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EXAMINING THE RELATIONSHIP BETWEEN ANTECEDENTS OF SEXUALITY AND WOMEN'S REPORTED LEVEL OF SEXUAL SATISFACTION DURING THE FIRST FIVE YEARS OF MARRIAGE

by

Rachel R. Rudd

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Family, Consumer, and Human Development

Approved:

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UTAH STATE UNIVERSITY
Logan, Utah

2009

ABSTRACT

Examining the Relationship Between Antecedents of Sexuality and Women's Reported Level of Sexual Satisfaction During the First Five Years of Marriage

by

Rachel R. Rudd, Master of Science

Utah State University, 2009

Major Professor: Dr. D. Kim Openshaw
Department: Family, Consumer, and Human Development

The purpose of this study was to examine the relationship between antecedents of sexuality and the level of sexual satisfaction in females who had been married no more than five years. Past research has examined communication, presence of orgasm, sexual desire, and frequency of sexual activity and various other antecedents of sexual satisfaction. One relationship that was an addition to those already found in the literature was sexual knowledge as an antecedent to sexual satisfaction. Six questions were formulated for the study:

1. How do females perceive their global sexual functioning?
2. How do females perceive their level of sexual satisfaction?
3. How accurately do females answer questions regarding female and male anatomy and physiology, sexual arousal and response, and sexual technique?
4. What is the relationship between the participants mean scores on the subscales of the Global Sexual Functioning (GSF) and their reported level of sexual satisfaction?
5. What is the relationship between the participants mean scores on the subscales of the Sexual Knowledge Inventory (SKI) and their reported level of sexual satisfaction?

6. What is the relationship between the participants mean scores on the subscales of the Sexual Knowledge Inventory (SKI) and their reported level of Global Sexual Functioning (GSF)?

The research questions were tested with data from 217 females who completed a survey with questions about sexual functioning, sexual satisfaction and sexual knowledge. Results found that five variables accounted for 43% of the variance to sexual satisfaction namely: “variety of sexual activities,” “not experiencing negative emotions,” “frequency of sexual activity,” “sexual dysfunction,” and “the time intercourse lasts.” Conclusions and suggestions for future research are presented.

(96 pages)

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Rachel Renae Rudd

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CHAPTER I

INTRODUCTION

"The combination of the objectification of sexuality, in general, and the history of objectification of women, in particular, has led to a paucity of information on subjective factors such as women's sexual pleasure" (Bridges, Lease, & Ellison, 2004, p. 159). This raises the question of whether women making a transition into a sexual relationship are adequately educated so that this transition is both healthy and satisfying.

The purpose of this study was to examine the relationship between sexual satisfaction and identified antecedents of sexuality, including sexual knowledge, which has received only modest attention in the literature. Sexual satisfaction, a subjective emotional response ranging from dissatisfaction to satisfaction, is measured using data acquired from the items in the Sexual History Form (SHF). One measure of sexual satisfaction, "global sexual functioning," is derived by summing the items of the SHF for a total score; whereas a second, is one item that specifically asks about the participant's level of sexual satisfaction.

Antecedents of sexual satisfaction identified in the literature include frequency of sexual activity, amount of sexual desire, length of time foreplay lasts, length of time intercourse lasts, satisfaction with variety of sexual activities, sexual communication, feelings of arousal, negative emotional reactions to sex, orgasmic responsivity, sexual dysfunction, awareness of physical response, and sexual knowledge. While some research has assessed the relationship between these antecedents and sexual satisfaction, no research has examined them among women who have been in a marital relationship for five years or less. In particular, the relationship between sexual knowledge and

sexual satisfaction has not been adequately studied. This study fills these gaps by studying general antecedents of satisfaction in the group of women married five years or less, and focuses more specifically on the relationship between sexual knowledge and satisfaction. The study looks at both global scores of sexual functioning and knowledge as well as specific subscales of sexual knowledge that are related to sexual satisfaction. The subscales of sexual knowledge include knowledge of sexual anatomy and physiology, sexual arousal and response, and sexual technique. The specific questions to be addressed in this population include:

1. How do females perceive their global sexual functioning?
2. How do females perceive their level of sexual satisfaction?
3. How accurately do females answer questions regarding female and male anatomy and physiology, sexual arousal and response, and sexual technique?
4. What is the relationship between the participant's mean scores on the subscales of the Global Sexual Functioning (GSF) and their reported level of sexual satisfaction?
5. What is the relationship between the participant's mean scores on the subscales of the Sexual Knowledge Inventory (SKI) and their reported level of sexual satisfaction?
6. What is the relationship between the participant's mean scores on the subscales of the Sexual Knowledge Inventory (SKI) and their reported level of Global Sexual Functioning (GSF)?

CHAPTER II

REVIEW OF THE LITERATURE

World War I, the "Roaring Twenties," World War II, and the Vietnam War set the stage for the sexual revolution of the 1970s (Reiss & Reiss, 2005). Each of these periods opened a way for women to question their socially defined role and examine their sexuality, individually and in general. Against this backdrop, the women's movement encouraging greater social equality set the stage in 1970s for women to speak out on issues of sexuality. Women were more vocal in their roles and began to expect sexual satisfaction in their relationships. As women became more aware of their anatomy, physiology, and sexual desires, they sought out ways to be viewed as sexual beings. In sum, "[t]he 1970s not only brought about sexual freedom but also the expectation that 'normal' women are sexually satisfied and orgasmic" (Bridges et al. 2004, p. 158). Despite this newly developed freedom and expectation that normal women are sexually satisfied, Bridges et al. reported, "There is little empirical literature that directly studies the variables related to sexual satisfaction for women" (p. 160).

The Importance of Sexual Satisfaction

Sexual satisfaction has been identified as one of the most important factors associated with relationship satisfaction, which in turn is associated with relationship stability (Kumar, 1986). The three most common issues correlated with divorce are financial management, sexuality, and parenting (American Academy of Matrimonial Lawyers, n.d.; Guo, Ng, & Chang, 2004; Matthews, n.d.; Pattison, 2001; Stanley &

Markman, 1997; Tetschner, n.d.). It is possible that a better understanding of the antecedents of sexual satisfaction could lead to interventions to improve sexual satisfaction and in turn relationship satisfaction and stability, and ultimately a reduced divorce rate.

Sexual Satisfaction

Sexual satisfaction is a subjective state of perceived contentment, fulfillment, pleasure, and happiness as these relate to the sexual relationship. Satisfaction is constructed by each individual's experiences within the context of one's social and personal environment. Young, Denny, Luquis, and Young (1998) noted that sexual satisfaction is "an affective response arising from one's subjective evaluation of the positive and negative dimensions associated with one's sexual relationship" (p. 116). Although Young et al. discussed sexual satisfaction as a *subjective* experience, they noted that most researchers use orgasmic consistency as an index of sexual satisfaction (Young et al.). Orgasmic consistency is defined as the ability to, on a consistent basis, experience orgasm. While this is an important correlate to know and understand, the secondary intent of this thesis is to assess if there are other correlates that can be identified as having a direct or indirect effect on women's sexual satisfaction.

General Antecedents of Sexual Satisfaction

Although orgasmic consistency has been identified as the most probable correlate of sexual satisfaction, the literature does suggest other potentially viable antecedents.

This study adopts several of these variables to examine and discuss as they present in the literature and relate to sexual satisfaction.

Frequency of intercourse as an antecedent of sexual satisfaction. Haavio-Mannila and Kontula (1997) have identified frequency of intercourse as an antecedent of sexual satisfaction. According to MacCabe (1999), men and women are similar in their expectations of sexuality when it comes to frequency of intercourse. While noting the importance of frequency, he couches it in an emotional context, stating, "Reciprocal feelings of love as well as frequency… are associated with sexual satisfaction for both sexes" (p. 32). Others believe men and women differ in their expectations with regards to frequency and emotionality (Bridges et al., 2004; Hurlbert, Apt, & Rabehl, 1993). Men expect a higher frequency of sexual interaction to report that they are sexually satisfied, whereas women place greater importance on the emotional aspects of their sexual relationship (Bridges et al.; Hurlbert & Apt, 1994; Hurlbert et al.).

Sexual desire as an antecedent of sexual satisfaction. Regev, Zeiss, and Schmidt (2006) found desire for sexual activity to be an antecedent of sexual satisfaction. Low desire for sexual activity often became a problem when there was desire discrepancy, meaning that one partner had greater desire for sexual activity than the other (Regev et al.). Recognizing the potential difficulties that may arise when discrepancy exists, Lingren (1996) stated, "The gap between expectation and perceived performance produces disappointment, discouragement and finally, disillusionment" (p. 2). One way to examine desire is through the expectations associated with sexual activity. Apt, Hurlbert, Sarmiento, and Hurlbert (1996) reported that "sexual expectations are likely to

be in place before marriage occurs…[s]exual satisfaction derives from sexual expectations that are met" (p. 389).

Foreplay behaviors as *an antecedent of sexual satisfaction.* Foreplay is defined as caressing the body, kissing, genital stroking, cuddling, breast stroking, and even talking while listening to music or watching TV (Guo et al., 2004). Guo et al. found that couples with the lowest marital satisfaction were couples who never had any actions of foreplay (Guo et al.). No literature was found on the importance of foreplay in sexual satisfaction except how it relates to relationship satisfaction.

Satisfaction with the variety of sexual activities as an antecedent of sexual satisfaction. There are many books, DVDs, and other media available to couples to spice things up in the bedroom (Sex Instruction, 2006). These media provide couples with new and different positions to try and with games and ideas that can help combat boredom and routine. Literature linking satisfaction with the variety of sexual activities and sexual satisfaction is very limited. One can assume that couples are seeking more variety because of the media that are available. The concept of supply and demand shows us that couples are seeking sexual satisfaction by trying to implement variety in their love making. MacCabe (1999) stated that "reciprocal feelings of love as well as…variety in sexual activities are associated with sexual satisfaction for both sexes" (p. 32). MacCabe pointed out that the actual variety in sexual activities is associated with sexual satisfaction, however whether couples are satisfied with their own routine has yet to be studied.

Communication as an antecedent of sexual satisfaction. Communication, as in any aspect of interpersonal relationship, is an important determinant of sexual

satisfaction. Haavio-Mannila and Kontula (1997), as well as Byers and MacNeil (1997), indicated that a discussion of sexual likes and dislikes promotes satisfaction. Sexual communication helps to mitigate problems that can arise because of decreased sexual satisfaction (Byers & MacNeil). Bridges et al. (2004) indicated that if couples would communicate their sexual likes, dislikes, and expectations about sexuality, they would increase their sexual satisfaction. Bridges et al. also suggest that communicating one's personal needs and wants predicts sexual satisfaction in two ways. First the chances of actually having one's needs and wants met in the sexual relationship are increased. Second, emotional closeness may be enhanced when one partner shares with the other what their needs, wants, and expectations about sexuality are (Bridges et al.).

Communication about sexual needs, wants, and expectations can be difficult for a couple who have not been accustomed to talking about sexuality and sexual activity. There are a variety of factors that may complicate the ability to communicate effectively about sexuality, for example, lack of agreeable language. Positive sexual communication would include learning about the partners needs, providing information, making requests, delivering, and receiving criticism (Kirkman, Rosenthal, & Feldman, 2005).

Absence of negative emotional reactions to sex as an antecedent of sexual satisfaction. There are a variety of methods used by individuals in their "foreplay" experience. These particular behaviors must be congruent with ideas, beliefs, and values that a person relies on to make decisions about what is appropriate sexual behavior. If one engages in behavior that is incongruent, this will result in cognitive dissonance that then must be reconciled. It is not uncommon for that person to feel guilt or anxiety over engaging in a "forbidden" behavior.

Davidson, Moore, and Ullstrup (2004) found that women who felt guilty about masturbation were more likely to feel guilty about sexual activity and thus, experience less satisfaction. Another factor contributing to feelings about guilt is one's religious conviction, which is related to personal values towards sexuality. In this light, Davidson, et al. found that women who were considered less religious held more liberal attitudes about sexual behaviors such as masturbation or oral sex (Davidson et al.). Davidson and his colleagues went on to state that women who were considered to be the most religious were also "least likely to experience orgasm while engaging in sexual intercourse" (Davidson et al., p. 342). To the extent that orgasmic consistency is important to sexual satisfaction, women who are less likely to experience orgasm may become disillusioned with sexuality, and report lower sexual satisfaction. Davidson and his collaborators also suggested that guilt may come from a sexual experience that does not sufficiently exhibit pleasure, such as one that is void of orgasm, so instead raises anxiety levels that in turn elicit guilt feelings (Davidson et al.).

Orgasmic consistency as an antecedent of sexual satisfaction. Orgasmic consistency is one index to measure sexual satisfaction (Rathus, Nevid, & Fichner-Rathus, 2005). One of the reasons that orgasm may be correlated with sexual satisfaction is because, as Rathus et al. pointed out, relationships were more emotionally connected when there was a consistency in orgasmic response during mutual sexual activity. Thomsen and Chang (2000) reported that if orgasm was experienced at the time of the participants' first sexual intercourse, these individuals would report being sexually satisfied. They further noted, however, that only 24% of the women in their study

experienced orgasm their first time. Thomsen and Chang reported that those who had an orgasm were more likely to have had more sex education in high school.

While there are those who suggest that orgasmic consistency is a necessary factor to sexual satisfaction, others suggest that orgasm may not be the only facet in the sexual experience that relates to sexual satisfaction (Haavio-Mannila & Kontula, 1997). Rathus et al. (2005) stated that orgasm is not a guarantee of satisfaction and that lack of orgasm is not necessarily a sign of dissatisfaction. Most researchers agree that "orgasm nevertheless remains the most easily quantifiable index of sexual satisfaction" (Haavio-Mannila & Kontula, p. 401; Young et al., 1998).

Sexual Knowledge and Its Relationship to Sexual Satisfaction

Although one may argue that knowledge is another possible antecedent of sexual satisfaction, because of the lack of specific focus in the literature on the relationship between sexual knowledge and sexual satisfaction, this research addressed the relationship between sexual knowledge and sexual satisfaction specifically. For the purpose of this study, knowledge is not considered to only be the acquisition of facts and data about a given topical area, but includes understanding and comprehension, as well as sufficient familiarity with the information so as to apply it in real life experiences. For example, if one wants to be perceived as a satisfying partner in a relationship, they will want to understand and comprehend not only the expectations of their partner, but be able to perform their role in a way that is perceived as effective. To be an effective partner the individual will need to learn—or acquire knowledge—about, for instance, how to communicate and negotiate around problems that may arise in the relationship. There are

those who would believe that relationships "just happen" (e.g., "we just fell in love") and that the skills needed to be socially effective are acquired as one grows up. Many couples are unable to resolve issues because they have not learned the skills required to manage conflict (i.e., repertoire deficit), or if they have learned the techniques, they do not know how to apply them (i.e., behavioral deficit).

General sexual knowledge is important, as with other areas of life, to be truly effective in life, depth and breadth of knowledge is necessitated. Depth and breadth, in terms of sexual knowledge, would be reflected in the delineation of general sexual knowledge into more specific aspects of sexuality, namely, anatomy and physiology, sexual response and sexual techniques.

If it is true that satisfaction in various contexts of life necessitates the acquisition and effective application of knowledge, then it is logical to assume that in order for one to experience satisfaction in their sexual relationship that they are going to have to have sufficient sexual knowledge to interact effectively in this intimate context. While this assumption appears logical, when examined in the context of life experience, there is no research that directly tests the hypothesis that sexual knowledge is related to sexual satisfaction.

Knowledge of sexual anatomy, and physiology as an antecedent of sexual satisfaction. Sexual anatomy refers to one's knowledge of the female and male genitalia and reproductive system. This knowledge is reflected in one's ability to accurately identify, label, and describe the anatomical organs. While no research has specifically demonstrated that there is a relationship between knowledge of the female and male anatomy and sexual satisfaction, it is possible that if one were to be able to identify and

label the genitalia, that they would also be better able to communicate about those parts of the body that they enjoy being involved during sexual interaction. Rathus et al. (2005) reported that one of the difficulties couples have in communicating about sexuality is their inability to find a common terminology. Rathus et al. suggested that slang interferes with the ability to be effective in communicating sexually because of the variation slang takes on from person to person, context to context, and culture to culture. Scientific terms are generally independent of context and culture, and are therefore used in this study. As some participants may not be familiar with the scientific terminology, they are given the description of the anatomy, so that if they are unaware of the scientific term they may be able to pick it out of our list by a process of elimination.

Physiology refers to the understanding of how the organ (e.g., penis or clitoris) responds to stimulation. As with anatomy, there was no literature found that directly addressed the relationship between knowledge of physiology and sexual satisfaction, although increased knowledge of physiology may enhance sexual communication.

Knowledge of sexual arousal as an antecedent of sexual satisfaction. Knowledge of sexual arousal addresses the physiological changes that occur and organizes these changes into specific stages of arousal. Kaplan (1974) and Masters and Johnson (1966) have been recognized for their efforts in organizing sexual responses into specific stages. Kaplan suggested three phases: desire, excitement, and orgasm. Masters and Johnson have proposed four stages: excitement, plateau, orgasm, and resolution. Masters and Johnson also reported that males experience a refractory state after they climax.

Understanding what is occurring physiologically in the context of each stage may help one partner recognize the level of arousal experienced by the other partner, while

allowing them to continue stimulation as they have been doing or to move to an alternative form of stimulation to help the partner progress across the stages to orgasm. Understanding one's partner's physiological response at various stages and having the skills to enhance sexual arousal should enhance sexual response and perhaps, ultimately, sexual satisfaction.

Sexual technique as an antecedent of sexual satisfaction. As with the other areas of sexual knowledge, sexual technique has not been directly studied in correlation to sexual satisfaction. Sexual technique is an area of sexual knowledge that can help or hinder orgasmic consistency. For example, there are certain sexual positions that are more conducive for a female to achieve orgasm.

Research Questions

This study replicates previous research relating specific variables with sexual satisfaction, but in a population of women who have been married five years or less. This study reaches beyond known correlates, expanding investigation in the area of sexual satisfaction by examining the relationship of specific subscales of sexual knowledge to reported levels of sexual satisfaction and global functioning. Mean scores of selected subscales, as noted in the questions below, will be correlated with mean scores of the participants on sexual satisfaction to ascertain if there is a statistically significant association. This study will address the antecedents from the literature to answer the following research questions:

1. How do females perceive their global sexual functioning?

2. How do females perceive their level of sexual satisfaction? It is suggested, that understanding and using sexual techniques will allow for a more pleasurable sexual experience. For this study, anatomy, physiology, arousal and response, and technique will be combined with the research question asking:

3. How accurately do females answer questions regarding female and male anatomy and physiology, sexual arousal and response, and sexual technique?

An examination of the subscales and their relationship to satisfaction will answer the following:

4. What is the relationship between the participants mean scores on the subscales of the Global Sexual Functioning (GSF) and their reported level of Sexual Satisfaction?

5. What is the relationship between the participant's mean scores on the subscales of the Sexual Knowledge Inventory (SKI) and their reported level of Sexual Satisfaction?

6. What is the relationship between the participant's mean scores on the subscales of the Sexual Knowledge Inventory (SKI) and their reported level of Global Sexual Functioning (GSF)?

These studies will help facilitate understanding of sexual satisfaction in women who have been married for five years or less.

CHAPTER III

METHODS

Research Design

The sample consisted of two hundred seventeen females who were, on average, 23 years of age and had been married for two years. Table 1 provides demographic information about the participants in the study. The sample consisted primarily of Caucasians (89.4%) who had completed 3 or 4 years of college (23.0% and 33.6%, respectively; see Appendix D for frequency information about ethnicity and education) and belonged to The Church of Jesus Christ of Latter-day Saints (Mormons; 85.3%). Religiosity was assessed by surveying church attendance and adherence to doctrine. Church attendance was measured with a 7-point Likert scale where 7 was "Once a week and for other activities during the week" and a 1 was "Never" (see Appendix A). Most participants (48.8%) reported they attended church once a week plus some during the week. Adherence to church doctrine was measured with a 7-point Likert scale where 7 was "High Perfect" and 1 was "Low/Never" (see Appendix A). Most participants (39.2%) indicated that they adhered to the doctrine of their religion, reporting a score of 6 on the 7-point scale (see Appendix E for frequency data on religion).

Measures

Measures used in this study included a Socio-Demographic Instrument (SDI), the Sexual History Form (SHF)[1], and the Sexual Knowledge Inventory (SKI).

Socio-Demographic Instrument

The Socio-Demographic Instrument was designed to collect basic information in the area of personal characteristics such as age, gender, ethnicity, number of years married, religious affiliation, and educational level. Marital status was not included as all study subjects needed to be married to be included in the study.

Sexual History Form (SHF)

The Sexual History Form (SHF) was originally developed to be used in a clinical setting to assess frequency of sexual activity, sexual functioning relating to desire, arousal and orgasm, and overall sexual satisfaction (Creti et al., 1998). This original 46-item version created item-by-item scores, in addition to a global sexual functioning score for males and females.

For women, the reliability for the global sexual functioning score is reported as *r* "ranging from .18 to .85, with the majority of values between .50 and .70" (Creti et al., 1998, p. 263).

The SHF, in its original format, has good internal validity. The authors reported three factors that attribute to its internal validity: first, they found that women who were

[1] Although there are only two subscales being used, the "Global Sexual Functioning Score," and the "Sexual Satisfaction Scale," the Sexual History Form is referenced in the literature by the full title of the instrument from which these subscales are taken.

Table 1

Socio-Demographic Information

Variables	*N*	*M*	*SD*	*Mdn*	*Range*
Age	214	23.21	4.16	22.00	18.00 – 45.00
Years married	213	1.96	1.43	1.67	.04 – 5.83

diagnosed with some sort of sexual dysfunction had lower scores than those who were not; next, "the female global sexual functioning scores were logically and significantly correlated with sexual harmony, sexual satisfaction, diversity of sexual repertoire, and sexual drive," and finally, they report that younger women had better scores than older women. They also found that global sexual functioning scores were related to the females' sexual efficacy expectations for her male partner.

Revised Sexual History Form

For the purpose of this study the researcher used the items developed by Creti et al. (1998) in the SHF to create a global sexual functioning (GSF) score for females (see Appendix A). The GSF score included 12 items from the SHF that created the original GSF score plus 9 additional SHF items to create a 21-item GSF score.

The researcher included the additional nine items from the SHF to create the GSF score based on their theoretical relevance to female satisfaction. The additional items addressed frequency of sexual activity (Bridges et al., 2004; Haavio-Mannila & Kontula, 1997; Hurlbert et al., 1993; MacCabe, 1999); amount of sexual desire (Regev et al., 2006); length of time foreplay lasts (Guo et al., 2004); length of time intercourse lasts

(Guo et al.); satisfaction with variety of sexual activities (MacCabe); sexual communication (Byers & MacNeil, 1997; Haavio-Mannila & Kontula); feelings of arousal, negative emotional reactions to sex, and orgasmic responsivity (Haavio-Mannila & Kontula, 1997; Rathus et al., 2002; Thomsen & Chang 2000; Young et al., 1998); sexual dysfunction; and awareness of physical response.

Reliability and validity for the Revised SHF. When examined by Dr. D. Kim Openshaw (2007), an expert in the field of sexuality, it was determined that the measure had face validity. All items were recorded so that a higher score was better. All items were scaled to be equally weighted. All items took the total score out of 100 for ease of reporting. After factor analysis, items with low correlations and not contributing significantly to the alpha (items 4, 8, and 13) were dropped from the GSF total score, giving a total of 18 items for this measure ($\alpha = .70$). The low reliability was mostly due to participants marking "have never tried to." These remaining 18 items were used in both creating the total GSF score and in breaking out subscales scores for a linear regression.

Assessment of sexual satisfaction. Two items from the SHF, which are not included in the GSF score, were used to create a general or global sexual satisfaction score; the first asked participants how satisfied they were with their sexual relationship, and the second asked participants how satisfied they thought their spouse was. Both items used a 6-point Likert scale where 1 represented "extremely unsatisfied" and 6 "extremely satisfied." Both items were rescaled to be equally weighted and the total score is out of 100 ($\alpha = .87$).

Sexual Knowledge Inventory (SKI)

The Sexual Knowledge Inventory (SKI) was comprised of 38 items taken from a test bank developed for the text titled "Human Sexuality in a World of Diversity" by Rathus and his colleagues (2005; see Appendix A). This measure was designed to assess sexual knowledge in four specific areas: female and male anatomy (the organs making up the sexual system of males and females), female and male physiology (the manner in which these organs work independently and in harmony to bring about sexual response and procreation), sexual arousal and response (how the organs transition from an unaroused state to that of arousal in preparation for orgasmic response), and sexual technique (the types of behaviors the couple engages in to encourage sexual arousal and response).

Thirteen matching questions were designed to assess knowledge of female sexual anatomy and physiology. In a matching format, participants were given a term, such as "clitoris." Their responsibility was to match the correct term to the correct definition and description of the term. Eleven matching items associated with male anatomy, formatted in the same manner as those for female anatomy, were included.

The second section of the SKI, consisting of seven multiple-choice questions, assessed the participant's knowledge of sexual arousal and response. Each multiple-choice question had four potential answers but only ONE correct answer.

The final section of the SKI, consisting of seven multiple-choice questions, examined knowledge associated with sexual techniques that could enhance sexual response and arousal. Items associated with this section of the SKI were formatted in a multiple choice fashion with four possible answers, of which only one was correct.

When examined by Dr. D. Kim Openshaw, an expert in the field of sexuality, it was determined that the measure had face validity. All items were recorded so that higher was better. All items were scaled to be equally weighted. All items took the total score out of 100 for ease of reporting. Because each item is either correct or incorrect there is no reliability score for this measure.

Procedures

Before any recruitment was attempted, the study was reviewed by the Institutional Review Board of Utah State University to ensure compliance with IRB rules and regulations. Data collection commenced after the IRB gave their consent (See Appendix C).

Data collection involved the solicitation to participate through two courses offered at Utah State University: Human Sexuality (FCHD 3110) and Adolescence (FCHD 3530). A coversheet was provided, in which the student was assigned a code to receive extra credit (see Appendix B). Coversheets were separated from the measure and codes were recorded for extra credit. Each student could turn in up to five completed measures. Students had 10 academic days (2 weeks) to return the completed measure to the teacher in a sealed envelope.

Confidentiality was assured in following ways: First, the socio-demographic measure only requested minimal information, none of which was personal or allowed for identification. Second, students had the option of either filling out the measure themselves, if they met the criteria, or by giving it to someone who met the criteria. Using this sampling procedure there was no way to determine which option the student

selected, thus concealing identity of the respondent. Third, the cover sheet was separated from the measure and data, further insuring that answers could not be linked to the participant who returned the measure. Finally, all data were analyzed as group data and any presentation of results from this study will be based on group analyses.

Analyses

Descriptive statistics, along with frequencies were used to answer the following questions:

1. How do females perceive their Global Sexual Functioning (GSF score)?
2. How do females perceive their level of Sexual Satisfaction?
3. How accurately do females answer questions regarding female and male anatomy and physiology, sexual arousal and response, and sexual technique (SKI)?

Stepwise linear regression was used to model and assess the relationship between sexual knowledge, global functioning, and sexual satisfaction. In that there was minimal research to support a theoretical idea as to which area of knowledge would most be most influential, step-wise regression allowed the variables to enter at their own rate so that variables which contributed the greatest amount of variance entered first followed by the variable that contributes the next greatest until all were entered into the equation. This was done once, regressing the GSF subscale mean scores onto Sexual Satisfaction, and once regressing SKI subscale mean scores onto sexual satisfaction, thus answering the following research questions:

4. What is the relationship between the participant's mean scores on the subscales of the GSF and their reported level of Sexual Satisfaction?

5. What is the relationship between the participant's mean scores on the subscales of the SKI and their reported level of Sexual Satisfaction?

Finally a correlation test was used to answer the research question:

6. What is the relationship between the participant's mean scores on the SKI and their reported level of GSF?

CHAPTER IV

RESULTS

Prior to the examination of the relationship between global sexual functioning, sexual knowledge and sexual satisfaction, each of these key variables were examined to understand how participants responded to the measures. The study reported on a total of six research questions. The first three used descriptive statistics to focus on Global Sexual Functioning (GSF), Sexual Knowledge (SKI), and Sexual Satisfaction (SS), deriving and analyzing the total scores for the GSF, SKI, and SS scales. Research questions four and five used linear regression to examine the amount of variance attributed to sexual satisfaction by the subscales of the GSF and SKI. The last research question used correlations to examine the relationship between the subscales of the SKI and total GSF.

Means, standard deviations, and medians were reported for each question (see Tables 2 – 3, plus Appendix F). Items were equally weighted with a total possible score being 100. Items where participants answered "have never tried to" were dropped in order to get a more accurate total score. This was only the case with questions 4 and 13, question 4 being about how often the participant masturbates and question 13, about reaching orgasm through masturbation.

Research Question 1

"How do females perceive their global sexual functioning?" Data from the SHF provided a total GSF score (100) based on 18 items (after dropping question 4 and 13), with higher scores indicating greater satisfaction. Examination of the total GSF score

suggest that overall, females perceived themselves as functioning fairly well sexually (*M* = 74.95; *SD* = 8.95; *Mdn* = 75.84). The scores for those participating in the study ranged from 51.15 to 92.5 (see Table 2).

Research Question 2

Sexual satisfaction, the dependent variable in the study, was a two item global construct that asked females to report on how they perceived their own level of sexual satisfaction and the satisfaction of their spouse. The question of interest was, "How do females perceive their level of sexual satisfaction?" The two items were based on a 6-point Likert scale ranging from 6, being extremely satisfactory, to 1, being extremely unsatisfied, with a total possible score of 100. An examination of the group mean and median suggest that the women were satisfied with their sexual relationship (*M* = 84.73; *SD* = 18.70; *Mdn* = 91.67). Examination of the individual score ranges demonstrated a range from 16.67 to 100 (see Table 2).

Research Question 3

"How accurately do females answer questions regarding female and male anatomy and physiology, sexual arousal and response, and sexual technique?" was the third question and examined specific information regarding the knowledge of the

Table 2

GSF and SS Totals

Variables	*N*	*M*	*SD*	*Mdn*	*Range*
Total GSF	217	74.95	8.95	75.84	51.15 – 92.50
Total SS	215	84.73	18.70	91.67	16.67 – 100.00

respondents relative to sexual anatomy and physiology. Data from the SKI provided a total Sexual Knowledge score based on 38 items, weighted so that the total possible would be 100. The group mean score indicated that respondents were not very knowledgeable about the topics addressed by the items ($\bar{x}$ = 44.06; *SD* = 15.12). Participant scores ranged from 4.08-90.48. Descriptive statistics provided in Table 3 illustrate where the respondents were best versed in their understanding of female and male anatomy and physiology, sexual arousal and response, and sexual technique. As illustrated in Table 3, it appears that respondents were most knowledgeable about anatomy and physiology ($\bar{x}$ = 53.99) and least knowledgeable about arousal and technique ($\bar{x}$ = 38.07 and $\bar{x}$ = 41.11, respectively); although a mean score of 53.99 cannot be considered as having a good knowledge base. Respondents also knew more about male anatomy then female ($\bar{x}$ = 56.39 for male vs. $\bar{x}$ = 51.86 for female). In sum, not only do the data suggest that the overall level of sexual knowledge was relatively low, but the range of scores suggest considerable difference in the levels of knowledge between subjects.

Research Question 4

Subscales derived from the GSF provide data in specific areas associated with sexual satisfaction and functioning, namely, frequency of sexual activity (2 items), amount of sexual desire (1 item), time foreplay lasts (1 item), time intercourse lasts (1 item), satisfaction with the variety of sexual activities (1 item), sexual communication (2 items), feelings of arousal (1 item), negative emotional reactions to sex (1 item),

Table 3

Descriptive Stats for Subscales of SKI

Variables	*N*	*M*	*SD*	*Mdn*	*Mode*	*Range*
Knowledge of female anatomy	213	51.86	24.87	53.85	30.77	.00 – 100.00
Knowledge of male anatomy	212	56.39	31.22	54.55	100.00	.00 – 100.00
Total anatomy	213	53.99	25.37	54.20	100.00	.00 – 100.00
Knowledge of arousal	212	38.07	20.66	42.86	28.57	.00 – 100.00
Knowledge of technique	212	41.11	19.59	42.86	42.86	.00 – 85.71
Total SKI	214	44.06	15.12	44.67		4.08 – 90.48

orgasmic responsivity (4 items), sexual dysfunction (1 item), and awareness of physical response (3 items). These subscales were used to answer the question: "What is the relationship between the participants' mean scores on the subscales of the GSF and their reported level of Sexual Satisfaction?"

Because there was no theoretical basis to determine which variables should be entered into the equation first, stepwise linear regression was used. This method allowed the variable, which accounts for the greatest amount of variance to enter first followed by the next until all had been accounted for. Descriptive statistics for each subscale is provided in Appendix F.

Subscales that did not significantly contribute to the overall variance were eliminated from the model. Data in Table 4 indicate that that variable first to enter the equation, accounting for 29.8% of the overall variance, was "satisfaction with the variety of sexual activities"; the remaining variables contributed, in total, an additional 13.4%.

Table 4

Linear Regressions Subscales of GSF on SS

	Variables	*B*	*SE B*	β	R^2
Step 1					
	Satisfaction w/ variety of sexual activities	.60	16.12	.55***	.30
Step 2					
	Satisfaction w/ variety of sexual activities	.51	15.42	.46***	.36
	Experience negative emotions	.29		.26***	
Step 3					
	Satisfaction w/ variety of sexual activities	.45	15.01	.41***	.40
	Experience negative emotions	.26		.24***	
	Frequency of sexual activity	.31		.20***	
Step 4					
	Satisfaction w/ variety of sexual activities	.43	14.80	.39***	.42
	Experience negative emotions	.23		.21***	
	Frequency of sexual activity	.31		.20***	
	Sexual dysfunction	.16		.15**	
Step 5					
	Satisfaction w/ variety of sexual activities	.40	14.66	.37***	.43
	Experience negative emotions	.22		.20***	
	Frequency of sexual activity	.29		.19**	
	Sexual dysfunction	.17		.16**	
	The time intercourse lasts	.11		.12*	

* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$

In other words, when regressing sexual satisfaction on each of the above-identified variables, 43.2% of the variance was accounted for. Although the variables "not experiencing negative emotions," "frequency of sexual activity," "sexual dysfunction," and "the time intercourse lasts" accounted for 13.4%, all of their contributions were statistically significant.

Research Question 5

Subscales derived from the SKI provide data in specific areas associated with sexual knowledge, namely, knowledge of female anatomy (13 items), knowledge of male anatomy (11 items), a total anatomy score (male and female combined), knowledge of arousal (7 items) and knowledge of sexual technique (7 items). These subscales were used to answer the question: "What is the relationship between the participant's mean scores on the subscales of the SKI and their reported level of Sexual Satisfaction?" Linear regression was used to examine this question; however, the data revealed that none of the variables contributed significantly to the "sexual satisfaction" of the respondents. Descriptive statistics for each subscale is provided in Table 3.

Research Question 6

The subscale items of the SKI and GSF are continuous variables which examine the research question, "What is the relationship between the participant's mean scores on the subscales of the SKI and their reported level of GSF?" Pearson correlations were calculated. There were no significant correlations between any of the variables (see Table 5 below).

Table 5

Correlation Table for Subscales of Knowledge on Total GSF

Variables	*N*	Pearson correlation	Sig. level
Female knowledge	213	.07	.29
Male knowledge	212	.10	.15
Total knowledge	213	.10	.14
Total arousal	212	.06	.38
Total technique	212	-.03	.71

CHAPTER V

DISCUSSION AND CONCLUSIONS

The purpose of this study was to assess for factors associated with sexual satisfaction of women who had been married for 5 years or less. In doing this, the study first analyzed variables that have previously been found to be correlated with sexual satisfaction in the literature, namely, frequency of sexual activity, amount of sexual desire, time foreplay lasts, time intercourse lasts, satisfaction with the variety of sexual activities, sexual communication, feelings of arousal, negative emotional reactions to sex, orgasmic responsivity, sexual dysfunction, and awareness of physical response. The study then analyzed if knowledge of sexual anatomy and physiology, knowledge of arousal and sexual technique were significantly related to sexual satisfaction of the women sampled in this study. The subscales derived from the GSF helped to examine sexual satisfaction in a more specific way. By examining the correlates from the research we compared our results to those of other researchers.

Correlates to Sexual Satisfaction in other Studies

In this study, two variables were examined that were found to be significantly related to satisfaction in previous research, namely, orgasmic consistency/responsivity (see Table 6) and communication.

Table 6

Frequency Table for Orgasm GSF

Variables		Frequency
Orgasm through masturbation		
	1) Nearly always	45
	2) Usually	18
	3) Sometimes	11
	4) Seldom	12
	5) Never	8
	6) Have never tried	121
	Missing	2
Orgasm through genital caress		
	1) Nearly always	62
	2) Usually	39
	3) Sometimes	43
	4) Seldom	38
	5) Never	13
	6) Have never tried	22
	Missing	0
Orgasm through intercourse		
	1) Nearly always	86
	2) Usually	39
	3) Sometimes	30
	4) Seldom	25
	5) Never	33
	6) Have never tried	2
	Missing	2
Orgasm through vibrator		
	1) Nearly always	53
	2) Usually	12
	3) Sometimes	23
	4) Seldom	9
	5) Never	12
	6) Have never tried	105
	Missing	3
Orgasm through intercourse + genital caress + vibrator		
	1) Nearly always	71
	2) Usually	31
	3) Sometimes	18
	4) Seldom	7
	5) Never	9
	6) Have never tried	77
	Missing	4
	N	217

Orgasmic Consistency/Responsivity and Sexual Satisfaction

While some research has demonstrated a significant relationship between orgasmic consistency and sexual satisfaction (Rathus et al., 2005), other studies have not supported this view (Haavio-Mannila & Kontula, 1997). This study selected five questions from the GSF, which when totaled provided a measure of orgasmic consistency used to regress on sexual satisfaction. The results suggest that the women in this sample did not report orgasmic consistency to be correlated significantly to their sexual satisfaction. There are several possible explanations for this finding. One possible reason is the conservative nature of the sample. The participants were recruited from a university that is made up of a conservative population, and most of the participants were from a religion known to be conservative. In the assessment of knowledge, participants scored lowest in the area of sexual technique. This suggests the notion that sexually conservative females may not be aware of alternative techniques for producing orgasm, or if they are, they may not feel that using such techniques is appropriate.

A second possible reason for the lack of correlation between orgasmic consistency and sexual satisfaction could be how the conservative sample responded to the assessment instrument. The items from the instrument are explicit in nature. Sometimes when a conservative population is asked about questions that they find offensive, they may not answer honestly. Participants may have been embarrassed or offended when asked about orgasm causing them to answer less accurately.

The participants of this study, in general, did not answer questions correctly relating to female orgasm, erogenous zones, and foreplay. So, were the participants

sexually satisfied regardless of the presence of an orgasm? Either the participants of this study are sexually satisfied without such consistency, or they are not even aware of what might be more satisfying. According to the literature, "normal women are sexually satisfied and orgasmic" (Bridges et al., 2004, p. 158). If this is the case then the females need both satisfaction and orgasm. The women from this study and those like them might benefit from being educated on other ways to reach orgasm, or even given permission to explore orgasm in other less conservative ways.

Communication and
Sexual Satisfaction

One of the correlates of sexual satisfaction found most often in research addressing sexual satisfaction is communication (Bridges et al., 2004; Byers & MacNeil, 1997; Haavio-Mannila & Kontula, 1997). Research discusses communication about sex and the relationship as being very important to sexual satisfaction. Even though the findings of this study did not suggest a significant relationship between communication and sexual satisfaction it was interesting to note that a majority of those responding (n = 176; 81.1%) reported that either they showed their partner what it was they would like or they specifically told their partner (see Table 7). These data suggest that the women in this sample were proactive in communicating with their spouse their sexual desires.

While the females in this study perceived themselves as proactive in communicating their sexual desires, when asked how their spouse communicates with them 135 participants (62.2%) reported that they have to intuit their spouse's sexual likes and dislikes. In other words, these women reported that their spouses did not tell them verbally or nonverbally what their desires were and they were left to assuming what was

Table 7

Frequency Table for Q9. GSF

Variables		Frequency
Communication about own likes		
	1) I wait to see if my spouse will do what I like without my asking	40
	2) I show my spouse what I would like by moving their hand or changing my own position	116
	3) I tell my spouse exactly what I would like	60
	Missing	1
	N	217

desired. When looking at the data for perceived proactive communication about sexuality, only 82 women (37.8%) reported that their spouse communicated with them the same way they communicated with their husbands (see Table 8).

Haavio-Mannila and Kontula (1997), as well as Byers and MacNeil (1997), indicated that a discussion of sexual likes and dislikes promotes satisfaction. Bridges et al. (2004) indicated that if couples would communicate their sexual likes, dislikes, and expectations about sexuality, they would increase their sexual satisfaction. Being able to talk and share openly with one another on this level facilitates emotional closeness and increases the likelihood that you will get your sexual needs met.

In all practicality good communication, according to extant literature (Bridges et al., 2004; Byers & MacNeil, 1997; Haavio-Mannila & Kontula, 1997), is essential to relationship satisfaction and stability, and relationship satisfaction has been found to be

Table 8

Frequency Table for Q10. GSF

Variables		Frequency
Spouse's communication about their likes		
	1) From my spouse telling me exactly what they want	11
	2) From my spouse moving my hand or changing their position to signal what they would like me to do	71
	3) From watching my spouse's reactions during sex	57
	4) From intuition	78
	Missing	0
	N	217

correlated with sexual satisfaction (Bridges et al.; Byers & MacNeil; Haavio-Mannila & Kontula). If this is the case, then why doesn't the correlation of sexual satisfaction and communication seem to show up with this sample? What may be occurring is that females, at this stage of the relationship are more proactive in their sexual communication than are males, which may be a factor associated with their increased emotional involvement in the relationship. However, across time it seems logical that mutuality of communication becomes increasingly essential to the relationship and possibly sexual satisfaction. Thus, perhaps while communication may be important, it may not the most important factor for sexual satisfaction at this early stage of marriage.

An alternative explanation may have to do with how the communication questions were phrased in the study. It is possible that the style of communication addressed at an earlier stage of the marriage may be qualitatively and quantitatively different. Further research will need to be initiated to examine this possible explanation.

Even with the above possibilities there were several findings that were intriguing and worth addressing in this discussion. The first had to do with the discrepancies in the perception as to how females viewed themselves as communicating with their partner, and how they saw their partner communicating with them. Most females, as demonstrated in Table 7, reported that they communicated in either a verbal or nonverbal way with their partner to get their sexual needs met; however, they perceived their partners (Table 8), at least the majority of them, as leaving it up to the female to determine what it was that they would like. This discrepancy, while perhaps negligible in the beginning years of marriage, may become an increasing issue as time goes on and females continue interacting with their partners in a way that may increase the likelihood of boredom and dissatisfaction with the sexual relationship. Boredom in the sexual relationship may serve as a basis for seeking out an extra marital relationship, and unless this is addressed openly it may lead to increased frustrations. Unfortunately, if couples do not foster a mutual method of communication early on in marriage, it is possible that the rules governing their communication across their marriage will remain the same and no change will occur. Increased frustration may lead to disillusionment.

While it is not certain why communication was not significantly related to sexual satisfaction, the hypothesis holds that a lack of mutual or reciprocal communication is related to increased dissatisfaction in the relationship. It would seem logical that programs addressing this issue should be initiated early on in life so that males and females can become proactive communicators of their needs, wants, and emotions in relationships. As further research delineates the relationship between sexual satisfaction and communication, communication programs can be developed and developmentally

implemented prior to dating experiences when communication becomes an essential aspect of relationship discovery and satisfaction. Further, couples can be educated in the role of communication across the lifecycle and when they recognize failings in the mutuality of their communication, they can address it either through online programs that could be developed or in more severe cases in the context of therapy.

Statistically Significant Correlates of Sexual Satisfaction

Although the study did not confirm the statistical significance of orgasmic consistency and communication it did identify five relevant variables through linear regression that are not often addressed in the extant literature, namely: "satisfaction with the variety of sexual activities," "not experiencing negative emotions," "frequency of sexual activity," "sexual dysfunction," and "the time intercourse lasts." When taken together these five variables accounted for 43.2% of the variance in sexual satisfaction in a multiple regression model. Caution is warranted when one examines this amount of variance because it is the nature of the type of regression to encourage variance; thus, it may be an artifact of the statistical procedure. While this maybe the case, the discussion below is based on these statistics until future research helps to clarify these variables in the context of sexual satisfaction.

Satisfaction with the Variety of Sexual Activity and Sexual Satisfaction

Based on this study the variable of greatest importance, meaning that which contributed most to the overall variance, was "satisfaction with the variety of sexual

activity." Alone this variable accounted for 29.8% of variance. This finding is similar to that of MacCabe (1999) who found a relationship between satisfaction with the variety of sexual activities and sexual satisfaction. Of the 201 participants in this study, 93% were at least slightly satisfied with the variety of sexual activity (see Table 9 below). Taken in consideration with the fact that sexual variety was significantly correlated with sexual satisfaction, this finding is relevant to those desiring to enhance their sexual satisfaction.

These data suggest that those involved in the study felt that they were already involved in sufficient variety of sexual play to be satisfying. While this may be the case, one wonders what they considered to be variety. Being a conservative sample, especially when examining orgasmic consistency, it would seem like their range of variety would be restricted. Future research will need to examine this more closely to see if conservatism

Table 9

Frequency Table for Q7. GSF

Variables		Frequency
Satisfaction with variety of sexual activity		
	1) Extremely satisfied	80
	2) Moderately satisfied	90
	3) Slightly satisfied	31
	4) Slightly *un*satisfied	8
	5) Moderately *un*satisfied	5
	6) Extremely *un*satisfied	3
	N	217

does restrict the range of variety, and how does variety relate to techniques of orgasmic consistency.

By examining frequencies from question 8 we can see what our participants were interested in wanting more of (Table 10 below). Note that about half wanted more breast caressing while about half stated that they did not. About half wanted more hand caressing of their genitals while half did not. One-hundred thirty-six participants (63%) did not want more oral caressing of their genitals while the rest did. Most interesting was that 139 participants (64%) wanted more positions incorporated into their lovemaking. This tells us that helping young females who have only been married 5 years or less with this transition could include knowledge of different positions. What may be helpful in the future may be to ask females what positions they utilize most of the time, or what positions they would like to use more often. This would allow us to provide education and information to other females making the transition.

These data suggest that assessing a couple's satisfaction with the variety of sexual activities is by no means the only thing that should be examined to help increase sexual satisfaction, it is a relevant consideration that should be added certainly important enough to add in to the factors that may be effecting a couples sexual satisfaction.

Taking the findings into consideration, they do suggest that variety of sexual activity is a necessary component to sexual satisfaction. As such, it seems logical to suggest that if there are those who want to be sexually satisfied they would want to consider their level of knowledge as it relates to sexual variety. Understanding the role that sexual variety plays may help couples enhance or rekindle their sexual relationships.

Table 10

Frequency Table for Q8. GSF

Variables		Frequency
More breast caress		
	1) Yes	114
	2) No	102
	Missing	1
More hand caress		
	1) Yes	109
	2) No	107
	Missing	1
More oral caress		
	1) Yes	80
	2) No	136
	Missing	1
Different positions		
	1) Yes	139
	2) No	77
	Missing	1
	N	217

While not specific to any sample, it is of interest that in today's society there has been an increase in "sex or slumber parties," that are not much different than Tupperware or Pampered Chef parties though the attention is on sexual techniques, toys, and lingerie. In addition, there are a variety of books available. For example, the Kama Sutra (Danielou, 1994), written many years ago in India, The Joy of Sex and The More Joy of Sex (Comfort, 1972, 1991), Passionate Marriage (Schnarch, 1997), and Sensual Massage (Inkeles, 2006) provide couples detailed descriptions and illustrations of alternative sexual behaviors and techniques aimed at curtailing boredom, while at the same time rekindling emotional and sexual desire.

Knowing that satisfaction with the variety of sexual activities is related to sexual satisfaction can be beneficial in a variety of ways. First, with increased open discussion of sexuality (e.g., Oprah, Dr. Phil, and MTV) one or both partners may want to enhance their sexual relationships. Knowing that there is information available may encourage couples to seek out resources. These resources may not only provide information but may also give permission to engage in alternative sexual behaviors.

When couples become more frustrated with their sexual relationship, or one of the partners is discouraged, it may be time to seek help through an implementation of the PLISSIT model (Annon, 1974). The P stands for permission, which may be provided by reviewing resources and agreeing to try a new technique or behavior, a partner. Permission may be provided by a clergy, physician, or therapist. Most often permission is within the dyad, though when behaviors conflict with religious beliefs, the couple may seek out their clergy. LI stands for limited information. As with "P," limited information may be acquired from a book or movie, or be provided by a professional or sexual educator. Specific Suggestion (SS) most often requires the help of a sex counselor who can direct the couple towards activities that may enhance their sexual satisfaction (e.g., the squeeze technique for those couples where there is perceived premature ejaculation). Worst-case scenarios (e.g., Dysparuneia, Vaginismus, retarded ejaculation, sexual aversion, and hypoactive sexual desire disorder) may need the help of a sex therapy to provide the couple with Intensive Therapy (IT). Regardless of the level a couple presents at on the PLISSIT model, they can enhance their sexual satisfaction by adhering to more variety in their sexual encounters.

Negative Emotional Experience and Sexual Satisfaction

Davidson and colleagues (2004) found that women who experienced negative emotions about their sexual experiences were less sexually satisfied, the data noted in Table 4 suggest that when positive emotional experiences prevail, females will experience and report positive sexual satisfaction. This finding is not in contrast with Davidson and colleagues, but rather supportive thereof; just the question was asked differently.

Data from this study suggest that even though only a small portion of the variance for sexual satisfaction was accounted for, positive emotions were significantly correlated with sexual satisfaction ($\beta = .26$; $p \leq .001$). This particular finding makes sense; if one experiences something of a positive nature they will most likely want to be involved in it more. In other words, these data suggest that if those who have positive emotional experiences report sexual satisfaction, then it seems logical that the opposite is true; that is, those who experience negative emotions most likely will report dissatisfaction with sex. Thus, the more one involves themselves in a positively perceived activity the greater the likelihood that they will report that they are satisfied with the activity.

A review of data provided in Table 11 illustrates that the majority of women involved in this study indicated that they "never" experience negative emotions" when they have sex. This is comforting finding but the fact that there are any women who are experiencing negative emotion is of concern and clearly speaks to the need for various forms of intervention. Couples recognizing the relationship between positive

Table 11

Frequency Table for Q12. GSF

Variables		Frequency
Experience of negative emotions		
	1) Never	132
	2) Rarely (less than 10% of the time	52
	3) Seldom (less than 25% of the time	20
	4) Sometimes (50% of the time)	6
	5) Usually (75% of the time)	5
	6) Nearly always (over 90% of the time)	2
	N	217

emotionality and sexual satisfaction would be encouraged to consider what enhances the sexual relationship for them specifically. The intervention at this level would be nothing more than the couple recognizing the need to enhance their mutual emotional experiences while engaged in sex, having a plan to make such happen, and then implementing that plan. This plan is couple specific and may focus on, for example, increased communication and enhanced conflict management skills, sexual variety, and relationship stressors managed more effectively.

When couples experience distress related to sexual activity and associated emotional discomfort, these couples may be those who seek out sex counselors and therapists; however, they must be willing to discuss this with their partner with a focus on reconciling the concern and reunifying the relationship. Such proactive behavior will strengthen emotional mutuality and increase the likelihood of ongoing positive sexual experiences.

Some researchers have said that women who were *less* religious were less likely to experience negative emotions such as guilt when it came to sex and sexuality (Davidson et al., 2004). The participants from this study were very religious, as noted in Table 1 and also very sexually satisfied. They also rarely experienced negative emotions such as guilt, fear, shame or disgust. This is a very positive finding because it suggests that not all women who are religious are sexually unsatisfied. For those who are, however, it is recommended that they take time to discuss their concerns with their partner, implementing the PLISSIT model where necessary, even discussing their concerns with clergy if appropriate. Often misinterpretation of religious doctrine by laypersons may lead to misunderstanding of how the doctrine may be interpreted in a sexual context.

This study shows that this sample of religious women was sexually satisfied and the majority indicated that they rarely or never experienced negative emotions in a sexual context. This study was not able to analyze the effect of religiosity on sexual satisfaction because there were too few women in the sample who were not religious to serve as a proper control group.

Frequency of Sexual Activity as a Determinant of Sexual Satisfaction

Haavio-Mannila and Kontula (1997) found that frequency of intercourse was an antecedent of sexual satisfaction. Our participants were asked two questions: “How often do you have sex,” and “How often would you like to have sex.” The linear regression data from these questions support the idea that satisfaction with frequency is correlated

with sexual satisfaction. One issue to remember when considering frequency and sexual satisfaction is that frequency is "relative." As noted in Table 12, while 43% (*n* = 94) reported having a sexual relationship 3 – 4 times per week, there is a great range reported. This seems to be true as couple's age. The older couples are, the more likely that the frequency decreases; however, this does not necessarily decrease their reported satisfaction. Even among the elderly, where aging and associated aches, pains, and illnesses may interfere with intercourse, their report of sexual satisfaction is associated with sexual variety. Thus, sexual satisfaction cannot necessarily be measured by frequency of intercourse, but rather frequency of sexual contact. Future research may examine this by assessing sexual satisfaction and identified antecedents across the lifecycle.

In order to help other females make the transition to a satisfactory sexual relationship, expectations of how often to have sex needs to be put into a personalized context. To suggest that a given number of sexual encounters will relate to sexual satisfaction would be both unwise and naïve. Thus, it seems most logical that one would educate females in an understanding of what healthy sexuality is in the context of a relationship, what seem to be factors that contribute to sexual satisfaction, and then to allow the couple to discuss their perceptions and expectations, even prior to marriage.

Couples who are capable of introspection and discussion of sensitive issues such as perceptions and expectations can most likely do so without intervention; however, we have not educated couples in how to proceed with developing this aspect of the "marital contract," and thus it is likely that many may need to be educated in how to do this. An online module that teaches couples the skills of reconciling sexual differences and

Table 12

Frequency Table for Q1. GSF

Variables		Frequency
Actual frequency		
	1) More than once a day	11
	2) Once a day	22
	3) 3 or 4 times a week	94
	4) Twice a week	47
	5) Once a week	28
	6) Once every 2 weeks	12
	7) Once a month	2
	8) Less than once a month	1
	9) Not at all	0
Frequency they would like sex		
	1) More than once a day	18
	2) Once a day	44
	3) 3 or 4 times a week	97
	4) Twice a week	39
	5) Once a week	11
	6) Once every 2 weeks	4
	7) Once a month	2
	8) Less than once a month	2
	9) Not at all	0
	N	217

developing a sexual contract could be easily developed and promoted. If such were to be the case, it would be best that a series of modules be developed that addresses this contract—a flexible and evolving couple contract—across the lifecycle since sexuality varies across time.

One point of interest for the future would be to measure how often their partner would like to have sex versus the participant. MacCabe (1999) noted that he found that males and females were similar in their expectations of frequency of intercourse, while

others found that males and females differed (Bridges et al., 2004; Hurlbert & Apt, 1994; Hurlbert et al., 1993).

Factors Contributing to Sexual Dysfunction and Sexual Satisfaction

It seems logical that if a couple was experiencing a sexual dysfunction, then their sexual satisfaction may most likely be lower. Our participants were asked one question. "Is your vagina so 'dry' or 'tight' that intercourse cannot occur?" This question could be associated with a variety of female sexual dysfunctions. For example, hypoactive sexual desire disorder, a sexual dysfunction that suggests that the female has difficulties becoming aroused; sexual aversion disorder, where the female may have been traumatized and sexual behavior is seen as repugnant; vaginismus, a condition where the female's vaginal muscles are so tight that intercourse cannot be engaged in. Data for this study suggests that a lack of factors associated with dysfunction in the sexual relationship contributed a small but significant amount of variance to sexual satisfaction (see Table 13).

As with negative emotionality and sexual satisfaction, when females report that they are not experiencing a sexual dysfunction, at least as this question has been asked, they may most likely be engaging in satisfying sexual encounters. While this may be the case, the question used in this study is vague and needs more refinement and research. It is difficult to assume that vaginal dryness or tightness is a symptom of a sexual dysfunction, and it is impossible to identify which dysfunction. Questions specifically addressing types of sexual dysfunctions would help researchers more clearly understand

Table 13

Frequency Table for Q18. GSF

Variables		Frequency
Sexual dysfunction		
	1) Never	116
	2) Rarely (less than 10% of the time	57
	3) Seldom (less than 25% of the time	16
	4) Sometimes (50% of the time)	21
	5) Usually (75% of the time)	2
	6) Nearly always (over 90% of the time)	1
	Missing	4
	N	217

if the females were experiencing a sexual dysfunction, and if so, which dysfunction they were experiencing and how was this specific dysfunction interfering, if at all, with sexual satisfaction. Thus it is suggested that researchers articulate this question more specifically, and perhaps add in questions that do not leave it to assumption; meaning that if a female was not experiencing a dysfunction that they were sexually satisfied, which may not be the case.

In a clinical sense, it may be helpful to provide information about the various types of sexual dysfunctions and dissatisfactions that may be experienced by females so that females may be aware of the variety of dysfunctions and dissatisfactions. An understanding of the PLISSIT model would help them determine the type of intervention that would best fit their specific situation.

Amount of Time of Involved in Intercourse and Sexual Satisfaction

The last variable our study found contributing variance to sexual satisfaction was the amount of time a couple was involved in intercourse. The item asked participants to report on how long intercourse usually lasted. Although no previous research has specifically looked at the relationship between the amount of time involved in intercourse and sexual satisfaction, the concern to be addressed had to do with whether the woman was able to engage in sexual intercourse and feel sexually satisfied. A common complaint of women is that once the male has ejaculated, which usually occurs quickly after intercourse begins, he does not continue to stimulate her to orgasm. The assumption was that females may attribute how long intercourse lasted with higher sexual satisfaction because the woman would be more likely have been able to enjoy climaxing.

Data presented in Table 14 depicts that 57 (26%) participants said intercourse lasted between 11-15 minutes, while 45 (21%) reported 4-7 minutes. Only 17 (8%) participants said that intercourse took more than 30 minutes. While one might assume that sexually satisfied females would have intercourse for a longer amount of time, this assumption requires not only refinement of the question asked in this study, but more specific research into this suggested finding. In refining the question so that the relationship between the length of time involved in sexual intercourse and sexual satisfaction may be more identifiable, questions that asked couples about the length of time involved in sexual intercourse in conjunction with questions that would focus on how the length of time made a difference in sexual satisfaction would be included.

Table 14

Frequency Table for Q6. GSF

Variables		Frequency
Time of intercourse		
	1) Less than 1 minute	6
	2) 1 to 2 minutes	20
	3) 2 to 4 minutes	33
	4) 4 to 7 minutes	45
	5) 7 to 10 minutes	37
	6) 11 to 15 minutes	57
	7) More than 30 minutes	17
	Missing	2
	N	217

A combination of quantitative and qualitative questions may provide a positive format so that females could elaborate and provide specific details about this relationship. It may be, for example, that length of time in intercourse for some may include both foreplay and after-play. However, others may have read this as meaning sexual intercourse specifically.

If these findings are corroborated by other research, that is, that the length of time involved in sexual intercourse specifically is correlated with enhanced sexual satisfaction,

it may behoove those teaching sexuality to focus on techniques that would help prolong sexual intercourse, or those that may move the female closer to orgasm prior to initiating sexual intercourse. Basic sexuality courses could address this material and hopefully, the information could be passed on generation to generation as females become more open in the discussion of sexuality with their daughters.

Sexual Knowledge and Sexual Satisfaction

One purpose of this study was to examine the relationship between sexual knowledge and sexual satisfaction. One would assume that people who are more educated about sex in general would then be more satisfied. It was found that our participants were very satisfied in their sexual relationships; however, when we examined the knowledge portion of the study in connection with sexual satisfaction there were no significant relationships. An examination of the frequency data presented in table 15 illustrates the frequency of scores.

This is a most intriguing fact since, as suggested, it was assumed that knowledge of sexuality (i.e., anatomy, physiology, communication, and sexual techniques) would be positively associated with sexual satisfaction. Future research is suggested to examine this, but to do so across the lifecycle. Perhaps more newly married couples remain in a state of “bliss” and “honeymoon” such that the mystique and curiosity surrounding their newly involved sexual behaviors are sufficient to carry them over obstacles that may be associated with sexual knowledge. As couples progress, and “boredom” may become a more common “bed partner,” knowledge may become increasingly important. Further,

Table 15

Frequency Table for Knowledge of Anatomy

Variables		Frequency
Knowledge of female anatomy score		
	.00 – 15.38	19
	23.08 – 30.77	40
	38.46 – 46.15	46
	53.85 – 61.54	44
	69.23 – 76.92	32
	84.62 – 92.31	19
	100.00	13
	Missing	5
Knowledge of male anatomy score		
	.00 -18.18	37
	27.27 – 36.36	34
	45.45 – 54.55	39
	63.64 – 72.73	39
	81.82-90.31	23
	100.00	40
	Missing	5
	N	217

knowledge in the later years about changes in anatomy and physiology as related to menopause and adrenopause maybe useful in selecting techniques that would accommodate aging and the accompanying ailments associated therewith. Thus, regardless of the fact that there were no significant relationships between sexual knowledge and sexual satisfaction, it is recommended that there continue to be efforts towards educating about sexuality, but in a way that it is developmental and addresses

specific issues associated with anatomy, physiology, communication and techniques pertinent to various stages of the lifecycle.

Of interest to the findings associated with sexual knowledge was the fact that females understood male anatomy better than they did their own. The median for knowledge of female anatomy score was 53.85 while the score for knowledge of male anatomy is higher at 54.55. By examining the frequency data provided by the SKI some interesting things can be articulated (see Table 15). In general about half of the participants scored at or below about 46 out of 100. Only 13 participants (.06%) scored 100. However when we look at knowledge of male anatomy only 87 (40%) participants scored at or below about 46, while 40 (18%) participants scored 100.

While one may expect a slight difference in understanding, three of many reasons are suggested as to why females may be more acquainted with male anatomy than their own. First, historically, there has been more emphasis and education about male sexuality, including information about anatomy and physiology than there has been about female sexuality, genitalia, reproductive system, and sexual arousal. In fact it was not until the late 1970s (Reiss & Reiss, 2005) that the influence of the women's movement encouraged the publication of books that illustrated and discussed female sexual anatomy and physiology. Next, this discrepancy in knowledge may be due to the fact that the male genitals are overtly visible whereas those of the female lie more subtle and "hidden" from view. Many females have seen the penis while changing a baby's diaper and even, perhaps, talked about it with an adult caregiver. However, when changing the diaper of a female the genitalia are not well disclosed and discussion is most likely not to occur. Finally, it is possible that there is more conversation about male genitalia than there is

about female genitals. For example, discussion about penis size is not uncommon conversation in the "locker rooms." However, discussing the size of the labia or clitoris is not common. Even when considering sexual activity/intercourse, there is a common discussion about the size of the penis and the pleasure the female will experience; yet discussion about the depth of the vagina or strength of the introitus relative to sexual satisfaction are not commonly discussed.

What is important to take from this information about discrepancy is that females are less enlightened about their own sexuality than they are that of males. In a society that is pushing for increased sexual satisfaction, it seems logical that attending to and helping females become as knowledgeable about themselves will be helpful in not only increasing their sexual satisfaction, but also their sexual health (e.g., symptoms of STD's, when to begin PAP tests). This is particularly important if one envisions sexual satisfaction beyond the mere involvement in sexual activity and intercourse.

Recommendations

Although many changes have occurred in terms of females and their sexuality since the Women's movement and the work of Masters and Johnson (1969). Even today many females remain mostly naïve about their own sexuality, particularly if knowledge of sexual anatomy and physiology, behaviors and communication are deemed important. In other words, many females have only modestly explored their personal sexuality whether in an experiential or educational context. Some females receive a maturation class in about fifth grade, which may be the only education they receive about their own anatomy, and this can be significantly limited. Some high schools offer a health class to

extend this minimal knowledge of sexuality; however, the curriculum is usually limited to pregnancy prevention or education about sexually transmitted infections (STI). While this may be noted for the majority of high schools, there are some that are more innovative, expanding their curriculum to address sexuality more effectively in an adolescent context that includes discussion about sexual intercourse and behavior, effective pregnancy and STI protection, making effective decisions, adult roles, and so forth. After high school only those who seriously desire more sexuality education will seek it out, or they may attend a college or university where there is a human sexuality course required for their major. Unfortunately, for those students not in a major that offers a human sexuality program, students may not even get it at their chosen college or university. Usually this course is not required. It may be offered as a general education course, thus being open to all, but some universities, with cutbacks affecting budgets, have limited the course to those majoring or minoring in their field.

What is noted when reviewing sexuality curricula is that there is a dearth of education about sexual satisfaction. If sexual satisfaction is among the top 3 reasons for divorce (American Academy of Matrimonial Lawyers, n.d.; Guo et al., 2004; Matthews, n.d.; Pattison, 2001; Stanley & Markman, 1997; Tetschner, n.d.) it would be logical that there would be greater effort at all levels of society to educate females, and more logically partners, in how to enhance sexual satisfaction in the context of relationships. While there is education available about finances, and parenting these classes must be sought out by willing individuals, couples and partners. However, the educational services associated with money management and parenting are much more readily accessible, even found in general resources such as banks or child support services.

So how would one go about facilitating knowledge of sexuality? There are a variety of possibilities; however, it is important first to continue research efforts to determine what the most salient antecedents of sexual satisfaction are. Once this is determined, then it would be possible to provided developmentally appropriate education to males and females, perhaps in an educational context such as school. It is also possible to provide more education to parents, helping them to integrate this information into their family in a developmental manner.

If it can be demonstrated that providing sexual information in a developmental manner is not harmful, but rather has long-term positive benefits which may include decreases in divorce where sexuality is the prime cause, or approaching state and national legislators to sponsor bills that would provide funding for developmentally-based sex education programs in schools would seem fitting.

Finally, pre-relationship counseling could be encouraged and couples/partners could have an opportunity to work with a specialist, sex educator, counselor or therapist, to explore sexuality and how to best integrate it into their personal values and lifestyle. This is not such a farfetched possibility when one considers that many states require couples to take divorce classes when they divorce and prior to the divorce being granted; however, these courses tend to focus on finances and children, not sexuality.

While this research is seminal and leaves many questions to be asked and answered, it is hoped that others will forge forward in understanding female sexuality, sexual satisfaction, and relationship stability.

Future Research

Throughout the discussion various suggestions relative to future research have been provided. Replication is always a critical part of research. Such research confirms previous research and helps make sense out of areas where there may be mixed findings. Other research should take up the questions asked in this research and examine it across the life cycle. It is recommended that a mixture of quantitative and qualitative research be used to best understand what constitutes sexual satisfaction. Future research could focus on what participants in this study did versus did not know. For example, when asked about the clitoris and its functions, how many participants answered correctly; if they answered incorrectly what did they answer? Did their response have anything to do with their sexual satisfaction across the lifecycle? Other research could address what appear to be trends or patterns in the data as they relate to sexual behavior and satisfaction across the lifecycle. Finally, questions used in the measures for this study should be revisited to ascertain if they were truly the best questions to ask and were they asked in a way that would provide the best data to understand female sexual satisfaction.

In addition to the examination of sexual satisfaction across the lifecycle, future research could examine it longitudinally as well. A longitudinal analysis would provide, perhaps, a very different picture of sexual satisfaction than a cross-section analysis. What effects satisfaction at the beginning of marriage versus a few years later is a question that may answer some of the questions that came as a result of this study. Retrospective accounts, while a more flawed method of data acquisition, could be employed if longitudinal were too expensive or inhibited by other reasons.

Another recommendation for future research would be to compare a non-LDS sample with an LDS, or a conservative to a liberal sample to examine what happens with variables such as orgasmic consistency which includes various methods of stimulation that may not be as prominent among religiously conservative groups.

Finally, future research may want to examine how participants SS, GSF, and SKI scores relate to relationship satisfaction and stability; for example comparing total and subscale scores with results derived from satisfaction measures such as the R-DAS (Revised Dyadic Adjustment Scale citation) or the Kansas Marital Satisfaction Scale (KMSS; Schumm, Bollman, Jurich, & Hatch, 2001).

Limitations

Three limitations were noted in this study. Each limitation has its own implications relative to the findings of this study, but there is also an interaction effect since one limitation does not act independent of the other.

Sample Bias

With regards to the sample, there are actually two specific limitations imposed on this study, the first being the fact that the sample was a convenience sample; that is, those who were willing to participate did so. A convenience sample excludes those who were not willing to participate which may have a different perception about sexual satisfaction than did those who were willing to volunteer. In addition, the sample is religiously conservative. A religiously conservative sample may approach the issues of sexuality and sexual satisfaction differently than would a more liberal sample. In this study there

was an insufficient number of what may have been considered liberal or non-religious subjects to compare against.

Measurement

The instrument in this study was untested, meaning that a pretest may have been beneficial to ascertain if there were items that needed revision, even though this was perceived to have been a seminal study. The instrument, including each of the items, needs to be re-tested for reliability and validity. Of interest would be questions that asked about negative associations (e.g., negative emotionality) rather than positive emotionality and those that dealt with sexual dysfunction. Qualitative questions would also have been beneficial to follow up on some of the questions regarding sexual satisfaction. Finally, the Sexual Knowledge Inventory should be revisited to ascertain why there were not significant correlations between knowledge and sexual satisfaction. As suggested in the discussion, this may be an issue of age and this should be considered in future research.

Methods

In terms of methods, perhaps of most importance was that this study was not first investigated from a pre-study position. Some of the difficulties that may be associated with measurement may have been rectified if this had been the case. However, considering this a seminal study, methods were chosen to best answer the questions of the study. Linear regression was used to examine relationships between subscales of the variable Global Sexual Functioning and the total score for Sexual Knowledge. One of the drawbacks to using linear regression is that there may be multiple comparisons of one variable that may result in multicolinearity. If such were the case, one variable may

inadvertently cancel another out if the F-test shows them at the same level. Another criticism of linear regression is that the *p*-values tend to be inflated. Finally, a concern, especially when one variable contributes only slightly to the variance and is significantly correlated to the dependent variable, is how linear regression may result in the findings being an artifact of the statistical method. Even with these criticisms, linear regression was the best test for this project because of the need to see variables enter in at the rate of most significant to least.

Summary

The sexual satisfaction of women, whether in or outside of a relationship is a complicated, yet interesting topic of study. Two variables that have had mixed findings in previous research, orgasmic consistency, and sexual communication were found, at least for this sample, not to be significantly correlated with sexual satisfaction. Using a revised instrument that included items from the Sexual History Form, five variables were found to be significantly related to sexual satisfaction and contributed 43% to the variance of these females sexual satisfaction.

A key interest in this study was the relationship between sexual knowledge and sexual satisfaction. The data as reported, found that in general, the women did not score well when asked about sexual knowledge, and sexual knowledge was not found to be significantly related to sexual satisfaction. Further research directions have been suggested in the discussion, such as examining sexual knowledge across the life cycle to ascertain if there is a generational difference. What would be addressed by this would be

to determine if sexual knowledge really does affect sexual satisfaction. It could also be that there may be a better way to measure the relationship between the two variables.

By clarifying correlates of sexual satisfaction we can articulate specific variables that are related to sexual satisfaction. As this is accomplished, those in the field will be better able to prepare females to make the transition into a healthy and satisfied sexual relationship by employing a variety of resources (e.g., home, through a clinician in therapy or through education in public or in the school system) to educate females developmentally.

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APPENDICES

Appendix A: Measure Used in Study

Please read all instructions and questions carefully

What is your current age? _____ Your ethnicity? _____

How long have you been married to your current partner? _____ (Years) ____ (Months)

Please circle the highest level of education you have completed.

High School:	1 YR	2 YRS	3 YRS	4 YRS
College:	1 YR	2 YRS	3 YRS	4 YRS
Grad School:	1 YR	2 YRS	3 YRS	4 YRS
Other: _____	1 YR	2 YRS	3 YRS	4 YRS

What is your religious affiliation (Religion)? _____

Circle how often you attend church services

Never	Only when a very special event arises	Only once a year like on holidays	Once in awhile/a couple times a year	About monthly	Once a week/only on Sundays	Once a week and for other activities during the week

When considering the doctrine, rules and standards of your religious affiliation please circle where you consider yourself to be with regards to you living the doctrine rules and standards. A 7 means that you are in perfectly living these doctrines, rules and standards and 1 meaning never observing any kind of standards provided by your religion.

Low/Never High/ Perfect

1	2	3	4	5	6	7

This section of the survey is a sexual history form. Please circle the most appropriate response to each question that best describes the relationship between you and your spouse.

1. How frequently do you and your spouse have sexual intercourse or activity?

1) More than once a day
2) Once a day
3) 3 or 4 times a week
4) Twice a week
5) Once a week
6) Once every 2 weeks
7) Once a month
8) Less than once a month
9) Not at all

2. How frequently would you like to have sexual intercourse or activity?

1) More than once a day
2) Once a day
3) 3 or 4 times a week
4) Twice a week
5) Once a week
6) Once every 2 weeks
7) Once a month
8) Less than once a month
9) Not at all

3. How often do you experience sexual *desire* (this may include wanting to have sex, planning to have sex, feeling frustrated due to lack of sex, etc.)?

1) More than once a day
2) Once a day
3) 3 or 4 times a week
4) Twice a week
5) Once a week
6) Once every 2 weeks
7) Once a month
8) Less than once a month
9) Not at all

4. How often do you masturbate (bring yourself to orgasm in private)?

1) More than once a day
2) Once a day
3) 3 or 4 times a week
4) Twice a week
5) Once a week
6) Once every 2 weeks
7) Once a month
8) Less than once a month
9) Not at all

5. For how long do you and your spouse usually engage in sexual foreplay (kissing, petting, etc.) before having intercourse?

1) Less than 1 minute
2) 1 to 3 minutes
3) 4 to 6 minutes
4) 7 to 10 minutes
5) 11 to 15 minutes
6) 16 to 30 minutes
7) 30 to one hour

6. How long does intercourse usually last, from entry of the penis to your spouse's orgasm/climax?

1) Less than 1 minute
2) 1 to 2 minutes
3) 2 to 4 minutes
4) 4 to 7 minutes
5) 7 to 10 minutes
6) 11 to 15 minutes
7) More than 30 minutes

7. How satisfied are you with the *variety of sexual activities* in your current sex life? (This includes the different types of kissing and caressing with a spouse, different positions for intercourse, etc.)

1) Extremely satisfied
2) Moderately satisfied
3) Slightly satisfied
4) Slightly *un*satisfied
5) Moderately *un*satisfied
6) Extremely *un*satisfied

8. Would you like your lovemaking to include *more:*

Breast caressing	1) Yes	2) No
Hand caressing of your genital area	1) Yes	2) No
Oral caressing (kissing) of your genital area	1) Yes	2) No
Different positions for intercourse	1) Yes	2) No

9. If you would like a certain kind of sexual caress or activity, which way do you *typically* let your spouse know?

1) I wait to see if my spouse will do what I like with out my asking
2) I show my spouse what I would like by moving their hand or changing my own position
3) I tell my spouse exactly what I would Like

10. How have you *typically* learned about your spouse's sexual likes and dislikes?

1) From my spouse telling me exactly what they want
2) From my spouse moving my hand or changing their position to signal what they would like me to do
3) From watching my spouse's reactions during sex
4) From intuition

11. When you have sex with your spouse do you feel sexually aroused (e.g., feeling "turned on," pleasure, excitement)?

1) Nearly always (over 90% of the time)
2) Usually (about 75% of the time)
3) Sometimes (about 50% of the time)
4) Seldom (about 25% of the time)
5) Never

12. When you have sex with your spouse do you have negative emotional reactions (e.g., fear, disgust, shame, or guilt)?

1) Never
2) Rarely (less than 10% of the time
3) Seldom (less than 25% of the time
4) Sometimes (50% of the time)
5) Usually (75% of the time)
6) Nearly always (over 90% of the time)

13. If you try, is it possible to reach orgasm (sensation of climax) through masturbation?

1) Nearly always (over 90% of the time)
2) Usually (about 75% of the time)
3) Sometimes (about 50% of the time)
4) Seldom (about 25% of the time)
5) Never
6) Have never tried to

14. If you try, is it possible for you to reach orgasm (sensation of climax) through having your genitals caressed by your spouse?

1) Nearly always (over 90% of the time)
2) Usually (about 75% of the time)
3) Sometimes (about 50% of the time)
4) Seldom (about 25% of the time)
5) Never
6) Have never tried to

15. If you try, is it possible for you to reach orgasm (sensation of climax) through sexual intercourse?

1) Nearly always (over 90% of the time)	4) Seldom (about 25% of the time)
2) Usually (about 75% of the time)	5) Never
3) Sometimes (about 50% of the time)	6) Have never tried

16. Can you reach orgasm (sensation of climax) through stimulation of your genitals by an electric vibrator or any other means (running water, rubbing with some object, etc.)?

1) Nearly always (over 90% of the time)	4) Seldom (about 25% of the time)
2) Usually (about 75% of the time)	5) Never
3) Sometimes (about 50% of the time)	6) Have never tried

17. Can you reach orgasm during sexual intercourse if, at the same time, your genitals are being caressed (by yourself or your spouse with a vibrator, etc.)?

1) Nearly always (over 90% of the time)	4) Seldom (about 25% of the time)
2) Usually (about 75% of the time)	5) Never
3) Sometimes (about 50% of the time)	6) Have never tried

18. Is your vagina so “dry” or “tight” that intercourse cannot occur?

1) Never	4) Sometimes (50% of the time)
2) Rarely (less than 10% of the time	5) Usually (75% of the time)
3) Seldom (less than 25% of the time	6) Nearly always (over 90% of the time)

19. *Overall*, how satisfactory to you is your sexual relationship with your spouse?

1) Extremely *un*satisfied	4) Slightly satisfactory
2) Moderately *un*satisfied	5) Moderately satisfactory
3) Slightly *un*satisfied	6) Extremely satisfactory

20. *Overall*, how satisfactory do think your sexual relationship is to your spouse?

1) Extremely *un*satisfied	4) Slightly satisfactory
2) Moderately *un*satisfied	5) Moderately satisfactory
3) Slightly *un*satisfied	6) Extremely satisfactory

21. When you have sex with your spouse (including foreplay and intercourse) do you notice your breathing and pulse speed up?

1) Nearly always (over 90% of the time)
2) Usually (about 75% of the time)
3) Sometimes (about 50% of the time)
4) Seldom (about 25% of the time)
5) Never
6) Have never tried

22. When you have sex with your spouse (including foreplay and intercourse) do you notice wetness in your vagina?

1) Nearly always (over 90% of the time)
2) Usually (about 75% of the time)
3) Sometimes (about 50% of the time)
4) Seldom (about 25% of the time)
5) Never
6) Have never tried

23. When you have sex with your spouse (including foreplay and intercourse) do you notice pleasurable sensations in your breasts and genitals?

1) Nearly always (over 90% of the time)
2) Usually (about 75% of the time)
3) Sometimes (about 50% of the time)
4) Seldom (about 25% of the time)
5) Never
6) Have never tried

Female Anatomy and Physiology- Matching. Place the corresponding letter in the blank provided.

Female Organ	
1. Cervical OS	___**D**___
2. Clitoral hood	___H____
3. Fallopian tube	____E___
4. Clitoris	___M____
5. Corpora cavernosa	___I____
6. Glans of clitoris	___C____
7. Labia majora	___F____
8. Labia minora	___B____
9. Mons veneris	___A____
10. Ovaries	___G____
11. Perineum	___J____
12. Uterus	___K____
13. Vagina	___L____

	Definition	Function
A	Mound of fatty tissue covering the female's pubic bone.	Sexual stimulation.
B	Two relatively small, hairless folds of tissue also called the inner lips.	Protection of vaginal opening, sexual stimulation.
C	The visible tip of the clitoris.	Sexual stimulation and arousal.
D	The opening of the uterus.	Passage to and from uterus.
E	A tube that runs from each ovary to the uterus.	Passage for ovum from ovary to uterus, site of conception.
F	Two folds of fleshy tissue extending from the Mons veneris to below the vaginal opening.	Protection of vulva, sexual stimulation.
G	Two solid, egg-shaped structures that are located near the ends of the fallopian tubes and that produce egg cells and some female hormones.	Production of ova and hormones.
H	Tissue that covers the clitoris and is formed by the joining of the labia minora.	Stimulation and protection of the clitoris.
I	Two cylindrical, spongy bodies of erectile tissue that are bound in the thick membrane sheaths, are located within the shaft of the clitoris, and become engorged with blood during sexual arousal.	Erection of clitoris.
J	The muscular region covered with skin that extends from the vaginal opening to the anal opening in the female.	Sexual stimulation.
K	The hollow, muscular, pear-shaped organ in which a developing fetus grows.	Fetal development.
L	A tubular structure that has the vaginal opening at one end and the cervix at the other.	Sexual intercourse, menstruation, birth canal.
M	A cylindrical structure composed of shaft and glans, found just below the Mons veneris and under the clitoral hood.	Sexual stimulation and arousal.

`Male Anatomy and Physiology- Matching. Place the corresponding letter in the blank provided

Male Organ	
1. Cowper's gland	___G___
2. Ejaculatory duct	___I____
3. Foreskin	____D___
4. Corpus spongiosum	___H____
5. Glans of penis	___C____
6. Penis	___A____
7. Perineum	___E____
8. Prostate gland	___K____
9. Scrotum	___J____
10. Shaft of penis	___B____
11. Testis	___F____

	Definition	Function
A	External cylindrical structure composed of a shaft and a glans	Sexual stimulation, intercourse, and urination.
B	Portion of the penis between the glans and the body wall of the pelvis.	Sexual stimulation.
C	The cone-shaped structure at the end of the penis.	Sexual stimulation and arousal.
D	The fold of skin covering the glans of the penis.	Possible stimulation and protection of glans penis.
E	The muscular region covered with skin that extends from the scrotum to the anal opening in the male.	Sexual stimulation.
F	The male organs that produce and store sperm, located in the scrotum.	Sperm production and storage.
G	A pea-sized gland that is located just below the prostate gland and emits an alkaline fluid in response to sexual stimulation.	Production of discharge to neutralize acidity of male urethra to protect sperm.
H	Two cylindrical spongy bodies of erectile tissue that are bound in thick membrane sheaths, are located with the shaft of the penis, and become engorged with blood during sexual arousal.	Erection of penis.
I	Two ducts with the prostate gland through which the seminal vesicles empty into the vas deferens.	Allows passage of sperm and seminal fluid into the vas deferens to form semen.
J	Hairless or lightly hair-covered saclike structure with two separate chambers, each of which houses one of the testes.	Holds testes, protects and regulates their temperature.
K	Walnut-sized structure that is located beneath a man's bladder and emits fluid that combines with that from the seminal vesicles to form semen.	Production of semen.

Arousal/ Response and Techniques- Multiple choice. Circle the best answer below.

All of the following are considered primary erogenous zone EXCEPT
A) inner thighs.
B) the brain.
C) ears.
D) arm pits.

One of the major gender differences in sexual response is
A) found in the excitement phase.
B) the capacity of multiple orgasms.
C) genital lubrication.
D) sexual desire.

Voluntary and involuntary muscle contractions is caused by
A) the G-spot.
B) skene's glands.
C) vasocongestion.
D) mytonia.

A disadvantage of the male-superior coital position is that
A) couples cannot see each other's faces.
B) it is difficult for the man to caress his partner.
C) the position is not very stimulating for the man.
D) women cannot orgasm in this position.

Which intercourse position allows the greatest freedom to touch and caress the body for both males and females?
A) male-superior position.
B) rear-entry position.
C) lateral-entry position.
D) female-superior position.

Orgasm in the female results in contractions

In terms of foreplay, the *most* important sexual technique is
A) touching.
B) kissing.
C) communication.
D) fellatio

The coital position that best favors orgasm for the woman and ejaculatory control for the man is the
A) rear-entry position.
B) lateral-entry position.
C) male-superior position.
D) female-superior position.

In sexual foreplay involving the breasts, many women prefer
A) men to kiss or suck on their breasts immediately.
B) a hard sucking action to the nipples to stimulate the clitoris.
C) not to have their breasts kissed or caressed.
D) several minutes of body contact or gentle caresses before breast stimulation.

Which statement is *true* regarding sexual foreplay?
A) Humans are unique in that other animals do not use foreplay prior to intercourse.
B) In the United States, women desire longer periods of foreplay and afterplay than men.
C) The pattern and duration of foreplay is largely uniform across cultures.
D) Kissing is an important part of sexual foreplay in all cultures.

Manual stimulation of the clitoris

of the

A) vaginal barrel, uterus, and anal sphincter.
B) uterus only.
C) vaginal barrel and urethral bulb.
D) uterus and urethra.

Which of the following is a common sign of sexual response in a woman's plateau phase?

A) The clitoris withdraws under the hood and shortens.
B) The inner two-thirds of the vagina expand.
C) The breasts enlarge.
D) The clitoris swells.

All of the following are characteristics of the plateau phase EXCEPT

A) decreased blood pressure.
B) increased heart rate.
C) sex flush.
D) mytonia.

A) should focus on the glans.
B) is more effective without lubrication.
C) should focus on the shaft or region surrounding the shaft.
D) is best if combined with penetration of the fingers in the vagina.

The swelling of the genital tissue that causes erection or engorgement of the vaginal opening is called

A) mytonia.
B) vasocongestion.
C) dilation.
D) excitement phase.

On a scale from Extremely Dissatisfied to Extremely Satisfied; circle your answer.

Extremely Dissatisfied (ED)	Very Dissatisfied (VD)	Somewhat Dissatisfied (SD)	Mixed or Uncertain (MU)	Somewhat Satisfied (SS)	Very Satisfied (VS)	Extremely Satisfied (ES)

1. How satisfied are you with your marriage?	ED	VD	SD	MU	SS	VS	ES
2. How satisfied are you with your relationship with your husband?	ED	VD	SD	MU	SS	VS	ES
3. How satisfied are you with your husband as a spouse?	ED	VD	SD	MU	SS	VS	ES

Thank you for your participation and your honest answers. Because of the sensitive nature of this topic if there are questions or concerns that this survey caused up you can contact:

Marriage & Family Therapy Clinic
493 N. 700 E.
Logan, UT 84321
(435) 797-7430

USU Counseling Center
Located in the Taggart Student Center Room 306
0115 Old Main Hill; Logan UT 84322
435-797-1012

USU Psychology Clinic
Located in the Education Building
(435) 797-3401.

Bear River Mental Health
(435) 752-0750
90 E 200 N
Logan, UT 84321-4034

Please separate this survey from the Informed Consent. Keep the Informed Consent for your personal reference. Seal your survey in the envelop provided, taping over the clasp and envelope lip, then return the envelope to the student who gave it to you, or if you completed the survey and was a member in the class, return it to your instructor.

Appendix B: Measure Cover Sheet

You may either fill out this survey if you meet the criteria, being a married female for no more than five years, or you may give it to someone who does meet the criteria. Your participation is greatly appreciated. Your answers will be kept completely anonymous. This cover sheet is provided to you in order for you to receive extra credit in the class you are attending. You remove this sheet from the survey and put your name or code number in the space provided and hand it in with the completed survey sealed in the envelope provided. The survey itself is given to an outside researcher who will then analyze the data provided.

Please provide information that is accurate and honest. We would like to draw conclusions from the data you provide and in order to have a solid project your honesty in completing this survey is needed.

Thank you for your participation in helping us to provide a healthier and happier transition to a sexual relationship.

Name Or Code Number _____

Please remember NOT to include this sheet with the completed survey.

Appendix C: Informed Consent

This consent document must be printed with your dept. letterhead on each page before being given to the participant

Date Created: __May 22, 2007__

INFORMED CONSENT

Examining the Relationship between Antecedents of Sexuality and Women's Reported Level of Sexual Satisfaction during the First Five Years of Marriage

***Introduction/ Purpose** Professor D. Kim Openshaw and Ms. Rachel Rudd, a Masters student, in Family, Consumer, and Human Development are conducting a research study to find more about what might enhance sexual satisfaction in females who have been married for five years or less. Approximately 100 female students, who have been married for five years or less, will be invited to participate in completing the survey.

***Procedures** If you agree to be in this research study, you will be asked to answer survey questions about your sexual satisfaction in various areas of your sexual relationship and that examine your sexual knowledge about anatomy and physiology, arousal and response, and sexual techniques. The survey is attached to this letter. This survey should take between 20 and 45 minutes. Once you have completed the survey, you will separate the survey from this informed consent, and then seal the survey in the envelope you have been provided. Keep the informed consent for your personal reference and record.

If you are a female student in the class, and completed the survey as it relates to yourself, you will turn the envelope in to your instructor separately from the form for extra credit. This will insure that there is no way to associate your answers with your request for extra credit.

If you have been given this survey by a friend to complete, you will separate the informed consent from the survey, and seal the survey in the envelope provided, placing tape over the clasp and lip of the envelope. Return the envelope to the person who provided it to you. This person will turn the envelope in to the instructor along with a form requesting extra credit.

Instructors will be contacted each day by the researcher to collect the surveys. Surveys will be only be viewed by the researchers involved in the project and stored in a locked file cabinet.

***Risks** Minimal risk is assumed. Risk is involved in that if you are filling this survey out and giving it back to a student they could break the seal of the envelope. Please help us to assure your confidentiality by adding tape to the seal to do what we can to protect you from this risk. Because of the sensitive nature of this topic, participation in this research may result in mild discomfort (e.g., embarrassment) or cause you to reconsider the nature of your sexual relationship and your satisfaction with it. . It may also cause you to remember something that has happened in your past that you may need to talk to

someone about. If there are questions or concerns that this survey causes you can contact:

Marriage & Family Therapy Clinic 493 N. 700 E. Logan, UT 84321 (435) 797-7430 USU Psychology Clinic Located in the Education Building (435) 797-3401.	USU Counseling Center Located in the Taggart Student Center Room 306 0115 Old Main Hill; Logan UT 84322 435-797-1012 Bear River Mental Health (435) 752-0750 90 E 200 N Logan, UT 84321-4034

***Benefits** There may or may not be any direct benefit to you from these procedures. The researcher, however, may learn more about what helps females experience a greater level of sexual satisfaction. The results of this study will be available for you should you choose to see them. If you are interested in knowing the results of this study you can contact Dr. Openshaw at either (435) 797-7434 or d.k.openshaw@usu.edu. The results will be presented in the Human Sexuality Class and are available upon request. Reading the results may be beneficial in giving you some ideas about how to improve your sexual satisfaction.

***Voluntary nature of participation and right to withdraw without consequence**
Your participation in this study is entirely voluntary. You may refuse to participate or withdraw from the study at any time without consequence.

***Confidentiality** Information you provide the researchers by completing the survey will be kept confidential, consistent with federal and state regulations. Only the researchers (Dr. Openshaw and Ms. Rudd) will have access to the data that will have no identifying information on it. Survey data will be kept in a locked file. All data will be group analyzed. Any presentation or papers that result from the data will only present the data in group format. No individual information will be discussed.

***IRB Approval Statement** The IRB (Institutional Review Board for the protection of human participants at USU) has reviewed and approved this research study. If you have any questions or concerns about your rights, you may contact the IRB at (435) 797-1821.

Informed Consent In that there is no way to identify you as a participant in this study, your willingness to complete and return the survey will serve as acknowledgement of your informed consent. If you should have further questions about the research study, please feel free to contact Dr. Openshaw at either (435) 797-7434 or d.k.openshaw@usu.edu.

Appendix D: Frequency Table for Ethnicity and Education

Frequency Table for Ethnicity and Education

Variables			Frequency
Ethnicity			
		Asian	1
		Black	3
		Caucasian	194
		Hispanic	11
		N.A.	2
		Missing	6
Level of education			
	High school		
		1 YR	0
		2 YRS	0
		3 YRS	2
		4 YRS	17
	College		
		1 YR	20
		2 YRS	43
		3 YRS	50
		4 YRS	73
	Grad. school		
		1 YR	5
		2 YRS	3
		3 YRS	0
		4 YRS	2
	Other		0
	Missing		0
		N	217

Appendix E: Frequency Table for Religion

Frequency Table for Religion

Variables		Frequency
Religious affiliation		
	Born Again Christian	2
	Buddhist	1
	Christian	5
	The Church of Jesus Christ of Latter-day Saints	185
	Roman Catholic	1
	None	20
	Missing	3
Church attendance		
	Once a week/plus	106
	Once a week/sun only	51
	About monthly	13
	Couple times a year	15
	Once a year	3
	Only on special occasions	16
	Never	9
	Missing	4
Adherence to doctrine		
	7-Perfect	19
	6	85
	5	62
	4	17
	3	11
	2	8
	1- Low/Never	4
	Missing	11
	N	217

Appendix F: Descriptive Statistics for GSF

Descriptive Statistics each Variable in GSF

Variables	*N*	*M (SD)*	*Mdn*	Median Description	*Range*
Q1. Frequency	217	3.50 (1.25)	3.00	3 or 4 times a week	1.00 – 8.00
Q2. Frequency	217	3.05 (1.21)	3.00	3 or 4 times a week	1.00 – 8.00
Q3. Desire	217	3.36 (1.70)	3.00	3 or 4 times a week	1.00 – 8.00
Q5. Foreplay	217	4.02 (1.46)	4.00	7 to 10 minutes	1.00 – 7.00
Q6. Time for intercourse	215	4.52 (1.57)	5.00	7 to 10 minutes	1.00 – 7.00
Q7. Satisfaction with variety	217	1.97 (1.05)	2.00	Moderately satisfied	1.00 – 6.00
Q8. More breast	216	1.47 (.50)	1.00	Yes	1.00 – 2.00
Q8. More hand caressing	216	1.50 (.50)	1.00	Yes	1.00 – 2.00
Q8. More oral caressing	216	1.63 (.48)	2.00	No	1.00 – 2.00
Q8. More positions	216	1.63 (.48)	1.00	Yes	1.00 – 2.00
Q9. Communication	216	2.09 (.68)	2.00	I show my spouse by moving their hand or changing my own position	1.00 – 3.00
Q10. Communication spouse		2.07 (.94)	2.00	From my spouse moving my hand or changing their position	1.00 – 4.00
Q11. Arousal	217	1.55 (.82)	1.00	Nearly always (over 90% of the time)	1.00 – 4.00
Q12. Neg. emotional reactions	217	1.65 (1.02)	1.00	Never	1.00 – 6.00
Q15. Orgasm	215	2.47	2.00	Usually (about 75% of the time)	1.00 – 6.00
Q16. Orgasm	214	4.07	5.00	Never	1.00 – 6.00
Q.17. Orgasm	214	3.42	3.00	Sometimes (about 50% of the time)	1.00 – 6.00
Q.18. Dysfunction	213	1.77	1.00	Never	1.00 – 6.00
Q21. Awareness of physical response	215	1.70	1.00	Nearly always (over 90% of the time)	1.00 – 6.00
Q22. Awareness of physical response	213	1.51	1.00	Nearly always (over 90% of the time)	1.00 – 6.00
Q23. Awareness of physical response	213	1.76	1.00	Nearly always (over 90% of the time)	1.00 – 6.00