

Perceptions of the impact of online romantic relationships
on committed face to face relationships

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TABLE OF CONTENTS

ABSTRACT	iv
CHAPTER 1. LITERATURE REVIEW	1
CHAPTER 2. METHODS	14
CHAPTER 3. RESULTS	17
CHAPTER 4. DISCUSSION	26
REFERENCES CITED	36
APPENDIX A. SURVEY INSTRUMENT	39
APPENDIX B. ANNOTATED REFERENCES	43
APPENDIX C. CORRELATIONS	99
APPENDIX D. FREQUENCY OF RESPONSES	100
REFERENCES	101

ABSTRACT

This study explored student perceptions of the impact of online relationships on committed face to face relationships. Participants in this study were 166 students from a large Midwestern university. Participants completed a 30-item survey in which they rated four scenarios on the level of impact, sexual betrayal, and emotional betrayal they perceived in each situation. Results of the study indicated that women perceived the four scenarios to be more harmful to the committed relationship, and involve greater degrees of emotional and sexual betrayal than men. In addition, those scenarios which involved active forms of online sexual activities were perceived as more harmful to the face to face relationship than those which involved passive forms of online sexual activities. Finally, individuals who reported having prior experience with online sexual activities rated the scenarios as less harmful to the committed relationship than individuals who did not report prior experience. This research provides empirical evidence that online sexual relationships are perceived by students as harmful to committed face to face relationships.

CHAPTER 1. LITERATURE REVIEW

Bob and Joan have been married for 18 years. They have three children. Between work and the kids, Bob and Joan have very little time together as a couple. Both work out of the home for eight hours every day. In the evenings, Joan is usually busy with the kids, and Bob spends his time in his home office working on the computer. One day, Joan stays home from work because one of the children is sick. She decides to use Bob's office computer to check in with work, and discovers multiple messages from a woman named Sue, sent to Bob's email address. Joan is startled by the number of messages, and begins to randomly read the messages. She is shocked and hurt by the personal, private and sexual nature of the messages. That night, Joan confronted Bob with her findings, and he admitted that the relationship has lasted for over a year, and he communicates with Sue several times per day. Although he admitted to exchanging sexual and emotional messages in chat rooms and through email, he refuses to label the exchange as an affair because "nothing happened". Furthermore he refused to end the communication, because it is something he does for fun. Joan is hurt and humiliated by what she perceives as an affair. She demands that Bob accompany her to marital counseling...

This situation, although fictional, is becoming increasingly common for many couples. Therapists are starting to see individuals, couples, or families who are presenting with Internet related concerns. For a complete review of articles related to online sexuality see Appendix B.

The number of people online has dramatically increased in the past several years. The Internet has become a powerful medium with the potential to increasingly impact the way we live. Internet relationships are a relatively new concern for research in the social and

behavioral sciences. Despite this there is a growing body of research on the characteristics of online relationships, gender differences in online relationships, and impact of online relationships on face to face relationships.

Characteristics of Online Relationships

Research has shown that many people form some kind of relationship online (McCown, Fischer, Page, & Homant, 2001; Nice & Katzev, 1998; Parks & Roberts, 1998). In an online survey of regular internet users, Parks and Roberts (1998) found that 93.6% of participants had formed at least one close personal relationship online. These relationships included close friendships, friendships, and romantic relationships. This survey also indicated that 83.6% of the relationships formed were with the opposite sex. In a survey of university students, Nice and Katzev (1998) estimated that 7.7% of all university students formed close romantic relationships online. In a more recent study of undergraduates it was found that 80% of participants formed friendships online, and 6% formed romantic relationships online (McCown et. al., 2001). The research indicates that many people are forming important relationships online. Other researchers have examined the allure of online relationships.

Cooper (1998) has conceptualized the appeal of the internet for sexual purposes into three dimensions which he calls the Triple A Engine (AAA) for Access, Affordability, and Anonymity. Access refers to the availability of both Internet connections and sexual material online. Affordability refers to the low cost associated with gaining access to sexually explicit material. Anonymity refers to the feelings that internet behavior is perceived by many to be private. These three factors contribute to the power of the internet as a tool for expressing sexuality (Cooper, 1998).

Another conceptualization of the allure of the internet for developing sexual relationships is the ACE Model (Young, Griffin-Shelley, Cooper, O'Mara, & Buchanan, 2000). This acronym stands for Anonymity, Convenience and Escape. The concept of Anonymity is very similar to that of Cooper (1998). Internet relationships are attractive to individuals because they can be conducted while still feeling unknown to others. The concept of Convenience includes both the concepts of affordability and access from Cooper's Triple A Engine (Cooper, 1998). The concept of Escape refers to the ability of the online relationship to make the individual feel they are getting away from the problems of their daily lives. Both the Triple A Engine and the ACE Model are theoretical explanations of the appeal of online sexuality and online relationship formation.

Other authors have theorized about the possible components of online relationships that lead to successful relationship formation. The reduced importance of physical attractiveness has been suggested as a potential explanation for the appeal of internet relationships (Cooper, McLoughlin, & Campbell, 2000; Cooper & Sportolari, 1997). These authors have suggested that online relationships rely less on physical attractiveness than face to face relationships, because physical attractiveness does not enter into the relationship until much later. Persons may convey general descriptions of personal physical features, but these features are not as important as the written online communication. Physical attractiveness is a key factor in the development of face to face relationships, but in online relationships, it is less important than other factors.

Self-disclosure is another aspect of online relationships that has been hypothesized to be important to relationship development online (Cooper, McLoughlin, & Campbell, 2000; Cooper & Sportolari, 1997). Internet relationships are characterized by high levels of self

disclosure. This self-disclosure often occurs more rapidly than in face to face relationships. Self-disclosure is an important factor in developing intimacy in relationships (Cooper & Sportolari, 1997). Online relationships are able to develop intimacy quickly due to the high levels of self-disclosure early in relationship development. Individuals also have control over the way they choose to disclose in Internet relationships (Cooper, McLoughlin, & Campbell, 2000). People may feel safer in self-disclosing in their online relationships than in their face to face relationships, this may lead to faster relationship development.

Another feature of online relationships is the ability to edit communication (Cooper, McLoughlin, & Campbell, 2000). Unlike face to face relationships, persons are able to reconsider and edit their online communication before sending it to their partner. In face to face relationships persons are often faced with wishing they had not said something to their partner, or wishing they could take back something that was said. In online relationships, the risk of accidentally blurting out something unintended is much less than in face to face relationships. This feature of online relationships may also make them more attractive to individuals that have difficulty communicating with others.

An important feature of the Internet is the ability to find others with similar interests (Cooper & Sportolari, 1997). Individuals who may be feeling isolated in the local community are able to connect with others through the Internet. This is especially important for individuals belonging to minority groups, or individuals with highly specialized interests within the population (Cooper & Sportolari, 1997). The internet allows those who have difficulty finding social support in face to face relationships to reach out online and develop important relationships. This can have a very normalizing and reassuring effect on individuals, as similarity strengthens relationships.

In addition to identifying individual characteristics of online relationships, one author has suggested a typology of internet relationships (Griffiths, 2001). In this conceptual article, the author identified three types of internet relationships. These are virtual online relationships, developmental online relationships, and maintaining online relationships. Virtual online relationships are those that begin online, and the relationship remains entirely online. Developmental online relationships also begin online, but the relationship eventually moves offline. Maintaining online relationships are those that started offline, but are sustained through online communication. Each of these different types of relationships may have different features, and implications for the individual.

In addition to the characteristics of the relationship, the characteristics of the individuals involved may have important implications for the development of online relationships. Gender differences in online relationships and online communication have been the focus of a growing body of research. Empirical research has suggested that gender differences in face to face interactions may be replicated in online interactions (Cooper, Morahan-Martin, Mathy, & Maheu, 2002; Dickerson, 2003; Odell, Korgen, Schumacher, & Delucchi, 2000; Schneider, 2000; Weiser, 2000).

Gender Differences in Online Relationships

The study of gender similarities and differences is an important area of consideration. Researchers are only recently beginning to explore gender differences in online relationships. The research on gender differences in online relationships has not yielded clear results. Some studies have not found gender differences, while others have replicated gender differences found in face to face interactions.

One study examined potential gender differences between online and face to face relationships, and found no differences in relationships satisfaction, perception of emotional growth, or level of involvement between men and women (Cornwell & Lundgren, 2001). This research involved 80 men and women who were regular chat room users. Participants were recruited from chat rooms, and completed the survey completely online. This research indicates that men and women may view their online relationships in a similar manner.

In another study about relationship formation online Donn and Sherman (2002) surveyed 235 undergraduate and 76 graduate students regarding online relationships. These participants were recruited from university classes, and completed the survey for extra credit. The researchers found no gender differences in attitudes about the formation of relationships online. Men and women were generally supportive of relationship formation online, although graduate students were more supportive than undergraduate students. This study may indicate that age is a more important influence on attitude about internet relationship formation than gender.

A third study has examined gender differences in computer usage, personality style, and relationship formation online (McCown, Fischer, Page, & Homant, 2001). Thirty undergraduates who had met at least one person online completed a large survey on undergraduate computer usage. For the purposes of this study, questions regarding demographic information, online behavior, and personality style were extracted from the larger survey. These researchers found no gender differences in amount of computer usage or formation of relationships online. This study was important in providing evidence that men and women are using the internet at more equal proportions. These three studies are the

only ones found which examined, and failed to find gender differences regarding internet relationships.

A majority of studies on internet relationships found gender differences. These differences fell into two main categories, type of activity online, and purpose of internet use. Most studies found that gender differences in face to face interactions are replicated online. For example, women tend to use the Internet for the purpose of connecting with others, more often than men do (Odell, Korgen, Schumacher, & Delucchi, 2000; Schneider, 2000; Weiser, 2000). Gender differences associated with type of online activity were found in several studies (Cooper, et. al., 2002; Odell, et. al., 2000; Schneider, 2000; Weiser, 2000).

A large nationally representative study of online sexual activities found that men are more likely to participate in sexual activities online than women (Cooper, et. al., 2002). The researchers also reported that women's online sexual activities revolved around education, socialization, and support. Men's responses regarding online sexual activities centered on using the internet for distraction, stress reduction, and to meet sexual partners. Another study of 843 undergraduates found that women use the internet less often than men in general (Odell, et. al., 2000). This study also found that women use the internet more for completing research and sending email, and men use the internet for accessing sexual websites, researching purchases, and listening to or copying music.

These findings were supported by the research findings of Schneider (2000). The participants in this qualitative study were recruited by contacting therapists, and advertising on web sites aimed at individuals with Internet related problems. The participants included 45 men and 10 women. The participants completed an online survey by answering the open-ended questions about the nature and impact of their online activities. The results of this

study indicated that women use the internet more often for chat rooms, and men for downloading pornography. This study also found that women are more likely to move their chat room relationships offline, and viewing pornography was more likely to negatively impact men's views of women.

Finally, in a study of 506 undergraduates and 684 online participants, researchers found that women were more likely to use the internet for searching for course information, chatting online, seeking help, email, and conducting research. Men were more likely to use the internet for shopping, listening to audio broadcasts, viewing pornography, video games, creating web pages, searching for romance, and searching for sexual partners (Weiser, 2000).

Research has found that men and women use the internet for different purposes. Women use the internet to maintain relationships with family or friends, while men use the internet for networking with others (Dickerson, 2003). This study utilized data from a previous study that was unpublished. The researchers analyzed the written text of 21 women and 11 men describing their Internet usage. The researchers analyzed the narratives for gender differences. The researchers concluded that the gender differences found were due to differences in the socialization of men and women. In our society, women are encouraged to form and maintain close relationships with others more often than men.

Summarizing the themes surrounding gender and internet use indicates that women use the internet for social and relational purposes, while men use the internet for entertainment and leisure purposes. Although the nature of online relationships and the impact of gender are beginning to be well researched, the impact of online relationships on face to face relationships has been addressed by relatively few empirical articles. The

majority of the literature on the impact of online relationships on face to face relationships consists of theory or concept articles.

Impact of Online Romantic Relationships on face to face Relationships

The impact of internet relationships on face to face relationships is only beginning to be explored in the literature. There is still much debate about what specifically constitutes infidelity. Collins (1999) explored the definition of infidelity, and concluded that online romantic relationships do not constitute an act of infidelity. Collins suggested that from the feminist perspective, practical fidelity was more important to a committed relationship than sexual fidelity. She defined practical fidelity as being equal partners in day to day responsibilities. Collins wrote that since Internet relationships had no aspect of practical fidelity, they did not constitute true infidelity. Collins described two types of internet relationships. These were “cyber lust” and “cyber love”. She described cyber lust as cyber sex, and cyber love as sharing emotional support over the Internet. Collins indicated that neither of these two types of relationships included any practical aspects, such as being physically present to help a partner when they are in need of assistance. Collins therefore concluded that Internet relationships do not constitute infidelity because of their lack of a practical component. She suggested that practical fidelity was more consistent with the feminist perspective than sexual fidelity.

An alternative concept of infidelity was presented by Shaw (1997). In this conceptual article, infidelity was defined as taking sexual thoughts, behaviors and feelings away from the primary committed sexual relationship. This author suggested that couples who present for therapy with problems related to Internet relationships, are very similar to those who have experienced a physical extramarital affair. She suggested that treatment approaches for

Internet infidelity should be similar to those used in dealing with a physical relationship.

Shaw concluded that online romantic involvement does constitute infidelity because it drains sexual energy from the primary relationship.

In a more recent paper, it was suggested that relationship infidelity is a potential when online relationships develop in addition to face to face committed relationships (Merkle & Richardson, 2000). These authors concluded that online relationships may involve more emotional infidelity than physical infidelity. These papers were all theoretical papers, and were not based on empirical research. No research published to date has examined this topic empirically.

Research has demonstrated that Internet relationships often develop when one or both of the individuals are also involved in a face to face committed relationship. It was found in a sample of undergraduates that 50% of participants had reported developing a romantic relationship online while also in a committed face to face relationship (Nice & Katzev, 1998). It was also found that a majority of these relationships eventually moved offline. In another study of online romantic relationships, McKenna, Green and Gleason (2002) found that online romantic relationships develop more quickly than face to face relationships, and these relationships were more likely to move offline. The research has shown that online romantic relationships are likely to develop in addition to face to face committed relationships and these online relationships may develop quickly and turn into face to face relationships. These relationships have the potential to have a significant impact on preexisting committed face to face romantic relationships.

Some researchers have hypothesized about the potential benefits of online sexual activity for committed face to face relationships. Potential benefits to face to face

relationships include allowing a couple to explore sexual material together in the privacy and comfort of home, staying in contact throughout the day via email, and being able to communicate sexual emails to a partner, that may make partners uncomfortable expressing directly (Cooper, McLoughlin, & Campbell, 2000). A qualitative study of women's perceptions of online romantic relationships found that women felt more positively about themselves as a result of online romantic relationships in addition to their marital relationship (Overstreet, 2002). The literature does indicate there are some potential benefits to online sexual activity. The risks of this activity have been given more attention in the literature, however.

Leiblum (2001) argued that sexuality on the internet can become problematic when one partner is more involved in online activities than the other. In addition, internet infidelity was conceptualized as one partner participating in online sexual activities without the other partner, which causes a potential for triangulation within the primary committed relationship (Cooper, McLoughlin, & Campbell, 2000). Some authors have suggested that internet infidelity may be a cover for deeper problems within the primary relationship (Leiblum, 1997; Young, Griffin-Shelley, Cooper, O'Mara, & Buchanan, 2000). This has important treatment implications for dealing with internet infidelity. Partners may need to establish new rules about computer use, avoid defensiveness about behavior, and express renewed commitment to the relationship in order to rebuild marital trust after internet infidelity (Young, Griffin-Shelley, Cooper, O'Mara, & Buchanan, 2000).

Researchers have found mixed results on the self-reported impact of online sexual activity on committed relationships. In one qualitative study of cyber sex participants, respondents reported their online behaviors had serious negative effects on their marital and

family relationships (Schneider, 2000). A second qualitative study of women who had reported having an internet affair reported mixed effects on their marriage (Overstreet, 2003). Only one out of the 15 women who participated indicated that the internet infidelity led to divorce. The remaining women reported neutral to less negative effects on the marriage.

Only one study has examined the perceived effects of online infidelity on committed relationships using a large sample of participants (Parker & Wampler, 2003). This was a survey of 242 undergraduates regarding their perceptions of the impact of internet activities on face to face relationships. Participants rated fictional scenarios on their level of emotional involvement, sexual involvement and amount of distraction from the primary relationship. The researchers found that women rated the scenarios as more sexual and more distracting to the primary relationship than men. No gender differences were found on measures of emotional involvement. The researchers also found that older students and students who were married or divorced rated the scenarios as more damaging to the primary relationship than younger, never married students. This study was the first in the literature to specifically examine the perceived impact of online sexual activities on face to face relationships.

The present study replicated and extended the results of Parker and Wampler (2003). Given the lack of empirical research on the perceived impact of online romantic relationships on committed face to face relationships, the present study examined student's perceptions of the impact of online behaviors on committed romantic relationships. This study extended the findings of Parker and Wampler by including a measure of the participant's previous experience with sexual material on the Internet. In addition, the present study specifically asked the participants their perceptions of the impact of online activities on their own current or future relationships. Parker and Wampler (2003) assessed participants perceptions of

fictional characters presented in eight scenarios. The present study addressed individual's feelings about the behavior of their own partners, and the impact on the relationship. In addition the present study examined gender differences in perceived impact of online relationships.

Based on the review of the literature, four hypotheses were proposed.

Hypothesis 1: Women will perceive Internet sexual activity as more negatively impacting committed relationships than men.

Hypothesis 2: Individuals currently involved in a committed relationship will view Internet sexual activity more negatively than those who are not currently in a committed relationship.

Hypothesis 3: Developing a relationship online will be viewed as more negatively impacting the committed face to face relationship than more passive forms of internet sexuality such as viewing online adult websites.

Hypothesis 4: Individuals who have previously participated in online sexual activities will perceive the behavior as less harmful to the committed relationship.

CHAPTER 2. METHODS

Participants

Participants in this study were 166 students currently enrolled in courses at a large Midwestern university. Participants included 146 undergraduate students, and 20 graduate students. Participation was requested from 326 students, and 166 students chose to participate in the survey for a response rate of 51%. The participants consisted of 84 women and 82 men. Of the 166 participants, 83.1% identified their race as Caucasian, 8.4% Asian, 4.8% African-American, 2.4% Latino, 0.6% Native American, and 0.7% other. The participants ranged in age from 18 to 50 with a mean age of 22.4 years and a standard deviation of 3.7 years. Of the students who chose to participate, 55.4% reported they were currently involved in a committed relationship, and 44.6% reported they were not currently involved in a committed relationship. The length of these relationships ranged in duration from 1 week to 30 years, with the mean length of 29.24 months and a standard deviation of 39.65 months. The mean amount of time spent online by participants was 13 hours per week, with a range of zero to 84 hours per week, and a standard deviation of 11.69 hours per week.

Measures

The survey consisted of 30 items (Appendix A). The survey included demographic information such as age, race/ethnicity, gender, relationship status, and length of relationship. In addition the survey asked if the individual had ever participated in online sexual activities, or if they are aware that their current or former partners have. The remainder of the survey consisted of four scenarios which were followed by four questions each which asked the participant to indicate their feelings towards each scenario, and whether they had experienced a similar situation. The four scenarios described online behavior in increasing levels of

seriousness. The first scenario described discovering that a partner has been visiting adult websites. The second scenario described discovering that a partner has been emailing another individual excessively. The third scenario described discovering that a partner has been participating in “cyber sex” frequently and with multiple partners. The final scenario described discovering that a partner has been participating in “cyber sex” frequently with the same individual. “Cyber sex” was defined in the questionnaire as participating in detailed written descriptions of sexual acts with another person over the Internet for the purpose of sexual arousal. Three aspects of the relationship were measured including the perceived impact on the face to face relationship, sexual betrayal, and emotional betrayal. These perceptions were rated on a five point scale by the participant. During analysis, several items were reverse scored in order to have lower scores represent less impact, emotional betrayal and sexual betrayal, and higher scores representing more impact, emotional betrayal and sexual betrayal.

Procedure

Many of the participants were recruited from a large Human Sexuality course on campus. The instructor of this course was contacted prior to data collection in order to obtain permission to recruit participants from the class. Once permission was obtained, the researcher attended the class and distributed flyers which described the purpose of the study, and listed several dates and times of survey administration. Students were informed that they would receive extra credit for participation in the survey. Additional participants were recruited by placing surveys in graduate student mailboxes. All students were given the opportunity to register for a prize drawing regardless of their decision to complete the survey.

During the administration of the survey, the participants were again informed of the nature and purpose of the study, and reminded that their participation was completely voluntary. Students completed and returned an informed consent document prior to completing the survey. Once the students consented to participate, they were given the survey to complete. When the student was finished completing the survey they were instructed to return it to box located by the door. This was in order to ensure the anonymity of the students' responses. Students who received the survey in their mailbox also returned their survey to a box in the mailroom anonymously.

CHAPTER 3. RESULTS

Gender differences in perceptions

The hypothesis that women would view sexual activity on the internet as more harmful to the relationship than men was supported by the data collected. An independent samples *t* test was used to analyze the data. A Bonferroni adjustment was used to strengthen the analysis. After this adjustment was made, the alpha level was .003. Therefore the researchers are 99.7% confident that the significant differences found are due to gender differences among the participants.

Scenario one. The first scenario included in the survey read as follows.

Imagine that you are in a committed relationship and you discover that your partner has been visiting adult websites more than five times per week for the past year. You tell your partner about your discovery, and he or she admits to regularly viewing pornography online from both your home computer, and at work.

The mean comparisons for this scenario are presented in Table 1. The results of the independent samples *t* test found that women reported this scenario would have significantly more negative impact on their relationship than men ($t = -.515, p < .001$). Women also reported significantly more sexual betrayal than men ($t = -5.32, p < .001$). For emotional betrayal, women reported significantly more emotional betrayal than men ($t = -6.12, p < .001$).

Table 1
Mean and standard deviations by gender for partner viewing websites

Measure	Men		Women	
	Mean	SD	Mean	SD
Impact	3.44	.80	4.04	.69
Sexual Betrayal	2.99	1.08	3.81	.88
Emotional Betrayal	2.93	.95	3.79	.85

According to the results of this survey, women perceive their partner visiting adult websites frequently as having more negative impact, sexual betrayal, and emotional betrayal than men.

Scenario two. The second scenario in the survey described the following situation.

Imagine that you are in a committed relationship and you discover that your partner has been emailing another individual more than five times per week for the past year. The emails contain private details about you, your partner, and your relationship as a couple. The emails are very lengthy and include information about your partner's life that your partner had not previously shared with you. When you tell your partner about finding the emails, he or she confesses to the email relationship, but assures you that he or she has no intention of ever meeting the individual in person.

The mean comparisons for this scenario are presented in Table 2. The results from the independent samples *t* test found that women reported that this scenario would have significantly more negative impact on their relationship than men ($t=-2.35, p=.02$). For sexual betrayal, women also reported significantly higher levels than men ($t=-2.72, p=.007$). In addition, women reported that they would feel more emotionally betrayed by this scenario than men ($t=-2.42, p=.017$). Overall, women viewed this scenario as significantly more damaging to the face-to-face relationship than men.

Table 2
Mean and standard deviations by gender for partner emailing frequently

Measure	Men		Women	
	Mean	SD	Mean	SD
Impact	4.50	.55	4.69	.49
Sexual Betrayal	3.72	1.09	4.15	.96
Emotional Betrayal	4.26	.91	4.58	.82

Scenario three. The third scenario presented in the survey read as follows.

Imagine that you are in a committed relationship and you discover that your partner has been participating in cyber sex (participating in detailed written descriptions of sexual acts with another person over the Internet) more than five times per week for the past year. These encounters were with multiple and random partners. Your partner never participated in cyber sex with the same individual more than once.

When you tell your partner about your discovery, he or she admits to participating in cyber sex frequently.

The mean comparisons of this scenario by gender are presented in Table 3. Women reported that this scenario would have a significantly more negative impact on the relationship than men ($t=-4.25, p<.001$). Women reported that they would feel significantly more sexually betrayed by the above scenario than men ($t=-3.07, p=.002$). Women also reported that they would feel significantly more emotional betrayal than men ($t=-2.78, p<.001$). According to the results of this survey, women view the above scenario as significantly more detrimental to the face-to-face relationship than men.

Table 3
Mean and standard deviations by gender for partner participating in cyber sex with multiple partners

Measure	Men		Women	
	Mean	SD	Mean	SD
Impact	4.34	.71	4.74	.47
Sexual Betrayal	4.12	.99	4.56	.84
Emotional Betrayal	4.07	.93	4.46	.88

Scenario four. The final scenario in the survey read,

Imagine that you are in a committed relationship and you discover that your partner has been participating in cyber sex (participating in detailed written descriptions of sexual acts with another person over the Internet) with another person more than five times per week for the past year. These encounters were always with the same individual. When you tell your partner about your discovery, he or she openly admits to the encounters, but insists that there was never any physical sexual activity. The interactions were only online.

The mean comparisons by gender for the fourth scenario are presented in Table 4. The data indicate that women viewed the fourth scenario as having significantly more negative impact on the primary face-to-face relationship than men ($t=-3.43, p=.001$). Women also viewed this scenario as involving more sexual betrayal than men ($t=-2.36, p=.019$). Finally, women

viewed this scenario as involving more emotional betrayal than men ($t=-1.98, p=.049$). The results from this scenario are consistent with the results of the previous three scenarios.

Women view participating in cyber sex with one other individual as impacting the relationship more negatively, and involving more emotional and sexual betrayal than men.

Table 4
Mean and standard deviations by gender for partner participating in cyber sex multiple times with one partner

Measure	Men		Women	
	Mean	SD	Mean	SD
Impact	4.50	.76	4.82	.39
Sexual Betrayal	4.33	.92	4.64	.79
Emotional Betrayal	4.37	.84	4.62	.81

The results of this survey support the hypothesis that women perceive online relationships differently than men. For each scenario in the survey, women perceived the Internet relationship as more harmful to the primary committed relationship than men.

Relationship status and perceptions of online relationships

The hypothesis that individuals currently involved in a committed relationship would view internet sexual activities as more harmful to the committed relationship was not consistently supported by the data collected for this study. Independent samples t tests were used to analyze the data for this hypothesis. The results of each scenario are discussed below.

Scenario one. The mean differences by relationship status for the condition of viewing adult websites are presented in Table 5. Individuals involved in a committed relationship did not differ in their perceptions of impact from those who were not in a committed relationship ($t=-.138, p=.890$). No significant differences were found between these groups in perceptions of sexual betrayal ($t=-1.05, p=.296$).

Table 5
Mean and standard deviations by relationship status for partner viewing adult websites

Measure	Committed Relationship		No Committed Relationship	
	Mean	SD	Mean	SD
Impact	3.72	.80	3.76	.81
Sexual Betrayal	3.47	1.06	3.32	1.07
Emotional Betrayal	3.51	1.00	3.18	.97

A significant difference was found for emotional betrayal. Individuals who were not involved in a committed relationship perceived the scenario to represent significantly less emotional betrayal than those individuals who were involved in a committed relationship ($t=-2.13, p=.034$).

Scenario two. The results of analysis of the impact, sexual betrayal, and emotional betrayal for the second scenario are presented in Table 6.

Table 6
Mean and standard deviations by relationship status for partner emailing another individual

Measure	Committed Relationship		No Committed Relationship	
	Mean	SD	Mean	SD
Impact	4.61	.55	4.58	.50
Sexual Betrayal	4.02	1.02	3.84	1.09
Emotional Betrayal	4.49	.79	4.34	.98

The results of the survey indicated that there were no significant differences in the perceived impact ($t=.411, p=.678$), emotional betrayal ($t=-.837, p=.404$), or sexual betrayal ($t=-1.12, p=.266$) for the condition of emailing another partner.

Scenario three. The results of the analysis for the third scenario are presented in Table 7. The differences in mean values for each of the three measures were not significant. Individuals involved in committed relationships did not perceive participating in cyber sex with multiple individuals to have more negative impact ($t=1.45, p=.147$), sexual betrayal ($t=-$

.752, $p=.453$), or emotional betrayal ($t=-1.69$, $p=.093$) than individuals who were not in a committed relationship.

Table 7

Mean and standard deviations by relationship status for partner participating in cyber sex with multiple partners

Measure	Committed Relationship		No Committed Relationship	
	Mean	SD	Mean	SD
Impact	4.60	.61	4.47	.65
Sexual Betrayal	4.38	.94	4.30	.95
Emotional Betrayal	4.37	.95	4.15	.87

Scenario four. The mean differences for the condition of participating in cyber sex frequently with one other individual are presented in Table 8. There were no significant differences in the mean scores of impact ($t=.157$, $p=.874$), sexual betrayal ($t=-.549$, $p=.584$) or emotional betrayal ($t=-.835$, $p=.405$) for individuals who were involved in a committed relationship, and those who were not. Both groups viewed this condition as having a strong negative impact on the primary committed relationship.

Table 8

Mean and standard deviations by relationship status for partner participating in cyber sex frequently with one other individual

Measure	Committed Relationship		No Committed Relationship	
	Mean	SD	Mean	SD
Impact	4.66	.65	4.66	.58
Sexual Betrayal	4.51	.92	4.46	.80
Emotional Betrayal	4.53	.84	4.45	.81

The second hypothesis of the present study was that individuals involved in a committed relationship would view online sexual activities more negatively than those who were not currently in a committed relationship. Based on the analysis of the data, this hypothesis is not consistently supported. The only significant difference emerged in the

emotional betrayal of viewing adult websites. Individuals who were involved in a committed relationship viewed this as more emotionally harmful to the primary committed relationship than those participants who were not presently involved in a committed relationship.

Passive versus active online sexual activities

The first scenario represented a passive form of online sexual activity. Viewing adult websites does not involve any personal interaction with another individual. The other three scenarios were categorized as more active forms of internet sexual activities. See Appendix C for a table of correlations among the responses for all three variables for each of the four scenarios. For this analysis, the impact, emotional betrayal, and sexual betrayal scores of each scenario were summed to create a composite variable indicating influence of the activity on the primary face-to-face relationship. The range, mean, and standard deviation of each of the total variables are presented in Table 9.

Table 9
Influence of each scenario on the primary relationship

	Min	Max	Mean	SD
Viewing website	5	15	10.51	2.55
Emailing	7	15	12.96	2.06
Multiple partners	6	15	13.16	2.19
One partner	6	15	13.64	2.00

In order to analyze the data, correlations were conducted for each of the total variables.

Higher correlations would indicate a stronger relationship between two variables. The correlations of each of the variables are presented in Table 10.

Table 10
Correlations of total influence variables

	Emailing	Multiple	One
Website	.533	.523	.472
Emailing	---	.609	.496
Multiple	---	---	.799

The correlations presented indicate a relationship between the amount of interaction with another individual and the perceived influence on the relationship. The condition of participating in cyber sex with another individual is very strongly correlated with the condition of participating in cyber sex with multiple individuals. The correlation between participating in cyber sex with one individual and viewing adult websites, which is the most passive form of internet activity is only weakly correlated. The strength of the correlations increase as the level of activity increases. Each of the correlations is significant at the .01 level.

The data support the third hypothesis that developing a relationship on line would be perceived as more serious than more passive forms of internet sexual activity such as viewing adult websites.

Influence of previous experience with online sexual activities

The final hypothesis was that individuals who have previously participated in online sexual activities would perceive the scenarios as less harmful to the committed relationship than individuals with no prior experience of sexual activities online. According to the results of this survey, 60 participants reported having no prior experience with sexual activities online. There were 104 participants who did report having prior experience with sexual activities online. Prior experience with sexual activities online was transformed into a categorical variable. An independent samples t-test was used to compare the perceived influence of each scenario on the committed face-to-face relationship. The mean and standard deviations for each influence variable are presented in Table 11. See Appendix D for a table listing the frequency of responses to each item. The results indicated that

individuals with no previous experience of online sexual activities rated the scenario of viewing adult websites as having significantly more negative influence on the relationship than individuals who reported having previous experience of online sexual activities ($t=4.08$, $p<.001$).

Table 11

Previous experience with online sexual activities and perceptions of influence

	Previous Experience		No Previous Experience	
	Mean	SD	Mean	SD
Website	9.98	2.57	11.52	2.17
Emailing	12.67	2.15	13.42	1.84
Multiple partners	12.62	2.44	14.03	1.29
One partner	13.27	2.26	14.25	1.27

The results of analyzing the responses to the second scenario indicated that individuals with no previous experience of online sexual activities viewed emailing another individual as having significantly more negative influence on the relationship than individuals with previous experience ($t=2.34$, $p=.021$).

The results of the survey also revealed that individuals without previous experience of online sexual activities rated the condition of multiple cyber sex partners as having significantly more negative influence than individuals with previous experience ($t=4.87$, $p<.001$). Finally, for the scenario with a single cyber sex partner, individuals without previous experience also rated this as more harmful to the relationship than individuals with previous internet experience ($t=3.56$, $p<.001$).

The data supported the final hypothesis that individuals who have previously participated in online sexual activities would perceive the scenarios as less harmful to the committed face-to-face relationship than individuals without previous experience.

CHAPTER 4. DISCUSSION

Gender differences

The first questions addressed by this study was whether women view Internet relationships as having more impact, sexual betrayal, and emotional betrayal than men. The results of this study suggest that women do in fact perceive online relationships as having significantly higher levels of negative impact, sexual betrayal, and emotional betrayal than men. These findings are different than suggested by previous articles (Cornwell & Lungren, 2001; Donn & Sherman, 2002; McCown, et. al., 2001), which did not find gender differences. The previous studies found more similarities than differences between men and women. The present study suggests that gender differences in online relationships may be similar to gender differences found in face-to-face relationships. There were consistent differences found in the present study between men and women in their perceptions of the scenarios. Women rated each scenario as having more negative influence on the primary relationship than men. Although men also rated the scenarios as having a negative impact, their ratings were significantly less negative than the women's responses.

The present study found that in addition to gender differences in type of activity and purpose of internet use demonstrated in previous studies (Cooper, Morahan-Martin, Mathy, & Maheu, 2002; Odell, Korgen, Schumacher, & Delucchi, 2000; Schneider, 2000; Weiser, 2000), gender differences also exist in perceptions of online relationships. These findings are consistent with the findings of Parker and Wampler (2003) which found that women rated higher levels of sexual betrayal, and distraction from the primary relationship than men. Parker and Wampler did not find differences in perceptions of emotional betrayal in their study. One possible explanation for this could be that the present study inquired about the

participants own relationship, while the Parker and Wampler article presented fictitious scenarios about other couples. Participants may find the scenarios to involve more emotional betrayal when they involve their own relationship. The results of the present study suggest that men and women do not view the impact of online relationships on primary face-to-face relationships in the same way. Women view online relationships as more harmful to their relationship than men.

Relationship status and perceptions of Internet relationships

The second question posed in this study was whether individuals currently in a committed relationship view Internet relationships as having more impact, sexual betrayal, and emotional betrayal than those individuals not currently in a relationship. It was expected that individuals who were involved in a committed relationship would view the online relationship as more threatening to their actual relationship than those who were only imagining that they were involved in a relationship. The results of this study did not provide substantial evidence in support of this hypothesis. With the exception of one item, individuals involved in a committed relationship did not rate the scenarios as any more harmful to the committed relationship than individuals who were not involved in a committed relationship. Significant differences were found in the emotional betrayal of viewing adult websites. Individuals who were not in a committed relationship reported less emotional betrayal than those who were in a committed relationship. No other significant differences were found. This was a very unexpected finding of the present study.

A possible explanation for this finding could be that individuals are equally threatened by the idea of perceived infidelity whether they are in a committed relationship or not. This study has interesting implications for the debate in the literature over whether

Internet infidelity constitutes “true” infidelity. Collins (1999) suggested in her concept article that Internet relationships do not constitute actual infidelity. This article suggested that Internet relationships were much less harmful to the primary committed relationship than true physical infidelity. The results of the present study indicate that individuals do perceive internet relationships as harmful to the primary face to face relationship. The results of this study provide support to the argument of Shaw (1997) that infidelity is any act of taking sexual thoughts, behaviors, and feelings away from the primary committed relationship. Participants in the present study consistently responded that the scenarios presented were harmful to the primary committed relationship. The participants of this study perceived very high levels of sexual and emotional betrayal in the scenarios even though it was clearly stated that there was never any physical contact. This article provides support to the argument that Internet infidelity may be just as harmful to the primary relationship as infidelity that occurs in real space. There were no significant differences in the perceptions of individuals who were involved in a committed relationship when their responses were compared with individuals who were not involved in a committed relationship.

Emotional versus sexual betrayal

Previous articles have suggested that Internet relationships may involve more emotional betrayal than sexual betrayal (Merkle & Richardson, 2000). Due to the fact that there is no physical contact, it may be that the emotional component of the Internet relationship is more damaging to the primary committed relationship than the sexual component. According to the results of the present study this was not the case. In the two scenarios that involved cyber sex, participants consistently rated high levels of sexual betrayal and emotional betrayal. The correlation between ratings of sexual betrayal and

emotional betrayal for the scenario which involved multiple cyber sex partners was .801. The correlation between ratings of sexual betrayal and emotional betrayal for the scenario which involved the same partner multiple times was .912. These very high correlations indicate that the participants of this study felt that these scenarios represented equally high levels of emotional and sexual betrayal. These results are consistent with Leiblum (2001) who argued that online sexual activities are problematic, and do constitute infidelity. In the present study, both men and women felt that the scenarios described were harmful, although women felt that the scenarios were significantly more harmful than men. The present study also supports the results of Schneider's (2000) qualitative study of undergraduates which found that students agree that online sexual activities could have serious negative consequences on the primary relationship. The students surveyed in the present study reported that the scenarios would have negative consequences if they were to occur in their own relationship.

Merkle and Richardson's (2000) theoretical article that suggested Internet relationships involve more emotional betrayal than sexual betrayal was not supported by the results of this study. This article provides support to the argument that internet infidelity may be perceived to be just as harmful to committed face to face relationships as true physical acts of infidelity.

Type of activity and impact on the relationship

The third question addressed by the present study asks whether passive forms of Internet sexual activities, such as viewing adult websites, are considered less distracting to the relationship than active online relationship involvement. The results of this study indicated that there is a greater relationship between the scores on more active forms of

internet activity than the relationship between scores on active and passive activities. When comparing the mean values, it is clear that the passive forms of internet sexual activity are rated as much less harmful to the primary committed relationship than the more active forms that involved participation in cyber sex. The results of this study indicate that the type of online activity is an important distinction to make. More active forms of online sexual activity are rated as much more harmful to the primary committed relationship than passive forms of online sexual activity such as viewing adult websites.

Previous experience with online sexual activities and perceptions of internet relationships

The fourth question proposed by the present study addressed whether individuals who have previously participated in online sexual activities would perceive the scenarios to have less impact, emotional betrayal, and sexual betrayal than those individuals who reported no previous experience with online sexual activities. The results of the present study supported the hypothesis that individuals who had previously participated in online sexual activities would perceive the behaviors presented in the four scenarios to be less harmful to the primary relationship than those individuals without previous experience. Participants who admitted to participating in some type of sexual activity online rated each scenario as significantly less harmful to the face to face relationship than individuals who did not admit to having experience with sexual activities online.

This finding extends the results reported in Parker and Wampler's (2003) study, because they did not measure previous experience with online sexual activities. Several explanations for this finding are possible. Individuals with previous experience in online sexual activities may already know that they are not very harmful to their face-to-face relationship. In addition, they would not want to rate the scenarios as extremely harmful, if

they are activities they have participated in at some time. Conversely, individuals with no prior experience of online sexual activities may imagine the worst and rate the scenarios as much more harmful due to their lack of experience with online sexual activities. Individuals who have not participated in online sexual activities also may have different values about sexual expression, and may differ significantly from the rest of the sample. Regardless of the proposed explanation, this finding is important to note, because it suggests that previous experience with online sexual activities may influence individual's perceptions of the harm to face to face relationships.

Limitations

This study has important limitations that should be addressed. First, the results apply only to heterosexual couples. Four of the participants who completed the survey indicated a same gender partner. These four surveys were excluded from the analysis because there were not enough same sex couples to allow for comparison. Therefore the results of this study do not generalize to all couples. The results may only apply to heterosexual relationships.

Another important consideration in interpreting the results involves the question of social desirability. It is possible that undergraduates do not view online sexual activities as a socially desirable diversion. Therefore there is a serious risk of under reporting of previous experience with online sexual activities. An interesting phenomenon that emerged from the data was the tendency for participants to claim that they spend no time on adult websites during the week in one section of the survey, and then admit to viewing adult websites on a different part of the survey. Gender differences in the social desirability of online sexual

activities may also be of interest in the interpretation of this data. Women were more likely than men to claim that they had no previous experience with online sexual activities.

The sample of this study is another important limitation to consider. The sample consisted of primarily young, educated, students. This sample may have characteristics that are different from the “average” user of the Internet for sexual activities. It is possible that students do not have the time or interest in pursuing online relationships due to the close proximity of other single young persons that is typical of a university campus.

Few of the students reported having experiences similar to those described in the four scenarios. Only 27 of the 166 participants had ever experienced a situation similar to one of the four scenarios. Of these, 16 participants had experience with a partner who frequently visited adult websites, nine participants had experience with a partner emailing another opposite sex individual frequently, one participant had experience with a partner participating frequently in cyber sex with multiple partners, and one participant had experience with a partner participating in cyber sex with the same partner multiple times. These numbers did not allow for comparison between those individuals who had the same experience and those who did not.

The limitations of this study are important to note, but they should be considered in the context of the lack of research in this area of study. Presently only one other study has examined the impact of online relationships on committed face-to-face relationships (Parker & Wampler, 2003). The present study extended the results of this study by including a measure of previous Internet experience, and applying the scenarios to the participants own relationship. The results obtained from the present study lead to the conclusion that students do perceive online relationships as harmful to committed face to face relationships. On

average, students agree that cyber sex with an individual outside of the primary committed relationship is a form of emotional and sexual betrayal and would have a negative impact on the primary committed relationship. Women agree more strongly than men that online sexual activities constitute emotional and sexual betrayal. Also, individuals without previous experience of online sexual activities felt more strongly about the degree of emotional and sexual betrayal than those who reported having experience with online sexual activities. These results add to a growing body of research on the impact of the Internet on our daily lives.

Implications

Researchers and practitioners alike need to be aware of the impact of the Internet on committed relationships. Researchers need to work to understand the nature of this impact. Clinicians need to understand the research in order to better assist their clients who are dealing with some form of Internet infidelity. Understanding that individuals perceive Internet infidelity to be a form of emotional and sexual betrayal will help therapists work with couples in a more sensitive manner. Partners may not be satisfied with the excuse that “nothing happened” if they perceive the online activity as a form of emotional betrayal. Therapists may need to examine their own beliefs about online sexual activities in order to work with couples who are experiencing turmoil due to an Internet relationship. As the popularity of the Internet continues to rise, so will the likelihood that a therapist will begin to work with more and more couples presenting with problems related to technology in the home.

Future research is needed in order to better understand the impact of online relationships on committed face to face relationships. Research that addresses more diverse

populations is needed. The present study excluded same sex couples due to the low number of participants. Future research that specifically sampled same sex couples perceptions of online sexual activities is an important area of study. At this point it is impossible to generalize the results of this study beyond opposite sex college student couples. Future research that addresses the diversity of couple relationships is necessary.

Additionally, future research should address the issue of social desirability. Particularly with this population, social desirability may be impacting the results. If it is undesirable to admit to spending significant amounts of time online in pursuit of sexual activities, the data will be skewed. If the alternative is true, and college students simply do not participate in online sexual activities, than alternative samples may need to be collected. Until the role of social desirability is understood, the results of all studies must be interpreted with caution. College students may be underreporting their amount of experience with online sexual activities in order avoid feeling abnormal. Future studies that control for social desirability will be very important to this area of study.

Future research should also include more diversity in the sample. This study was a sample of college students. Future studies should sample from individuals of all ages in different occupational categories. The impact of age on perceptions of online sexual activities also needs to be addressed. Young college students may have more opportunity to interact with potential partners face to face than older individuals who are more involved in their careers, and have less time to spend meeting others. Also the experience of online relationships impacting a committed face to face relationship may be more prevalent among older couples. In addition to age, race and socioeconomic status are also important to consider. The participants in this sample were primarily Caucasian, and presumably from

more affluent social classes, due to their enrollment in University coursework. Future research should sample from populations that include more ethnic and economic diversity.

Finally, studies of couples involved in therapy for Internet related concerns would be important to extend our knowledge of the actual impact of these relationships. Surveying individuals who had experiences similar to those presented in the four scenarios might shed interesting light on the actual impact of online relationships. The perception of the experience might be very different from reality. Therefore, surveying participants who have actually experienced a situation similar to those presented in the scenarios would provide important information for both researchers and clinicians.

In conclusion, the Internet is an important factor in our social world. It is changing the way we interact with each other and the environment around us. Researchers must stay ahead of these changes in order to understand how larger social changes are impacting individuals. The present study increases our understanding of how individuals perceive the impact of online relationships on committed face to face relationships. Future research is needed in order to better understand the nature of this impact, and how closely these perceptions match the reality of actually experiencing conflict in a relationship due to an online romance.

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APPENDIX A. SURVEY INSTRUMENT

Internet Sexual Activities and Committed Relationships Survey

The purpose of this study is to understand the impact of online activities on committed relationships. Please respond to the following items. Please remember that your responses are to be completely anonymous.

Part One: Please provide the following information about yourself.

1. What is your age? _____
2. How do you describe your race/ethnicity? *(Please circle all that apply)*

White/Caucasian	Black/African-American
Latino/Latina	Asian/Pacific Islander
Native American	Biracial
Multiracial	Other (specify) _____
3. Gender (circle one) Male Female

Part Two: Please provide the following information about your relationship status.

4. Are you presently involved in a committed relationship? Yes No
5. How long have you been in a relationship with your current partner? _____
6. What is your current partner's gender? (circle one) Male Female

Part Three: Please provide the following information about your Internet use during an average week.

Fill in your responses in the space provided.

7. How many hours per week do you spend using e-mail? _____
8. How many hours per week do you spend in chat rooms or using instant messaging? _____
9. How many hours per week do you spend browsing non-sexual web sites? _____
10. How many hours per week do you spend browsing websites which contain sexually explicit material? _____
11. How many total hours per week do you typically spend online? _____

For the remainder of the survey, please note that *cyber sex* is defined as participating in detailed written descriptions of sexual acts with another person over the Internet for the purpose of sexual arousal.

12. We know that "sex" is the number one searched topic on the Internet. Many people use the Internet for a variety of purposes. How often do you typically use the Internet for each of the following sexual purposes?

For each activity, fill in the number which corresponds to your average usage.

1=Daily 2=Weekly 3=Monthly 4=Yearly 5=Never

_____ Visiting sexual websites	_____ Emailing a romantic partner you met online
_____ Interacting in adult chat room	_____ Participating in cybersex with another person
_____ Purchasing sexual materials (magazines, videos, toys, books, etc.)	_____ Purchasing <i>access</i> to sexually explicit materials online
	_____ Other (specify) _____

13. How often does your current partner typically use the Internet for each of the following sexual purposes?

For each activity, fill in the number which corresponds to your partner's average usage.

1=Daily 2=Weekly 3=Monthly 4=Yearly 5=Never

_____ Visiting sexual websites	_____ Emailing a romantic partner you met online
_____ Interacting in adult chat room	_____ Participating in cybersex with another person
_____ Purchasing sexual materials (magazines, videos, toys, books, etc.)	_____ Purchasing <i>access</i> to sexually explicit materials online
	_____ Other (specify) _____

14. How often were *any* of your former partners involved in any of the following online sexual activities during your relationship with them?

For each activity, fill in the number which corresponds to the frequency of usage by former partners.

1=Daily 2=Weekly 3=Monthly 4=Yearly 5=Never

_____ Visiting sexual websites	_____ Emailing a romantic partner you met online
_____ Interacting in adult chat room	_____ Participating in cybersex with another person
_____ Purchasing sexual materials (magazines, videos, toys, books, etc.)	_____ Purchasing <i>access</i> to sexually explicit materials online
	_____ Other (specify) _____

Part Four: Please read each of the following hypothetical scenarios. Answer the questions following each scenario by circling the response that you most agree with.

Scenario 1

Imagine that you are in a committed relationship and you discover that your partner has been visiting adult websites more than five times per week for the past year. You tell your partner about your discovery, and he or she admits to regularly viewing pornography online from both your home computer, and at work.

15. What kind of impact would this discovery have on your committed relationship?

Strong Positive Impact	Positive Impact	No Impact	Negative Impact	Strong Negative Impact
1	2	3	4	5

16. This situation would make me feel emotionally betrayed by my partner.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

17. This situation would make me feel sexually betrayed by my partner.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

18. Have you had experience with a situation similar to the one described above? Yes No

Scenario Two

Imagine that you are in a committed relationship and you discover that your partner has been emailing another individual more than five times per week for the past year. The emails contain private details about you, your partner, and your relationship as a couple. The emails are very lengthy and include information about your partner's life that your partner had not previously shared with you. When you tell your partner about finding the emails, he or she confesses to the email relationship, but assures you that he or she has no intention of ever meeting the individual in person.

19. What kind of impact would this discovery have on your committed relationship?

Strong Positive Impact	Positive Impact	No Impact	Negative Impact	Strong Negative Impact
1	2	3	4	5

20. This situation would make me feel emotionally betrayed by my partner.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

21. This situation would make me feel sexually betrayed by my partner.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

22. Have you had experience with a situation similar to the one described above? Yes No

Scenario Three

Imagine that you are in a committed relationship and you discover that your partner has been participating in cyber sex (participating in detailed written descriptions of sexual acts with another person over the Internet) more than five times per week for the past year. These encounters were with multiple and random partners. Your partner never participated in cyber sex with the same individual more than once. When you tell your partner about your discovery, he or she admits to participating in cyber sex frequently.

23. What kind of impact would this discovery have on your committed relationship?

Strong Positive Impact	Positive Impact	No Impact	Negative Impact	Strong Negative Impact
1	2	3	4	5

24. This situation would make me feel emotionally betrayed by my partner.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

25. This situation would make me feel sexually betrayed by my partner.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

26. Have you had experience with a situation similar to the one described above? Yes No

Scenario Four

Imagine that you are in a committed relationship and you discover that your partner has been participating in cyber sex (participating in detailed written descriptions of sexual acts with another person over the Internet) with another person more than five times per week for the past year. These encounters were always with the same individual. When you tell your partner about your discovery, he or she openly admits to the encounters, but insists there was never any physical sexual activity. The interactions were only online.

27. What kind of impact would this discovery have on your committed relationship?

Strong Positive	Positive	No	Negative	Strong Negative
Impact	Impact	Impact	Impact	Impact
1	2	3	4	5

28. This situation would make me feel emotionally betrayed by my partner.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

29. This situation would make me feel sexually betrayed by my partner.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

30. Have you had experience with a situation similar to the one described above? Yes No

Thank you for your participation in this survey. If you have any questions or concerns, please contact the researcher at pipal@iastate.edu.

APPENDIX B. ANNOTATED REFERENCES

Baker, A. (2002). What makes an online relationship successful? Clues from couples who met in cyberspace. *Cyber Psychology and Behavior*, 5, 363-375.

Purpose

The purpose of this study was to examine successful and unsuccessful online relationships and compare differences between the two groups. The researchers intended to examine these differences for factors that contribute to the outcome of a relationship.

Methods

Participants. Participants in this study were eight couples who were also a part of a larger study of online relationships being conducted by the researcher. These eight couples ranged in age from early twenties to late fifties, and were from different parts of the United States, England, and Australia.

Measures. The researcher collected data with questionnaires, interviews in person and on the telephone, and through samples of email correspondence provided by the participants.

Procedure. Participants for the larger study were included if they contacted the researcher through her website or in person about their online relationships. The eight couples in the present study were selected because they provided all questionnaire, interview, and email data, and the outcome of their relationships were known to the researcher.

Results

The researcher reported four emergent themes that seemed to distinguish between successful couples that stayed together after meeting online and unsuccessful couples who ended the relationship. The first theme that emerged was meeting place online. Couples who met in a place devoted to a common interest were more likely to be successful than those who met in more general locations online. A second theme that emerged was obstacles to the relationship. Online relationships often have obstacles such as distance between the partners, other relationships, and current job responsibilities that must be negotiated. The researcher noted that successful couples are able to overcome these obstacles to their relationship by relocating or ending other relationships, while unsuccessful couples typically do not overcome these obstacles.

A third theme that emerged involves timing. This theme includes both length of contact, and pace of intimacy in the relationship. The researcher reported that couples who corresponded online for longer periods of time and included a lot of self-disclosure rather than sexual intimacy in their correspondence tended to be more successful. Those couples that rapidly went from online correspondence to face-to-face interaction, or participated in cyber sex at an early stage were less likely to be successful in the long term. The final theme that emerged according to the researcher was conflict resolution. The researcher found that couples who are able to negotiate their conflicts and resolve them online are more likely to be successful than those who are not able to resolve conflicts online.

Discussion

The researcher concluded by supporting the concept that online relationships are able to successfully move offline. The researcher suggested that future research should focus on comparing relationships started online with their offline counterparts in order to address similarities and differences in the relationships.

Critique

This article was strengthened by the qualitative nature of the data. The researcher provided several quotes in the participant's own words which allows the reader to draw conclusions on the author's findings. This article was weakened by the lack of description of methods used to analyze the data, and lack of a strong literature review to connect this qualitative research to other studies in the field. It is difficult to determine whether the researchers exhaustively and completely analyzed the data, or whether the themes reported by the author would have been found by other researchers. This article was important to the present review because it focuses specifically on components of online relationships. This article clearly describes the experiences of persons who met online, and the circumstances that allowed them to stay together, or end the relationship. It is interesting to note that several of the partners interviewed admitted to the demise of a real life relationship, due to the meeting of their online partner. This observation has important implications for the present review.

Boneva, B., Kraut, R., & Frohlich, D. (2001). Using e-mail for personal relationships. *American Behavioral Scientist*, 45, 530-549.

Purpose

The purpose of this article was to examine the influence of gender on e-mail usage. The researchers examined the impact of type of relationship, physical distance, and type of message sent for men and women participants. The researchers utilized both qualitative and quantitative data to answer their research questions.

Methods

Participants. The participants in this study were obtained from two separate samples. The first sample was collected from 1995-1996, and consisted of 220 individuals from 93 households in Pennsylvania. The second sample was collected in 1998, and consisted of 446 individuals from 237 households in Pennsylvania who had recently purchased a computer or television. Data were collected from the first group of participants for 2-3 years and from the second group for 1 year. Qualitative data were obtained by selecting 41 families to interview over the course of the study from 1996 to 1999. The interviewed families were selected because at least one member was in the top 25% of internet usage for all survey participants. The researchers reported that 77.5% of the interview participants reported some college education, and 35.2% reported having a graduate degree. The sample consisted of 98% Caucasian respondents. In addition, 72.7% of the interview participants reported an annual income greater than \$35,000.

Measures. Survey participants responded to items on their internet and e-mail usage. Items addressed frequency of e-mail use, frequency of e-mail use with friends in the area and out of the area, amount of time spent communicating with friends or family the previous day, amount of time spent on email communication, and amount of time spent on the Internet. These items were measured using a four point scale. Respondent's attitude about computer use was also measured. Participants were asked to rate the usefulness of the computer in communicating with family or friends, meeting new people, finding information, and playing computer games. Participants were also asked to rate the amount of fun associated with each activity on a five point scale.

Qualitative data were obtained during a two to three hour interview. Interviews were coded for types of relationships maintained online, and type of Internet usage. Relationships were coded as relatives, friends, or acquaintances, and type of usage was coded as e-mail, chat room, or instant messaging.

Procedure. The researchers obtained the results of the survey data for three different times of survey administration. Quantitative data were used from participants who completed the surveys from the spring of 1998, fall of 1998, and spring of 1999. The interview data were obtained from 10 families in 1996, 14 families in 1997, 5 families in 1998, and 12 families in 1999. The interview consisted of interviewing families as a whole, and separately on their use of the computer for communication with others. All interviews were taped and later coded by the researchers.

Results

Quantitative analyses. The researchers analyzed the data with an analysis of covariance. Gender was the grouping variable, frequency of e-mail use was the dependant variable, and the control variables were household income and educational level. The researchers reported a marginal relationship between gender and frequency of use with

women slightly more likely to use e-mail than men. The researchers further analyzed the data using a multivariate analysis of covariance by adding time spent communicating with family and friends in person and through e-mail. The results indicated that women spent more time communicating with family, friends, and using e-mail than men. Further analysis found significant gender differences in communication. Women were found to use e-mail more often than men to communicate with people who live out of the area. Women also reported the Internet was more useful in maintaining relationships with others than men. No significant gender differences were found for time spent using the Internet, usefulness of the Internet for finding information, or attitudes about computer games. Gender differences were only found for variables related to the maintenance of social relationships.

Qualitative data supported the findings of the quantitative surveys. More women than men reported using the Internet to maintain relationships. Women also reported using the Internet to maintain relationships they would not maintain without the computer. The researchers reported three types of messages found in Internet communication, boilerplate messages, coordination messages, and personal sharing messages. Boilerplate messages were described those including previously written jokes or stories that are forwarded on to another person. Coordination messages are used to set up activities the persons are involved in. Personal sharing messages involve descriptive accounts of events happening in the person's daily life.

Discussion

The researchers concluded that their results supported previously published findings on gender differences in communication. Women may be more frequent users of the Internet to maintain relationships due to the gender role expectations of the family. It is often the woman's job in a family to maintain contact with family and friends and share information about the family. Men in contrast often communicate with others for a specific purpose to share or obtain specific information. These results support the findings of other studies on gender differences in communication patterns.

Critique.

This study is strengthened by the inclusion of both qualitative and quantitative data. In addition, the longitudinal design further strengthens the study. There are some important limitations that need to be considered when interpreting the results, however. The restriction of data collection to a small geographical area may reduce the generalizability of the results. In addition, the high educational level, income level, and ethnicity of the participants may also skew the results. The qualitative data should also be interpreted with caution due to the small sample size, and reliance on a single researcher to code the results.

This study is relevant to the present review because of the examination of gender differences in communication patterns on the Internet. The results support the idea that men and women utilize the Internet for different reasons. Future research is needed to replicate and extend the results of this study to other populations.

Bowker, N. I., & Liu, J. (2001). Are women occupying positions of power online?

Demographics of chat room operators. *Cyber Psychology and Behavior*, 4, 631-644.

Purpose

The purpose of this article is to examine whether women are involved in positions of power in online communities. The researchers reviewed the literature on the role of feminism online. They suggested that although the Internet is a powerful tool for the feminist movement, the Internet is a patriarchal system. Women are often subject to abuse and harassment in chat-rooms. If women were in positions of power they would have more ability to combat the patriarchal system. The author's purpose in this article was to examine the number and characteristics of women in positions of power in an online chat room.

Methods

Participants. This study consisted of 423 men and women who reported being involved as a chat room operator at some point in their lives. Participants were 75% men and 25% women between the ages of 11 and 66. The mean age was 25.25, and the modal age was 18.

Measures. Participants completed an online survey consisting of 17-items. These items measured demographic data such as age, gender, and occupation. In addition the researchers measured job satisfaction, duration of chat room use, frequency of chat room use, and time spent as a chat room operator.

Procedure. Participants were recruited through chat rooms over a four-month period. Participants first viewed an introduction page, which introduced the study, the researcher, and the informed consent information. The participants then completed the survey, followed by a section for feedback for the researcher.

Results

The researchers found that only 25% of operators were women. It was also found that 45% of participants were students, and 26% reported professional occupations. The remainder reported jobs in the categories of production, service, sales, or other categories. Only 21% of the sample reported dissatisfaction with their job. The three domains of chat room use measured were duration, frequency and time spent as a chat room operator. The results indicated that 43% of participants had been using chat rooms for one to two years, and 43% for three years or more. Frequency results indicated that 86% of respondents participated daily in chat rooms. The results for time spent as an operator of the chat room indicated that 72% spent most of their time as a chat room operator. No gender differences were found for duration, frequency, or time spent as an operator.

Discussion

The authors explored possible explanations for the lack of women in positions of power online in their concluding section. Recent statistics indicate that the population of women using the Internet is growing very rapidly, and the number of women Internet users is nearly equal to the number of men. The results of this study indicate that women are not occupying positions of power in chat rooms as equally as men. The researchers suggested that this could be due to the technical knowledge that is necessary in these positions, or differences in communication patterns due to gender socialization. Women are less likely to be socialized to be knowledgeable of technology, and are less likely than men to take on the role of sanctioning other chat room members who are not behaving appropriately as the role of chat room operator requires. The researcher concluded that although feminism is being

advanced online there is still much that needs to be done. Women are often subjected to hostility and abuse in chat rooms more often than men. Previous research has supported this observation in the literature. The authors concluded that the Internet is an important tool for advancing the feminist perspective, and there are many women who are choosing to occupy positions of power, however, more are needed to combat the system of patriarchy.

Critique

This article was strengthened by the large sample size and inclusion of feminist principles. This article was limited by the lack of data collected from the sample, and a focus on a fairly limited sample of individuals. The results of this study may not generalize to all online users. This study is important to the present review because it addresses the issues of gender and patriarchy online. The online community, like the larger community as a whole may not be equal for everyone. It is important to examine the ways in which gender socialization, stereotypes and bias are impacting online interactions in similar or different ways as compared to real life interactions.

Collins, L. (1999). Emotional adultery: Cybersex and commitment. *Social Theory and Practice*, 25, 243-265.

Purpose

The purpose of this article was to examine the issue of on-line relationships from a feminist perspective. This is a concept article which introduces many important arguments from the feminist perspective. The author used principles of feminism to construct arguments surrounding on-line relationships.

Concepts

Cyberlust. This concept was introduced as a situation in which one partner engages in cybersex with a person outside of the marriage. The author suggested that the central question in this situation is "What constitutes sex?" This question is central to the concept because on-line sexual encounters do not involve physical interaction. The author suggests that the answer to this question will vary depending on individual and cultural values. From a feminist perspective, the author argues that there is no basis for requiring partners to remain sexually faithful to one another. The author suggested that historically, fidelity has been required of women more often than men in order to prevent men from supporting a child that they did not father. The author suggested that the requirement of fidelity is not grounded in the feminist perspective, and therefore there is no basis for prohibiting extra-marital relationships due to feminist principles.

Cyberlove. This concept involves sharing the inner self with someone outside of the committed relationship. The author suggested two questions central to this concept. The first is whether sharing the inner self with someone outside of the committed relationship is prohibited, and the second is whether this sharing is required within the committed relationship. The author suggested that feminist theory does not require either circumstance in a committed relationship. Sharing the inner self should not be restricted to a committed relationship, or required of the relationship. The author suggested that the needs of each partner should be considered in any relationship, and that these needs are more important than prescribed rules about what is the "correct" model of a committed relationship.

Practical fidelity. The author suggested that online affairs are secondary to real life relationships because they offer no practical assistance to one's everyday life. Online partners can not help with the chores, or take care of their partner when they are sick. The author suggests that practical fidelity involves partners physically helping each other to the best of their ability, and demonstrate equality in the relationship. This also includes being aware of the partner's weaknesses, and avoiding hurting them in any way.

Conclusions

The author concluded by suggesting that practical fidelity should be the focus of feminist theory rather than sexual fidelity. The concept of working together as equal partners was more relevant to the feminist perspective than sexual fidelity according to the author. While some couples may require sexual fidelity of their partners, the author concluded that this may not be true of all couples, and from the feminist perspective there is no reason to require sexual fidelity in committed relationships.

Critique

This concept article was strengthened by the author's thorough review of the arguments on each side of the concepts presented. The author described the arguments and presented the relevant feminist theory in a manner that allowed the reader to draw

conclusions individually. The article was presented in a relatively objective tone with the authors individual opinions clearly identified for the reader. This presentation was very effective and was an important strength of the article. The article was somewhat limited by the complicated nature of the material presented. The author did not seem to accomplish the tasks presented in the introduction at the conclusion of the article. For example, there was no definitive opinion about whether online affairs constituted emotional adultery as the abstract suggested. This article is relevant to the present review because feminist principles associated with committed relationships are presented. The feminist critique is a powerful and important aspect of our current understanding of committed relationships. The inclusion of the feminist perspective is important when examining the impact of gender on different aspects of committed relationships.

Cooper, A. (1998). Sexuality and the Internet: Surfing into the new millennium. *Cyber Psychology and Behavior*, 1, 187-193.

Purpose

The purpose of this article was to review the impact of increased Internet usage on sexuality. The author first described the factors related to the popularity of the Internet for sexual information sharing. Second, the author described negative patterns associated with the exchange of sexual information on the internet. Finally, the author described positive outcomes of Internet usage for sexual information.

Concepts

Triple A Engine. The Triple A Engine is the author's term for the three factors that influence the popularity of the Internet for sexual information exchanges. These factors are access, affordability and anonymity. The internet is becoming more accessible on a daily basis as it continues to grow and become a part of mainstream life. The information on the Internet is equally accessible. Powerful search engines allow users to find the information they desire with only a few key strokes. The Internet is easily accessible for most Americans. Affordability refers to the low cost associated with internet usage. Most information on the internet can be obtained free of charge. Even sexual information is in such large supply on the Internet that it is affordable to most people. Anonymity refers to the feeling that a person is unknown on the internet. Individual identity is protected when online, and persons feel safer in this atmosphere. These three factors are very influential on the popularity of sexual information on the Internet.

Negative internet patterns. The author identified several potential problems with usage of the internet for sexual purposes. The first potential problem described was the effects virtual relationships may have on real-world relationships. When persons spend increasing amounts of time online, they have less time to devote to their real relationships, which may damage these relationships in the long run. In addition, the potential for developing sexually compulsive behaviors is greater online due to the Triple A Engine. Even persons who would not normally develop sexually compulsive behaviors are at increased risk due to the access, affordability and anonymity of the Internet. Finally the author described problems with sexual identity formation on related to Internet usage. Persons struggling with sexual identity issues may find they can partially resolve these issues online and fail to seek help to fully resolve them in their real-world lives.

Positive Internet connections. The author described positive impacts on sexuality in the article. The internet allows people to meet other people with ease, and this could be considered a very positive aspect. The Internet allows people to choose friends or partners from the world population rather than just at a local establishment. Physical attributes are also not as important in online relationships because the partners may not exchange photographs until well into the relationship. The Internet is a tool that can help individuals who are feeling isolated to connect with others. This has important implications for individual self-esteem and depression due to the social support found on the Internet. In addition, the Internet allows for the exchange of a large amount of sexual information that might not be available otherwise. The Internet has many important positive impacts on sexuality.

Conclusions

The author concluded the article by reminding the reader of the potential impact the internet may have on human sexuality. The author suggested that the internet is merely a tool, and how it is used is up to the individuals. The author concluded that the internet is not necessarily a positive or a negative part of our world, but it will have a powerful impact on sexuality that will continue to grow with time.

Critique

This article was very well written and easy to follow. The author presented important arguments surrounding sexuality on the internet, and concluded with a fairly neutral stance on the reality of Internet sexuality. This article is limited by the lack of empirical data to support the author's conclusions. This article is strengthened, however, by the important ideas introduced that will serve to motivate researchers to find empirical data to support or refute the arguments presented. This article is important to the present review because it acknowledges the potential positive and negative relational impacts of internet usage. It is an important early article with much heuristic value to the field of research on internet sexuality.

Cooper, A., Mcloughlin, I. P., Campbell, K. M. (2000). Sexuality in cyberspace: Update for the 21st century. *Cyber Psychology and Behavior*, 3, 521-536.

Purpose

To review the literature on sexuality on the Internet, and delineate the different aspects of this broad topic.

Concepts

Internet relationships. Computer mediated relating (CMR) is a fairly new way in which people meet. CMR is different from face to face relating because the persons may not meet for a long time, if at all. This changes several aspects of the relationship. The role of physical attractiveness is reduced in CMR because people may get to know and like each other without the stereotypes and preconceived ideas that may accompany differences in physical appearance. CMR also gives people more control over how much they disclose, and the way in which they choose to self-disclose. Online communication can be revised and edited before it is sent to another person. CMR can increase intimacy and emotional aspects of relationships before the persons become involved physically. Negative aspects of CMR could include the superficial online encounters that may lead to compulsive behaviors. CMR has introduced new opportunities for people to meet and interact with others from around the world.

Effects on face-to-face relationships. Online sexual exploration can be beneficial to existing face-to-face relationships by allowing the couple a chance to explore their sexuality together. The use of email can allow partners to stay in contact throughout the day, and share things in this written form, that they may be hesitant to say in person. A possible negative consequence of the Internet on face-to-face relationships is that persons may become stuck in cyberspace and unable to form face-to-face relationships. Another risk is Internet infidelity in which one partner participates in online sexual encounters without the other partner's knowledge. There is the potential for triangulation between partners and the computer, which may be damaging to the primary relationship. Online sexual exploration can have both positive and negative effects on face-to-face relationships.

Online sexual compulsivity. The potential for sexually compulsive behaviors online is very high due to the affordability, accessibility and anonymity of the Internet. Researchers have identified three types of online users of sexual material. These types are recreational users, compulsive users, and at-risk users.

Conclusions

The Internet has a very large impact on our daily lives, and this is likely to increase as time passes, and technology improves. The Internet has implications for multiple aspects of our lives professionally, personally, and socially. The author concluded by suggesting professionals should work to understand the nature of online relationships. In addition, the impact of the Internet on sexuality is an issue that will continue to grow. Clinicians are likely to become involved in issues surrounding Internet sexuality in their practices.

Critique

This article provided a very good review of the issues associated with Internet sexuality. The author presented each topic in a clear and concise manner. This article was very strong due to its readability, and citations of published research to support arguments. This article is important to the present review because it addresses the relational and professional impacts of Internet sexuality.

Cooper, A., Morahan-Martin, J., Mathy, R. M., & Maheu, M. (2002). Toward an increased understanding of user demographics in online sexual activities. *Journal of Sex & Marital Therapy*, 28, 105-129.

Purpose

The purpose of this study was to investigate demographic data of persons who participate in Online Sexual Activities (OSA). This article is a follow up of a previous study on OSA, and is intended to provide information on reasons adults participate in OSA, behaviors involved in OSA, and the impact of OSA on the individuals and their partners.

Methods

Participants. This study included 7,037 adults (over age 18) who completed an online survey on the MSNBC website. The sample consisted of 5,925 men and 1,112 women. Eighty percent of the participants were from the United States. Women ranged in age from 18 to 76, men from 18 to 80. Women participants were significantly younger than men. The researchers reported that 45% of men and 34% of women were married.

Measures. The survey consisted of 76-items. Fifteen items were assessed demographic data, and 41 items measured attitudes and beliefs about OSA.

Procedures. The survey was available during the month of June in 2000 on the MSNBC website. Informed consent was obtained by asking participants to read and check a box if they understood the nature and purpose of the study. The sample was selected by using a pop up window for every 1000th new visitor to the website. Global User Identification Numbers and electronic cookies were used to reduce the number of duplicate respondents.

Results

The researchers obtained a response rate of 25%. The researchers used t-tests to compare participants in the OSA group with those in the non-OSA group, and found that the OSA group spent significantly more time online than the non-OSA group. A second t-test was used to compare gender and OSA. The researchers found that men participated in OSA significantly longer than women each week.

The researchers calculated the proportion of respondents who endorsed each reason for engaging in OSA and found gender differences. Women were more likely to report engaging in OSA for education, socialization, to obtain support for sexual concerns, and to purchase sexually explicit materials. Men were more likely to report engaging in OSA for distraction, to cope with stress, and to meet sexual partners.

The impact of OSA on committed relationships was also analyzed by the researchers using one tailed z-approximation tests. The researchers found that 63.6% of participants reported that OSA had no effect on their relationship with their partner, and males were more likely than females to report no effect on the relationship. Interestingly, 65.3% of the sample also reported that their OSA had not had a positive impact on their relationship with their partner; males were also more likely to report that OSA had no positive effects than females.

Discussion

The researchers concluded that the typical profile of adults participating in OSA were professional married men in their early thirties. The results of this study replicate other studies that have found that 84%-88% of participants in OSA are male. It was also found that men report spending twice as much time participating in OSA as females.

The researchers found important gender differences in the reasons for participation in OSA. Women were more likely to report participating in OSA for educational or social purposes, and men were more likely to report reasons associated with distraction or stress relief. Women also preferred more social and interactive activities than men.

The researchers concluded that most participants in the study did not report any negative impact of OSA on their lives, despite widespread popular fears that the internet has many negative effects. The researchers suggested that professionals should focus on the positive aspects of Internet OSA, but be aware of potential harmful effects. Future research aimed at understanding risk factors was suggested by the researchers.

Critique

This article was strengthened by the large sample size, and sample drawn from internet users. This study was limited by the low response rate, which could represent a self-selection bias. The results of this study are important to the present review because it addresses gender differences in Internet use for OSA, and relationship impact of OSA. These results indicated that there are important gender differences in internet use for sexual activities. In addition, the results suggest that while internet use is not specifically harming many committed relationships, it is also doing little to help. The number of married persons participating in OSA is also of interest. The finding that a majority of OSA participants do not consider cybersex infidelity is also of interest to the present study.

Cooper, A., Putnam, D. E., Planchon, L. A., & Boies, S. C. (1999). Online sexual compulsivity: Getting tangled in the net. *Sexual Addiction & Compulsivity*, 6, 79-104.

Purpose

The purpose of this concept article is to introduce a typology of internet users. The authors propose three distinct types of internet users for sexual purposes: Recreational Users, Sexual Compulsives, and At-Risk Users. The authors define the characteristics of each and present treatment implications for professionals.

Concepts

Recreational Users. The recreational user of sexual material on the internet is typically satisfying a curiosity. They may be looking for specific information for educational purposes, or simply curious about the contents of adult web sites. Recreational users typically use the Internet for sexual material irregularly and may become easily bored with the content. This form of internet use for sexual material is very casual and typically non-problematic.

Sexual Compulsives. This type of internet user often has other forms of sexually compulsive behavior evident in their past, which may have caused trouble previously. The Internet is another manifestation of behavior that was already problematic. Sexual compulsives are likely to frequently use pornography, have affairs, hire prostitutes, engage in phone sex, or a variety of other sexual behaviors. Sexual compulsives usually find their sexual behaviors interfering with their lives on a regular basis.

At-Risk Users. These internet users are persons who before using the internet had no sexually compulsive behaviors. The access, affordability and anonymity provided by the Internet lead persons with otherwise "normal" sexual behaviors to exhibit sexually compulsive behavior that is limited to online sexual exploration. It is assumed that without Internet access the sexually compulsive behaviors would not have developed.

Assessment and Treatment. The authors suggest that assessment should include a mental status exam, psychosocial, and sexual history completed by a professional. In addition the authors recommended an assessment tool such as the Online Sexual Addiction Questionnaire. The authors suggest that treatment should be tailored towards helping the individual control their behavior and work against the power of the Triple A Engine. The first step recommended is limiting access to pornographic websites through software of the Internet Service Provider. The second step involves assessing the affordability of the pornographic material by examining the true costs to the individual in terms of money, time, relationships, and self-esteem. The third step in treatment is to address the anonymity of the activity by bringing it out in the open in therapy individually, or in couple's therapy. In addition, the individual can seek help online by joining support groups for individually with sexually compulsive internet usage. The authors suggested that treatment should fit the individual's needs according to their patterns of Internet use.

Conclusions

The authors concluded that internet sexuality is an important area that requires further study by professionals. Although this topic has been covered in the popular media, research is just beginning. The authors suggest that internet sexuality is not dangerous to all individuals, but there is a certain segment of the population that is likely to develop sexually compulsive online behavior due to the power of the Triple A Engine.

Critique

This article was very informative and thought provoking. The authors explained and justified their typology for the reader in a way that made sense. This article was strengthened by the lead author's background and experience in the field. The theoretical concepts introduced by this article may be only one interpretation, and other authors may describe different typologies of internet sexuality. Only further research in this area will allow for the formation of an empirically tested model of internet sexuality.

This paper is important to the current review because it describes the author's conclusions about differences in internet usage among individuals. It is an important distinction that individuals will respond to the access, affordability, and anonymity of internet sexuality in different ways. This may also be influenced by gender or the couple's relationship status. This paper illustrates both the potential positive and negative influence of internet sexuality on individuals and couples.

Cooper, A., Scherer, C. R., Boies, S. C., & Gordon, B. L. (1999). Sexuality on the Internet: From sexual exploration to pathological expression. *Professional Psychology: Research and Practice*, 30, 154-164.

Purpose

The purpose of this article was to examine the characteristics of adults who access sexually explicit material online. In addition the researchers explored treatment and intervention implications based on the data collected in this large survey of Internet users.

Methods

Participants. This study consisted of 9,177 men and women over the age of 18 who had used the Internet for sexual purposes at least once. The sample consisted of 7,892 men and 1,285 women. The mean age of the sample was 34.96. Sixty-four percent of the sample reported they were married or in a committed relationship at the time of the survey. Fifty-nine percent of participants reported working in professional occupations such as computers, education, health care, and management.

Measures. Participants completed a 59-item online questionnaire designed for the present study. Items addressed demographic characteristics, online sexual behavior, attitudes about the Internet, risk-taking behavior online, and degree of honesty online.

Procedure. A link to the survey was posted on the front page of the MSNBC website. Persons on the MSNBC website all had the option of participation in the survey. Information about the survey was also provided to the public through several news sources. The researchers controlled for multiple submissions by a single user, by assigning each participant a number that was stored as a cookie on the participant's web browser. Participants completed both the informed consent, and survey process entirely online.

Results

Researchers found that 78.8% of respondents reported using their home computer for online sexual purposes. Gender differences were found for type of online activity preferred with men preferring web sites with visual sexual material, and women preferring chat rooms. Seventy percent of respondents reported being secretive about the amount of time spent online for sexual purposes, although the majority of the sample (92%) spent less than 11 hours per week online for sexual purposes. Based on the data, the researchers divided the sample into three groups for comparison purposes. Low users were defined as spending less than 1 hour per week on line for sexual purposes, moderate users spent 1-10 hours per week, and heavy users spent 11-80 hours per week. The researchers used chi square tests to further analyze the data, and found significant group differences in committed relationship between the groups. Low users were significantly more likely to be in a committed relationship than moderate or heavy users. The researchers also used regression analysis and found that distress about online activities increased with the number of hours per week spent online for sexual purposes.

Discussion

The researchers discussed several treatment and intervention implications in the concluding sections of this article. According to the data, both male and females who are heavy users participate in chat rooms more often than other activities, which could indicate a desire for social contact. This study also found that most users of the Internet for sexual purposes do not experience any problems as a result; however, eight percent of the sample was classified as sexually compulsive. This percentage translates into 4,560,000 people if the

results are generalizable to the entire population of Internet users. This indicates that sexually compulsive behavior online could be problematic for many people, and treatment may be necessary. The researchers suggested that treatment should involve bringing the behavior out into the open, and ending the person's denial of their behavior.

Critique

This article was strengthened by the large, fairly representative sample of Internet users. The researchers also took steps to further strengthen their findings by reporting on the reliability and validity of their measure and comparing their online sample to a sample of persons who completed paper and pencil surveys. The results of this study may be more generalizable as a result of these precautions by the researchers. This study is limited by the correlational nature of the data. It is difficult to tell if problem behaviors are the result of Internet use, or if these would have been present in another form if the Internet were not available. This article is important to the present annotated bibliography because in addition to providing data on the Internet use of a large proportion of the population, the researchers also provided implications for practitioners. This article provides data on gender differences in computer use, as well as potential relationship influences of heavy Internet usage.

Cooper, A., & Sportolari, L. (1997). Romance in cyberspace: Understanding online attraction. *Journal of Sex Education and Therapy*, 22, 7-14.

Purpose

The purpose of this article was to examine the ways in which the Internet facilitates positive relationship development. The authors intended to explain the development of positive online romantic relationships in terms of characteristics of computer mediated relating (CMR) that encourage relationship development.

Concepts

Physical attractiveness. CMR does not rely in physical attractiveness to begin or maintain a relationship between two persons. In face to face (face to face) encounters, physical attractiveness is often very important in the initial stages of relationship formation. In CMR, the role of physical attractiveness is lessened because partners may not meet face to face until the relationship has moved to a different level.

Proximity/Rapport. CMR is more available and accessible at any time of day, and this may increase the likelihood of relationship development. Frequency of contact may be influential on relationship development. CMR allows for increased frequency due to its level of convenience.

Similarity. The Internet allows persons who have difficulty finding persons with similar interests connect with others more easily. Geographical distance does not restrict communication in CMR, and those individuals who may feel isolated, from others in real life are able to reach out to others with similar interests online and build relationships.

Self-Disclosure. CMR allows people to self-disclose private information while still maintaining a sense of anonymity. Self-disclosure is important to developing feelings of intimacy in relationships. People are able to build intimacy in relationships very quickly online without the risk of rejection that is associated with self-disclosure in face to face relationships.

Interpersonal Space/Intimacy. CMR allows users to create intimacy, but maintain interpersonal space at the same time. In addition, CMR allows people to carefully choose and edit their communication before sending it to the receiver. This is an aspect that is unique to CMR. This allows individuals to reflect upon the intended message before sending it to another person. This relationship between interpersonal space and intimacy is very important to CMR.

Erotic Connection. The psychological intimacy produced in CMR has the potential to lead to an erotic connection. CMR allows for the experience of this erotic connection in a safe manner. Risks associated with sexual intimacy in face to face relationships are not of concern in online sexual encounters. The Internet is a safer alternative to physical contact for many individuals.

Conclusions

Potential risks associated with CMR include increased risk of written attacks from other persons due to the anonymity of the Internet. CMR also encourages the projection of stereotypes and bias, which could lead to harassment, or objectification of women. The pace of CMR may lead to relationships being intense initially, but then fading over time. Finally Internet infidelity is a risk to face to face relationships if partners do not feel online interaction constitutes cheating on their spouse. The authors concluded that clinicians should

be aware of the impact of the Internet on their clients, and understand the potential uses of CMR for treatment.

Critique

This article provided a clear summary of the positive aspects of CMR. The typical response in the media is concern over CMR rather than examining the potential positive aspects. The inclusion of risks and treatment considerations also helped to balance the article. This article was important to the present review because of the focus on the positive aspects of CMR. Many previously reviewed articles are based on the assumption that CMR is a negative form of relationship development. The present article contributed to the literature by examining the ways in which CMM can be helpful to individuals and professionals.

Cornwell, B., & Lundgren, D. C. (2001). Love on the Internet: Involvement and misrepresentation in romantic relationships in cyberspace vs. real space. *Computers in Human Behavior*, 17, 197-211.

Purpose

The purpose of this article was to compare cyberspace relationships and real space relationships on level of involvement and degree of misrepresentation. The researchers also examined age, gender and educational effects. The researchers hypothesized that real space relationships would be characterized by higher levels of involvement and lower levels of misrepresentation than cyberspace relationships.

Methods

Participants. Participants in this study were eighty male and female chat room users over the age of 17. The sample consisted of 36 men and 44 women. The age of participants ranged from 18 to 55 years with a mean age of 26.31.

Measures. Participants completed a 17-item survey. Four items addressed demographic characteristics such as age, gender, educational level, and number of romantic relationships in the past two years. Four questions assessed level of involvement in the relationship. Involvement was broken down into perceptions of potential for emotional growth, relationship satisfaction, and level of commitment. Five items addressed misrepresentation in relationships. Finally, four questions addressed patterns of communication in the relationship.

Procedure. The researchers entered chat rooms and randomly selected users in the chat room for the study. The researcher then sent the selected person a private message describing the study and requesting their participation. If the individual agreed to participate they completed the questionnaire online. If the person reported only cyberspace relationships or real life relationships, they answered questions about one of these relationships, if the participant reported both types of relationships in the past two years, the researchers alternated between the type of relationship assessed by the survey. The researchers chose six persons from each chat room entered before moving on to another person. The researchers reported a 25% response rate for this study.

Results

The researchers found partial support for their hypotheses. They found significant differences between real space relationships and cyberspace relationships on level of commitment, and relationship seriousness. Real space relationships reported higher levels of commitment to the relationship, and higher levels of seriousness in the relationship. No differences were found on potential for emotional growth or degree of satisfaction. For misrepresentation, the researchers found that reported misrepresentation overall was low. Significant differences were found between real space relationships and cyberspace relationship on misrepresentation of age, physical attractiveness, and other physical features. Cyberspace relationships were significantly more likely than real space relationships to involve misrepresentation of this information.

Discussion

The researchers reported finding no significant differences due to age, gender, or educational level. This was an unexpected finding according to the researchers. It was suggested that future research on differences between cyberspace and real space relationships is needed.

Critique

This article was strengthened by the random selection of the sample, and the interesting comparison of the two groups. The article did have some methodological limitations that may impact data interpretation. For example the non-random nature of measuring real space versus cyberspace relationships could seriously limit the study. Those individuals who only have cyber or real relationships may be different from those individuals who have experienced both types of relationships. In addition the small number of persons per group may limit the power of this study. This study was important to the present review because it empirically evaluated group differences according to type of relationship. The measurement of involvement and misrepresentation provides evidence of potential risks and benefits of online relationships, which have previously been only suggested without empirical support. The lack of gender differences is also important to note. Previous studies have reported gender differences in online relationships, however the lack of differences found in this study is important to consider.

Dickerson, S. S. (2003). Gender differences in stories of everyday Internet use. *Health Care for Women International*, 24, 434-451.

Purpose

The purpose of this article was to examine the effect of gender on online communication. The researchers suggested that online communication is regarded as bias free; however gender differences may still be an important consideration even in online communication.

Methods

Participants. Thirty-two individuals participated in the present study. The sample consisted of 21 women and 11 men. All of the women participants were nurses; the men participants were nurses and computer science and engineering students.

Measures. The researchers analyzed the narrative texts posted by the participants for gender differences. There were no specific measures used due to the qualitative nature of this study.

Procedure. This study was a follow up study to a previously unpublished manuscript. The researchers obtained the narrative data from the first study and read through and analyzed the content for themes associated with gender differences. The researchers examined the data both as a whole and in parts multiple times in order to clarify the themes found. The researchers utilized both feminist and communication theory to understand the narratives.

Results

The researchers found gender differences in several themes from the participant narratives. It was found that women's discussion of Internet use focused on relationships with friends and family, and men's discussion focused on networking with others. It was also found that men reported feeling comfortable with the use of new technology, and women expressed more hesitation and reluctance to initially use the Internet. The researchers found that women use the Internet for both family and work related purposes.

Discussion

The researchers concluded that the difference in the actual use of the Internet between men and women is decreasing. The women who participated in this study had integrated the Internet into their daily routine. The researchers suggested that gender differences are due to differences in the socialization of men and women.

Critique

This article was strengthened by the researcher's inclusion of her own potential bias in the article, and the acknowledgement that the themes identified may not be the same identified by other researchers. It was also clarified for the reader that the researcher was analyzing the data from a feminist perspective, which is important to understand when interpreting the findings of qualitative studies. This article was important to the present review because it provides additional data that gender differences that exist in real space also exist in cyberspace. Gender differences are important in the present review, and this article provides data with a different research design that shows evidence of gender differences in computer mediated communication.

Donn, J. E., & Sherman, R. C. (2002). Attitudes and practices regarding the formation of romantic relationships on the Internet. *Cyber Psychology and Behavior*, 5, 107-123.

Purpose

The purpose of this study was to examine young adult's feelings about finding a romantic partner online. This article consisted of a description of two related studies. The first study compared undergraduate and graduate students on their perceptions of meeting a romantic partner online. The second study measured student attitudes about online matchmaking services using a two-group design.

Methods

Study One. Participants in the first study were 235 undergraduates in an introductory psychology class who participated in return for extra credit, and 76 graduate students from various departments around the college campus. The undergraduate students were 40% men and 60% women, and the graduate students were 38.2% men and 61.8% women. All participants completed a thirty-item questionnaire regarding their attitudes and beliefs about meeting people online.

Study Two. The second study involved 91 undergraduate students. These students were divided into an exposure group and a control group. Forty students were in the exposure group. Students in this group were given printed materials from two popular dating websites, and then asked questions about their feelings about meeting someone using matchmaking websites. The control group completed the questionnaire, but did not actually view the pages from the site.

Results

The data from study one revealed that graduate students viewed online relationships more favorably than undergraduate students. Graduate students were more likely to have met someone in person that they had contacted online. Undergraduate students were more likely than graduate students to view persons looking for a mate online as desperate. The researchers found no gender differences in attitudes about meeting a partner online.

The results of the second study indicated that groups who viewed the sights rated the sites more positively than the control group, however scores remained neutral. Both groups reported feeling suspicious about meeting a partner online, and considered the risks of another person misrepresenting themselves to be quite high.

Discussion

The researchers concluded that differences between undergraduate and graduate students were most likely due to age and lifestyle differences. Undergraduates are more likely to constantly interact with other single peers. Graduate students are often limited in their social interactions to small professional groups, and may not interact with others as often as undergraduate students. Additionally, graduate students may feel more pressure to meet a partner and get married than undergraduate students. In the study none of the undergraduate students were married or engaged, but 50% of the graduate students in the study were either married or engaged. The social pressure on more advanced, time limited graduate students may make the Internet a more attractive alternative to meeting other singles.

Critique

This article was strengthened by the inclusion of two different studies aimed at measuring attitudes about relationship formation on the Internet. The comparison of

undergraduate students and graduate students was a unique way of measuring developmental differences in attitude. This study is limited by the self-report nature of the data, and lack of graduate student participation in the second study. This article is important to the present review because it examines attitudes about relationship formation on the Internet. This study provides evidence that as people age; the Internet becomes a more attractive source of meeting other single people. It was also interesting to note that gender differences were not found in this article. Men and women may have similar attitudes about starting relationships online according to this research.

Goodson, P., McCormick, D., & Evans, A. (2000). Sex and the Internet: A survey instrument to assess college students' behavior and attitudes. *Cyber Psychology and Behavior*, 3, 129-149.

Purpose

The purpose of this study was to develop an instrument to measure beliefs and behavior related to using the Internet for sexual purposes. The instrument was developed to measure three domains, which included information seeking, relationship seeking, and pleasure seeking. The researchers intended to demonstrate high reliability and validity with this instrument.

Methods

Structure of the scales. The instrument was designed to measure behavior, emotional arousal, and attitude of college students concerning use of the Internet for sexual purposes. The instrument included five sections intended to measure behavior. The first section of the instrument consists of demographic data. The second measures frequency and history of Internet use. The third section measures type of sexual information searched for. The fourth section measures use of email to maintain relationships. The fifth section measures behavior of college students when using the Internet for pleasure through entertainment or arousal. The instrument consisted of three sections intended to measure emotional arousal. The sixth section measures emotional arousal when viewing sexual material. The seventh section measures individual beliefs about Internet use. The final section measures attitudes about regulation of the Internet. Also included in the instrument were thirty items intended to measure the respondent's expectations and expectancies about sexual material on the Internet. All items are scored on a 5-point scale.

Expert validation. After construction of the instrument, the researchers sent the instrument to experts in the fields of online communication and sexuality and the Internet. These experts were asked to rate each item, and provide feedback for the researchers on the instrument. After receiving the feedback, the researchers made some structural changes to the instrument, but the scales remained unchanged.

Field pretesting. The researchers used a series of three field pretests to assess the instrument for reliability and validity. The first phase involved measuring the internal consistency of the instrument. The researchers distributed the instrument to 207 undergraduate students. Thirty-eight percent of the sample was male, and 62% was female. The researchers used the data from these students to calculate Chronbach's alpha for the instrument.

The second phase of field pretesting was intended to assess the test-retest reliability of the instrument. The researchers administered the instrument to an additional 106 undergraduate students. Seventy percent of this sample was women, and 30% were men. Participants completed the instrument a second time two weeks later in order to measure reliability over time. The final phase of field pretesting was conducted to increase the sample size in order to utilize factor analysis. This phase included 193 participants, 57% women and 43% men.

Results

The field pretesting resulted in only minor changes to the instrument throughout the process. Two items were deleted due to ambiguity. The remainder of the survey remained relatively unchanged during the field testing process. The results of the testing indicated that

the instrument has a Chronbach's alpha ranging from .78 to .95. The test-retest reliability was found to be .69 to .78. Finally the factor analysis indicated a six-factor structure as was expected by the researchers. The six factors accounted for 68.8% if the total variance.

Discussion

The researchers concluded that the instrument fills an important gap in the literature by providing a measure of sexuality on the Internet. The researchers suggested that future research should be done on the instrument to test the reliability and validity compared to other measures, and with other more diverse populations.

Critique

This article was strengthened by the multiple phases spent on testing the instrument. The reliability values were moderately strong for this instrument, which is another important strength. This article was limited by the brief and insufficient focus on validity, however the researchers suggested that additional research on the instrument's validity would need to be done in the future. This article is important to the present review because it provides an example of an instrument that can be used to assess the attitudes and beliefs of college students about sexuality on the Internet. This instrument might prove useful for the data collection process of this review.

Griffiths, M. (2001). Sex on the Internet: Observations and implications for Internet sex addiction. *The Journal of Sex Research*, 38, 333-343.

Purpose

The purpose of this article was to review the issues surrounding sexuality and the Internet in the context of relationships, and potential for addiction. The author reviewed the literature in several related areas, and made conclusions about the impact of the Internet on sexuality.

Concepts

Sex and the Internet. The Internet has many options for persons interested in the topic of sex. The pornography industry makes approximately 1 billion dollars per year, and much of this revenue is due to the Internet. In addition the Internet can be used for sex education and information, making purchases, and seeking out relationships online.

Cyber sex and cyber relationships. Online relationships often develop rapidly due to the disinhibition that characterizes these relationships. These relationships may turn into sexual encounters online or in face-to-face encounters. Two models to explain the allure of online relationships have been developed. The first is the Triple A Engine, which includes access, affordability, and anonymity as factors that contribute to online relationships. The second is the ACE model, which includes anonymity, convenience, and escape as factors that contribute to online relationships. Other contributing factors include the fact that cyber sex is legal, private, and the participant is not at risk for STD's.

Cyber-relationship typologies. Typologies describing the nature of the person who uses the Internet for sexual purposes have been proposed in the literature. One model describes recreational users, at-risk users, and sexual compulsive users as three types of consumers of sexual material on the Internet. In addition, the author proposed typologies of Internet relationships. Virtual online relationships were described as involving people who do not meet in person. Developmental online relationships are those in which the online interaction moves offline. Maintaining online relationships are those that started offline, but are maintained through online communication.

Conclusion

The author concluded that the Internet has both potentially positive and negative effects on individuals and relationships. The Internet could positively influence a relationship by allowing for sexual exploration and experimentation; however the negative impact could involve cyber relationships or cyber sex with persons outside of the committed relationship. The author suggested that additional research is needed to understand the nature of online relationships and affairs, and to further support and replicate the proposed models of Internet sexuality.

Critique

This article is strengthened due to the comprehensive review of the existing literature. This article is important to the present review because it provides a strong and fairly recent review of the literature. The emphasis on the nature of the Internet relationships and the potential influence on real life relationships is an important contribution by this article. The researchers also suggest directions of future research that are important for this field.

Guadagno, R. E., & Cialdini, R. B. (2002). Online persuasion: An examination of gender differences in computer-mediated interpersonal influence. *Group Dynamics: Theory, Research, and Practice*, 6, 38-51.

Purpose

The purpose of this article was to examine the way that computer mediated communication (CMC) influences the interpretation of messages. The researchers also examined gender differences in the effects of online persuasive messages.

Methods

Study one. The purpose of the first study was to examine gender differences in the persuasiveness of an argument presented face-to-face or online. The researchers expected that the face-to-face interactions would be more persuasive to female participants but not to male participants. The participants were 159 undergraduate psychology students with prior computer experience. The experiment utilized a confederate who presented an argument for instituting comprehensive exams prior to graduation at the university either over email or in face-to-face interaction. After the research participants heard all of the arguments they were asked to rank on a nine-point scale their level of agreement with the argument, and their feelings about the confederate.

Study two. Study two was conducted to replicate gender differences found in study one. The researchers added a competitive or cooperative task to the experiment prior to the persuasion part of the experiment. The participants in this study were 237 undergraduate psychology students. Participants were first asked to complete a number task. The researchers assigned the participants to work cooperatively, competitively, or independently of the confederate. The researchers expected that the competitive condition would affect men more than women, and the cooperative condition would affect women more than men. After the number task, participants proceeded on to another room and were presented an argument for comprehensive exams for graduating seniors either face-to-face by the confederate, or via email. The researchers then analyzed the data for gender differences in agreement with the confederate, and perceptions of the confederate.

Results

In study one the researchers found that females responded more positively to the comprehensive exam when the argument was presented face-to-face than when it was presented by email. There were no significant effects for men. In addition, women rated the confederate more positively in the face-to-face persuasion condition than the email condition. There were no significant effects for men. In study two, the researchers found that men in the competitive group were less likely to be persuaded by their partner later. For women they found the same pattern found in study one. Women were more likely to be persuaded in face-to-face interactions than in email interactions.

Discussion

The researchers found interesting gender differences in both study one and study two. In study one researchers suggested that women may be socialized to be more connected to people they interact with in person, and are less connected to people online. Therefore women are more likely to be persuaded during face-to-face interactions with others since they are socialized to connect with others. These results were replicated in the second study. In addition, the researchers added the competitive condition in study two which showed that men in the competitive condition were less likely to be persuaded by their partners in the

comprehensive examination discussion. These results seemed to suggest that men socialized to be competitive, and this decreases their level of agreement and ability to be persuaded by those they are in competition with.

Critique

This article was strengthened by the addition of the second study, which replicated the first. It was also strengthened by the experimental design in the laboratory setting, which allowed for high levels of experimental control. This article is important to the present annotated bibliography because it addresses gender differences in online communication. The results suggest that women may be less influenced by online interaction than by face-to-face interaction. The results also indicated that men in competition are less persuaded into agreement than men not competing with another individual. These differences in style have important implications for the study of online relationship formation. There are potential dangers for all involved when an online relationship develops, and this research provides evidence that females may be less easily persuaded though the online persuasion of potential predators. This research also suggests that women are more affected by face-to-face interaction than other forms of interaction. Future research is needed to specifically apply these results in the context of Internet relation formation.

Leiblum, S. R. (1997). Sex and the net: Clinical implications. *Journal of Sex Education and Therapy*, 22, 21-28.

Purpose

This article was written to provide information to clinicians on common presenting problems associated with sex on the Internet. The author identified three broad categories of presenting issues. The author suggests clinical implications of working with different aspects of sexuality on the Internet.

Concepts

Individuals in therapy. The individual client who reports feeling bothered by their preoccupation with the Internet for sexual gratification may be using this as a tool to avoid other deficiencies in life. The Internet may serve as a temporary fix for an individual to a long-standing problem of social isolation, awkwardness, or loneliness. Therapists working with these clients should not view the cyber sex as pathological, but rather as a poor solution to a problem. Working on increasing the client's opportunities for face-to-face interactions may be a part of the treatment plan for this type of client.

Couples in therapy. The author suggested that while sexual material on the Internet may be beneficial for couples, often in therapy the presenting problem is that one partner is more involved than the other. The author provided several case examples of the Internet interfering in a committed relationship. The author suggested that the Internet usage is often a cover for deeper problems in the relationship, because one partner is using the Internet as a means of escape. The author suggested that addressing the primary problems in the relationship will often lead the problems with the Internet to take care of themselves.

Individuals with paraphilias. The author suggested that for individuals with harmless paraphilias, the Internet provides a source of experimentation and validation that is discreet, and allows the individual to protect their identity. For individuals with paraphilias, the Internet is a way of exploring their sexuality and interacting with others with similar interests. This can help individuals to feel a sense of community. The author discussed potential harms of the Internet for illegal paraphilias such as pedophilia. The easy access to child pornography on the Internet makes this very problematic for individuals with potentially harmful interests.

Conclusions

The author concluded that when clients present with problems related to Internet sex, a more thorough evaluation and assessment is necessary. The presenting problem in this case may be a mask for other issues that should be addressed first in the therapeutic setting.

Critique

This article was strengthened with the inclusion of case examples to illustrate the author's concepts. This article is limited by the lack of empirical research to support her hypotheses. This article is important to the present review because it provides guidance for clinicians dealing with issues related to Internet sexuality. The article also addresses both the positive and potentially negative aspects of sexuality on the Internet.

Leiblum, S. R. (2001). Women, sex and the Internet. *Sexual and Relationship Therapy*, 16, 389-405.

Purpose

The purpose of this article was to explore the implications of the Internet for women. The author examined both positive and negative impacts of the Internet on women.

Concepts

Positive applications of the Internet for women. The author indicated that the Internet has many positive uses for women. The Internet provides quick and easy access to information on sexual and reproductive health for women. The Internet also allows women to access information about sex from the privacy of their home. Relationship formation without the pressure of physical appearance is another positive influence of the Internet for women. The stereotypical physical characteristics of an attractive date in person are not necessary in online relationships. The Internet is also very important in facilitating communication due to the availability of chat rooms and email. This allows women to both build and maintain friendships online. The availability of erotica, pornography and cyber sex online is another positive aspect of the Internet for women. Women who may feel uncomfortable accessing this material in stores may feel free to explore online. The Internet is also useful for purchasing materials and products discreetly. Internet shopping allows women convenient and private access to almost anything they may want or need.

Negative applications of the Internet for women. The author suggested that the seemingly limitless variety of material on the Internet may be negative for some women who discover material they find objectionable. The author warned that women who find pictures or products they find offensive may stop perusing the Internet for more useful sites related to sexuality. The author cited the existence of Spam as a potential problem for women. Spam is unsolicited advertising or emails that may result from exploring sexuality online. Another potentially negative consequence of online use for women is the risk of being targeted by predators who seek to harass, humiliate, or stalk women online. The authors suggested several means available for women to protect themselves while online.

Conclusions

The author concluded that there are a wide range of potential activities women is able to pursue online. Gender differences in face-to-face relationships may be replicated online. Also, women may be at risk when exploring their sexuality online. The author suggested that women should be aware of potentials for misrepresentation and misinformation online.

Critique

This article presented a very thorough and comprehensive review of the women's issues associated with Internet sexuality. This article is strengthened by the focus on the positive implications of the Internet for women. Much of the literature focuses on the negative aspects of Internet sexuality. This article successfully presented the potential advantages of the Internet for women who are interested in exploring their sexuality online. This article is important to the present review because it explores the impact of Internet sexuality on women. This provides further evidence for gender differences in both the utilization and interpretation of sexual activities online.

Levine, D. (2000). Virtual attraction: What rocks your boat? *Cyber Psychology and Behavior*, 3, 565-573.

Purpose

The purpose of this article was to explore the similarities and differences between online and face-to-face relationship development. The authors intended to use the components of attraction in face-to-face relationship development to account for the development of serious relationships online. The five components identified were proximity, self-presentation, similarity, reciprocity, and expectations. The authors also explored the implications for future research.

Concepts

Proximity and frequency. Face to face relationships are not able to develop unless partners are near each other physically, and these interactions occur frequently. The author suggested that online relationships develop due to proximity and frequency also, although they may be defined differently. Proximity online involves being in the same location online at the same time. Frequency is defined in similar terms online. The interactions online must occur regularly for a relationship to develop.

Self-presentation. The Internet allows individuals the freedom to present themselves in virtually any manner they choose. Communication can be carefully edited online. This can have advantages for both attractive and physically less attractive persons. People are allowed to develop relationships online without feeling that their physical attributes, or lack thereof, is influencing the relationship.

Similarity. Relationships develop between persons who are similar to one another in many characteristics. Similarity may be difficult to accurately assess online due to the issues with self-presentation. The author suggested that persons looking for a partner online should attempt to meet the individual face to face in order to judge their similarity in attitudes and beliefs.

Reciprocity. Mutual self-disclosure or reciprocity is an important feature of online relationships. Partners are more likely to engage in high levels of self-disclosure sooner in online relationships than they normally would in new dating relationships. The author suggested that this is potentially damaging to the relationship if high levels of self-disclosure are not accompanied by the trust and rapport that are typical of face to face relationships with the same amount of self-disclosure.

Expectations and idealizations. Online relationships are more easily idealized than face-to-face relationships due to the absence of cues to the partner's personality, characteristics, life circumstances, or values. Information online is often vague and open to interpretation. Persons actively seeking relationships online may be more likely to interpret cues in an idealized manner, and build their expectations for the potential partner with little evidence to support these expectations.

Conclusions

The author concluded that online relationships will never take the place of face-to-face relationships due to the importance of physical touching in relationships. It was suggested that online relationships may be an appropriate practice area for persons feeling insecure about developing a face-to-face relationship. The author suggested that empirical data is needed to study online attraction and the development of online relationships.

Critique

This article was strengthened by the author's comparison of online relationships to face-to-face interactions. This article was limited by the lack of empirical data and appropriate references to support the hypotheses presented in the article. This article is important to the present review because it explores the development and maintenance of online relationships. This article proposes a method of conceptualizing relationships online, and describes the important characteristics of relationship development.

McCown, J. A., Fischer, D., Page, R., & Homant, M. (2001). Internet relationships: People who meet people. *Cyber Psychology and Behavior*, 4, 593-596.

Purpose

The purpose of this article was to examine the characteristics of people who form relationships online. The researchers examined characteristics of Internet use and personality characteristics in this sample of participants. This research served as a pilot study for a larger study on characteristics of individuals who form friendship and romantic relationships online.

Methods

Participants. Participants in this study were 30 undergraduates from a Midwestern university. Thirteen participants were women, and 17 participants were men. The mean age of the sample was 21.3 years.

Measures. Participants completed a questionnaire regarding their online behavior. The questionnaire included items on demographic information, computer use, and personality style. Personality style was defined using the Personality Mosaic Inventory, which classifies persons as realistic, investigative, artistic, social, enterprising, or conventional.

Procedure. The participants completed the questionnaires as a part of a larger study on computer use among undergraduates. The participants selected met inclusion criteria of having met someone online in the past.

Results

The researchers found that 80% of the participants formed friendship relationships, and 6% of the participants formed romantic relationships online. The researchers also found that a significant proportion of those individuals who formed relationships online had the social personality style. The data indicated that 33% of the participants made contact offline with persons they encountered on the Internet. The researchers found no gender differences associated with computer use, personality style, or forming relationships online.

Discussion

The results of this study indicated that the Internet may be important to both men and women in forming relationships. Participants in the study were socially oriented, which indicates they are probably outgoing and possess strong verbal skills. The data suggested that casual friendships are more likely to form online than romantic relationships in this population. The researcher concluded that the larger study would examine the role of shyness, anxiety, social support and personality style in relationship formation online.

Critique

This article was a pilot study; therefore it was not intended to address all methodological or theoretical concerns. The article included a limited discussion on the rationale for choosing these variables for study. The article could be strengthened by including additional references to build support for the selection of the measures. In addition the sample requires further description in order to determine generalizability to a larger sample. This article provided the researchers with important data to aid in the development of their larger study. The significant results found should be further explored due to the low power of the study. This article is important to the present review because it includes both the impact of gender and the formation of online relationships in the analysis.

McKenna, K. Y. A., Green, A. S., & Gleason, M. E. J. (2002). Relationship formation on the Internet: What's the big attraction? *Journal of Social Issues*, 58, 9-31.

Purpose

The purpose of this article was to examine the factors associated with relationship formation on the Internet in a series of three studies. The first study examined whether individuals whose identity was better expressed online were more likely to form online relationships and then move them into real life. The second study examined the stability of these relationships over time. The third study was a laboratory experiment designed to assess the impact of anonymity on the formation of online relationships.

Study 1

Participants in this study were 568 individuals who frequented online news groups randomly selected by the researchers. The sample included 333 women and 234 men. Participants completed a 36 item survey online designed to measure social anxiety, loneliness, expression of real self, type of relationship formed, depth of relationship formed, and behaviors online. The survey was conducted over a three-week period.

Study 2

The sample consisted of 145 participants from study one who were able to be reached, and agreed to participate two years after the initial study. The participants were 33% male, and 67% female. Participants completed a 30 item online survey which measured the constructs from study one a second time, in addition to questions about their perceptions of the impact of the Internet on their relationships, feelings of loneliness, number of friends, and feelings of depression. The researchers also asked questions about the status of the relationship reported in the first study.

Laboratory Study

Participants in this study were 62 undergraduates from New York University. Half of the participants were men, and half were women. This study was designed to measure the impact of meeting on the Internet versus meeting in person on measures of liking and relationship development. Individuals were assigned to meet with a partner of the opposite sex and interact with them for 20 minutes. This interaction was then repeated. In the control group, the individuals met in person for 20 minutes for both sessions. In the "IRC" condition, participants first interacted with their partner in an Internet chat room, and then interacted with the same person online. In the third condition, the partners first interacted online, and then were told they were meeting with a different partner for the second meeting. After each meeting participants completed a 14-item questionnaire. Eight items were taken from a relationship development scale, and six items assessed the individual's perceptions of liking their partner.

Results

Study 1. The researchers used structural equation modeling to analyze the data, and concluded that there was a relationship between social anxiety, loneliness, perceptions of the "real me", relationship intimacy, closeness, online behaviors, and offline behaviors. Individuals who experienced high levels of social anxiety or loneliness were significantly more likely to indicate an ability to express their true selves on the Internet. The researchers also found that individuals who were better able to self-disclose information online were more likely to form strong relationships online. The researchers found that these relationships were more likely to develop quickly, and become incorporated into their real lives. The

researchers also found that individuals who located their real selves online were more likely to become intimate with their virtual partners in real life.

Study 2. The researchers found that 71% of the romantic relationships that began online were still intact at the two-year follow up study. Past research with couples interacting face to face have found that only 45% of dating couples remain together for two years. The researchers also found that 84% of the respondents reported that their online relationships were as important and as real as their non-Internet relationships.

Laboratory study. The researchers used analysis of variance to compare group differences in the sample. An interaction between time of measurement and communication type (Internet vs. face to face) was found. For participants in the second condition, liking significantly increased after the second 20-minute interaction. Liking remained the same for participants in the control group. Although the participant was actually interacting with the same person online, and then face-to-face, they did not realize this. The results indicated that participants were significantly more likely to report feeling like they knew their online partner better than their face-to-face partner, and report feeling they could share more information with the online partner. The researchers also found that in online relationships, liking depended on the intimacy and closeness of the interaction. In face-to-face interactions the intimacy and closeness was not related to the participant's reports of liking their partner.

Discussion

The researchers concluded that the Internet is being used as a tool for meeting and sustaining long-term relationships. The researchers suggested that the Internet may be especially beneficial for individuals who experience social anxiety or loneliness. The second study provided evidence that in addition to romantic relationships being formed online, they are also found to be stable over time. The third study provided a possible explanation for the results of the first two studies. Individuals who interacted with their partner online tended to rate the interactions more favorably than those who interacted with a partner face to face. This could be due to the interference of other information such as physical appearance in the face-to-face condition. The researchers concluded that the Internet is an important avenue of relationship formation, and that virtual relationships are likely to be brought offline eventually.

Critique

This article was strengthened by the author's use of multiple methods of collecting the data. This study utilized a large-scale survey, a follow up study, which provided longitudinal data, and an experimental laboratory study. These three different methodologies provide strong evidence for the researcher's conclusions because the weaknesses of the findings of one study are often accounted for by the additional studies. This article is important to the present review because it provides evidence for the impact of online relationships in real life interactions. It also provides information that online relationships may be more attractive and more easily intimate than offline relationships. The results of this study that suggests individuals who are lonely and feel increased ability to be themselves online are more likely to develop online relationships have important implications for real life partners who may be feeling isolated from each other due to relationship problems. An Internet relationship could be perceived as a real threat to a committed relationship under these circumstances. The researchers also examined gender differences in online relationship patterns, which is also an important component to the present review.

Merkle, E. R., & Richardson, R. A. (2000). Digital dating and virtual relating: Conceptualizing computer mediated romantic relationships. *Family Relations*, 49, 187-192.

Purpose

The purpose of this article was to explore Computer Mediated Relationships (CMR) and compare them with face-to-face (face to face) relationships. The characteristics of CMR and face to face relationships were compared in the article. Implications for practitioners and suggestions for future research were also discussed.

Concepts

Relationship formation and dissolution. The author suggested there are fundamental differences between face to face and CMR formation and dissolution. Face to face relationships require proximity in order to develop, however this is not the case in CMR. Physical attractiveness of the partner is very important in the development of face to face relationships, but this is not necessary in CMR. In face to face interactions, relationships are typically terminated when the costs outweigh the benefits. Research is needed to determine whether this is also true in CMR.

Self-Disclosure. Self-disclosure has been shown to be much greater in CMR than face to face relationships. The anonymity of the Internet may enhance individual's ability to self-disclose private information much more rapidly with less fear of rejection than in face to face relationships. CMR may also allow individuals to discard gender role stereotypes, and communicate more openly.

Conflict Management. The authors suggested that conflict management is an important factor in face to face relationships, but in CMR the role may be less important. Online partners have more ability to simply "turn off" a virtual partner who they are in conflict with. There may be more tendencies for avoidance of conflict in CMR.

Relationship infidelity. The definition of infidelity may vary from couple to couple depending on their relationship boundaries. For online relationships that develop in addition to face to face committed relationships there may be more of a danger of emotional infidelity than physical infidelity. The author suggested that research is needed to empirically define what acts specifically constitute relationship infidelity.

Conclusions

The author concluded that the Internet will continue to impact our interpersonal relationships. This is likely to lead to the increased reporting of Internet related concerns to clinicians in family studies. The author suggested that clinicians need to educate themselves about the relational uses of the Internet, and the potential impact of the Internet on their client's relationships. The author also suggested that future research should continue to examine differences between face to face and CMR relationships, and the impact of infidelity both in CMR and face to face relationships. The author suggested conceptualizing online affairs as being indicative of deeper problems between the partners.

Critique

This article was well organized and presented an excellent review of the literature on the relationship aspects of the Internet. This article presented a wide range of topics, and could have been strengthened by slightly narrowing the focus. This article is important to the present review because it acknowledges the potential relationship impacts of Internet infidelity. The suggestions for future research were also very helpful to the present project.

Nice, M. L., & Katzev, R. (1998). Internet romances: The frequency and nature of romantic on-line relationships. *Cyber Psychology and Behavior*, 1, 217-223.

Purpose

The purpose of this study was to examine the frequency and characteristics of online relationships in a sample of undergraduate and graduate students. This article consists of a report of two studies. The first is a larger random sample of the population, and the second is a re-sampling of the students who met inclusion criteria based on the first study.

Methods

Participants. Participants in the first study were 248 students who responded to emailed questionnaires to their university email accounts. The researchers randomly sent 1000 questionnaires, and achieved a 24.8% response rate. The second study's participants consisted of 19 students who had acknowledged in the original questionnaire that they had met a romantic partner online. The response rate for the second study was 63%, or twelve students.

Measures. The first survey asked the respondents what kind of relationships they had formed on the Internet, and to rate the closeness of the relationships on a six-point scale. The second study surveyed only those students who had reported a romantic relationship online. The survey consisted of 30-items, which measured frequency of contact, nature of the relationship, comparison with offline relationships, and demographic variables.

Procedure. Emails were randomly sent to 1000 undergraduate and graduate students from a population of 7000 students with email accounts at the university. Students were asked to respond to the email by replying to the researcher. Confidentiality of the participant was protected by the researcher saving the information to a password protected disk and removing any identifying information from the email. Each response was assigned an Id number.

Results

The data from the survey suggested that 7.7% of the students reported forming a close romantic relationship online. These students were then contacted a second time, and asked to participate in the longer survey. The researchers found that the mean age of participants in the second survey was 22.75 years. Eight of the respondents reported being currently involved in the romantic relationship while, four were no longer with their online partners. The researchers also reported that the majority of the relationships had moved from online to physical relationships. Fifty percent of respondents reported having an offline relationship at the same time as their online romantic relationship. Nine of the 12 participants rated their online relationships as strong as or stronger than offline relationships.

Discussion

The results of the study indicated that 36% of the students had formed some kind of relationship online, and 22% had formed a romantic relationship online. The researchers concluded that their data support the hypothesis that online relationships were as close, and strong as offline relationships. The researchers concluded that the anonymity provided by the Internet allows for increased levels of self-disclosure among individuals, and increased feelings of closeness.

Critique

This article was strengthened because it provides empirical data on the formation and frequency of online relationships. This article is limited by the low response rate to the

original study, and the small sample size of the second study, which may severely limit generalizability. This article is important to the present review because it addresses the frequency of online relationships, and provides evidence that online relationships are often formed when one partner is involved with an offline relationship. This could have important implications for the offline relationship.

Odell, P. M., Korgen, K. O., Schumacher, P., & Delucchi, M. (2000). Internet use among female and male college students. *Cyber Psychology and Behavior*, 3, 855-862.

Purpose

This article examined gender differences among college student's use of the Internet. Previous research had identified a gender gap in Internet use, and the researchers wanted to examine whether this was still a reality. In addition the researchers examined gender differences in purposes for using the Internet, and the impact of demographic variables on Internet use.

Methods

Participants. Participants were 843 students from eight colleges and universities around the United States. Participants included 458 women and 385 men.

Measures. A questionnaire was developed by the researchers to include questions on demographic variables, home computer use, Internet use at home, hours per week on the Internet, coursework involving the Internet at college, and the purposes for which they used the Internet.

Procedure. Students completed questionnaires in courses in which the professor had agreed to allow the survey to be administered.

Results

The researchers found significant gender differences in the sample. Women used the Internet for significantly fewer hours than men. In addition women were significantly more likely to use the Internet for completing research or email, while males were more likely to use the Internet for visiting sexual websites, researching purchases, and listening to and copying music. The researchers used regression analysis to further explore the data. When entering the variables of computer at home, major, time spent studying; courses requiring Internet use, living at home, school type, and parent education, the model explained 17.3% of the variance. The researchers concluded that gender differences originally found for time spent on the Internet were due to unequal representation in different majors.

Discussion

The researchers concluded that the gender gap in Internet use is narrowing. The only gender differences that held true after additional analyses were differences in use of the Internet. Males use the Internet for visiting sexual websites, researching purchases, and downloading music, while females use the Internet for school related research and exchanging emails.

Critique

This article is strengthened by the large, nationally representative sample of college age students. This allows for greater generalizability of the results. This article is important to the present review because it empirically examines gender differences in Internet use. The gender gap is narrowing in Internet use. This research suggests that while men and women are using the Internet at equal rates, they may be using it for different purposes. Particularly men, seem to be using the Internet for sexual and recreational purposes, while women are using the Internet for relational or work related purposes.

Overstreet, L. G. (2002). A qualitative study of women's online extramarital relationships (Doctoral dissertation, Texas Woman's University, 2002). *Dissertation Abstracts International*, 63, 2700.

Purpose

The purpose of this dissertation was to understand how and why women become involved in extramarital relationships online. The researcher examined the impact of the online affair on the marital relationship, and the meaning attributed to the relationship by the woman involved. The researchers utilized a qualitative research design to answer the research questions.

Methods

Participants. The participants in this study were fifteen women ages 26 to 46. The mean age was 34, and the modal age was 26. Nine of the participants were married, three were separated and three were divorced at the time of the study. All participants reported engaging in online affairs.

Measures. Participants completed a demographic questionnaire, and then participated in an individual face-to-face ethnographic interview which consisted of 22 questions. The questions consisted of both contrast questions and descriptive questions. In addition to the survey and interview data, measures included field notes which consisted of observational notes, methodological notes, theoretical notes, and personal notes.

Procedure. Participants were first sought online via chat rooms. The researchers were not able to solicit any participants using this method, therefore the researchers elected to take out an ad in the local newspaper in order to find participants. Of the women who responded to the newspaper advertisement, 15 agreed to an interview with the researcher. The interviews were conducted in local restaurants, and were tape recorded. The tapes were later transcribed and analyzed for themes emerging in the data.

Results

The researcher found that the women in the study reported themes consistent with accidental online involvement. The reported being unfamiliar with the Internet, and happening upon internet companions by accident. The researchers found that the participant's definition of the online involvement varied depending on their life circumstances and how they felt their husband would view the situation. The motivations of the women for online relationships included to feel more desirable, to have someone to talk to, friendship, romance, sexual arousal, and to relieve boredom. The nature of online involvement was divided into two categories, cyber sex and cyber heart. The first is primarily for sexual gratification, the second for emotional intimacy. The women reported that online relationships changed their views of themselves and their marriages. Most women reported feeling more positive about themselves as a result of online relationships. Only two women reported feeling more negatively about themselves. The perceived impact on the marriage was more varied. Some women reported feeling more satisfied with life and their marriage, others reported reconceptualizing their marriage. Only one reported a divorce as a result of the online affair.

Discussion

The researcher concluded by summarizing the findings, and relating the results to theories of symbolic interactionism and gender roles. The researcher also suggested

directions for future research. One of the suggested areas included surveys of larger populations to understand online relationships with greater assurances of anonymity.

Critique

This article is strengthened by the inclusion of multiple quotations in the participants own voices. This allows the reader to hear the participants' voices and assess the agreement with the researcher's findings. This article is limited by the small sample size and single interview with each participant. Multiple interviews would have been more convincing that the researchers fully explored the topic with each participant. This article is important to the present review because it is the only study of women's perception of online infidelity. This provided insights about the experience and motivation of women who find relationships online.

Parker, T. S., & Wampler, K. S. (2003). How bad is it? Perceptions of the relationship impact of different types of Internet sexual activities. *Contemporary Family Therapy*, 25, 415-429.

Purpose

The purpose of this article was to examine undergraduates' perceptions of the impact of online sexual activity on committed relationships. The researchers hypothesized that the participants would rate each scenario as increasing in emotionality, sexuality, and distractibility. The researchers also expected participants to view the scenarios presented as increasing in resemblance to an affair. The researchers' second hypothesis was that the gender of the individual presented in the scenario would influence participant's ratings. Finally the researchers hypothesized that participant gender would impact ratings of distractibility, emotionality, sexuality and affair. The researchers also expected that cyber sex would be perceived as less harmful to the relationship than sex with physical contact.

Methods

Participants. Participants in this study were 242 undergraduates at a southwestern university. The sample consisted of 164 women and 78 men.

Measures. Demographic information requested from the participants included age, gender, religion, and relational status. In addition the participants completed an eight-item questionnaire. Participants were asked to respond to each of eight scenarios and rate on a 7-point scale of emotional involvement, sexual involvement, amount of distraction, and level of affair.

Procedure. Participants were recruited from undergraduate courses at the university. Participants completed the questionnaire based on presentation of the scenarios in random order. For half of the participants the person in the scenarios was male, and the other half female. Participants were told the person in the scenario was involved in a committed relationship, and his or her partner was unaware of the online activities.

Results

The researchers found demographic differences in responses. Older students and students who were currently married, divorced or separated, rated the scenarios as more serious and damaging to the relationship than younger unmarried students. In addition, the researchers found no differences on scores for gender of the individual in the scenario, but gender differences were found between men and women participants. Women viewed the scenarios as more sexual, distracting and more like an affair than men. The researchers also found that the participants rated the Internet affair as less damaging to the relationship than the affair.

Discussion

The researchers found that the participants ranked the scenarios in the expected order of severity. The researchers concluded that based on the results of the study, undergraduates viewed Internet sexual activity as damaging to committed relationships. The authors also concluded that men and women have different perceptions of Internet sexual activity. Women viewed Internet sexual activity as more distracting to the relationship, more sexually involved, and more like an affair than men. Men and women rated levels of emotional involvement similarly. The researchers suggested the results of the study are important to clinicians who are likely to continue to see clients with presenting problems related to the Internet.

Critique

This article is strengthened by the empirical nature of the study. The data provide empirical support to the anecdotal suggestions that Internet sexual activity is potentially damaging to relationships. This article is limited by failing to ask participants if they have experienced Internet sexual activity. Also, the generalizability of the sample may be a limitation. The article is important to the present review because it is the only empirical article that examines the perceived relationship impact of Internet sexual activity. The present review and following thesis will be modeled after the design of this study.

Parks, M. R., & Roberts, L. D. (1998). Making MOO'sic: The development of personal relationships online and a comparison to their off-line counterparts. *Journal of Social and Personal Relationships*, 15, 517-537.

Purpose

The purpose of this article was to explore relationships developed on one form of Internet interaction called Multi-User Dimensions, Object Oriented (MOO). These are text-based interactions in which people interact socially online. The researchers studied the proportion, type, and quality of online relationships developed in MOO's. The researchers also examined group differences between those who had developed a relationship online and those who had not. The researchers also compared online relationships to offline relationships.

Methods

Participants. Participants in this study were 235 users of MOO's. The sample was 51.7% men and 48.3% women. Participants ranged in age from 13 to 74, although 50% of participants were in the 17-26 age range. Participants were primarily from the United States, Canada, and Australia. The sample consisted of 63.3% never married individuals and 29.7% currently married or cohabitating individuals. The response rate for the survey was 20%.

Measures. Participants completed two online surveys. The first survey included demographic information as well as information on relationship formation online, and type of relationships formed online. The participants were asked to think about their most recent online relationship and describe the qualities and characteristics of this relationship. The second survey was similar to the first, but the focus was on off-line relationships for comparison purposes.

Procedure. Participants were randomly selected from seven different MOOS'. The participants were emailed and asked to participate in the survey. Those respondents who chose to participate in the first survey were then emailed the second survey. Participants were able to complete both surveys either online or via email.

Results

The researchers found that 93.6% of participants had formed at least one personal relationship through the MOO. The common types of relationships identified were close friendships, friendships, and romantic relationships. The individuals forming different types of online relationships did not differ on any of the demographic variables. The researchers did find that those individuals who reported forming romantic relationships online spent significantly more time online than those who formed close friendships or friendships. The researchers found that 83.6% of relationships reported by participants were with the opposite sex. The researchers compared online and offline relationships, and found that participants rated online relationships as highly developed. In addition, the researchers found that participants spent significantly more time with their offline partners than their online partners. The researchers also found that 92.7% of individuals who formed a personal relationship online went on to interact with their partner through other forms of communication such as email, telephone, letters, or in person.

Discussion

The authors concluded that this data suggests that cyber relationships are just as important as offline relationships to the partners involved. Formation of relationships was

found to happen very frequently, and for a lengthy duration. These relationships were also likely to move from strictly online towards being more progressively offline.

Critique

This article is strengthened by the random sample of online participants, and the detailed nature of the survey. The researchers were able to collect a fairly large amount of data from these participants.

Schneider, J. P. (2000). A qualitative study of cyber sex participants: Gender differences, recovery issues, and implications for therapists. *Sexual Addiction & Compulsivity*, 7, 249-278.

Purpose

The purpose of this article was to examine the attitudes, beliefs, and behaviors of persons addicted to cyber sex. The researchers wanted to understand the impact of these online activities on the individual's real time relationships. Additionally the impact of therapy and the recovery process was explored.

Methods

The researchers reported utilizing a qualitative research design. An online survey was used in the survey with a series of open-ended questions. The final sample included 45 men and 10 women who had experienced negative consequences from their online activities.

The researchers contacted therapists, and posted on websites aimed at persons with cyber sex problems in order to obtain the sample. The survey was conducted online, although participants had the option of returning a paper copy of the survey in order to protect their identity.

Results

The researchers reported that 66.7% of men and 60% of women were either married or in a committed relationship while engaging in cyber sex. The researchers compared differences in online sexual activities by gender. The results indicated that men were more likely to use the Internet for downloading pornography, while women were more likely to participate in chat rooms. 26.7% of men and 30% of women reported participating in cyber sex. The researchers also reported that significantly more women than men were likely to move their cyber relationship into face-to-face sexual relationships. The participants reported serious effects of their online sexual activities on their work, casual relationships, marital relationship, and family relationship. Another common theme to emerge from the men who participated in the study was an increasingly negative view of women due to their use of pornography online. Many participants reported being at risk of losing their job, or divorce from their spouse.

Discussion

The therapeutic implications of the findings of this study were discussed in the article. The participants reported feeling generally satisfied with the therapy they had received, although common complaints emerged. The first was that the therapists were often not informed about Internet sexual activities, or the impact these activities potentially had on the client's life. The second was the failure of the therapist to address illegal or self-destructive online activities. The third was a failure to address the impact of the online sexual activities on the relationship, or other partner. The authors suggested several behaviors that should be encouraged by therapists working with clients with online sexual compulsivity problems. The researchers concluded that therapists need to be better informed about the nature of online sexual activities, and the potential impacts on committed relationships.

Critique

This article was strengthened by the inclusion of quotations, which allowed the reader to understand the perspective of the participant when answering the survey questions. This article was limited by the lack of typical qualitative procedures. The researchers failed to

Schnarch, D. (1997). Sex, intimacy, and the Internet. *Journal of Sex Education and Therapy*, 22, 15-20.

Purpose

The purpose of this article was to examine the aspects of Internet sexuality. The author reviewed the relevant issues to educators, counselors, and therapists.

Concepts

Intimacy and the Internet. The author suggested that persons who depend on cyber relationships may be missing important components of the relationship that lead to intimacy. Online partners do not need to confront issues related to differentiation, self-presentation, or validation from others as occurs in face to face relationships.

Relationship skill development. The author suggested that the Internet could be used for relationship skill development. It was the author's conclusion, however, that the Internet could delay relationship development if partners avoided generalizing their Internet skills into their real relationships.

Baby steps. The baby steps notion is that cyber-dating can be useful for individuals who are anxious about dating and relationships in real time. This approach resembles the systematic desensitization practices in psychotherapy. The author did not feel this was a reasonable analogy because in relationships, differentiation requires anxiety tolerance rather than anxiety reduction. The author did not support the notion that relationship skills can be broken down into components and learned in a step-by-step process.

Conclusions

According to the author, while the Internet has many positive applications, it is not the most appropriate medium for relationship building or relationship skill development. The author suggested that differentiation is a necessary relationship skill that cannot be achieved over the Internet.

Critique

This article was thought provoking, but based on very little empirical research. This article is important to the present review because it presents relational influences of Internet sexuality. It also includes a theoretical comparison between face to face and Internet relationship skills. This article presents some potential dangers to face-to-face relationships, which are an important part of the review.

state their role in the process, and did not demonstrate the exhaustive analysis of the data that is typical of qualitative research. The small sample size and lack of an adequate representation of women in the study further limits the findings. This article is important to the present review because it examines qualitatively the effects of online sexual activities on individuals and relationships. Also, the article further explores potential gender differences in online sexual activities.

Shaw, J. (1997). Treatment rationale for Internet infidelity. *Journal of Sex Education and Therapy*, 22, 29-34.

Purpose

This article was intended to help professionals who are working with couples who have experienced Internet infidelity.

Concepts

Internet infidelity. The author defined infidelity as taking sexual thoughts, feelings, and behaviors away from the primary committed sexual relationship. The author suggested that although Internet infidelity is different from traditional concepts of infidelity, this still results in a draining of energy from the primary relationship. Internet infidelity is often not a problem for couples until the other partner discovers the relationship. When this occurs the author suggested it may be a catalyst for change in the relationship.

Treatment rationale. The author suggested that successful treatment should involve the therapist's recognition of potential for both growth and stagnancy due to secrets between partners. In addition, the couple may be experiencing disengagement, fusion, lack of differentiation, and underdeveloped integrity in the relationship. Treatment should focus on these variables. Treatment should involve each partner examining the secrets they keep from the other. Openly sharing the whole self with the other partner will increase the integrity of the relationship, and will eventually aid in the rebuilding of trust.

Conclusion

The author concluded that when individuals are able to work through the anxiety and pain often associated with growth as an individual and increased openness and trust of their partner, the relationship will be better able to survive the infidelity. In addition this growth of the relationship will usually make the face-to-face committed relationship more attractive than any online relationship.

Critique

This article presents an important resource to help clinicians deal with Internet infidelity as a presenting problem. This article is the only existing treatment article at this time; therefore it is very important to therapists who work with couples. This article is important to the present review because it presents some of the issues couples may be facing as a result of Internet infidelity. This information is useful to both researchers and practitioners.

Singh, S. (2001). Gender and the use of the Internet at home. *New Media & Society*, 3, 395-415.

Purpose

The purpose of this article was to explore women's perceptions of gender differences in Internet use.

Methods

Participants. Participants in this study were 30 middle-income women in Australia who had Internet access at home.

Measures. This research was conducted using a qualitative research method based on grounded theory approach. The researchers intended to analyze the interview data for emergent themes.

Results

The researchers found several themes upon analyzing the interview data from this study. One theme that emerged was the perception of the Internet as a tool by women. Many women in the study viewed the Internet as a way of getting their work done. The researchers also reported that women are socialized to be uncomfortable with technology. Women view using the Internet as a necessary means of completing tasks rather than as a mastery of a new technology. The women in the study associated new technology with masculine socialization. Women did not report using the Internet for entertainment, but did view it as a means for communication.

Discussion

The authors concluded that when women stop viewing the Internet as a new technology and start viewing it as a tool for their use, they are more likely to feel more comfortable with the Internet. Women use technology to complete their traditional tasks such as information gathering, communicating with friends or family, and bookkeeping.

Critique

This qualitative study focused on women's perceptions of the Internet in their home, and their perceptions of gender differences. This is an interesting approach to the study of gender differences in use of the Internet. This article is important to the present study because it addresses use of the Internet from the perspective of women. Gender differences are an important part of the present review, and this article presents an additional perspective on both why gender differences exist, and why gender differences appear to be decreasing.

Van Acker, E. (2001). Contradictory possibilities of cyberspace for generating romance. *Australian Journal of Communication*, 28, 103-116.

Purpose

The purpose of this article was to explore the contradictory messages sent to consumers of online romantic websites. The author suggested that romantic websites encourage adults to search for their soul mate, or their fantasy online, while at the same time sending messages to persons about how to create the fantasy when it does not really exist. In addition, romantic websites often offer advice on relationships, online etiquette and dealing with online harassment. This article was intended to explore these messages aimed at consumers.

Concepts

Romance fantasies in cyberspace. Cyberspace is full of romantic fantasies such as meeting a soul mate, or finding “the one” online. There are many stories posted on romantic websites that encourage this fantasy. Popular websites claim responsibility for hundreds of marriages of people who met on their site. Powerful testimonials also encourage the romantic fantasy of falling completely in love in cyberspace.

Managing romance in cyberspace. Many of the same romance websites that support fantasies also offer practical relationship advice to online customers. These sites offer suggestions on dating etiquette online, and tips on how to be romantic.

Contradictory messages. The author suggested that the Internet serves to reinforce gender roles. Many of the sites studied offered tips specifically to men or women on what the other was looking for. Even though gender is mainly a construction online, it is still an important influence on relationships that develop online. Additionally, the authors suggested that the Internet reproduces gender inequalities. The supported this by describing the existence of virtual rapists, stalkers, harassers, and pedophiles. People are often bombarded with unwanted emails, pictures, and websites that they did not intend to access. These sites often display women in a negative light. Websites have also been created to combat these negative aspects of the Internet.

Conclusion

The author concluded that the Internet is a new method for persons to develop relationships. Many of the realities of face-to-face relationships are recreated online, including the impact of gender on relationships. The author concluded by suggesting that successful online romantic relationships must eventually be brought out of cyberspace and into the real world.

Critique

This article provided interesting insight into the relationship between romantic websites and the fantasies people create online. This article is not supported by empirical evidence, therefore the concepts introduced are preliminary, and must be tested. This article is important to the present annotated bibliography because it addresses the impact of the Internet on romantic relationships in addition to gender considerations.

Weiser, E. B. (2000). Gender differences in Internet use patterns and Internet application preferences: A two-sample comparison. *Cyber Psychology and Behavior*, 3, 167-177.

Purpose

This article was intended to examine gender differences in uses of the Internet. The researchers specifically investigated the purpose of Internet usage for men and women.

Methods

Participants. The sample consisted of 1,190 participants. The researchers surveyed 506 undergraduates from an introductory psychology course, and 684 participants completed the survey online. The undergraduate sample included 294 women and 212 men; the online sample included 387 women and 297 men.

Measures. Participants completed a 21-item measure, which consisted of demographic characteristics, and statements about specific applications of the Internet. Participants rated on a nine-point scale the degree to which the statement resembled their behavior.

Procedure. Participants completed demographic information such as age and gender, and then responded to 19 items using a nine-point scale.

Results

The researchers found that females reported using the Internet more often than males to obtain course information, chat online, seek help with education, e-mail, and conduct research. Males reported using the Internet more often than females for shopping, listening to audio broadcasts, creating web pages, searching for romance, sexual relationships, viewing pornography, and playing games.

Discussion

The researchers concluded that men and women are using the Internet for different purposes. Women use the Internet for communication, and education, and men use the Internet for entertainment and leisure.

Critique

This article is strengthened by the large sample size, and inclusion of a sample of both undergraduates and online users. This article may be limited by the focus on a limited number of Internet uses. This article is important to the present review because it examines gender differences in Internet usage. This article supported findings from other articles that men and women use the Internet for different purposes. This may have an impact on the present study of the relational impact of Internet use.

Whitty, M. T. (2002). Liar, liar! An examination of how open, supportive and honest people are in chat rooms. *Computers in Human Behavior*, 18, 343-352.

Purpose

The purpose of this study was to examine relationships in chat rooms. The researchers had two primary purposes for conducting this research. The first was to examine the amount of social support available in chat rooms. The second was to evaluate individual's levels of honesty when communicating with others in chat rooms.

Methods

Participants. The sample included 320 participants. Participants were 160 women and 160 men. The participants ranged in age from 17 to 55 years. The mean age was 21.3. All participants were from Australia.

Measures. Participants completed the "Chat Room Survey" developed by the researchers. This survey addressed how supportive and honest participants were in chat rooms. Participants responded to items using a five-point scale. Participants indicated whether they gave or received emotional support in chat rooms, and were honest with others in chat rooms. Respondents also indicated whether they lied about themselves in chat rooms, and what they lied about. The motivation for lies was also measured in this survey.

Procedures. The researchers distributed two surveys each to 180 first year social psychology students. The students were instructed to distribute the survey to one man and one woman, and return the completed survey to a locked box within the department. This was to ensure the students did not feel coerced to participate.

Results

The researchers examined demographic variables and giving and receiving emotional support with analysis of variance. It was found that persons age 21-55, and persons who spent more than 11 hours per week in chat rooms were more likely to receive emotional support. The researchers also found that women were more likely than men to give social support.

The researchers also examined gender differences in level of honesty online. Researchers found that men were more likely than women to lie about their age, gender, occupation, education, and income. Women were more likely than men to lie for safety reasons.

Discussion

The researchers concluded that the Internet is an important source of emotional support. The researchers also suggested that this research supports the hypothesis that traditional gender roles are often replicated online.

Critique

This article was strengthened by the large sample size, and inclusion of both social support and honesty variables. This article is limited in generalizability due to the unconventional sampling method. This article is important to the present review because it examines gender differences in the communication patterns of chat room users. Many online relationships begin in chat rooms; therefore this is an important article to consider. This research supports other research that suggests that gender differences are replicated online. The finding that men are dishonest about their age, occupation, education, and income may indicate a desire to make themselves more attractive to potential partners online.

Whitty, M. T., & Gavin, J. (2001). Age/sex/location: Uncovering the social cues in the development of online relationships. *Cyber Psychology and Behavior*, 4, 623-630.

Purpose

The purpose of this article was to examine the interpretation of social clues in computer mediated relationships. The researchers discussed the variety of forms of Internet relationship, and suggested that differences in relationships may be due to differences in interpretations of social cues.

Methods

Participants. Sixty participants were involved in the study. The sample consisted of interviews from 32 women and 28 men. The participants represented an age range between 17 and 51. The mean age was 23 years.

Measures. Student conducted interviews with one other person about their Internet use, and transcribed the tape verbatim as a part of a class project. Interviews included information on modes of online communication and types of relationships formed online.

Procedure. Participants in an undergraduate relationship studies course were assigned to interview another person regarding their online behavior, and then transcribe the tape and turn it into the researcher. The transcripts and tapes were analyzed by the researchers.

Results

The researchers found many themes were apparent in the interviews. Participants reported their online relationships follow a progression from email to telephone to face-to-face communication. The participants seemed to feel that after a point in the relationship the Internet is not helpful. The researchers concluded that this progression is correlated with increasing levels of trust in the relationship.

The researchers found that participants reported having expectations that the online relationship would eventually evolve into a face-to-face relationship if it were to progress in seriousness. Participants did not report being satisfied with increasing the seriousness of a relationship online.

Discussion

The researchers indicated that relationship ideals such as trust, honesty and commitment are important in both online and offline relationships. These ideals take on different forms, however, in online relationships. The researchers concluded that additional research is needed to determine the meaning of social online cues in relationships.

Critique

This article was strengthened by the empirical nature of the data. The researchers collected a sample of undergraduates who utilized the Internet regularly. This article is limited by the fairly small sample size and usual method of data collection. This article is important to the present review because it examines the progression of online relationships from the perspective of actual participants. This article suggests that there are important similarities between online and offline relationships.

Young, K. S., Griffin-Shelley, E., Cooper, A., O'Mara, J., & Buchanan, J. (2000). Online infidelity: A new dimension in couple relationships with implications for evaluation and treatment. *Sexual Addiction & Compulsivity*, 7, 59-74.

Purpose

The purpose of this article was to outline the ACE Model (Anonymity, Convenience, and Escape), and utilize these concepts to explore implications for clinicians. This article addressed discovering the online affair, rebuilding marital trust, and addressing underlying issues.

Concepts

ACE Model. The ACE model stands for Anonymity, Convenience, and Escape. Anonymity is the concept that individuals feel they are basically unknown when communicating on the Internet. Convenience addresses the easy access to online activities with the increasing availability and affordability of the Internet. Escape refers to the ability of the online affair to make the individuals feel they are getting away from the problems in their daily lives.

Detection of a cyber affair. The author suggested that persons may enter counseling with only a suspicion of an online affair. Warning signs of the affair include a change in sleep patterns, increased demands for privacy, ignoring responsibilities, lying, loss of interest in sex, and lack of investment in the relationship.

Rebuilding marital trust. The author suggested that rebuilding trust in the relationship has three important components. The first is establishing new rules about computer use. This could include moving the computer to an open location in the home, or installing software to block adult sites. The second is avoiding defensiveness or rationalization of the behavior. The third aspect of rebuilding marital trust involves expressing renewed commitment to both the partner and the success of the relationship.

Underlying issues. The author indicated that a cyber affair may be an indication of larger underlying problems in the relationship. Some of these problems could include a lack of communication, sexual dissatisfaction, financial problems, and general dissatisfaction with life.

Conclusions

The author concluded that the ACE Model indicates possible reasons for the allure of online relationships. Online infidelity is a topic that may be important to couples who enter counseling. Clinicians must help their clients rebuild trust lost due to the infidelity, and explore the underlying issues in the relationship that may have influenced the partners' behavior.

Critique

This article presented very interesting concepts regarding the motivation for online infidelity, and potential implications for treatment. This article is strengthened by the thoroughness of the review, and the inclusion of hypotheses that are relevant to clinicians working with couples facing problems related to Internet infidelity. This article is important to the present review because it addresses the relational impact of online affairs, and potential treatment plans for clinicians.

APPENDIX C. CORRELATIONS

Table 12
Correlations of all scenario variables

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
V1	1.0	.694	.583	.368	.473	.385	.401	.489	.417	.349	.367	.385
V2		1.0	.765	.428	.376	.392	.420	.524	.462	.395	.420	.419
V3			1.0	.424	.349	.413	.298	.328	.348	.274	.283	.372
V4				1.0	.472	.580	.408	.462	.538	.323	.444	.474
V5					1.0	.552	.306	.513	.505	.240	.426	.435
V6						1.0	.362	.430	.477	.230	.313	.373
V7							1.0	.570	.535	.582	.378	.391
V8								1.0	.801	.352	.773	.759
V9									1.0	.336	.801	.807
V10										1.0	.421	.423
V11											1.0	.912
V12												1.0

V1	Impact of viewing adult website scenario
V2	Sexual betrayal of viewing adult website scenario
V3	Emotional betrayal of viewing adult website scenario
V4	Impact of emailing scenario
V5	Sexual betrayal of emailing scenario
V6	Emotional betrayal of emailing scenario
V7	Impact of multiple partners scenario
V8	Sexual betrayal of multiple partners scenario
V9	Emotional betrayal of multiple partners scenario
V10	Impact of one partner scenario
V11	Sexual betrayal of one partner scenario
V12	Emotional betrayal of one partner scenario

APPENDIX D. FREQUENCY OF RESPONSES

Table 13

Frequency of item responses

	1	2	3	4	5
V1	0	14	38	91	23
V2	3	36	43	66	18
V3	5	37	29	73	21
V4	0	0	3	61	102
V5	4	5	5	55	97
V6	2	20	24	60	60
V7	0	1	9	55	101
V8	3	7	15	58	83
V9	5	5	9	56	91
V10	1	1	4	41	119
V11	3	3	9	45	106
V12	4	3	8	44	107

V1	Impact of viewing adult website scenario
V2	Sexual betrayal of viewing adult website scenario
V3	Emotional betrayal of viewing adult website scenario
V4	Impact of emailing scenario
V5	Sexual betrayal of emailing scenario
V6	Emotional betrayal of emailing scenario
V7	Impact of multiple partners scenario
V8	Sexual betrayal of multiple partners scenario
V9	Emotional betrayal of multiple partners scenario
V10	Impact of one partner scenario
V11	Sexual betrayal of one partner scenario
V12	Emotional betrayal of one partner scenario

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