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Characteristics and Behaviors of Sexual Compulsives Who Use the Internet for Sexual Purposes

KRISTIAN DANEBACK
Göteborg University, Göteborg, Sweden

MICHAEL W. ROSS
University of Texas, Houston, Texas, USA

SVEN-AXEL MÅNSSON
Malmö University, Malmö, Sweden

This study aimed to investigate the characteristics of those who engage in online sexual activities and who are sexually compulsive according to the Kalichman sexual compulsivity scale. It also aimed to investigate if online sexual activities had changed the sexually compulsive respondents' offline sexual behaviors, such as reading adult magazines, viewing adult movies, and/or having casual sex partners. Data were collected in 2002 through an online questionnaire in Swedish, which was administered via the Swedish portal Passagen.se. Approximately 6% of the 1458 respondents who answered the 10-item sexual compulsivity scale were defined as sexually compulsive. A multivariate regression analysis showed sexually compulsives more likely to be men, to live in a relationship, to be bisexual, and to have had an STI. The time spent online for sexual purposes was found to be a measure of the kind of sexual activity rather than a measure of online sexual compulsivity. A bivariate analysis of nominal data showed that engagement in online sexual activities made respondents quit, decrease, maintain or increase their offline sexual behaviors. Sexual compulsive respondents were found to increase their offline pornography consumption to a greater extent than did non-sexually compulsives.

We would like to dedicate this article to our friend and coleague AI Cooper, whose tragic death while working on this project is a major loss to the field of Internet sexuality.

Address correspondence to Kristian Daneback, Department of Social Work, Göteborg University, P.O. Box 720, 405 30 Göteborg University Sweden. E-mail: kristian.daneback@socwork.gu.se

INTRODUCTION

As the Internet is expanding throughout the world, online sexuality has been researched and debated by numerous disciplines and media. Today we know that the Internet is a place more or less integrated with everyday life of which sexuality is a part for most people (Mustanski, 2001). Earlier research has shown that online sexuality includes an array of activities ranging from reading erotic novels and seeking information on sexuality to having cybersex (two or more people engaging in simulated sex talk while online for the purposes of sexual pleasure) and seeking offline sex partners. Adult men and women of all ages are known to engage in one or more of these activities for a variety of reasons (e.g., Cooper, Månsson, Daneback, Tikkanen, & Ross, 2003; Cooper, Morahan-Martin, Mathy, & Maheu, 2002; Månsson, Daneback, Tikkanen, & Löfgren-Mårtenson, 2003). It is also known that online sexual activities can be either beneficial or destructive for individuals as well as for relationships (Cooper & Griffin-Shelley, 2002; Cooper, Scherer, & Marcus, 2002; Delmonico, Griffin, & Carnes, 2002; Leiblum & Döring, 2002; Månsson et al, 2003; Schneider, 2002).

Much research and media coverage have been focusing, and sometimes alarmingly so, on the problematic side of online sexual activities, although only a minority experience online sexual problems. Cooper, Delmonico, and Burg (2000) found approximately 17% of those using the Internet for sexual purposes to have online sexual problems, while Månsson et al. (2003) found less than 10% to have online sexual problems. Perhaps this problem oriented focus emanates from a belief in the Internet being a hazardous domain containing pornographic pictures and movies, prostitution, pedophilia, and online infidelity.

While it is true that the Internet can be experienced as problematic in various ways, it is important not to over-emphasize the problematic side, but rather to understand it. Most people who use the Internet for sexual purposes do not experience any problems, but rather view online sexual activities as healthy and positive activities (Månsson et al., 2003). Nevertheless, even though only a minority experience online sexual problems, more research is needed to better understand online sexual problems and to know who might be at risk in order to be able to provide adequate help and to facilitate treatment.

Online sexual problems refer to the full range of difficulties that people may experience related to their online sexual activities. The difficulties may be financial, legal, occupational, or personal and may occur once or on multiple occasions (Cooper & Griffin-Shelley, 2002). One aspect of online sexual problems is Internet-enabled sexual compulsive behavior. According to Schneider (1994) three criteria can be used to screen compulsive behavior: not being able to choose to engage in the behavior, continue to engage in the behavior despite negative consequences, and obsession with the behavior.

Cooper, Delmonico, & Burg (2000) defined cybersex compulsivity as spending 11 hours or more online per week for online sexual activities and being sexually compulsive according to the Kalichman sexual compulsivity scale. Sexual compulsivity, where the goal is sexual arousal and satisfaction, can be manifested online by viewing adult pictures and movies as well as having cybersex or using the Internet to find offline sex partners (Cooper & Griffin-Shelley, 2002; Greenfield & Orzack, 2002; Schneider, 2002). Regardless of one's preferences the Internet can, often easily, satisfy many or all of these manifestations.

In cases where the sexually compulsive behavior consists of meeting people offline for "real life" dates, there may be a risk for sexual transmitted infections (STI). It is fairly common, both among men and women, to use the Internet for partner seeking activities (Cooper et al., 2003; Cooper, Scherer, & Marcus, 2002). An earlier study found more than one third of the respondents to have met someone online who they later had sex with offline (Månsson et al., 2003). It has also been found that those using Internet to seek sex partners are more likely to put themselves at risk for STI (McFarlane, Bull, & Rietmeijer, 2000). Only a few studies have been conducted on Internet and STI and most of them focus on the homosexual community (Ross & Kauth, 2002; Tikkanen & Ross, 2003). Hospers, Harterink, van den Hoek, and Veenstra (2002) found that 30% among male homosexual chatters had had unprotected intercourse with casual partners they had met online. This finding was supported in another study (Benotsch, Kalichman, & Cage, 2002), which compared those who used the Internet for meeting sex partners with those who did not.

Kalichman, Johnson, Adair, Rompa, Multhau, & Kelly (1994) have developed a 10-item sexual compulsion scale using 106 homosexual men in the United States. They reported an Alpha coefficient of 0.89 for this scale, and found it significantly correlated with loneliness, low self-esteem, and low sexual self-control. The items for the sexual compulsivity scale were derived from an earlier study of sexual addictions. In a later study, Kalichman and Rompa (1995) extended their sample to women and heterosexual men, and reported similar Alpha coefficients and 3-month test-retest reliabilities of 0.64–0.80. Sexual compulsivity was significantly correlated with partner numbers and frequency of unprotected sex, although not to substance use before sex.

The scale consists of 10 questions on sexual behavior and feelings, where each question can be answered on a scale ranging from 1 to 5. The score on each question is summed and those who score higher than two standard deviations above the mean are considered sexually compulsive. In their study of 1850 respondents, Månsson et al. (2003) found 8% men and 4% women to be sexually compulsive according to the Kalichman sexual compulsivity scale. Further, they found that those scoring high on the scale and, thus, falling into the sexually compulsive group, subjectively reported

having difficulties controlling their online sexual activities and that it was a problem in their life. In other words, this group seemed aware of their problems.

The aim of this study was twofold. First, by analyzing data collected by Månsson et al. (2003), the authors aimed to expand upon the understanding of the demographic characteristics of people using the Internet for sexual purposes and being sexually compulsive as defined by the Kalichman sexual compulsivity scale. Besides finding demographic characteristics, the first aim was also to determine if sexually compulsive respondents spent many hours online for sexual purposes and whether they had had any STIs.

Second, the authors aimed to investigate if the sexually compulsive respondents had changed any of their offline sexual behavior (reading adult magazines, viewing adult movies, and/or having casual sex partners) after they started to use the Internet for sexual purposes. The study also compared the sexually compulsive respondents with non-sexually compulsive respondents in this regard.

METHODS

Procedure

The questionnaire was launched through a Swedish portal site called Passagen (http://www.passagen.se). A banner was placed on the website for two weeks, from June 10 to June 23, 2002, and appeared randomly on the portal as well as on its sub-sites. There was no way to control where the banner would appear and it was not possible to predict for whom the banner would show; thus, for all practical purposes, its appearance was truly random according to the Passagen administrators. During the two weeks, Passagen.se had 818,422 unique visitors the first week and 893,599 unique visitors the second week, and the total number of visits was approximately 2 million with approximately 14 million pages viewed.

By clicking on the banner, the viewer was linked to an introduction site located on a server within the Göteborg University web. The introduction site also had the University logo and described the project, the nature and number of the questions, the funding source, and material relating to ethics and confidentiality, including the fact that the questionnaire was anonymous. The introduction site also informed participants that this survey was limited to those who were 18 or more years old. By clicking on an "accept" button, the viewer was linked to the questionnaire, which was also placed on the University server. Below the questionnaire and visible at all times was a set of boxes numbered 1 to 75 and corresponding to each web page with questions. Different colors indicated whether the question or questions on a web page had been answered or not and it was possible up to completion for respondents to return to a particular question to revise an answer. The

system was running on an Intel based 2×450 Mhz server, placed within the Göteborg University web with a 10 giga-bite connection both ways.

Each respondent opened a session with the server and this session was active until the questionnaire was finished or the respondent quit. All responses and changes of responses were logged and saved continually. This format made it possible to analyze missing values, when and where respondents drop out, along with other variables, which might be related to their discontinuing participation, such as gender and age (discussed in Ross, Daneback, Månsson, Tikkanen, & Cooper, 2003). Each respondent was assigned a unique identity based on a combination of their Internet protocol number and a specific number assigned to the questionnaire.

Instrument

The questionnaire was based on two earlier instruments. The first was used in an earlier study done in conjunction with MSNBC, one of the largest American portals (Cooper, Scherer, & Mathy, 2001); the second was used in the sex in Sweden survey (Lewin, Fugl-Meyer, Helmius, Lalos, & Månsson, 1998). The instrument in this study consisted of 93 questions, shown on 75 web pages, and broken down into seven sections (the complete questionnaire can be obtained from the first author). Section 1 had 24 demographic questions including questions on the Internet, relationships, and sexuality. Section 2 had 13 questions focusing on online love and online sexual activities. Section 3 had 7 questions on online sexual activities in the work place. In Section 4, respondents were to answer 17 questions on both online and offline sexual experiences. Section 5 consisted of 14 statements about Internet and sexuality to help make clearer their attitudes about this phenomenon. Questions asked were, for example, if cybersex is cheating, if Internet sexuality is better suited for men, if the Internet fosters equality between genders, and similar questions. Section 6 had 8 questions around issues of sexual problems and STI. Section 7 included a 10-item Kalichman scale (Kalichman et al., 1994) on sexual compulsivity. All questions were asked in the Swedish language.

Sample

Participation was restricted to adults. Surveys by respondents who reported being less than 18 years of age were excluded from analyses. An upper age limit was set at 65 years, due to the small numbers claiming to be older and also in order to be able to facilitate comparison with earlier related research. With those limitations, 1835 respondents (931 women, 904 men) completed the questionnaire.

In the current study, 1458 respondents (658 women, 800 men) claimed to use the Internet for sexual purposes. The mean age for these users was 29.7 ($SD = 10.3$) for women and 31.5 ($SD = 9.8$) for men ($t = 3.269$, $df = 1456$, $p < .001$). The gender distribution among those using the Internet for sexual

purposes were 55% men and 45% women ($\chi^2 = 88.01$, $df = 1$, $p < .001$) which is the same percentages as found in the overall use of the Internet in Sweden, and identical to the percentages of those who visited the portal site where the questionnaire was launched (54% men and 46% women).

Analysis

Data were analyzed by using SPSS 10.0. The dependent variable examined was whether the respondents fell into the sexually compulsive group or not, where yes = 1 and no = 0. Binary logistic regression was chosen as the analysis method, and the multivariate analysis was built around 6 (independent) variables, where 4 variables were related to socio-demographics (gender, age, relationship status, and sexual orientation), one variable was related to respondents' online sexual behavior (number of hours spent online for sexual purposes), and the last variable was if the respondents had had any STI. Changes in offline sexual behavior after beginning to use the Internet for online sexual activities were compared on χ^2 test by sexual compulsivity.

The gender variable consisted of men and women. Age was divided into four groups, 18–24, 25–34, 35–49, and 50–65. This division was based on an earlier study of sexuality in Sweden and was chosen for comparative reasons (Lewin et al., 1998). Relationship status was created from the original marital status question in the questionnaire. Those respondents who reported being married, cohabiting, living in a registered partnership, or being in a relationship but living apart, were coded as being in a relationship. Those who reported being single, divorced, or widowed were coded as not being in a relationship. Sexual orientation was self determined by the respondents.

The amount of time per week spent online for online sexual activities was divided into the following groups: less than 1 hour, 1–3 hours, 3–6 hours, 6–10 hours, 10–15 hours and more than 15 hours per week. The STI variable included those respondents who reported to have had one or more of the following infections: gonorrhea, syphilis, human papilloma virus, chlamydia, genital herpes and/or HIV/AIDS.

RESULTS

A total of 1458 respondents filled out the 10-item sexual compulsivity scale. The sample consisted of an almost equal gender distribution with 55% men and 45% women. About one third lived in one of the three metropolitan areas in Sweden (Stockholm, Göteborg, and Malmö). Almost half of the respondents reported to be in a relationship. The majority of the respondents were well educated with 45% who reported to have a university degree. Over 60% of the respondents were working and approximately 20% were students. The sample consisted of 90% self defined heterosexuals, 8% bisexuals, and 2% homosexuals. Almost one fifth of the sample reported that they had had an

STI. The sexually compulsive group consisted of 82 respondents, which was equivalent to 5.6% of the total number of respondents. The sexually compulsive group consisted of 74% men and 26% women. Fewer than 3% of all respondents claimed to be from a country outside Sweden, almost all of these non-Swedish respondents were from adjacent Scandinavian countries (Denmark, Finland, and Norway). Those who were found to be sexually compulsive respondents engaged in the same online sexual activities as the non-sexually compulsive respondents.

Table 1 displays the results from the multivariate logistic regression analysis. Age was not found to have a significant effect on odds ratio. Rather, the regression model suggested sexual compulsivity to be found in all ages. Gender, on the other hand, was found to have a significant effect on odds ratio. Women were less likely to be sexually compulsive compared with men. Further, the regression model showed relationship status to be an important factor to consider when investigating sexually compulsives. Sexually compulsives were more likely to be in a relationship rather than single, divorced,

TABLE 1 Effects on Odds if Sexually Compulsive.* Multivariate Logistic Regression (n = 1458)

		95% C.I. for Exp(B)		
	Exp(B)	Lower	Upper	p
Age				
18–24 (ref.)	1			
25–34	1.38	.74	2.58	ns
35–49	1.35	.66	2.75	ns
50–65	1.17	.37	3.68	ns
Gender				
Female	.44	.25	.76	.004
Male (ref.)	1			
In a committed relation				
Yes	1.66	1.01	2.73	.046
No (ref.)	1			
Sexual orientation				
Heterosexual (ref.)	1			
Bisexual	2.05	1.00	4.20	.050
Time online for OSA (hours/week)				
<1 (ref.)	1			
1–3	2.25	.86	5.90	ns
3–6	2.60	1.10	6.12	.029
6–10	3.02	1.30	7.03	.010
10–15	2.86	.82	10.05	ns
15<	13.02	4.71	36.02	.001
Have had an STI				
Yes	2.03	1.17	3.54	.012
No (ref.)	1			

*The Exp(B) gives the odds of a person in the left marginal variable listed for scoring as sexually compulsive, compared to the reference category (ref.), which is scored as 1, e.g., a person aged 25–34 is 1.38 times more likely to be sexually compulsive than one aged 18–24.

or widowed. This difference was significant. As mentioned earlier, no homosexuals were found in the sexually compulsive group and were thus omitted from the analysis. Bisexuals, on the other hand, were found to be two times more likely to be sexually compulsive compared with heterosexuals, and the effect on odds ratio was significant.

The sexually compulsives were found to spend relatively much time online for sexual purposes. However, there was a nonlinear relationship between time spent online and sexual compulsivity. Sexually compulsives were approximately 3 times more likely to spend 3–10 hours online per week or 13 times more likely to spend more than 15 hours online per week. The last variable in the regression model showed that the sexually compulsive respondents were 2 times more likely to have reported an STI. The effect on odds ratio was significant.

Significant differences were found between those who spent more than 15 hours online compared to those who spent less than 15 hours online considering the online sexual activities they engaged in. Those spending 15 hours or above were to a greater extent: "looking for a partner" ($\chi^2 = 11.91$ $df = 1$, $p < .001$), "replying to sex ads" ($\chi^2 = 7.94$ $df = 1$, $p < .01$), "chatting with people with same interest" ($\chi^2 = 7.82$ $df = 1$, $p < .01$), "buying sex products" ($\chi^2 = 4.14$ $df = 1$, $p < .05$), and "contacting prostitutes" ($\chi^2 = 1.89$ $df = 1$, $p < .001$). These activities can primarily be labeled as partner seeking activities and interactive activities.

Table 2 displays changes in sexual behavior since respondents started to use the Internet for sexual purposes. These changes were measured for

TABLE 2 Changes in Offline Sexual Behavior after Beginning to Use the Internet for Online Sexual Activities (%)

Offline sexual behaviors	SC	Non-SC	χ^2
Reading adult magazines	n = 80	n = 1290	
Never done it	16	32	
Done it but quit	21	15	
Decreased	20	18	$\chi^2 = 17.68$, $df = 4$, $p < .001$
Unchanged	24	27	
Increased	19	8	
Viewing adult videos	n = 79	n = 1297	
Never done it	17	28	
Done it but quit	8	9	
Decreased	22	18	$\chi^2 = 42.56$, $df = 4$, $p < .001$
Unchanged	20	34	
Increased	24	11	
Have casual sex partners	n = 72	n = 1269	
Never had it	33	46	
Had it but quit	10	10	
Decreased	11	5	$\chi^2 = 8.33$, $df = 4$, *ns*
Unchanged	29	27	
Increased	17	12	

sexually compulsives and non-sexually compulsives respectively. In both groups there were respondents who had increased, decreased, or maintained their offline sexual behavior. Some respondents even quit their offline pornography consumption after they started to use the Internet for sexual purposes. However, the sexually compulsive group showed a greater increase in offline pornography consumption compared to the non-sexually compulsive group. Approximately 19% of the sexually compulsives reported an increase in reading pornographic magazines and 24% reported an increase in viewing porn movies. In comparison, 8% of the non-sexually compulsives reported an increase in reading adult magazines and 11% reported an increase in viewing adult movies.

Further, the non-sexually compulsive group was found to be less familiar with offline pornography consumption before they started to use the Internet for sexual purposes. Approximately 32% of the non-sexually compulsive respondents reported to never have read adult magazines and 28% to never have viewed adult movies. Among sexually compulsives, 16% had never read adult magazines and 17% had never viewed adult movies. There were no significant differences found between the groups regarding having casual sex partners.

DISCUSSION

The authors recognize that this study had a number of limitations. First, the sexually compulsive group was relatively small, only including 82 individuals, and the results and interpretations thereof should be treated with care. Also, in this study, the authors could not predict whether sexual compulsivity was caused by using the Internet for sexual purposes or if the sexual compulsivity was present for these persons before they begun to use the Internet for sexual purposes. Probably the sample consisted of both types. Further, the authors cannot know whether this survey may have attracted or discouraged sexually compulsives. The last section of the questionnaire contained the Kalichman sexual compulsivity scale and nearly half of the respondents (more men than women) had dropped out by this point (Ross et al., 2003). Thus, the more compulsive were unlikely to have completed the questionnaire, biasing toward lower prevalence of sexually compulsives.

Despite numerous methodological procedures to maximize randomization, this was still not a truly randomized sample. Constructing a more traditional offline study, more able to control those factors, would greatly increase the ability to make generalizations to the larger population. Ross, Månsson, Daneback, Cooper, and Tikkanen (2005) compared a conventional "gold standard" random sample to an Internet sample with identical demographic, sexual, and relationship questions. They found the Internet sample to diverge from the random sample on age, location, education, currently in a relationship, and the number of sexual partners. However, they found both

samples to be comparable with regard to gender distribution, nationality, having been in a relationship, how respondents met their present partner, and if they had discussed separation in the past year.

As the current study was conducted in Sweden, cultural differences may have interfered with the results. However, Cooper et al. (2003) have found Swedish data to corroborate well with earlier, non-Swedish, studies that have outlined general patterns of Internet sexuality. This increases confidence in this study's results as being cross-culturally valid.

Most sexually compulsives on the Internet were found to be men. This corresponds well with earlier research (Cooper, Delmonico, & Burg, 2000; Månsson et al., 2003). This study's results did not show any significant age differences among the sexually compulsives. Earlier research has shown both gender and age to be discriminating factors regarding the preferred online sexual activities (Månsson et al., 2003). In this study, the sexually compulsive respondents were found to engage in the same kinds of OSA as the non-sexually compulsive respondents.

The regression model showed that sexually compulsives in our study were more likely to be in a relationship. This is also supported by Cooper, Delmonico, and Burg (2000) who found 80% of the sexually compulsive respondents to be either married, in a committed relationship, or dating. One of the clear factors that differentiate "high sexual interest and behaviors and sexual permissiveness versus sexual compulsivity and problems" is whether the person feels a need to keep sexual activity secret from his or her partner or other important people in the person's life. The secrecy, hiding, deceit, and the fall out from this is a major reason that partners later feel betrayed, deceived, cheated on, and their trust becomes shattered (Schneider, 2002).

It was surprising to not find any homosexuals at all among the sexually compulsives in this sample. Homosexual men are a group that has been extensively researched and who for a long time have been using the Internet as a medium for social and sexual interaction (Ross, Tikkanen & Månsson, 2000). They also are known to have (compared with heterosexuals) high rates of partners as well as to engage more often in high risk and anonymous sexual activities. The distinction between a highly charged subculture that emphasizes sexuality and being defined as sexually compulsive, or having other sexual problems, may partly be the result of different norms. One answer may be the low number of homosexual respondents in the data, which may partly be explained by the survey site being a mainstream "heterosexual" site and homosexuals would be more likely to go to more specific sites popular among their community for sexual purposes than this site. At the same time this would then lead the authors to wonder if among the general gay population sexual compulsivity might be lower than is speculated.

Another explanation could be that after "coming out," homosexual men may feel more comfortable with their sexuality where having several sex partners and spending time online for sexual purposes may be less

stigmatized than for heterosexuals. Gay men have already been breaking with some of the more traditional sexual scripts and sexuality may therefore be more of a natural and integrated part of their lives and, thus, less associated with discomfort.

Corresponding to earlier research (Cooper, Delmonico, & Burg, 2000), the authors found heterosexuals less likely to be sexually compulsive than bisexuals. As sexual orientation was self defined, it is unknown whether or not these persons openly live as bisexuals and how their bisexuality is manifested. It could be that they are in an experimental phase or in a coming out process, mixing heterosexual and homosexual contacts. The Internet is an easily accessible refuge where it is possible to anonymously experiment with both homo- and heterosexuality by viewing adult pictures and movies, chatting with people with similar interests, having cybersex, and even to meet people for sex in real life. Ross and Kauth (2002) found self defined heterosexual men to have cybersex with other men, suggesting that the Internet may serve as an arena suitable for this kind of sexual experimenting.

For bisexuals, sexuality may occupy more thoughts than for heterosexuals. Perhaps for some of those who scored high on the sexual compulsivity scale, the sexual compulsivity may be a measure of their current level of sexual curiosity, development and experimenting. This leads to questions as to whether the Kalichman sexual compulsivity scale also measures latent normativity of sexual behavior.

The authors found that the sexually compulsives fell either into a group spending 3–10 hours per week online or in a group spending more than 15 hours online per week for sexual purposes. This means that a respondent scoring high on the sexual compulsivity scale could spend an excessive amount of time on online sexual activities, while another sexually compulsive respondent may only spend 30 minutes per day online for sexual purposes. Contrary to what was found by Cooper, Delmonico, and Burg (2000), this non-linear relationship between the amount of time spent online for sexual purposes and sexual compulsivity suggests that time spent online may be an inappropriate measure of online sexual compulsivity.

Further, sexually compulsive respondents spending more than 15 hours online were found to prefer interactive and partner seeking activities to a greater extent than those spending less time online. Earlier research has showed those who engage in cybersex, which is an interactive sexual activity, to spend considerably more time online compared to others (Daneback, Cooper, & Månsson, 2005). This finding points to the direction that the amount of time spent online for sexual purposes may be an indication of the kinds of sexual activities one engages in rather than an indication of online sexual compulsivity. However, to spend more than 2 hours online per day (more than 14 hours/week) consumes time from other activities which may be even more noticeable and, thus, perceived as more problematic in a relationship or in a work place.

McFarlane, Bull, and Rietmeijer (2000) found that those meeting sex partners online reported more risk factors for STI. They also had more sex partners and were more likely to have an STI history compared with those who did not seek their partners online. In this study, the sexually compulsives were more likely to have had an STI compared to the non-sexually compulsives. Those sexually compulsive respondents who spent more than 15 hours online per week for sexual purposes reported a greater interest in partner seeking activities compared to those spending less time online and, thus, maybe at greater risk for getting and spreading STI.

In this study the authors also measured if the respondents' offline sexual behavior had changed after they started to use the Internet for sexual purposes. The offline behavior measured consisted of pornography consumption and having casual sex partners, and significantly more of the sexually compulsive respondents had read adult magazines and viewed adult movies before they started to use the Internet for sexual purposes. When interpreting the results, it appeared that using the Internet for sexual purposes may have different effects for different people. Some respondents had abandoned or decreased their offline pornography consumption, while for others this had remained unchanged or even increased. For example, about one fifth of the sexually compulsives claimed to have quit reading adult magazines, while one fifth claimed their consumption of adult magazines had increased since they started to use the Internet for sexual purposes.

There were similarities found between the sexually compulsive group and the non-sexually compulsive group considering how the use of the Internet for sexual purposes had affected their offline sexual behavior, especially considering having casual sex partners. However, the sexually compulsive respondents had increased their consumption of pornography after they started to use the Internet for sexual purposes to a significantly greater extent compared to the non-sexually compulsive respondents. Consequently, online sexual activities cannot be said to have a one sided effect in any direction considering those offline sexual behaviors measured.

Finally, it is worthwhile to emphasize that most people are neither sexually compulsives nor experience any problems related to their use of the Internet for sexual purposes. On the contrary, many people describe Internet sexuality in positive ways (Månsson et al., 2003).

Practical Implications

The current study has several practical and important implications to consider for clinicians who encounter sexually compulsives who use the Internet for sexual purposes. This study shows that most sexually compulsives are in relationships. As the Internet facilitates easy access to various sexual activities, they may have to lie to their spouses about their online sexual engagement which could generate feelings of shame and guilt and have negative impact

on their relationships. Feelings of shame and guilt may emanate from the socially established scripts for relationships which may not approve individual quests for experimentation and exploration of one's sexuality, but also to the fact that sex is a topic sometimes difficult to discuss even in established relationships. If experimentation and exploration is not negotiated and discussed it may have negative effects on the relationship, either due to lies and deceit or when discovered by the spouse.

Most sexual compulsives in the current study defined themselves as bisexuals. However, it is unclear whether they officially live as bisexuals or not. Perhaps, sexual compulsivity is an indicator of their current level of sexual curiosity or experimentation. Not living officially as bisexual and at the same time being in a relationship could be perceived as problematic by individuals who might feel committed to the relationship and simultaneously are interested in online experimentation and exploration with their bisexual identity.

The current study suggests that the amount of time spent online for sexual purposes should not be perceived as a measure for sexual compulsivity. Rather it should be perceived as an indicator of the kind of activities engaged in as they vary in time consumption. Interactive sexual activities are the most time consuming and the sexually compulsives who spent most time online for sexual purposes also showed a greater interest in partner seeking activities. As sexually compulsives were more likely to have reported STIs, an additional interest in partner seeking activities could increase the risk for getting and spreading STIs.

Although the Internet facilitates easy access to sexual activities, the current study shows that using the Internet for sexual purposes may both increase and decrease prior offline sexual behaviors or leave them unchanged. From these results it is impossible to conclude whether the Internet constitutes an additional source or a substitute for prior offline sexual behaviors.

The findings in this study suggest that clinicians should carefully and thoroughly examine how sexually compulsives use the Internet as well as their sexual orientation and relationship status. In addition, it would be beneficial to investigate any relations between offline and online sexual activities and how these may have changed with the introduction of online sexual activities.

A truly randomized survey study as well as qualitative research interviews would greatly contribute to the knowledge of this specific group of people who use the Internet for sexual purposes.

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