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Women's Sexual Addiction and Family Dynamics, Depression and Substance Abuse

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Women's Sexual Addiction and Family Dynamics, Depression and Substance Abuse

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This study utilized a stepwise multiple regression analysis to investigate predictors of women's sexual addiction, including an initial investigation of father bonding. It contains the largest sample of sexually addicted women in an empirical study utilizing the W-SAST. Participants included 99 self-identified sexual addicts, who completed numerous scales. A significant positive correlation was found between sexual addiction and childhood abuse, depression and substance abuse. Perceived family cohesion and adaptability were inversely correlated. Father care was inversely correlated and father protection was positively correlated. Depression accounted for 28.5% of the variance, while family adaptability and drug abuse accounted for 13.8 and 4%, respectively. Additional analyses supported mediating variables.

INTRODUCTION

According to Garos (1997), many researchers and clinicians have questioned whether sexual addiction is a diagnostic entity in and of itself or merely a manifestation of other disorders such as anxiety, depression, obsessive-compulsive disorder (OCD) (Coleman, 1990), or Post-traumatic Stress Disorder (PTSD) (Schwartz, 1992). Literature supporting sexual addiction defines it by preoccupations with sex and failure to control one's sexual behaviors despite adverse consequences (Schneider, 2004). Sexual addicts have been found to possess common characteristics including engagement in multiple forms of compulsiveness (Carnes, 1991), co-morbidity with other addictions (Carnes, 1991; Carnes, 2001; Schneider & Schneider, 1990), poor cohesion

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within the family of origin (Carnes, 1991), and co-morbidity with psychiatric disorders, including depression (Austin, 1997; Black, Kehrgberg, Flumefelt, & Schlosser, 1997).

There is limited information on the prevalence rate of sexual addiction in women (Cohen, 2008; Roller, 2004), but research shows many are in need of treatment. In a study of 171 normal female and 69 normal male college students (aged 17–51), 32.2% of females fell into the category of “needing to seek further evaluation and treatment” for sexual addiction, along with 17.4% of males (Seegers, 2003). Though women typically experience the same problems associated with sexual addiction that men do (e.g., loss of jobs or relationships), they also have added problems pertaining to pregnancies. Ferree (2001) found that among women who attend her workshops, 25–50% had at least one abortion due to addictive sexual acting out. Studies in the literature suggest that males usually represent sex addicts and perpetrators, whereas women are usually the victims (Carnes, 1989; Chantry & Craig, 1994; Herman, 1998; Irons & Schneider, 1994). According to Carnes, Nonemaker and Skilling (1991), women engage in a higher prevalence of behaviors that distort power. In Ross' study (1996) of 18 self-identified female sexual addicts (from an in-patient treatment program and 12-step support groups in the Southwest and Midwest United States), passive forms of sexual behavior prevailed over aggressive ones, and women had a high frequency of fantasy and seductive role sex, pain exchange, and trading sex. It was concluded that female sexual addicts seek behaviors that serve the purpose of meeting needs for power, control and attention.

Sexual Addiction and Abuse

There is a wealth of literature on sexual addiction that has demonstrated a correlation between childhood abuse and sexual addiction in adulthood. According to Kasl (1989), 19–25% of women in Sex Addicts Anonymous (SAA) or Co-dependent Sex Addicts (CoSA) suffered from sexual abuse, specifically. Schwartz & Southern (2000) found that 76.2% of females within a clinical population of cybersex abusers indicated a history of sexual abuse; 52.4% met criteria for Post Traumatic Stress Disorder. This is in agreement with Carnes (1991), who found that 39% of sexually addicted men and 63% of sexually addicted women reported such abuse. It should be noted that these findings likely represent an underestimate of the prevalence of the problem, as newly recovered addicts were used in the study and tend to under-report as they are often still in denial to some extent. In a study (Carnes, 1991) conducted with 233 men and 57 women in the most advanced stages of recovery, virtually all participants experienced some type of abuse in childhood: 81% indicated that they had been sexually abused, while 97% had experienced emotional abuse and 72% experienced physical abuse.

Sexual Addiction and Family of Origin

In a study conducted by Carnes (1991), the majority (87%) of those in an inpatient treatment for sexual addiction identified another addict in their family of origin. Another discovery was that 78% of these participants reported having come from families that had been characterized as rigid and disengaged. "Rigid" families were characterized as having "all wrong" or "all right" thinking. Doing it "right" is crucial to the functioning of these families and there is little tolerance for anything less than perfection. Disengaged families lack cohesion and do not support their members. Carnes reports that childhood scenes have tremendous power (particularly for addicts) because individuals recreate these events in the form of "acting out" behaviors such as abusing alcohol or sex; in fact, these memories serve as triggers for the addiction and "shame about the addiction reconnects them to those memories" (p. 329).

The Role of the Father-Daughter Relationship/Father Bonding in Women's Sexual Addiction

According to Leedes (2001), up to 95% of sexual addicts are unable to form close attachments. Past researchers have indicated that attachment relationships exhibited during childhood have been linked to beliefs and attitudes toward romantic relationships (Gentzler & Kerns, 2004; Hazan & Shaver, 1987), partner pairing and relationship stability over time (Kirkpatrick & Davis, 1994), relationship commitment and satisfaction (Simpson, 1990) and sexual experiences (Hazan & Shaver 1987). Simpson found that greater relationship, trust, commitment and satisfaction were associated with a secure attachment style. In a literature review compiled by Gentzler and Kerns (2004), an association exists between securely attached individuals and those who have fewer sexual partners and limit their sexual experiences only to committed relationships and also who tend to display more positive affect and less negative affect with regard to their sexual experiences. Casual sex with strangers is more likely to occur in those with avoidant attachment, and those with anxious attachment crave emotional intimacy within romantic relationships but seem unable to maintain those relationships.

Within the family of origin, the father appears to play a role in contributing to the development of sexual addiction, as it pertains to his attachment or bonding with his daughter. Though this has not been empirically investigated in the literature, it has been referred to often (i.e., Kasl, 1989).

Further research indicates that the father's role may affect a woman's sexual development directly with respect to the age of onset of puberty (Matchock & Susman, 2006). In a study of 1,938 participants from a college population, the link between girls' social environment and their sexual maturity showed that the absence of the father was found to be associated with

pubertal timing in women. Girls whose fathers were absent tended to mature approximately 3 months before those whose father was present. These findings are consistent with an investigation of the quality of early family relationships and their effect in timing of menarche, in which the father's role emerged as a significant predictor (Ellis, McFayden-Ketchum, Dodge, Pettit, & Bates, 1999). More specifically, the father's presence in the home as well as time spent by fathers in child care, greater levels of affection with their daughters (as well as greater levels of mother-daughter affection) and more support contributed by fathers to the parental dyad (as assessed prior to kindergarten) predicted later pubertal timing by daughters in seventh grade. Later timing of menarche appears favorable to earlier onset; the latter is associated with negative health and psychological outcomes: poor body image, depression, anxiety, sexual promiscuity and alcohol use.

The present study attempts to replicate previous findings that showed a correlation between sexual addiction and a history of childhood abuse as well as co-morbidity with depression and alcohol and drug abuse. Additionally, it serves to replicate findings that women sexual addicts have had a history of abuse and have also come from families of origin that were disengaged and rigid. This study determines whether sexually addicted women perceived poor bonding with their fathers, as evidenced by low levels of care and protection. This study is the first known attempt to provide reliability and validity data of the Women's Sexual Addiction Screening Test (W-SAST, Carnes, & O'Hara, 1994). A multiple regression analysis assesses predictors of sexual addiction to see which factors account for most of the variance. Mediators are also investigated.

METHOD

Participants

Ninety-nine women were included in the present study, 56 (56.6%) of whom participated in a treatment program for sexual addiction. Women who had been treated were recruited as volunteers through 1) therapists and were undergoing or had undergone treatment for sexual addiction in the past few years, 2) Bethesda workshops (Christian-based, intensive healing workshops for women suffering with love and/or sexual addiction), and 3) Internet blogs posted in websites sponsored by churches or former members of the sex industry (e.g., movie producers) that aim to admonish the industry and increase awareness about issues such as pornography addiction. Volunteers and/or therapists contacted this researcher through e-mail and were subsequently mailed a packet to complete. All participants were compensated, either with cash or a Starbucks gift card. Student volunteers were also recruited through Hofstra University's mass testing: 22 women were contacted to participate in the study as they had attained a score of at least 7 on the

TABLE 1 Demographic Characteristics of Participants (N = 99)

	Percent
Age	
18–25	30.3
26–39	36.4
40–49	23.2
50–59	10.1
Ethnicity	
African	5.1
American Indian	1.0
Asian	2.0
Indian	1.0
Latino	7.1
White	83.8
Family of Origin	
Parents married living together	74.7
Parents not living together	16.2
Parents divorced: one with primary custody	4.0
Parents divorced: shared custody	2.0
Parent Widowed	2.0
Other	1.0
Marital Status	
Divorced	14.1
Married	35.4
Separated	2.0
Single	46.5
Region	
Canada	3.0
Midwest ^a	7.1
Northeast ^a	28.3
Southeast ^a	31.3
United Kingdom	1.0
West ^a	21.2

^aUnited States.

W-SAST. Overall, 150 packets were distributed and 101 were completed with a return rate of 67.3%. Demographic variables of the participants are displayed in Table 1.

Measures

DEMOGRAPHIC QUESTIONNAIRE

Participants were asked to provide information regarding their age, family-of-origin (e.g., intact family, single parent, other), marital status and whether they had participated in a program for sexual addiction. They were also assessed for previous diagnosis and treatment for a psychological disorder, as well as comorbidity with substance abuse.

WOMEN'S SEXUAL SCREENING TEST (W-SAST)

The W-SAST (Carnes & O'Hara, 1994) is a derivative of the Sexual Addiction Screening Test (SAST; Carnes, 1989), which was designed to assist in the assessment of sexually compulsive or addictive behavior. The W-SAST is considered to be more user-friendly to women, and scoring is slightly different. A score greater than 7 is indicative of a serious problem with sexual addictive behavior. There are no reliability or validity studies for the W-SAST (S. O'Hara, personal communication, February 22, 2007).

CHILDHOOD TRAUMA QUESTIONNAIRE

The CTQ (Bernstein & Fink, 1998) provides a brief retrospective measure of childhood or adolescent abuse and neglect. It contains 28 items and assesses five types of childhood maltreatment: Emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect. Responses are coded on a 5-point likert scale. Each scale has five items, and ranges from 5 to 25 (i.e., *no history of abuse or neglect* to *very extreme history of abuse and neglect*). Internal consistency was found by Bernstein, Ahluvalia, Pogge, & Handelsman (1997), to be sufficient (Cronbach's alpha range from .66 to .92), with scores being stable over time (Petry & Steinberg, 2005).

MICHIGAN ALCOHOL SCREENING TEST

The MAST (Selzer, 1971) provides information pertaining to lifetime drinking behavior in terms of its severity, frequency and consequences. It is a 24-item self-report questionnaire, which was originally designed as an alcoholism screening device. Responses are based on a dichotomy of *yes* or *no*. A score of 5 points or more places the individual in the category of *alcoholic*, and 4 points suggests *possible alcoholism* (Seltzer, 1971). According to a review by Close-Conoley (2001), the MAST is reported to correlate well with *DSM-IV* (APA, 1994) diagnoses for substance abuse as well as counselor ratings of alcoholism. According to Close-Conoley, several studies reveal a correlation coefficient of about .84 on average for internal consistency, validity values that range between .24 and .96 for predictive positive values, and between .78 and 1.0 for negative predictive values.

DRUG ABUSE SCREENING TEST

The DAST (Skinner, 1982) provides a brief, quantitative measure of problems associated with drug abuse, or the degree of consequences related to such. Scores derived from this instrument are highly compatible with a diagnosis of psychoactive drug dependence. The DAST-20 has the following categories: 0

is indicative of none reported, 1–5 suggests a low level of drug abuse, 6–10 suggests a moderate level, 11–15 indicates a substantial level and 16–20 indicates a severe level.

FAMILY ADAPTABILITY AND COHESION EVALUATION SCALE-II

The FACES-II (Olson, 1992) is a 30-item self-report questionnaire, containing 14 items of family adaptability and 16 of family cohesion. Agreement ratings are based on a 5-point Likert scale. Family flexibility are defined as the extent to which that family system is able to change/adapt its power structure, role relationships and relationship rules in confronting problems or stress; scores on this scale range from 14 to 70. Family cohesion is defined as the degree to which emotional bonding exists between family members. According to Kashani, Suarez, Duchene and Reid (1998), test-retest reliability coefficients for both adaptability as well as cohesion have been indicated (.80 and .83, respectively).

BECK DEPRESSION INVENTORY, SECOND EDITION

The BDI (Beck, Steer, & Brown, 1996) is a self-report containing 21 items. Respondents are required to base their answers on how they have been feeling for the past two weeks. Each of the 21 items on the scale depicts a symptom of depression, and the respondent chooses one of four possible choices (each increases with severity and has an equivalency of 0, 1, 2 or 3 points. Scores range from 0 to 63, and indicate: minimal depression (0–13), mildly depressed (14–19), moderately depressed (20–28) and severely depressed (29–63). The BDI-II has high reliability and validity, according to Beck, Steer, & Brown (1996).

PARENTAL BONDING INSTRUMENT

The PBI (Parker, Tupling, & Brown, 1979) assesses women's perception of their father's parenting. The PBI is a retrospective scale, intended for adults over the age of 16. There are a total of 25 items; 12 care and 13 overprotection. Ratings are based on a 4-point scale. In this respect, total scores range from 0 to 36 for care and 0 to 39 for protection. Assignment to high or low categories is based on a cut-off score of 24.0 for the care score and 12.5 for the protection. Good reliability has been found (Gladstone & Parker, 2005).

Statistical Analyses

This study employed a multiple regression analysis. All questionnaire packets were distributed to volunteers either through this researcher or directly through their therapists. All volunteers signed a consent form and completed surveys were coded with numbers to ensure confidentiality. All participants mailed their completed packets back to the researcher or returned them to their therapist, who then mailed them back to this researcher. Each questionnaire was scored and statistical analyses were conducted using SPSS Student Version 16.0. All women were specifically directed to respond to all questions in the packet as they would have "at the height of their addiction."

RESULTS

Multiple Regression

Each of the predictor variables was examined separately and within a multiple regression analysis to establish its relation to the criterion variable. The means and standard deviations for all scales were calculated for this present study. To determine the stability of the instruments used to measure each variable for the present sample, reliability analyses were performed on every scale. Most of the scales had either good or excellent reliability. The current sample yielded acceptable reliability for the W-SAST ($\alpha = .78$).

A Pearson Product-Moment Correlation was calculated to determine the relationship between sexual addiction as measured by the W-SAST, and all forms of childhood abuse as measured by the CTQ. Results revealed that there was a significant positive relationship between women's sexual abuse and sexual addiction, $r(97) = .246, p = .014/$. Results also revealed a significant positive relationship between sexual addiction and emotional abuse. $r(97) = .437, p < .001/$, physical abuse $r(97) = .274, p = .006/$, emotional neglect $r(97) = .397, p < .001/$ and physical neglect $r(97) = .308, p = .002/$. Findings also indicated a significant positive relationship between sexual addiction as measured by the W-SAST and substance abuse. Specifically, there was a significant positive correlation with sexual addiction and alcohol abuse $r(97) = .335, p = .001/$, as well as drug abuse $r(97) = .255, p = .011/$.

A significant inverse relationship was found between sexually addictive behaviors as measured by the W-SAST and perceived levels of family cohesion and flexibility as assessed by the Family Adaptability and Cohesion Evaluation Scale-III (FACES-II). Pearson Product-Moment correlations revealed a significant negative correlation for family cohesion $r(97) = -.413, p < .001/$. Therefore, as there is a decrease in level of family cohesion (disengaged), there is an increase in sexual addiction scores. A Pearson Product-Moment Correlation was calculated to determine this relationship between family

TABLE 2 Stepwise Multiple Regression Model of Predictors of Sexually Addicted Behaviors (N = 99) Dependent Variable: W-SAST

Step		B	SE	sr _i ²	t	ΔR ²	ΔF
1	BDI-II	.172	.029	.285	5.924**	.285	35.09**
2	FACES-II	-.169	.037	.138	-4.556**	.138	20.76**
	Adaptability						
3	DAST	.147	.058	.040	2.520*	.040	6.35**

* $p < .05$.** $p < .01$.

adaptability and women's sexually addictive behaviors. The results revealed that there was a significant negative correlation between family adaptability and women's sexually addictive behaviors $/r(97) = -.512, p < .001/$. Therefore, as there is a decrease in level of family adaptability (rigid) there is an increase in sexual addiction scores.

Finally, results revealed a significant positive relationship between sexual addiction as measured by the Women's Sexual Addiction Screening Test (W-SAST) and depression as assessed by BDI-II. A Pearson Product-Moment Correlation was calculated and revealed a significant positive correlation $/r(97) = .534, p < .001/$.

A Pearson Product-Moment Correlation was calculated to determine the relationship between father care and women's sexually addictive behaviors. There was a significant negative correlation between father care and women's sexually addictive behaviors ($r = -.268, p = .011$), and was indicative of low care. There was a positive (though insignificant) correlation $/r(97) = .195, p = .066/$ between women's sexually addictive behaviors and father protection.

A stepwise multiple regression was utilized to determine which factors accounted for most of the variance of sexual addiction. The W-SAST was entered as the dependent variable and all other variables were entered into the first step with the independent variable. The results showed that the BDI-II, DAST and FACES-II Adaptability scores significantly predicted the W-SAST; all other predictor variables were not significantly related to the W-SAST. Depression ($p < .001$) predicted sexually addicted behaviors and accounted for 28.5% of the variance, family adaptability ($p < .001$) accounted for 13.8% of the variance and drug abuse ($p = .04$) accounted for 4% of the variance. Results of the statistically significant regression analysis are shown in Table 2.

A further analysis was conducted to determine if depression would mediate the relationship between childhood emotional abuse and sexual addiction. See Figure 1 for an illustration. Depression was defined by scores on the BDI-II. Three regression equations were run to show mediation. The first regression equation requires that the predictor (i.e., emotional abuse) has a

significant effect on the mediator (i.e., depression). This predictor turned out to be true, $\beta = .26$, $R^2 = .069$, $F(1, 97) = 7.19$, $p = .009$. The second regression equation requires that the predictor (i.e., emotional abuse) has a significant effect on the criterion variable (i.e., sexual addiction); this also turned out to be true in the present study, $\beta = .437$, $R^2 = .191$, $F(1, 96) = 22.7$, $p < .001$. The third regression requires that the relationship between the mediator and the criterion variable is significant when controlling for the predictor. This requires simultaneous entry of both emotional abuse and depression as the predictors and sexual addiction as the criterion into a regression equation. As hypothesized, depression remained significant, $\beta = .451$, $p < .001$, $\eta^2 = .190$. To demonstrate a significant reduction in the effect of depression on sexual addiction after accounting for variance attributable to emotional abuse, the Sobel test of mediation (Sobel, 1982) was used. A significant Sobel z indicates that the mediator accounts for the influence of a predictor on a criterion. When the beta weight of the predictor is non-zero in the third regression equation, partial mediation exists. When it is zero, full mediation exists. The beta weight for emotional abuse was .321. Thus, depression partially accounted for the significant relation between emotional abuse and sexual addiction, $z = 2.40$, $p = .016$, and this supports the mediation model. As emotional abuse and sexual addiction were measured simultaneously, it is also possible that there is an alternative explanation to the mediation model just described. It is possible that sexual addiction may mediate the relationship between emotional abuse and depression. Results of the first regression showed that the predictor variable (i.e., emotional abuse) had a significant effect on the mediating variable, (i.e., sexual addiction).

Results of the second regression indicated that the predictor variable (i.e., emotional abuse) had a significant effect on the criterion variable (i.e., depression). The last step involved demonstrating a significant reduction in the effect of sexual addiction on depression after accounting for variance attributable to emotional abuse. In the third regression, emotional abuse and sexual addiction were entered as the predictor variables and depression was entered as the criterion variable. As hypothesized, sexual addiction remained significant, $\beta = .521$, $p < .001$, $\eta^2 = .219$. Again, a Sobel test of significance was employed and yielded a beta weight for emotional abuse of .031. Thus, emotional abuse partially accounted for the significant relationship between sexual abuse and depression, after controlling for emotional abuse, $z = 3.82$, $p = .000$, and this provides support for the alternative mediation model.

DISCUSSION

Significant correlations were found for sexual abuse and childhood abuse overall, and this finding was consistent with previous studies (Carnes, 1991;

Ross, 1996; Schwartz & Southern, 2000). Even higher percentages were found in Carnes' study (1991) and may be attributed to the fact that he utilized a self-report, which had not been empirically validated. The present study used the CTI, which has sound psychometric properties. Furthermore, the majority of the participants in Carnes' study had been in an inpatient treatment program and at a level of "the most advanced recovery" (p. 109). Only half of the participants in the present study had received any kind of treatment.

Women's sexual addiction was correlated with a history of drug and alcohol abuse, which is consistent with previous studies (Carnes, 1991, 2001). Irons and Schneider (1994) found that health professionals who had been assessed for sexual impropriety and dually diagnosed with sexual disorders were nearly two times more likely to also be chemically dependent than those who were not sexually addicted. The majority of the present sample had depression, and it accounted for 28.5% of the variance of sexually addicted behaviors. This was consistent with previous studies (Bradford, 1997; Meadows, 2003; Ragan & Martin, 2000).

Family cohesion and adaptability correlated significantly and negatively with women's sexual addiction, and this is consistent with Carnes (1991). In his study the majority of inpatient sexual addicts in the most advanced stages of recovery came from such homes. Disengaged families (which also characterized the majority of sexual addicts in the present sample as well as in Carnes' sample in 1991) are those characterized by family members who lack attachment and commitment to each other.

In the present study, women with sexually addicted behaviors were more likely to perceive their fathers as having been less caring, a concept that encompasses warmth, affection and nurture. Fathers were also perceived as over-protective, controlling or intrusive. These findings are consistent with studies conducted on the relationship of parental bonding to drug dependence and alcoholism (Bernardi, Jones, & Tennant, 1989; Gomez, 1984; Schweitzer, & Lawton, 1989).

The results of this study revealed that depression accounted for 28.5% of the variance, family adaptability accounted for 13.8% of the variance, and drug abuse accounted for 4% of the variance. These findings are essential to better understanding predictors of women's sexually addictive behavior, and are imperative in assessment and treatment planning. The findings support the importance of treating depression and co-morbid substance abuse, as well as the significance of understanding one's family-of-origin in the assessment and treatment of sexual addiction. Women who come from rigid families, for instance will benefit from understanding how black-and-white thinking contributed to the development of their sexual addiction. As there was little tolerance for anything less than perfection and impossible expectations in rigid families, children grew up with a sense of shame because they can never be good enough, nor will they feel appreciated and

validated (Carnes, 1991). This added insight helps the addict recover, as sexually addicted patients experienced the greatest treatment success when they found clarity and resolution in their childhood and family-of-origin issues, along with the family's contribution to the sexual addict's feelings of shame, inadequacy and core beliefs. Such core beliefs include, "I am a bad unworthy person; no one will love me as I am; sex is my most important need" (Carnes, 2001). According to Carnes (1991), addicts in general cannot dismiss childhood events as simply being done and over with. The family system in which the child grew up had its own system of rules and roles, and those mechanisms remain intact, long after the childhood events have passed.

Further analyses were conducted to test for mediating variables. In the present study, depression was shown to mediate the relationship between childhood emotional abuse and sexually addicted behaviors. In other words, childhood emotional abuse results in depression, and it is the depression that leads to the sexually addictive behaviors. Alternatively, it was also found that childhood emotional abuse may lead directly to sexually addictive behaviors, which then would lead to depression.

Both mediator models can be supported by theoretical and empirical literature and are equally important in understanding and treating sexually addictive behaviors. Where comorbidity between depression and sexually addictive behaviors exist (or any two comorbidities) it is crucial that both be treated concurrently, as the lack of treatment in one disorder might interfere with the patient's recovery in the other (Volkow, 2004).

Limitations and Future Directions

While the present study contributes much information to the area of women's sexual addiction and predictors (including father bonding), there are limitations. The most obvious issue is the lack of a unified theoretical construct to measure hypersexual behavior (Reid, Carpenter, Spackman, & Willes, 2008). Another limitation of the present study is that much of the data used to test the hypotheses were correlational, and no causal inferences can be made. There was no comparison group or a random sample. Participants were recruited from a limited sample of the population, which limits the generalization of the results. The female participants were voluntary and primarily recruited through therapists or treatment programs (with the exception of the Hofstra University college sample) that were aware of their sexual addiction and either in the process of, or completion of treatment. There is likely a greater sample of women who are not aware of a problem or simply not willing to participate in study due to the stigma associated with women's sexual addiction (Blumberg, 2003; Ferree, 2002). Future studies should look at comparison groups and a larger, more diverse sample

of sexually addicted women at different stages of treatment. Methodological improvements, including longitudinal designs, would also improve generalization and implications. Additionally, to provide stronger evidence of causal relationships for sexually addictive behaviors, cause-effect models need to be considered, such as structural equation modeling (Reid et al., 2008).

With respect to the assessment of family cohesion and adaptability, a limitation of the study is that only an overall score on the FACES-II Adaptability and Cohesion scales were utilized. An item-analysis of each of the scales was not conducted and may have additional as well as more specific information (Tornincaso, 2007). Another limitation of the study is the lack of a clear theory that can explain why poor father bonding is associated with women's sexually addicted behaviors. Current findings were consistent with previous studies that showed the relationship of father bonding to substance abuse, as well as with research that emphasizes the father's importance in contributing to child development and sexual behaviors. Nonetheless, it cannot be exclusively stated that poor bonding predicts women's sexually addicted behaviors. Future studies should better attempt to understand father bonding as a predictor of these behaviors and to provide in-depth theories that explain why these women may become sexually addicted as a result of poor bonding with their fathers. Studies should attempt to empirically replicate father bonding as a predictor of sexually addictive behaviors and further assess its relationship to women's (and in the future) men's sexual addiction and its implications for assessment of sexual addiction as well as treatment. Future studies should additionally look at comparison groups of non-sexually addicted individuals. Bonding with the mother is also an area that should be investigated as it relates to women's sexually addicted behaviors.

In conclusion, this study supports research that shows a correlation between sexually addictive behaviors and substance abuse, poor family cohesion and adaptability, depression and a history of abuse within the family-of-origin. It additionally discovered a relationship between father bonding and sexually addictive behaviors in women. Fathers were perceived as having been over-protective/controlling and demonstrating low levels of care. It was found that depression, family adaptability and a drug abuse accounted for close to 50% of the variance of women's sexually addictive behaviors. An investigation of mediators revealed that that childhood emotional abuse results in depression, which then leads to the sexually addictive behaviors. Another possibility is that emotional abuse leads directly to sexually addictive behaviors, which then results in depression. These findings implicate risk factors for women's sexual addiction and processes involved. This assists in diagnosis as well as treatment. While this study does not provide evidence of causal relationships for sexually addictive behaviors in women, cause-effect models such as structural equation modeling would be particularly valuable in future studies.

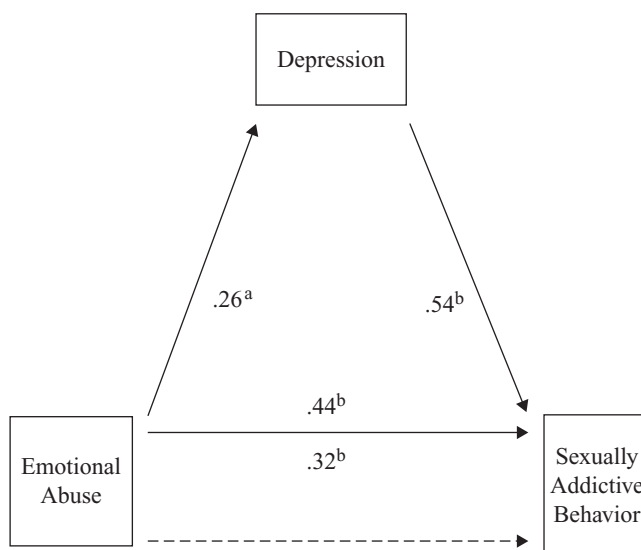


FIGURE 1 Beta coefficients for the pathways among emotional abuse, depression and sexually addictive behavior. The dashed line represents the beta coefficient for the pathway between the predictor and criterion when the criterion was simultaneously regressed on the predictor and mediator. ^a $p < .01$. ^b $p < .001$.

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