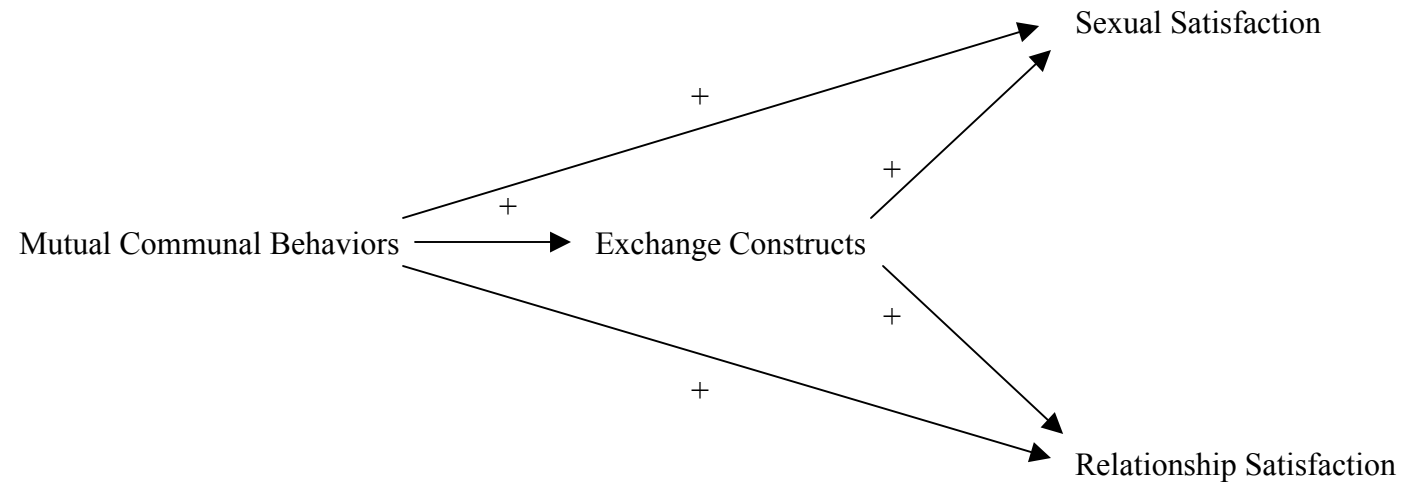
*Figure 1b.* Exchange will not mediate the relation between mutual communal behaviors and sexual satisfaction or relationship satisfaction. Note: + = positive, significant correlation.

NS

Sexual Satisfaction

Low Mutual Communal Behaviors

+

Exchange Constructs

+

Relationship Satisfaction

NS
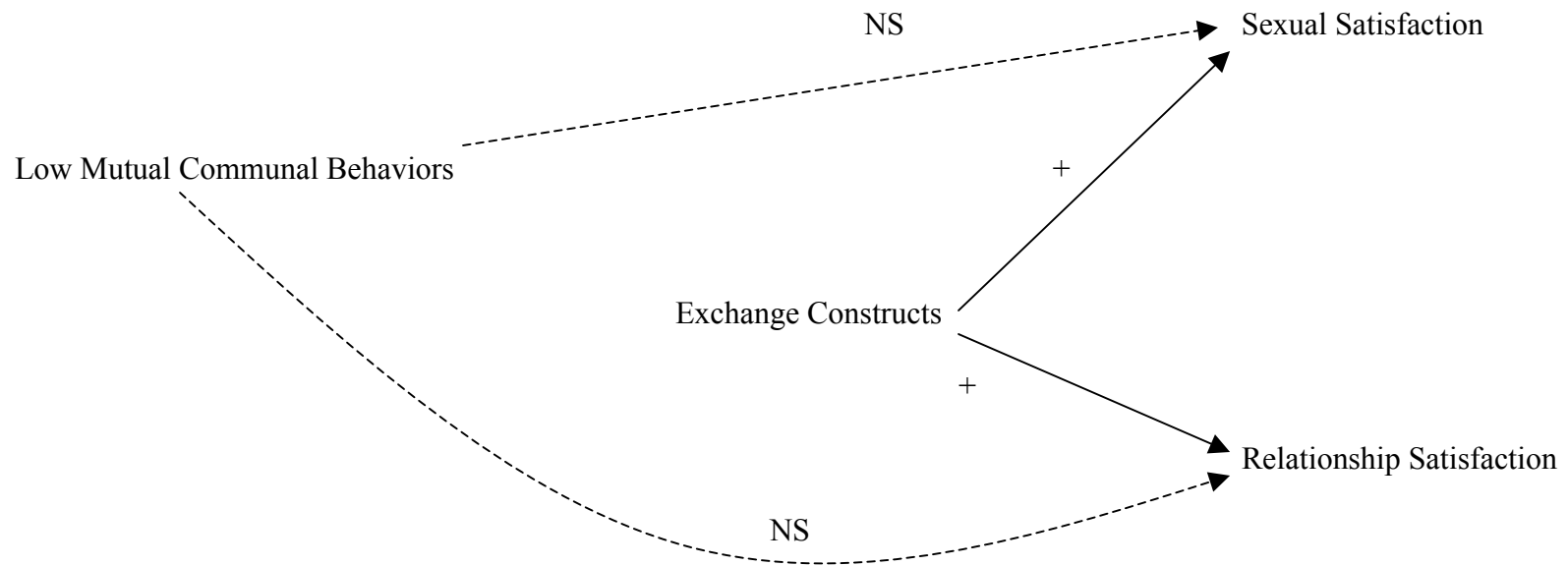
*Figure 2a.*  When mutual communal behaviors are low, exchange constructs will predict sexual satisfaction and relationship satisfaction.  Note: + = positive, significant correlation.

Sexual Satisfaction

+

High Mutual Communal Behaviors

NS or –

Exchange Constructs

NS or -

Relationship Satisfaction

+
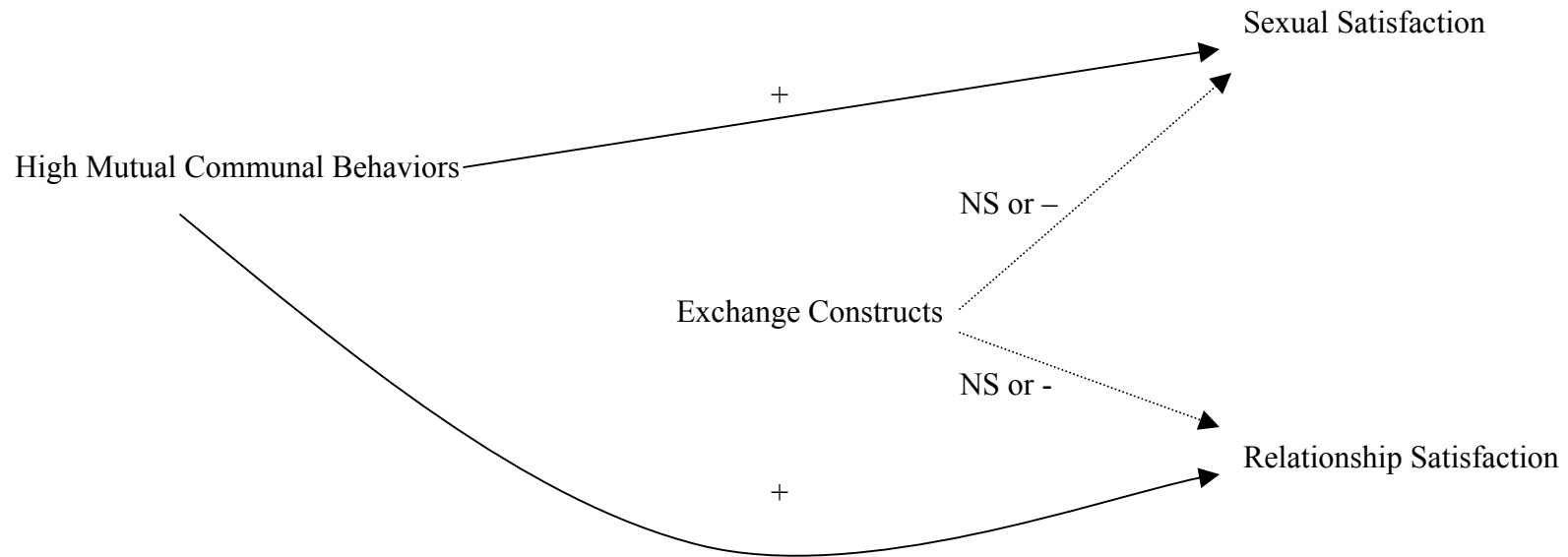
*Figure 2b.* When mutual communal behaviors are high, exchange constructs will not be significantly related to (or possibly

negatively related to) sexual satisfaction and relationship satisfaction.  + = positive, - = negative, significant correlation, NS =

nonsignificant correlation.

CHAPTER 3

METHOD

*Participants*

The sample consisted of 189 college undergraduates (102 female, 85 male, 2

undisclosed) who were recruited from the Psychology Department's research

participation pool at the University of Georgia.  Participants received partial course credit

for their participation.  In order to be eligible to participate in this study, participants had

to be at least 18 years of age and had to have been involved in an on-going, heterosexual,

sexually active relationship for the past three months.  Participants were allowed to define

"sexually active" for themselves (i.e., some participants may have been practicing oral

sex but not vaginal intercourse).  Mean age of participants was 19.89 years, with 99%

between the ages of 18 and 24.  The mean length of participants' current relationships

was 17.19 months.

*Procedure*

Upon arriving at the study site, a classroom in the Psychology Building,

participants were asked to seat themselves in every other desk to insure privacy.  After

introducing herself, the researcher asked the participants to complete an Informed

Consent form, followed by a set of questionnaires described below.  Participants were

instructed to read all introductory instructions and a brief description of the study and to

then remove Informed Consent form from the survey packet and sign it.  In order to

insure the anonymity of their responses, the researcher asked the participants to place

their completed surveys in a box at the front of the room, and to place their consent forms in a separate box.

*Measures of Predictor Variables*

    *Communal measure.*  The degree of communality in a particular relationship was assessed using a modified version of the 10-item Mutual Communal Behaviors Scale (MCBS; Williamson & Schulz, 1995, see Appendix).  This questionnaire asks participants to think back over the course of their relationship and indicate on a scale of 1 ("never") to 4 ("always") how often they or their partners engaged in overt communal behaviors (e.g., "My partner does things just to please me").  This scale was originally developed for use with caregivers of frail elderly and was adapted for purposes of this study.  Williamson and Schulz reported Cronbach's alpha for internal consistency of .88.  Test-retest reliabilities at 4- and 8-month intervals were .71 and .67, respectively.  In this sample, alpha was .82.

    *Exchange measure.*  The Exchanges Subscale (items 10 to 15) of the Interpersonal Exchange Model of Sexual Satisfaction Questionnaire (IEMSS; Lawrance & Byers, 1992, 1995) was used to assess the exchange constructs shown to predict sexual satisfaction (i.e., rewards, costs, comparison level for rewards, comparison level for costs, equality of rewards, equality of costs).  This 6-item instrument requires respondents to think over their sexual relationship over the past three months and indicate on a 9-point scale (1 = not at all, 9 = extremely) how rewarding the relationship is, how costly the relationship is, and how their rewards and costs compare to what they expect from a sexual relationship and how they compare to what their partner gets out of the relationship.  Three-month test-retest reliabilities for rewards, costs, and comparison

levels of rewards and costs have ranged from .43 to .67 (Lawrance & Byers, 1992, 1995).

Lawrance and Byers tested the validity of levels of rewards and costs by correlating them

with the Index of Sexual Satisfaction (ISS; Hudson et al., 1981) and a single-item

measure of sexual satisfaction. Level of rewards was significantly correlated with both of

these measures ($r$ = -.66 and .64, respectively), and level of costs was significantly related

to the ISS ($r$ = .30) but not to the single-item measure ($r$ = -.15). Additionally, items on

the Exchanges Questionnaire were also significantly correlated with responses to the

Global Measure of Sexual Satisfaction (GMSEX; Lawrance & Byers, 1992), described

below.

*Measures of Outcome Variables*

     *Sexual satisfaction.* The Global Measure of Sexual Satisfaction (GMSEX; Q16 of

the IEMSS; Lawrence & Byers, 1992; see Appendix) was the primary measure of sexual

satisfaction in this study. This 5-item measure asks participants to assess their

perceptions of their sexual relationship on several dimensions. Test-retest reliability for

the GMSEX at a two-week interval was reported to be .84, and at a 3-month interval was

.78 (Lawrance & Byers, 1992, 1995). The GMSEX was validated by comparison with

the ISS and another single-item measure of sexual satisfaction, with correlation

coefficients of .65 and .70 respectively. In this sample, alpha was equal to .90.

     The Index of Sexual Satisfaction (ISS; Hudson et al., 1981) was also used to

measure sexual satisfaction, primarily for the purposes of validating the GMSEX

measure. This 25-item scale asks participants to rate on a scale of 1 to 4 how often they

feel a particular way about their sexual relationship (e.g., "I feel our sex life really adds a

lot to our relationship"), with higher scores indicating greater sexual *dissatisfaction* (i.e.,

lower scores reflect greater sexual satisfaction). A Cronbach's alpha of .92 has been reported for the ISS, as well as a known-groups validity coefficient of .76 (Clive, Yarber, Bauserman, Schreer, & Davis, Eds., 1998). In this sample, Cronbach's alpha was .85. Moreover, ISS scores were significantly correlated with GMSEX scores $r$ (1, 185) = -.69, $p < .01$, thus providing some construct validity for the GMSEX measure of sexual satisfaction used in this study.

*Relationship satisfaction.* The Global Measure of Relationship Satisfaction (GMREL; Q-7 of the IEMSS; Lawrance & Byers, 1992; see Appendix) was the primary measure of relationship satisfaction in this study. This measure is highly correlated with the Dyadic Adjustment Scale ($r = .69$), supporting its validity. At two weeks and three months, Lawrance and Byers reported the test-retest reliability of the GMREL as .81 and .70 respectively. In this sample, alpha was equal to .93.

*Measures of Control Variables*

*Demographic information.* Questions 1 through 4 of the IEMSS were used to collect background information on participants. These questions assess the sex and age of the participant and the type and length of the relationship in which the respondent is currently involved.

*Analyses*

Data analyses included simple bivariate correlations, path analyses using regression, tests for mediation and moderation, and hierarchical regression. Simple correlations between the variables in the model were assessed using Pearson's test for correlation. Path analyses were conducted as a first evaluation of the hypotheses. Path analysis involves a series of linear regressions between the proposed antecedent,

intervening, and outcome variables. In the first regression, the proposed intervening variable (e.g., mutual communal behaviors) was regressed onto the proposed antecedent variable (exchange construct). In the second regression, the outcome variable (sexual satisfaction or relationship satisfaction) was regressed onto the intervening variable and the antecedent variable simultaneously. Analyses of mediation and moderation (Baron & Kenny, 1986) were conducted to determine the nature of the relations within the path model.

In order to test for mediation, there must be a significant zero-order correlation between the antecedent variable (e.g., exchange construct) and outcome variables (sexual satisfaction and relationship satisfaction). In addition to these relations, the relation between the proposed intervening variable (e.g., mutual communal behaviors) and the exchange construct must also be significant. Finally, in order to test for mediation, the relation between the intervening variable and sexual or relationship satisfaction must be significant. If each of these conditions is met, then one can test for mediation by following three steps. First, the proposed mediators are regressed onto the independent variable. Second, the dependent variable is regressed onto the proposed mediator. Finally, the dependent variable is regressed onto the intervening variable and the independent variable simultaneously. If both of the regression coefficients in the first two steps are significant, and if the third regression shows that the relation between the independent and dependent variable is no longer significant (or is greatly reduced), then mediation exists.

Tests for moderation involve a series of multiple regressions between the proposed independent, moderating, and dependent variables, and an interaction term

created from the product of the independent variable and the proposed moderator.  If the interaction term in the regression equation is significant, moderation exists.

In order to compare the present sample with previous work done by Lawrance and Byers (1995) and Byers, Demmons, and Lawrance (1998), hierarchical regressions were performed on the data.  Replicating their analyses, sexual satisfaction measured by the GMSEX was entered as the dependent variable.  Relationship satisfaction as measured by the GMREL was entered on the first step.  The four exchange components (rewards minus costs, comparison levels for rewards minus comparison level for costs, equality of rewards, and equality of costs) were entered simultaneously on the second step.  Using hierarchical regression in this way allows one to determine how much variance in sexual satisfaction is being accounted for by the exchange components above and beyond the variance accounted for by relationship satisfaction.  Similar analyses were performed using relationship satisfaction as the dependent variable.

CHAPTER 4

RESULTS

*Descriptive Statistics and Bivariate Correlational Analyses*

Table 1 presents the descriptive statistics for all measures pertinent to the study

and, when possible, compares the values obtained to those obtained by Lawrance and

Byers (1995) and Byers et al. (1998). Perhaps the most pertinent comparisons are the

present results with those of Byers et al. (1998), a study of a college student sample. As

can be seen in examining the table, means obtained in the present sample are roughly

comparable to those of Byers et al.'s (1998) sample. One possible exception is that

participants in the present sample seem to view the costs associated with their sexual

relationship and the comparison level for costs (i.e., believing their relationship is more

costly than it should be) to be somewhat higher than did Byers et al.'s (1998) college

student sample. However, mean sexual satisfaction and relationship satisfaction scores

were quite comparable across these samples depicted in Table 1.

Bivariate correlations among all the variables were calculated to determine their

degree of relatedness and to establish a foundation for further analyses. The

intercorrelation matrix is shown in Table 2. As predicted, mutual communal behaviors

and exchange constructs were positively correlated with sexual satisfaction in bivariate

correlational analyses. Mutual communal behaviors, as measured by the MCBS, were

positively correlated with sexual satisfaction (GMSEX), $r$ (1, 187) = .44, $p$ < .01.

Exchange constructs were measured by applying the following formula (specified by

Table 1

*Comparison of descriptive statistics for Exchange Constructs, Sexual Satisfaction, and Relationship Satisfaction across the present*

*sample and two previous samples*

| | Peck, 2002 | | | Lawrance & Byers, 1995 | | | | | | Byers et al., 1998 | |
| | | | | Time 1 | | | Time 2 | | | | |
| Variable | *M* | *SD* | Range | *M* | *SD* | Range | *M* | *SD* | Range | *M* | *SD* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| REW | 7.5 | 1.2 | 3 – 9 | 6.5 | 2.2 | 1 – 9 | 6.5 | 2.0 | 1 – 9 | 7.2 | 1.6 |
| CST | 3.9 | 2.2 | 1 – 9 | 3.1 | 2.2 | 1 – 9 | 3.2 | 2.1 | 1 – 9 | 3.1 | 2.0 |
| REW – CST | 3.6 | 2.6 | -4 - +8 | 3.4 | 4.1 | -8 - +8 | 3.3 | 3.8 | -8 - +8 | 4.1 | 2.9 |
| CLrew | 6.6 | 1.6 | 2 – 9 | 5.6 | 2.2 | 1-9 | 5.3 | 2.0 | 1 – 9 | 6.3 | 1.9 |
| CLcst | 4.9 | 1.8 | 1 – 9 | 4.2 | 2.0 | 1-9 | 4.3 | 1.9 | 1 – 9 | 3.7 | 1.9 |
| CLrew – CLcst | 1.7 | 2.5 | -7 - +8 | 1.4 | 3.6 | -8 - +8 | 1.0 | 3.6 | -8 - +8 | 2.7 | 3.2 |
| EQrew | 2.8 | 1.2 | 0 – 4 | 3.1 | 1.2 | 0 – 4 | 3.1 | 1.1 | 0 – 4 | 3.3 | 0.9 |
| EQcst | 3.1 | 1.2 | 0 – 4 | 3.1 | 1.2 | 0 – 4 | 3.1 | 1.2 | 0 – 4 | 3.2 | 1.2 |
| GMSEX | 30.4 | 4.1 | 15 – 35 | 28.6 | 6.6 | 8 – 35 | 28.0 | 6.4 | 9 – 35 | 30.7 | 4.5 |
| GMREL | 30.3 | 4.3 | 15 – 35 | 30.2 | 5.3 | 10 – 35 | 30.2 | 5.1 | 11-35 | 30.9 | 4.6 |
| IEMSS | 11.2 | 5.5 | -8 - +23 | | | | | | | | |
| MCBS | 35.0 | 4.0 | 25 – 40 | | | | | | | | |
| Length | 17.2 | 13.8 | 3 – 72 | | | | | | | | |
| Age | 19.9 | 1.6 | 18 – 35 | | | | | | | | |

*Note*.  REW = rewards, CST = costs, REW-CST = rewards minus costs, CLrew = comparison level for rewards, CLcst = comparison

level for costs, CLrew-CLcst = comparison level for costs minus comparison level for rewards, EQrew = equality of rewards, EQcst =

equality of costs, GMSEX = sexual satisfaction, GMREL = relationship satisfaction, IEMSS = exchange composite score, MCBS =

mutual communal behaviors, Length = length of current relationship in months, Age = age of participant

Table 2

*Intercorrelations Among Variables of Interest*

| | Sex 1 | Age 2 | Length 3 | MCBS 4 | GMREL 5 | REW – CST 6 | CLrew – CLcst 7 | GMSEX 8 | EQrew 9 | EQcst 10 | IEMSS 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | -.01 | -.09 | .09 | .04 | .14 | .11 | -.02 | -.00 | -.01 | .11 |
| 2 | | 1.00 | .03 | -.07 | -.13 | .04 | .00 | -.09 | .08 | -.12 | .01 |
| 3 | | | 1.00 | .13 | .13 | .07 | -.02 | .13 | -.10 | .01 | .00 |
| 4 | | | | 1.00 | .63** | .44** | .34** | .44** | .18* | .15* | .44** |
| 5 | | | | | 1.00 | .41** | .34** | .46** | .12 | .19* | .42** |
| 6 | | | | | | 1.00 | .56** | .53** | .21** | .37** | .87** |
| 7 | | | | | | | 1.00 | .46** | .11 | .24** | .81** |
| 8 | | | | | | | | 1.00 | .30** | .20** | .57** |
| 9 | | | | | | | | | 1.00 | .20** | .42** |
| 10 | | | | | | | | | | 1.00 | .54** |
| 11 | | | | | | | | | | | 1.00 |

*Note.* Sex = sex of participant, Age = age of participant, Length = length of current relationship in months, MCBS = mutual communal behaviors, GMREL = relationship satisfaction, REW – CST = rewards minus costs, CLrew – CLcst = comparison level for costs minus comparison level for rewards, GMSEX = sexual satisfaction, EQrew = equality of rewards, EQcst = equality of costs, IEMSS = exchange composite score

*p < .05 level (2-tailed), **p < .01 level (2-tailed).

Lawrance and Byers, 1995) to the Exchanges Questionnaire of the IEMSS: (Rewards –

Costs) + (CLrew– CL cst) + (EQrew, EQcst), yielding a composite exchange score which

is entered in Column 11 of Table 2. As expected, this composite exchange score was also

positively correlated with sexual satisfaction, $r$ (1, 186) = .57, $p < .01$.

Also as predicted, mutual communal behaviors and exchange constructs were

positively correlated with relationship satisfaction (GMREL) in bivariate correlational

analyses. Mutual communal behaviors were positively correlated with GMREL, $r$ (1,

185) = .63, $p < .01$. The composite exchange score was also positively correlated with

this relationship satisfaction index, $r$ (1, 185) = .42, $p < .01$.

*Path Analyses and Tests for Mediation and Moderation*

*Sexual Satisfaction*

It was predicted that a communal model would predict sexual satisfaction better

than an exchange model in some or all cases. In other words, it was predicted that mutual

communal behaviors would totally mediate the relation between the exchange constructs

and sexual satisfaction. However, when analyses to evaluate this model were conducted

(see Figure 3), the exchange constructs remained a significant predictor of sexual

satisfaction after controlling for the influence of mutual communal behaviors. Thus, the

communal model outlined above was not supported.

It was also predicted that the exchange constructs would not mediate the relation

between mutual communal behaviors and sexual satisfaction. The path analysis treating

exchange constructs as an intervening variable is shown in Figure 4. In examining the

figure, one can see that the direct path between MCBS and sexual satisfaction remains

significant after controlling for the influence of exchange constructs. However,

*Figure 3.* Path coefficients: Predictors of Mutual Communal Behaviors and Sexual Satisfaction ($R^2$ = .37, adjusted $R^2$ = .36). Note:

Figure in parentheses indicates the bivariate correlation between the exchange constructs and sexual satisfaction. All values are

significant at the *p* < .01 level.

(.44)

.23

.44

.47

Mutual Communal Behaviors → Exchange Constructs → Sexual Satisfaction

*Figure 4.*  Path coefficients: Predictors of Exchange Constructs Composite and Sexual Satisfaction ($R^2$ = .37, adjusted $R^2$ = .36).

Note: Figure in parentheses indicates the bivariate correlation between mutual communal behaviors and sexual satisfaction.  All values

are significant at the *p* < .01 level.

mediational analyses (Baron & Kenny, 1986) revealed that the direct relation between MCBS and sexual satisfaction was reduced after controlling for the influence of the exchange constructs ($b = .23$) as compared to their level of association in the bivariate analysis. Thus, it appears that exchange constructs partially mediate the relation between mutual communal behaviors and sexual satisfaction.

Hypothesis 3 also anticipated that mutual communal behaviors would moderate the relation between exchange constructs and sexual satisfaction such that (a) when mutual communal behaviors are low, exchange constructs will significantly predict sexual satisfaction (Fig. 2a), but (b) when mutual communal behaviors are high, exchange constructs will be less strongly and possibly even negatively associated with sexual satisfaction (Fig. 2b). However, moderational analyses (Baron & Kenny, 1986) revealed that the interaction term created from the product of mutual communal behaviors and exchange constructs was nonsignificant, $r$ (3, 184) = -.05, $p = .94$. Thus, it appears that the moderational model outlined above was not supported.

*Relationship Satisfaction*

It was predicted that a communal model might predict relationship satisfaction better than an exchange model in some or all cases. In other words, it was predicted that mutual communal behaviors would totally mediate the relation between the exchange constructs and relationship satisfaction. The path analysis treating mutual communal behaviors as an intervening variable is shown in Figure 5. Mediational analyses (Baron & Kenny, 1986) revealed that the direct relation between the exchange constructs and relationship satisfaction remained significant after controlling for the influence of mutual communal behaviors. However, this relation was greatly reduced after controlling for the

(.42)

.17

.44                    .56

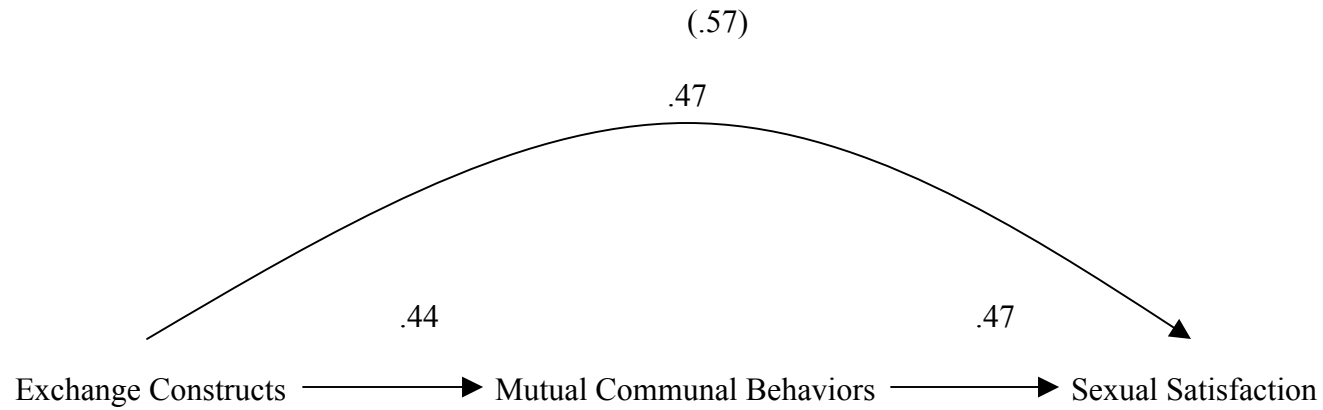Exchange Constructs ⟶ Mutual Communal Behaviors ⟶ Relationship Satisfaction
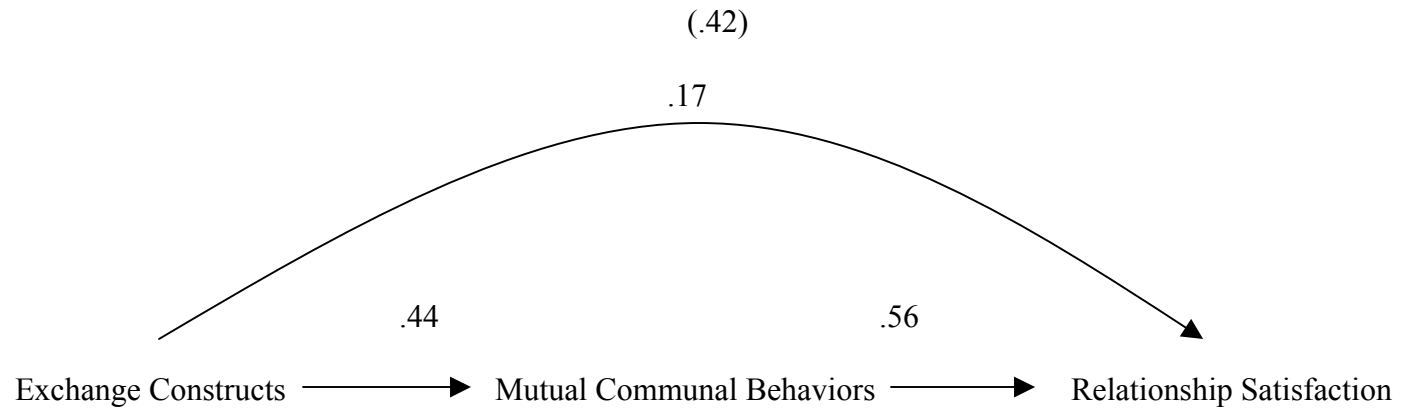
*Figure 5.* Path coefficients: Predictors of Mutual Communal Behaviors and Relationship Satisfaction ($R^2 = .43$, adjusted $R^2 = .42$).

Note: Figure in parentheses indicates the bivariate correlation between the exchange constructs and relationship satisfaction. All values are significant at the $p < .01$ level.
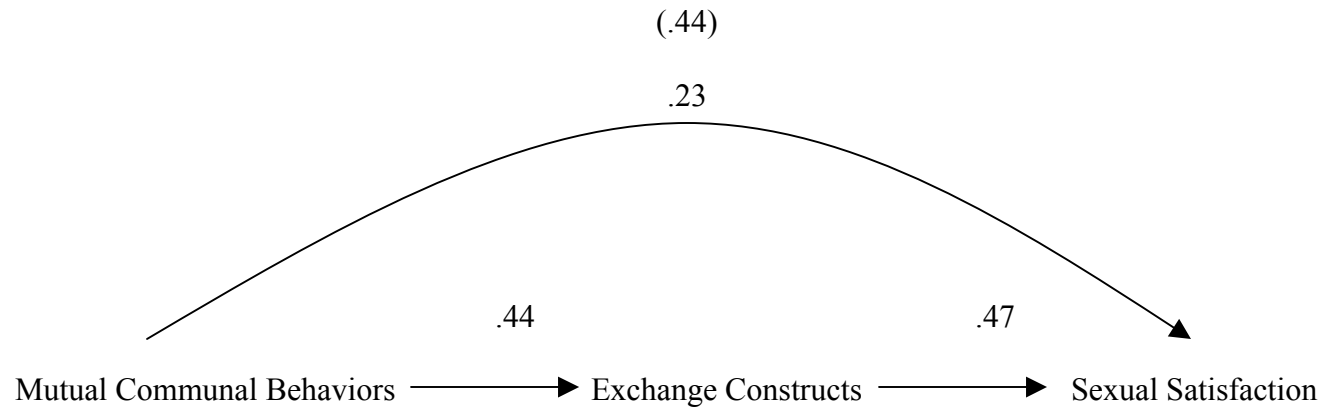
influence of mutual communal behaviors ($b = .17$) as compared to the level of association in the bivariate analysis ($r = .42$). Thus, it appears that mutual communal behaviors partially mediate the relation between the exchange constructs and relationship satisfaction.

It was also predicted that the exchange constructs would not mediate the relation between mutual communal behaviors and relationship satisfaction. The path analysis treating exchange constructs as an intervening variable is shown in Figure 6. In examining the figure, one can see that the direct relation between MCBS and relationship satisfaction remains significant after controlling for the influence of exchange constructs. Further, mediational analyses (Baron & Kenny, 1986) revealed that the direct relation between MCBS and relationship satisfaction was not greatly reduced after controlling for the influence of the exchange constructs ($b = .56$) as compared to their level of association in the bivariate analysis ($r = .63$). Thus, as predicted, it appears that exchange constructs do not mediate the relation between mutual communal behaviors and relationship satisfaction.

Hypothesis 3 also anticipated that mutual communal behaviors may moderate the relation between exchange constructs and relationship satisfaction such that (a) when mutual communal behaviors are low, exchange constructs will significantly predict relationship satisfaction (Fig. 2a), but (b) when mutual communal behaviors are high, exchange constructs will be less strongly and possibly even negatively associated with relationship satisfaction (Fig. 2b). However, moderational analyses (Baron & Kenny, 1986) revealed that the interaction term created from the product of mutual communal

(.63)

.56

.44

.17

Mutual Communal Behaviors    ⟶    Exchange Constructs    ⟶    Relationship Satisfaction
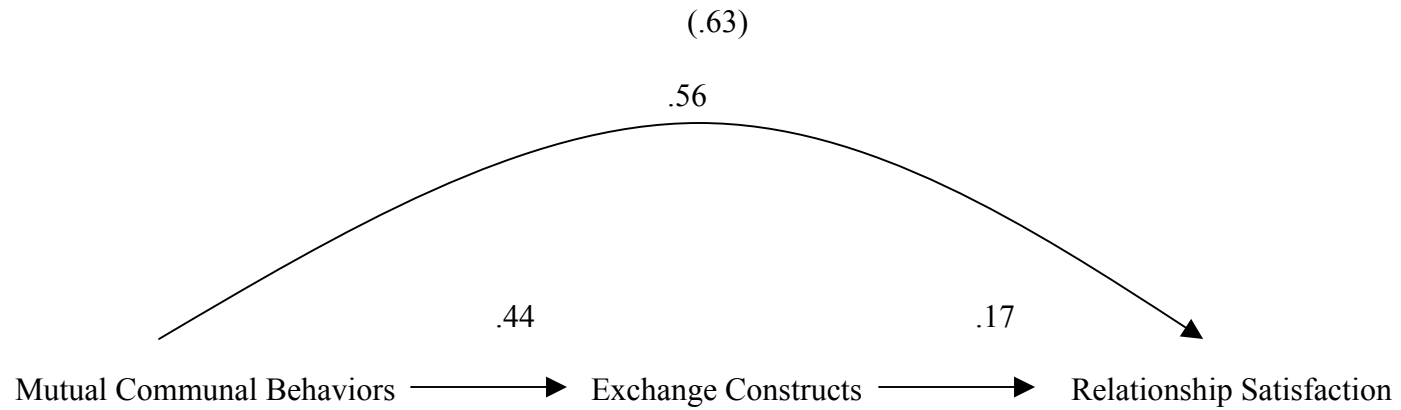
*Figure 6.* Path coefficients: Predictors of Exchange Constructs Composite and Relationship Satisfaction ($R^2$ = .43, adjusted $R^2$ = .42).

Note: Figure in parentheses indicates the bivariate correlation between mutual communal behaviors and relationship satisfaction. All values are significant at the *p* < .01 level.

behaviors and exchange constructs was nonsignificant, $r$ (3, 183) = .13, $p$ = .82. Thus, it appears that the moderational model outlined above was not supported.

<div align="center"><em>Hierarchical Regressions</em></div>

<em>Sexual Satisfaction</em>

In order to compare the results of the present research with previous work done by Lawrance and Byers (1995) and Byers et al. (1998), hierarchical regressions were performed on the data. Replicating Byers et al.'s analyses, sexual satisfaction measured by the GMSEX was entered as the dependent variable. Relationship satisfaction as measured by the GMREL was entered on the first step. The four exchange components (rewards minus costs, comparison levels for rewards minus comparison level for costs, equality of rewards, and equality of costs) were entered simultaneously on the second step. Using hierarchical regression in this way allows one to determine how much variance in sexual satisfaction is being accounted for by the exchange components above and beyond the variance accounted for by relationship satisfaction.

The results of this hierarchical regression are shown in Table 3. As shown in the table, at Step 1, relationship satisfaction accounted for 21% of the variance in sexual satisfaction. The addition of the sexual exchange constructs resulted in a significant increase in the multiple-$R$ ($R^2$ = .41) and accounted for an additional 19% of the variance in sexual satisfaction. Thus, I replicated Byers et al.'s findings, although it is noteworthy that the amount of variance in sexual satisfaction accounted for by the exchange constructs was greater in the present sample (19%) than in Byers et al.'s (1998) sample (8%), despite the fact that less variance in sexual satisfaction

Table 3

*Hierarchical Regression analysis predicting sexual satisfaction from relationship satisfaction and the components of the Interpersonal Exchange Model of Sexual Satisfaction (Lawrance & Byers, 1995)*

| Predictor | | Step 1 | | | Step2 | |
|---|---|---|---|---|---|---|
| | *r* | *B* | *sr* | | *B* | *sr* |
| GMREL | .46 | .44** | .46** | | | |
| $R^2 = .21$, $F = 49.89$ | | | | | | |
| REW-CST | .53 | | | | .44** | .28** |
| Clrew-CLcst | .45 | | | | .31** | .19** |
| EQrew | .30 | | | | .65** | .19** |
| EQcst | .20 | | | | -.14 | -.04 |
| $R^2$ – change = .19, $F$ – change (4, 181) = 14.78, $p < .001$ | | | | | | |
| $R^2 = .41$, $F$ (5, 181) = 24.78, $p < .001$ | | | | | | |

*Note*. GMREL = relationship satisfaction, REW – CST = rewards minus costs, CLrew – CLcst = comparison level for costs minus comparison level for rewards, EQrew = equality of rewards, EQcst = equality of costs, *r* = bivariate correlation, *B* = unstandardized coefficient, *sr* = standardized coefficient

*p < .05 level (2-tailed), **p < .01 (2-tailed)

overall was explained in the present sample ($R^2 = .41$) compared with Byers et al.'s

(1998) college student sample ($R^2 = .75$).

　　　　To extend the work of Lawrance and Byers (1995) and Byers et al. (1998) using

the present data, additional hierarchical regressions were performed to determine the

contribution of mutual communal behaviors as measured by the MCBS to sexual

satisfaction.  Using sexual satisfaction (GMSEX) as the dependent variable, relationship

satisfaction (GMREL) was entered on the first step.  The four exchange components were

entered simultaneously on the second step, and mutual communal behaviors were entered

on the third and final step.  The results of this analysis are shown in Table 4.  As can be

seen, the mutual communal behaviors measure does not significantly increment $R^2$ after

accounting for the associations between relationship satisfaction and exchange constructs

with sexual satisfaction.  Thus, the results of the hierarchical regression of sexual

satisfaction converge with those of the path analyses in suggesting that variations in

mutual communal behaviors do not explain the association between the exchange

constructs and sexual satisfaction.  Consistent with this idea, when MCBS was entered in

Step 2 of the hierarchical regression and exchange constructs in Step 3, the exchange

components significantly increased the amount of variance accounted for in sexual

satisfaction ($R^2$ – change = .17) above and beyond that accounted for by relationship

satisfaction (GMREL) and mutual communal behaviors.

*Relationship Satisfaction*

　　　　Hierarchical regression analyses were then conducted using relationship

satisfaction (GMREL) as the dependent variable, entering sexual satisfaction (GMSEX)

on the first step, followed by the four exchange components entered simultaneously on

Table 4

*Hierarchical Regression analysis predicting sexual satisfaction from relationship satisfaction, the components of the Interpersonal Exchange Model of Sexual Satisfaction (Lawrance & Byers, 1995), and the Mutual Communal Behaviors Scale (Williamson & Schulz, 1995)*

| Predictor | $r$ | Step 1 | | Step 2 | | Step3 | |
|---|---|---|---|---|---|---|---|
| | | $B$ | $sr$ | $B$ | $sr$ | $B$ | $sr$ |
| GMREL | .46 | .44** | .46** | | | | |
| $R^2 = .21$, F = 49.89 | | | | | | | |
| REW-CST | .53 | | | .44** | .28** | | |
| Clrew-CLcst | .45 | | | .31** | .19** | | |
| EQrew | .30 | | | .65** | .19** | | |
| EQcst | .20 | | | -.14 | -.04 | | |
| $R^2$ – change = .19, $F$ – change $(4, 181) = 14.78, p < .001$ | | | | | | | |
| $R^2 = .41$, $F (5, 181) = 24.78, p < .001$ | | | | | | | |
| MCBS | .43 | | | | | - | .09 |
| $R^2$ – change = .01, $F$ – change $(1, 180) = 1.48, p = .23$ | | | | | | | |
| $R^2 = .41$, $F (6, 180) = 20.95, p < .001$ | | | | | | | |

*Note*. GMREL = relationship satisfaction, REW – CST = rewards minus costs, CLrew – CLcst = comparison level for costs minus comparison level for rewards, EQrew = equality of rewards, EQcst = equality of costs, MCBS = mutual communal behaviors, $r$ = bivariate correlation, $B$ = unstandardized coefficient, $sr$ = standardized coefficient

$*p < .05$ level (2-tailed), $**p < .01$ (2-tailed)

the second step, and mutual communal behaviors (MCBS) on the third.  The results of this analysis can be seen in Table 5.  As illustrated, the mutual communal behaviors measure significantly increased the amount of variance accounted for in relationship satisfaction above and beyond that accounted for by GMSEX and the exchange components.

Consistent with this idea, when the exchange constructs were entered in Step 2 of the hierarchical regression and mutual communal behaviors in Step 3, mutual communal behaviors significantly increased the amount of variance accounted for in relationship satisfaction ($R^2$ – change = .20) above and beyond that accounted for by sexual satisfaction (GMSEX) and the exchange constructs.  Thus, the results of the hierarchical regression of relationship satisfaction converge with those of the path analyses in suggesting that variations in the exchange constructs do not explain the association between mutual communal behaviors and relationship satisfaction.

Table 5

*Hierarchical Regression analysis predicting relationship satisfaction from sexual satisfaction, the components of the Interpersonal Exchange Model of Sexual Satisfaction (Lawrance & Byers, 1995), and the Mutual Communal Behaviors Scale (Williamson & Schulz, 1995)*

|  |  | Step 1 | | Step 2 | | Step3 | |
|---|---|---|---|---|---|---|---|
| Predictor | *r* | *B* | *sr* | *B* | *sr* | *B* | *sr* |
| GMSEX | .46 | .48** | .46** | | | | |
| $R^2 = .21$, $F = 49.89$ | | | | | | | |
| REW-CST | .41 | | | .29* | .18* | | |
| Clrew-CLcst | .34 | | | .14 | .08 | | |
| EQrew | .12 | | | -.15 | -.04 | | |
| EQcst | .19 | | | .15 | .04 | | |
| $R^2$ – change = .05, $F$ – change $(4, 181) = 2.73$, $p < .05$ | | | | | | | |
| $R^2 = .26$, $F(5, 181) = 12.53$, $p < .001$ | | | | | | | |
| MCBS | .63 | | | | | .56** | .51** |
| $R^2$ – change = .20, $F$ – change $(1, 180) = 65.01$, $p < .001$ | | | | | | | |
| $R^2 = .45$, $F(6, 180) = 24.98$, $p < .001$ | | | | | | | |

*Note*. GMSEX = sexual satisfaction, REW – CST = rewards minus costs, CLrew – CLcst = comparison level for costs minus comparison level for rewards, EQrew = equality of rewards, EQcst = equality of costs, MCBS = mutual communal behaviors, *r* = bivariate correlation, *B* = unstandardized coefficient, *sr* = standardized coefficient

*p < .05 level (2-tailed), **p < .01 level (2-tailed)

Table 6

*Hierarchical Regression analysis predicting relationship satisfaction from sexual satisfaction, the Mutual Communal Behaviors Scale (Williamson & Schulz, 1995), and the components of the Interpersonal Exchange Model of Sexual Satisfaction (Lawrance & Byers, 1995)*

| | | Step 1 | | Step 2 | | Step3 | |
|---|---|---|---|---|---|---|---|
| Predictor | *r* | *B* | *sr* | *B* | *sr* | *B* | *sr* |
| GMSEX | .46 | .48** | .46** | | | | |
| $R^2 = .21$, $F = 49.89$ | | | | | | | |
| MCBS | .63 | | | .58** | .53** | | |
| $R^2$ – change = .23, $F$ – change (1, 184) = 76.69, $p < .001$ | | | | | | | |
| $R^2 = .44$, $F$ (2, 184) = 73.49, $p < .001$ | | | | | | | |
| REW-CST | .41 | | | | | - | .05 |
| Clrew-CLcst | .34 | | | | | - | .04 |
| EQrew | .12 | | | | | -.20 | -.06 |
| EQcst | .19 | | | | | .18 | .05 |
| $R^2$ – change = .01, $F$ – change (4, 180) = .84, $p = .50$ | | | | | | | |
| $R^2 = .45$, $F$ (6, 180) = 24.98, $p < .001$ | | | | | | | |

*Note*. GMSEX = sexual satisfaction, MCBS = mutual communal behaviors, REW – CST = rewards minus costs, CLrew – CLcst = comparison level for costs minus comparison level for rewards, EQrew = equality of rewards, EQcst = equality of costs, *r* = bivariate correlation, *B* = unstandardized coefficient, *sr* = standardized coefficient

*p < .05 level (2-tailed), **p < .01 level (2-tailed)

CHAPTER 5

DISCUSSION

*Results for Sexual Satisfaction*

With regard to the sexual satisfaction measure, Hypothesis 2 specified that a

communal model of sexual satisfaction would be a better predictor of sexual satisfaction

than would Lawrance and Byers' (1995) exchange model. Specifically, the hypothesis

predicted that the mutual communal behaviors characterizing a relationship would

mediate the relation between sexual exchange constructs and sexual satisfaction, but that

the reverse would not be true. That is, the sexual exchange constructs would not mediate

the relation between mutual communal behaviors and sexual satisfaction.

The path analyses I conducted were not consistent with my predictions for the

sexual satisfaction (GMSEX) measure. As indicated earlier (e.g., Figures 3 and 4),

mutual communal behaviors did not totally mediate the relation between the sexual

exchange constructs and sexual satisfaction. In fact, mutual communal behaviors were,

at best, a weak partial mediator of this relation. By contrast, sexual exchange was a

substantial partial mediator of the relation between mutual communal behaviors and

sexual satisfaction (although the latter relation remained significant when the impact of

the sexual exchange constructs was statistically controlled in the mediational analyses).

Clearly, this pattern of outcomes provides corroborating evidence for Lawrance and

Byers' Interpersonal Model of Sexual Satisfaction (IEMSS), which implies that sexual

exchanges are a strong predictor of a couple's level of sexual satisfaction.

The hierarchical regressions conducted to directly compare the present findings

with those of Lawrance and Byers (1995) and Byers et al. (1998) provide further support

for the IEMSS and evidence against my communal hypothesis, as I replicated their

analyses completely.  When sexual satisfaction was entered as the dependent variable,

relationship satisfaction entered on the first step accounted for 21 percent of the variance

in sexual satisfaction.  The sexual exchange constructs, entered simultaneously on the

second step, accounted for an additional 19 percent of the variance in sexual satisfaction,

a figure that is actually higher than the 8 percent of variance in sexual satisfaction that

Lawrance and Byers accounted for over and above the contribution of relationship

satisfaction.  Finally, entering mutual communal behaviors on the third step did not

significantly increment $R^2$.  We can contrast this to the small but significant increment in

$R^2$ attributable to mutual communal behaviors when mutual communal behaviors are

entered in the second step of the hierarchical regression and exchange constructs are

entered on the third.  Such a pattern implies that any impact of mutual communal

behaviors on sexual satisfaction largely reflects variance that is shared with the process of

the exchange of resources also tapped by the sexual exchanges measure.

Although one might be inclined to reject a communal model of sexual satisfaction

based on the present data, such a conclusion may be premature.  Recall that the questions

assessing the exchange constructs asked the participants to reflect on the exchanges

inherent in their sexual relationship (high specificity), whereas the MCBS asked them to

reflect on behaviors present in their relationship as a whole (low specificity, global

measure).  Over the past 30 years, researchers interested in the consistency between

behaviors and attitudes (e.g., Ajzen & Fishbein, 1977) have consistently found that

attitudes best predict behaviors when the attitudinal and behavioral measures are at a comparable level of specificity. Thus, we might anticipate that a measure specific to sexual satisfaction (i.e., sexual exchange) would do a better job predicting that construct than one less specific (i.e., mutual communal behaviors in the overall relationship). Before rejecting a communal model of sexual satisfaction, then, one might collect data with a mutual communal behaviors measure revised to assess the extent to which relationships are characterized by mutually communal sexual behaviors. Were this methodological step to be taken, it is quite conceivable that subsequent data would support a communal model of sexual satisfaction or, alternatively, subsequent data might indicate that mutual communal sexual behaviors make at least some unique contribution to sexual satisfaction over and above the contribution of general relationship and the sexual exchange variables. Perhaps not surprisingly in view of the above findings and conceptual considerations surrounding the mutual communal behaviors construct, the test for the anticipated moderating influences of mutual communal behaviors on sexual satisfaction was not significant.

Finally, there was one aspect of the findings for sexual satisfaction that was puzzling and not easily explained. In a similar college student sample of sexually active couples, Byers et al. (1998) were able to account for 75 percent of the variance in participants' sexual satisfaction hierarchical regressions using relationship satisfaction (Step 1, 67%) and the sexual exchange constructs (Step 2, 8%) as predictors. In the present research, using the same measures as Byers et al. (1998), we accounted for only 41 percent of the variance in participants' sexual satisfaction (relationship satisfaction 21%, sexual exchanges 20%). This is a large discrepancy that does not seem to reflect

the findings that the participants in the present study were no more or less satisfied

sexually or relationally than were the participants in Byers et al.'s (1998) study.

However, the participants in the present study did seem to perceive the sexual aspects of

their relationships as involving more personal costs than did the participants in Byers et

al.'s (1998) study, and it is conceivable that this difference may somehow have

contributed to the discrepancy in the explained variance in sexual satisfaction.  Clearly, it

remains for future research to determine why the present study accounted for so much

less variability in sexual satisfaction than that explained by Lawrance and Byers in a

community sample (i.e., Lawrance & Byers, 1995) or by Byers et al. in a college student

sample (i.e., Byers et al., 1998).

*Results for Relationship Satisfaction*

With regard to the relationship satisfaction measure, Hypothesis 2 also specified

that a communal model would be a better predictor of relationship satisfaction than

would Lawrance and Byers' (1995) exchange model.  Specifically, the hypothesis

predicted that the mutual communal behaviors characterizing a relationship would

mediate the relation between sexual exchange constructs and relationship satisfaction, but

that the reverse would not be true.  That is, the sexual exchange constructs would not

mediate the relation between mutual communal behaviors and relationship satisfaction.

The path analyses I conducted largely supported my predictions for the

relationship satisfaction (GMREL) measure.  An examination of Figures 5 and 6

demonstrates that mutual communal behaviors acted as a substantial partial mediator of

the relation between the sexual exchange constructs and relationship satisfaction

(although this relation did remain significant when the impact of mutual communal

behaviors was statistically controlled in the mediational analyses). By contrast, sexual exchange was, at best, a weak partial mediator of the relation between mutual communal behaviors and relationship satisfaction.

Furthermore, the results of hierarchical regressions conducted with relationship satisfaction as the dependent variable and sexual satisfaction entered on the second step were consistent with the findings of the path analyses discussed above and provide further support for the superiority of mutual communal behaviors as a predictor of relationship satisfaction as compared to the sexual exchange constructs. Mutual communal behaviors, entered on the second step, accounted for an additional 23 percent of the variance in relationship satisfaction, a substantial increase over and above the contribution of sexual satisfaction. Finally, entering the exchange constructs simultaneously on the third step did not significantly increment $R^2$. We can contrast this to the small but significant increment in $R^2$ attributable to the exchange constructs when these constructs are entered simultaneously on the second step of the hierarchical regression and mutual communal behaviors are entered on the third. Such a pattern implies that any impact of the exchange constructs on relationship satisfaction largely reflects variance that is shared with behaviors tapped by the measure of mutual communal behaviors.

However, these results must be interpreted with a certain degree of caution. Although the results of the present research provide strong support for a communal model of relationship satisfaction, one must again recall that the questions assessing the exchange constructs asked the participants to reflect on the exchanges inherent in their sexual relationship (high specificity), whereas the MCBS asked them to reflect on

behaviors present in their relationship as a whole (low specificity, global measure), and that predictor variables best predict outcomes when the predictor and outcome measures are at a comparable level of specificity (e.g., Ajzen & Fishbein, 1977). Therefore, we might again anticipate that a measure pertaining to the overall relationship (i.e., the MCBS) would do a better job predicting relationship satisfaction than one that is more specific, targeting only the sexual aspects of the relationship (i.e., sexual exchange constructs). Before accepting the superiority of a communal model of relationship satisfaction over an exchange model, then, one might collect data with an exchanges measure designed to assess exchange constructs pertaining to the overall relationship (e.g., rewards, costs of the relationship as a whole). It is conceivable that such an instrument would yield data that would support an exchange model of relationship satisfaction, or it might indicate that relationship exchanges make at least some unique contribution to relationship satisfaction over and above the contribution of sexual satisfaction and mutual communal behaviors. In light of these conceptual considerations surrounding the sexual exchange constructs, it is again unsurprising that the test for the anticipated moderating influences of mutual communal behaviors on relationship satisfaction was not significant.

*Additional Caveats*

The results of the present study should be interpreted with caution. This sample was limited to young, heterosexual college students, and a random community sample would have been preferable to the convenience sampling method employed in the present study. In addition to adapting the MCBS and the Exchanges Questionnaire so that they measure relationship dynamics of comparable specificity, future research should examine

different populations of intimate partners.  It is possible that a communal model may be a better predictor of sexual and relationship satisfaction for certain types of partners (e.g., older, married couples), and that an exchange model is more applicable to other populations (e.g., younger, dating couples).  To this end, non-heterosexual couples should also be sampled; it may be that there are differences in the relation of communal and exchange constructs to sexual and relationship satisfaction across male-male, female-female, and female-male couples.  These differences, if they exist, have yet to be examined.

*Conclusion*

The goal of this study was to measure the degree of communality in on-going intimate relationships with the intention of predicting sexual and relationship satisfaction, and to compare the predictive utility of relationship communality with the predictive ability of certain exchange constructs (i.e., those outlined by the Interpersonal Exchange Model of Sexual Satisfaction).  This is the first study to apply the theory of communal relationships to on-going intimate relationships in order to predict sexual satisfaction, and the results of this research are informative in their own right in addition to providing a starting point for future research.  Although this study suffers from some methodological limitations, the data are suggestive in that they contradict Lawrance and Byers' (1995) contention that sexual satisfaction and relationship satisfaction may not be independent constructs; the results of this study indicate that sexual satisfaction and relationship satisfaction are indeed independent constructs with different predictors.  The measurement of mutual communal behaviors has clear utility in the prediction of

relationship satisfaction, and it has promising potential for the prediction of sexual

satisfaction.

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APPENDIX

*Mutual Communal Behavior Scale (MCBS)*

The following statements have to do with the type of interactions you usually have with your partner.  Try to think back over the course of your relationship and indicate the response you feel most accurately describes how you and your partner interact.

1=Almost Never
2=Sometimes
3= Often
4=Almost Always

1. When my partner is feeling bad, I try to cheer him/her up.                    _____

2. My partner seems to enjoy responding to my needs.                    _____

3. My partner does things just to please me.                    _____

4. When my partner has a need, she/he turns to me for help.                    _____

5. My partner goes out of his/her way to help me.                    _____

6. My partner responds to my needs.                    _____

7. I enjoy helping my partner.                    _____

8. I go out of my way to help my partner.                    _____

9. When making a decision, I consider my partner's needs and feelings.                    _____

10. My partner would do almost anything for me.                    _____

*Interpersonal Exchange Model of Sexual Satisfaction Questionnaire (IEMSS)*

1. Sex (circle one)      1 male          2 female

2. How old are you?      _____ years old

3. What type of relationship do you and your partner have?  (Circle one)

    1 married      2 cohabiting   3 other (please specify:_____ )

4. How long have you and your partner been together? _____

Q-7. In general, how would you describe your *overall* relationship with your partner? For *each* pair of words below, circle the number which best describes your relationship, as a whole.

    7     6     5     4     3     2     1
Very good                       Very bad

    7     6     5     4     3     2     1
Very pleasant                 Very unpleasant

    7     6     5     4     3     2     1
Very positive                 Very negative

    7     6     5     4     3     2     1
Very satisfying              Very unsatisfying

    7     6     5     4     3     2     1
Very valuable                 Worthless

Q-10. Think about the *rewards* that you have received in *your sexual relationship with your partner* within the past three months.  How rewarding is your sexual relationship with your partner?  (Circle a number)

    1    2    3    4    5    6    7    8    9
Not at all                            Extremely
rewarding                            rewarding

Q-11. Most people have a general *expectation* about *how rewarding* their sexual relationship "should be." Compared to this general expectation, they may feel that their sexual relationship is more rewarding, less rewarding, or as rewarding as it "should be."

Based on your *own* expectation about how rewarding *your sexual relationship with your partner* "should be," how does your level of rewards compare to that expectation? (Circle a number)

```
        1    2    3    4    5    6    7    8    9
Much less                                    Much more
rewarding in                                 rewarding in
comparison                                   comparison
```

Q-12. How does the level of *rewards* that you get from your sexual relationship with your partner compare to the level of rewards that your partner seems to get from the relationship? (Circle a number)

```
        1    2    3    4    5    6    7    8    9
My rewards are                               Partner's rewards
much higher                                  are much higher
```

Q-13. Think about the *costs* that you have incurred in *your sexual relationship with your partner* within the past three months. How costly is your sexual relationship with your partner? (Circle a number)

```
        1    2    3    4    5    6    7    8    9
Not at all                                   Extremely
costly                                       costly
```

Q-14. Most people have a general *expectation* about *how costly* their sexual relationship "should be." Compared to this general expectation, they may feel that their sexual relationship is more costly, less costly, or as costly as it "should be."

Based on your *own* expectation about how rewarding *your sexual relationship with your partner* "should be," how does your level of costs compare to that expectation? (Circle a number)

```
        1    2    3    4    5    6    7    8    9
Much less                                    Much more
costly in                                    costly in
comparison                                   comparison
```

Q-15. How does the level of *costs* that you incur in your sexual relationship with your partner compare to the level of costs that your partner seems to incur in the relationship? (Circle a number)

|  1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

My costs are
much higher

Partner's costs
are much higher

Q-16. Overall, how would you describe your *sexual* relationship with your partner? For each pair of words below, circle the number which best describes your sexual relationship.

| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Very good

Very bad

| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Very pleasant

Very unpleasant

| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Very positive

Very negative

| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Very satisfying

Very unsatisfying

| 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Very valuable

Worthless

*The Index of Sexual Satisfaction (ISS)*

Answer each item carefully and accurately.  There are no right or wrong answers.

1=Rarely or none of the time
2=A little of the time
3=Sometimes
4=Most or all of the time

1. It is easy for me to get sexually excited by my partner.                          _____

2. I feel that our sex life really adds a lot to our relationship.                   _____

3. My partner does not sex when I do.                                                _____

4. My partner is sexually very exciting.                                             _____

5. I feel that my partner wants too much sex from me.                                _____

6. Sex is fun for my partner and me.                                                 _____

7. My sex life is monotonous.                                                        _____

8. I feel that my sex life is lacking quality.                                       _____

9. My partner observes good personal hygiene.                                        _____

10. My partner dwells on sex too much.                                               _____

11. I think that sex is wonderful.                                                   _____

12. My partner is too rough or brutal when we have sex.                              _____

13. I would like to have sexual contact with someone other than my partner.          _____

14. I feel that my partner is sexually pleased with me.                              _____

15. I feel that I should have sex more often.                                        _____

16. My partner is very sensitive to my sexual needs and desires.                     _____

17. I feel that my sex life is boring.                                               _____

18. I feel that my partner enjoys our sex life.                                      _____

19. I feel that my partner sees little in me except for the sex I can give.          _____

20. My sex life is very exciting. _____

21. I feel that sex is dirty and disgusting. _____

22. When we have sex, it is too rushed and hurriedly completed. _____

23. I feel that sex is something that has to be endured in our relationship. _____

24. I feel that sex is a normal function of our relationship. _____

25. I enjoy the sex techniques that my partner likes or uses. _____