

## **Differentiating Emotions in a Sample of Men in Treatment for Hypersexual Behavior**

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*This study investigated distinct emotions in a sample of men ( $n = 103$ ) seeking help for hypersexual behavior compared to a control group of college students ( $n = 100$ ) using the Hypersexual Behavior Inventory and the Differential Emotions Scale. Significant differences between groups emerged on several domains of emotion and hypersexual behavior. Self-hostility was the most significant predictor of hypersexual behavior. These findings suggest that self-critical affect, such as shame, might exert an influence in precipitating or perpetuating hypersexual behavior.*

**KEYWORDS** *hypersexual behavior, hypersexuality, sexual addiction, sexual compulsivity, shame*

Emotions play an important role in shaping and influencing human behavior, and clinicians seeking to reduce symptom distress related to a variety of presenting problems are paying more attention to emotion as an essential ingredient in the change process (Goldman, Greenberg, & Pos, 2005; Reid & Woolley, 2006). Although several correlational studies have linked dysregulated emotion and hypersexual behavior, the vast majority of these investigations have focused on general affective distress associated with psychopathology, such as depression and anxiety, and not on the more primary emotions, such as sadness, guilt, and shame (Kafka & Hennen, 2002; Raymond, Coleman, & Miner, 2003; Reid, Carpenter, Spackman, & Willes,

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2008; Reid, Harper, & Anderson, 2009; Rinehart & McCabe, 1998). This study attempts to fill this gap in the literature by comparing the primary emotions in a sample of hypersexual men in treatment for their hypersexual behavior with a control group.

## DEFINING HYPERSEXUAL BEHAVIOR

The construct of hypersexual behavior (e.g., sexual addiction, sexual compulsivity) and its associated features is gradually gaining wider acceptance among mental health professionals, including clinical social workers. Although some authors express skepticism about this construct (Giles, 2006; Levine & Troiden, 1988; Moser, 1993; Todd, 2004), the more pertinent question challenging this field is not the legitimacy of the phenomenon, but rather a consensus about what it will be called and how it will be operationalized (Coleman, 1991, 1992; Goodman, 2001; Kafka, 1997, 2001; Kingston & Firestone, 2008; Krueger & Kaplan, 2001). Although such a discussion is beyond the scope of this article, it is an important dialogue to continue nurturing, as the lens through which we conceptualize these clinical presentations (e.g., addiction, impulse control, compulsion) has relevance to our vision of treatment.

The definition of hypersexual behavior used in this study requires an individual to exhibit the following symptoms for a minimum of 6 months: (a) difficulty controlling sexual thoughts, urges, and behaviors; (b) adverse consequences causing psychological distress; and (c) volitional impairment across interpersonal, social, or occupational domains (Reid, Karim, McCrory, & Carpenter, 2010). Furthermore, the symptoms cannot occur exclusively within the context of another Axis I disorder (e.g., the manic phase of bipolar disorder), be substance induced, or occur in relation to neurological pathology (Coleman, 1991, 1992; Kafka, 1997, 2001; Miner, Coleman, Center, Ross, & Rosser, 2007; Reid, Carpenter, & Lloyd, 2009). Hypersexual behavior is also distinct and separate from the phenomena of persistent sexual arousal syndrome in which an individual experiences persistent sexual arousal in the absence of desire (Leiblum & Nathan, 2001; Mahoney & Zarate, 2007). Symptoms associated with hypersexual behavior can include solo or relational sexual activities and can occur comorbidly with paraphilic tendencies (Kafka, 1997, 2001, 2003). Although hypersexual behavior is generally construed to fall within the spectrum of conventional sexual practices deemed socially acceptable, the bandwidth of "normal" is quite broad, and therefore it is plausible that some manifestations of hypersexuality will be socially objectionable to certain populations and acceptable to others (Reid, 2007).

Although the phenomenon of hypersexual behavior lacks etiological data to classify it as an addiction, many clinicians utilize addiction models

when providing treatment to hypersexual clients. Clinicians report symptoms similar to those found among chemically dependent populations such as failure to regulate behavior; pursuit of a “substance” despite negative consequences; volitional impairment across interpersonal, social, or occupational domains; and so forth (Reid et al., 2010). It is plausible that these observations might simply be an extension from the finding that addictive sexual disorders often coexist with chemical dependency, and thus some similarities might be expected (Schneider & Irons, 2001). It is apparent that although the label of “addiction” might not be a perfect fit for hypersexual behavior, the associated features resemble the criteria for addiction in many respects. This being said, it is important to note that an addiction model might oversimplify the complexities and associated characteristics of hypersexuality (Coleman, 1987, 1991). This article uses the label hypersexual behavior in an attempt to find language that might be less encumbered by controversy while acknowledging that this classification also has its limitations.

### Emotions and Hypersexual Behavior

The investigation of emotions in clients seeking help for hypersexual behavior can provide a rich source of information about clients and the problems that led them to seek help (Greenberg & Paivio, 1997, 1998; Greenberg & Safran, 1989). Emotions, cognition, and perception all influence human behavior, and understanding the interaction of these constructs in organizing physiological and psychological processes can inform clinical social workers about possible ways to alleviate symptom distress (Campbell-Sills, Barlow, Brown, & Hofmann, 2006; Hunt, 1998; Izard, Libero, Putnam, & Haynes, 1993). Emotional awareness provides clients with information that can influence their judgments, priorities, decisions, and actions, but if such awareness is to be acquired, feelings must be accessed and emotional intelligence must be cultivated (Austin, 2005; Dizen, Berenbaum, & Kerns, 2005; Lane & Schwartz, 1987). These skills are generally identified as increased attention to and clarity of emotional experiences (Coffey, Berenbaum, & Kerns, 2003; Gohm & Clore, 2000, 2002). Attention requires self-awareness of, recognition of, and attunement to one’s affective experience. Clarity refers to understanding one’s own emotions, identifying one’s feelings, and accurately differentiating between primary and secondary affect.

Hypersexuality is often viewed as a temporary antidote used to cope with, avoid, or escape emotional pain or other uncomfortable and unpleasant mood states (Adams & Robinson, 2001; Reid & Carpenter, 2009). Such maladaptive strategies constitute ineffective attempts to regulate emotions such as anger and shame, which have been linked to impulsive and compulsive psychopathology (Abramowitz & Berenbaum, 2007; Reid, Harper, & Anderson, 2009). These challenges in modulating emotions might be secondary to deficits such as alexithymia—the inability to identify and describe

emotions—which has been observed in hypersexual clients (Reid et al., 2008). It is also plausible that cognitive inflexibility, rumination, and rigid automatic thoughts influenced by negative attention bias keep clients stuck in mood states such as depression, that perpetuate their hypersexuality (Deveney & Deldin, 2006; Weiss, 2004). Regardless, given the research suggesting that activating and reorganizing undifferentiated and insufficiently processed emotions is linked to positive outcomes in psychotherapy (Pascual-Leone & Greenberg, 2007), clinicians can benefit from a template informing them about possible emotions to explore with clients. In this sense, our role as social workers is to help clients pay attention to and clarify their emotions, especially those feelings that might otherwise predispose them to hypersexual behavior.

Emotions also have a bilateral relationship with our thoughts and perceptions that produce a motivational state consistent with the affective experience. For example, the action tendency associated with fear is to narrow our perceptual field (i.e., tunnel vision) and heighten our awareness of potential threats. Thoughts are cued by an attention bias and informed by salient memories that focus on strategies to fight and defend or avoid and escape (Izard et al., 1993). In the case of hypersexual behavior, this process is circumvented because sex only provides temporary relief from unpleasant mood states and fails to inoculate an individual from future affective experiences that can cause distress. In many situations, the pursuit of sex might actually exacerbate emotional distress by creating undesirable consequences (e.g., a sexually transmitted disease or loss of employment because of pornography consumption in the workplace) that are far worse than if the individual had accepted the emotional discomfort caused by the initial stressor. To address these dysfunctional cycles, clients must learn to understand their feelings more accurately and process them in more adaptive ways. In this respect, this investigation was designed to help clinicians understand the relationships between hypersexual behavior and specific primary emotions likely to exist in hypersexual populations.

## PURPOSE OF STUDY

This investigation explored which emotions can be differentiated in a sample of hypersexual men compared with a group of controls, by specifically examining the relationships between emotions (e.g., joy, sadness, shame) and hypersexual behavior. It was hypothesized that hypersexual behavior will be inversely correlated with positive emotions such as joy and positively correlated with unpleasant emotions such as shame, sadness, and guilt. Specifically, it was hypothesized that (a) hypersexual men will experience significantly greater degrees of negative emotions (e.g., shame, self-hostility, guilt) than controls; (b) hypersexual men, on average, will experience less

positive emotions than controls; and (c) self-hostility will account for most of the variance in hypersexuality scores in a regression analysis. Differences in subtypes of hypersexual behavior (e.g., solo vs. relational sex) were explored to determine whether specific manifestations of hypersexuality are linked to specific emotions.

## METHOD

### Participants

The sample consisted of 103 men recruited at intake during 2007 and 2008 from an outpatient clinic that specialized in the treatment of hypersexuality. Informed consent was obtained from each participant and the study was approved by the Brigham Young University Institutional Review Board for research with human participants. The sample consisted of White male clients ( $n = 102$ ) and one Hispanic ( $n = 1$ ) man who ranged from 19 to 54 years of age ( $M = 30.5$ ,  $SD = 7.6$ ). Relationship status included first marriage ( $n = 57$ ), never married ( $n = 35$ ), remarried ( $n = 7$ ), separated ( $n = 2$ ), and divorced ( $n = 2$ ). Sexual preferences included heterosexual ( $n = 95$ ), homosexual ( $n = 5$ ), and bisexual ( $n = 3$ ).

The clients exhibited a pattern of persistent preoccupation with sexual thoughts, urges, and activities that interfered with various aspects of their lives, including academic or scholastic goals, employment, relationships with spouses or significant others, parenting, friendships, family associations, personal interests, and hobbies. Further, clients reported various negative consequences for their sexual choices, including legal difficulties (e.g., arrests due to solicitation of sex from a commercial sex worker), financial losses, sexually transmitted diseases, and emotional disturbances, including feelings of demoralization, loss of self-confidence, and diminished motivation.

Self-reported sexual behaviors included compulsive masturbation and pornography dependence (68%), extramarital affairs (14%), excessive unprotected sex with multiple anonymous partners (13%), and habitual solicitation of commercial sex workers (10%). A small number of participants ( $n = 7$ ) also had self-reported histories involving voyeuristic activities. None reported histories of sex offending behavior or paraphilias.

Given that the variables of interest in this study have not previously been examined, it was decided that initial comparisons should be made first with a general population. Subsequently, the comparison sample ( $n = 100$ ) was obtained from several undergraduate classes at a local university. A portion of the sample was drawn from evening classes in which nontraditional students participated, providing a more representative community sample (e.g., individuals who worked full time and were older than the average student). This was reflected in the higher mean age of the

college sample ( $M = 25.9$ ,  $SD = 4.9$ , range = 18–45 years) than traditional college students. Ethnic representation among this sample included White ( $n = 95$ ), Asian ( $n = 3$ ), and Hispanic ( $n = 2$ ). Relationship status included never married ( $n = 47$ ), first marriage ( $n = 43$ ), remarried ( $n = 4$ ), cohabitating ( $n = 3$ ), divorced ( $n = 2$ ), and widowed ( $n = 1$ ). Sexual preferences included heterosexual ( $n = 96$ ), homosexual ( $n = 2$ ), and bisexual ( $n = 2$ ). Participants reported no history of psychopathology, including sex offenses or paraphilias.

## Procedure

The client sample was selected based on a primary complaint reported during intake and assessment of having excessive and out-of-control sexual behavior and a willingness to participate in this study, as reflected in the signed informed consent obtained at the outset of the treatment process. A 96% rate of participation was obtained from those who were invited to be involved in this research. Clients received no incentives to participate. These clients were administered the Differential Emotions Scale (DES-IV), the Hypersexual Behavior Inventory (HBI), and a small battery of several other tests. They also participated in clinical interviews in which they were asked about the nature of their hypersexual behavior, how their activities had interfered in their lives, consequences experienced in relation to sexual choices, and the duration of their sexual behavior. These data, combined with elevated HBI scores ( $\geq 53$ ), were used to classify clients as hypersexual. It should be noted that the majority of the client sample (95%) had elevated HBI scores.

The college sample was provided with informed consent forms and invited to participate in this study for extra credit in their courses. Their responses were collected in a manner that afforded them privacy and anonymity about their answers to the study questionnaires. A 93% response rate was obtained from the student sample.

Participants in both samples were eliminated if they had used psychoactive substances in the previous 30 days, exhibited psychotic tendencies, or had a history of head injury. These criteria eliminated 3 individuals.

## Measures

### HYPERSEXUAL BEHAVIOR INVENTORY<sup>1</sup>

The HBI (Reid & Garos, 2007) is a 19-item self-report measure that yields a three-factor solution that was initially extracted using a maximum likelihood method with oblique rotation on a clinical sample ( $N = 324$ ).

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<sup>1</sup> To obtain a copy of this measure, please e-mail the author.

The findings were later replicated and confirmed in a second clinical sample ( $N = 203$ ) consisting of clients from treatment clinics across several demographic regions in the United States, including Utah, California, Pennsylvania, Kentucky, Texas, and Arizona. The HBI purports to capture the extent to which respondents use sex to cope with emotional discomfort (e.g., anxiety); the degree to which they feel unable to control their sexual thoughts, feelings, and behavior; and the extent to which they experience negative consequences as a result of their sexual activities. Respondents endorse items on a 5-point Likert-type scale ranging from 1 (*never*) to 5 (*very often*). The scale has demonstrated high overall reliability ( $\alpha = .95$ ) and subscale reliability values of  $\alpha = .91$  on the Control subscale,  $\alpha = .91$  on the Coping subscale, and  $\alpha = .89$  on the Consequences subscale. Confirmatory factor analysis (CFA) provided support for the factor structure, showing an acceptable goodness of fit with a root mean square error of approximation (RMSEA) of .057 and a Comparative Fit Index (CFI) of .95. The HBI also showed an acceptable goodness of fit using CFA with a mixed college sample ( $N = 450$ ) from Utah, Texas, and Kentucky, yielding an RMSEA of .06 and a CFI of .95 (Reid & Garos, 2007). Test-retest reliability was derived from a sample of college students ( $N = 81$ ) over a 2-week period. The total HBI score ( $r = .85$ ), the Control subscale ( $r = .87$ ), the Coping subscale ( $r = .87$ ), and the Consequences subscale ( $r = .88$ ) all showed high correlations between the first and second administrations, suggesting excellent test-retest reliability over a 2-week time interval. A recommended total scale cutoff score of 53 or higher to classify men as hypersexual was statistically calculated based on the work of Jacobson and Truax (1991). The HBI has shown strong concurrent validity with the Compulsive Sexual Behavior Inventory ( $r = .92, p < .01$ ; Coleman, Miner, Ohlerking, & Raymond, 2001), the Sexual Compulsivity Scale ( $r = .82, p < .01$ ; Kalichman & Rompa, 1995), and the Sexual Addiction Screening Test ( $r = .73, p < .01$ ; Nelson & Oehlert, 2008). The scale also shows excellent sensitivity (.92) and adequate specificity (.62) in classifying hypersexual clients (Reid & Garos, 2007).

#### DIFFERENTIAL EMOTIONS SCALE

The DES-IV (Boyle, 1984; Izard et al., 1993) is a 36-item questionnaire designed to examine the frequency with which individuals experience 12 discrete emotions in their daily lives (interest, joy, sadness, anger, disgust, contempt, fear, shame, shyness, guilt, surprise, and self-directed hostility). Emotion scales load on two higher order factors that were established through a principal-components factor analysis with varimax rotation. Interest, surprise, and joy formed the Positive Emotionality factor, with factor loadings ranging from .73 to .86. The other scales formed a factor labeled Negative Emotionality, with factor loadings from .66 to .82 (Izard et al., 1993). Each item requires that participants rate the frequency of emotional

experience on a 5-point Likert-type scale ranging from 1 (*rarely*) to 5 (*very often*). Acceptable reliability was established in the present study for both the Positive Emotionality ( $\alpha = .80$ ) and Negative Emotionality ( $\alpha = .95$ ) factors.

## RESULTS

A multivariate analysis of variance of the overall differences between the groups for the HBI and DES-IV scales yielded significant findings [(Wilks's  $\lambda = .351$ )  $F(15, 187) = 23.01, p < .001$ ]. The results of the post-hoc univariate tests for each of the dependent variables, means, standard deviations, and effect sizes are noted in Table 1. The groups showed statistically significant differences on all of the study variables except the Contempt subscale of the DES-IV. Correlates among the study variables can be found in Table 2. Because the groups are dramatically different on the HBI scores, it is possible that the correlations might be mildly inflated. However, as can be seen in Table 1, many of the DES-IV scales yielded moderate to large effect sizes as measured by Cohen's  $d$ .

**TABLE 1** Group Differences on Study Variables for the Patient and Control Samples

Variable	Group				$F$	Cohen's $d$
	Patients		Controls			
	$M$	$SD$	$M$	$SD$		
<b>HBI</b>						
Total Score	69.3	13.6	37.9	14.9	244.9***	2.20
Control	32.3	5.7	16.2	8.1	267.2***	2.29
Coping	24.2	5.9	15.3	6.5	102.9***	1.43
Consequences	12.9	3.7	6.4	2.7	196.6***	2.00
<b>DES-IV</b>						
Positive Emotionality	27.8	4.2	30.6	4.5	20.3***	0.64
Interest	10.2	1.9	10.9	1.8	7.4**	0.38
Surprise	7.6	1.7	8.2	1.9	4.7*	0.33
Joy	10.1	1.9	11.5	2.0	27.4***	0.72
Negative Emotionality	71.4	16.1	58.8	16.1	30.9***	0.78
Contempt	6.1	1.9	6.1	2.3	0.5	0.00
Hostility	8.9	2.7	6.1	2.4	59.9***	1.10
Disgust	7.2	2.4	6.1	1.9	11.3**	0.51
Sadness	8.9	2.5	6.9	2.5	32.9***	0.80
Fear	6.6	2.8	5.3	2.1	14.9***	0.53
Shame	8.1	2.2	7.2	2.3	8.7**	0.40
Anger	7.6	2.5	6.9	2.4	4.2*	0.29
Shyness	8.1	2.3	6.7	2.4	17.5***	0.60
Guilt	9.9	2.1	7.6	2.3	59.5***	1.04

Note: HBI = Hypersexual Behavior Inventory; DES-IV = Differential Emotions Scale-IV.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .0001$ .

**TABLE 2** Correlations of HBI and DES-IV Scales

DES-IV scales	HBI scores for all participants combined				HBI total score by group		
	Total	Control	Coping	Consequences	Patients	Controls	Fisher's <i>z</i>
Positive Emotionality	-.24**	-.24**	-.21**	-.22**	-.11	.05	1.12
Interest	-.13	-.12	-.11	-.13	-.08	.13	1.48
Surprise	-.07	-.09	-.03	-.05	.00	.12	.85
Joy	-.35**	-.33**	-.32**	-.30**	-.16	-.13	.21
Negative Emotionality	.53**	.51**	.48**	.48**	.35**	.47**	1.02
Contempt	.25**	.22**	.29**	.15*	.23*	.45**	1.76
Hostility	.62**	.60**	.54**	.57**	.40**	.49**	.79
Disgust	.35**	.32**	.32**	.33**	.15	.41**	1.95
Sadness	.49**	.47**	.41**	.46**	.32**	.34**	.15
Fear	.34**	.32**	.29**	.32**	.27**	.14	-.95
Shame	.34**	.31**	.33**	.30**	.25**	.31**	.46
Anger	.30**	.27**	.32**	.23**	.20*	.38**	1.38
Shyness	.42**	.42**	.34**	.40**	.22*	.42**	1.57
Guilt	.55**	.56**	.44**	.51**	.31**	.33**	.15

Note: HBI = Hypersexual Behavior Inventory; DES-IV = Differential Emotions Scale-IV.

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

In exploring which emotions were most predictive of hypersexuality, a stepwise regression analysis revealed that Self-Directed Hostility, Guilt, and Disgust accounted for nearly half of the variability in the HBI total score ( $R^2 = .43$ ,  $p = .003$ ). Self-Directed Hostility ( $\beta = .57$ ,  $p = .001$ ) was the most influential predictor, followed by Guilt ( $\beta = .29$ ,  $p = .001$ ) and Disgust ( $\beta = .23$ ,  $p = .003$ ). This analysis was recomputed using only the hypersexual group, which reduced the regression model, making Self-Directed Hostility the only statistically significant predictor ( $\beta = .40$ ,  $p = .001$ ), accounting for 16% of the variance in the HBI total scores.

Because the average ages of the comparison ( $M = 25.9$ ) and the client group ( $M = 30.5$ ) were significantly different, the data were divided into two even groups by classification above and below the median age. However, this analysis did not result in statistically significant differences, suggesting that age did not exert an effect on the findings. Differences on the study variables based on relational status (first marriage vs. never married) were computed, which produced a statistically significant finding on the DES-IV Surprise scale ( $p < .01$ ). The other demographic variables yielded subgroups that were too small to warrant analysis.

In an attempt to explore further differences based on solo versus relational hypersexual behavior (compulsive masturbation vs. risky sex with multiple partners), the client sample was divided into two subgroups. Because there was a greater number of clients who participated in exclusively solo-sex behaviors, a random selection method was used to create two groups (30 participants in each group;  $n = 60$ ) matched on HBI scores,

relationship status, and age. A multivariate analysis was used comparing differences on all of the negative emotionality subscales from the DES-IV. However, this analysis failed to produce statistically significant results between the groups (Wilks's  $\lambda = .901$ )  $F(9, 50) = .609$ ;  $p = .784$ ).

## DISCUSSION

Several significant findings emerged in analyzing differences between a group of hypersexual clients and a comparison sample on indexes of hypersexuality and emotions. As expected, the client sample exhibited significantly higher scores (nearly twice as high) on a measure of hypersexual behavior. Given that college-age young adults are generally more sexually adventurous and make riskier sexual decisions than individuals drawn from a community sample (Chng & Moore, 1994; Paul, McManus, & Hayes, 2000), this suggests that the client sample was truly deviant. It was also interesting that a portion of the college sample (19%) had elevated scores on the HBI ( $\geq 53$ ), although this finding has been noted in other studies (Reid, Harper, & Anderson, 2009).

On indexes of emotion, hypersexual clients exhibited significantly less positive emotion and greater amounts of negative emotionality as noted in Table 1. The most prominent emotion lacking in the client sample was joy, suggesting a paucity of happiness among this population. This is not surprising, given that other studies have consistently noted disproportionate amounts of depression among hypersexual populations (Coleman, 1992; Kafka & Hennen, 2002; Kafka & Prentky, 1998; Reid, 2007; Rinehart & McCabe, 1998; Weiss, 2004). This finding was substantiated by the significantly greater frequency of sadness noted in the sample of hypersexual clients in this study, as well as the correlations between hypersexual behavior and negative emotions noted in Table 2. Together, these findings support the notion that a portion of individuals who experience depressed affect actually increase their focus on activities of a pleasurable nature, which contradicts the idea that anhedonia is always implicated in depressed symptomatology. This finding replicates a similar result obtained by Bancroft et al. (2003), which showed that approximately 10% of heterosexual men increase their focus on sex in the wake of a depressed mood.

This study found that the emotion most predictive of hypersexual behavior, as measured by the DES-IV, was self-hostility. This emotion is characterized by harsh self-criticism and can be conceptualized as part of shame, which has also been connected with vulnerability and proneness to depressive affective states. Individuals who are more self-critical manifest deficits in their ability to defend against their inner harsh critic, increasing their sense of hopelessness and failure (Whelton & Greenberg, 2005). Although this study found significantly higher scores on the Shame scale for hypersexual clients than for the comparison group, this finding was eclipsed

by client scores on the Self-Hostility scale (Table 1). This result was expected, because the DES-IV Shame scale appears to capture features more associated with embarrassment compared with the Self-Hostility scale, which taps into characteristics generally observed in maladaptive shame, such as a negative appraisal of self as being flawed. Such shame should also be contrasted with features of the Guilt scale, which highlights the recognition and feeling that one's behavior has violated some personal standard (Tangney, Wagner, Fletcher, & Gramzow, 1992). Self-hostility as a significant predictor of hypersexuality was recently observed in a study investigating coping strategies used by hypersexual clients to defend against the painful effects of shame. In their analysis, Reid, Harper, and Anderson (2009) found hypersexual clients more prone to attack the self (e.g., self-hostility) when confronted with shaming experiences, which was also correlated with tendencies to engage in hypersexual behavior. As sometimes seen among clients with chemical dependency, hypersexual individuals also appear to use sex as an outlet to self-medicate their painful affective experiences. This action tendency warrants additional analysis in future research with this population.

Guilt also emerged as an emotion experienced at greater levels among hypersexual clients than among participants in the control sample, with the difference between the groups achieving statistical significance. It is plausible that this finding reflects characteristics of inner conflict that arise from incongruence between sexual behavior and espoused values and beliefs. This interpretation of the data is made in part because the items of the Guilt scale on the DES-IV indicate regret, sorrow, or remorse for doing something wrong, which is consistent with the self-report of many hypersexual clients. However, there is also research that links guilt to an increase in obsessive-like tendencies (Mancini & Gangemi, 2004, 2006), which has interesting implications for hypersexual populations.

Finally, this study examined subtypes of hypersexual behavior (e.g., solo vs. relational sex). Although this categorization failed to find significant results across facets of emotions among the client sample, the idea of classifying subtypes of hypersexual behavior will continue to be an important area of inquiry for future investigations, given research that highlights the lack of homogeneity among hypersexual populations (Reid & Carpenter, 2009; Sealy, 1995). Subtypes of hypersexual behavior could also have implications from a dyadic perspective given the strain it appears to create for partners in monogamous committed relationships (Reid, Carpenter, Draper, & Manning, in press).

## IMPLICATION OF FINDINGS FOR CLINICAL PRACTICE

The findings in this study provide social workers with a number of insights about emotions commonly experienced by hypersexual clients. The

pragmatic implications for these findings suggest that some of the following considerations and interventions might be useful when working with hypersexual clients in therapy:

1. Social work clinicians will likely benefit from conceptualizing hypersexual behavior as a phenomenon in which individuals seek relief from emotional distress. The findings from this study support the notion that hypersexual clients disproportionately experience unpleasant mood states when compared to individuals in a control group. If this is true, it will be important to balance time spent in therapy between attempting to arrest hypersexual behavior and focusing on underlying emotional issues that could perpetuate these patterns.
2. Clinicians should help clients identify patterns where they are likely to experience unpleasant emotions and elucidate the process of how such affective experiences translate to hypersexual behavior. For example, a client experiences shame and then turns to sex to distance himself from this unpleasant mood.
3. Given the paucity of positive emotions among hypersexual male clients in this study, clinicians might want to explore the expectations of clients about things that create happiness in their lives. It is plausible that negative attention bias among these clients predisposes them to negative mood states. This hypothesis needs to be explored further.
4. In situations where maladaptive emotions are activated in psychotherapy, clinicians can use the clients' immediate experience to help them understand how to accurately clarify their feelings. It would be important to help clients differentiate primary emotions, such as sadness or fear, from secondary emotions, such as anger as part of this process. Such clarification helps clients address their core feelings rather than secondary emotions, which tend to be a distraction from understanding what the client really needs in any given moment.
5. Clinicians might consider strategies that increase tolerance for uncomfortable affective experiences. In many ways, experiential therapists can afford clients the opportunity to process these emotionally difficult states in a safe environment where they can discover their ability to survive unpleasant affective states they might otherwise fear or avoid.
6. Given the finding that hypersexual men are more likely to experience self-critical hostility (e.g., shame), clinicians can draw on the literature about shame to help develop effective interventions to address this painful emotion.

## LIMITATIONS

Despite a number of interesting findings, this study is limited in several ways. First, this study is correlational and therefore does not address whether the

various emotions exert a causal or interactive effect on hypersexual behavior. Second, this study possesses the limitations commonly associated with the utilization of self-report measures. Third, as the participants in this study were all male, and mostly heterosexual and White, generalizing the results of this study to other demographic groups is questionable.

The clinical sample lacked clients with comorbid hypersexuality and substance-related disorders as in other studies (Kafka & Prentky, 1994). This dynamic afforded the opportunity to investigate hypersexuality while minimizing a confounder that could provide alternative explanations for the results.

## CONCLUSION

Recently, classification criteria for a “Hypersexual Disorder” have been proposed by the *Diagnostic and Statistical Manual (DSM-V)* Work Group responsible for examining sexual and gender identity disorders (Kafka, in press). The proposed criteria include repetitive engagement in sexual fantasies, urges, or behaviors in response to dysphoric mood states such as anxiety, depression, boredom, and so forth (Kafka, in press). The results of this study provide some support for the *DSM-V* criteria given the client group experienced greater degrees of negative emotions, with self-directed hostility (e.g., shame) being most predictive of hypersexual behavior. The constellation of consequences related to hypersexual behavior observed in this study (e.g., financial losses, sexually transmitted infections) also supports the current *DSM-V* proposed classification criteria.

Although much remains to be learned and understood on the topic of hypersexuality, the growing number of clients seeking help for this issue will likely influence future research that can inform clinicians about the most effective treatment interventions for this population. Future studies might consider using other comparison groups, such as a chemically dependent population, a nonhypersexual clinical population, or subsamples with greater ethnic diversity and sexual orientation. Non-substance-abusing pathological gamblers might be a viable comparison group as they appear to exhibit similar characteristics to hypersexual populations such as neuroticism and impulsivity (Bagby et al., 2007; Reid et al., 2008). Future research is also needed to elucidate the associated features of hypersexual behavior, including the best model for classification (e.g., an addiction, an impulse control disorder, or a compulsive behavior). The field will also benefit from neuroimaging studies highlighting neuroanatomical characteristics of hypersexuality such as the recent work of Miner, Raymond, Mueller, Lloyd, and Lim (2009) and clinical trials for possible pharmacological interventions. Finally, longitudinal studies will be helpful to extend these correlational findings to data that can better examine causal patterns and trajectories for hypersexual behavior.

## REFERENCES

- Abramowitz, A., & Berenbaum, H. (2007). Emotional triggers and their relation to impulsive and compulsive psychopathology. *Personality and Individual Differences, 43*, 1356–1365.
- Adams, K. M., & Robinson, D. W. (2001). Shame reduction, affect regulation, and sexual boundary development: Essential building blocks of sexual addiction treatment. *Journal of Sexual Addiction and Compulsivity, 8*(1), 23–44.
- Austin, E. J. (2005). Emotional intelligence and emotional information processing. *Personality and Individual Differences, 39*, 403–414.
- Bagby, R. M., Vachon, D. D., Bulmash, E. L., Toneatto, T., Quilty, L. C., & Costa, P. T. (2007). Pathological gambling and the five-factor model of personality. *Personality and Individual Differences, 43*, 873–880.
- Bancroft, J., Janssen, E., Strong, D., Carnes, L., Vukadinovic, Z., & Long, J. S. (2003). The relation between mood and sexuality in heterosexual men. *Archives of Sexual Behavior, 32*, 217–230.
- Boyle, G. J. (1984). Reliability and validity of Izard's Differential Emotions Scale. *Personality and Individual Differences, 5*, 747–750.
- Campbell-Sills, L., Barlow, D. H., Brown, T. A., & Hofmann, S. G. (2006). Acceptability and suppression of negative emotion in anxiety and mood disorders. *Emotion, 6*, 587–595.
- Chng, C. L., & Moore, A. (1994). AIDS: Its effects on sexual practices among homosexual and heterosexual college students. *Journal of Health Education, 25*, 154–160.
- Coffey, E., Berenbaum, H., & Kerns, J. K. (2003). The dimensions of emotional intelligence, alexithymia, and mood awareness: Associations with personality and performance on an emotional Stroop task. *Cognition and Emotion, 17*, 671–679.
- Coleman, E. (1987). Sexual compulsivity: Definition, etiology, and treatment considerations. *Journal of Chemical Dependency Treatment, 1*(1), 189–204.
- Coleman, E. (1991). Compulsive sexual behavior: New concepts and treatments. *Journal of Psychology & Human Sexuality, 4*(2), 37–52.
- Coleman, E. (1992). Is your patient suffering from compulsive sexual behavior? *Psychiatric Annals, 22*, 320–325.
- Coleman, E., Miner, M., Ohlerking, F., & Raymond, N. (2001). Compulsive Sexual Behavior Inventory: A preliminary study of reliability and validity. *Journal of Sex and Marital Therapy, 27*, 325–332.
- Deveney, C. M., & Deldin, P. J. (2006). A preliminary investigation of cognitive flexibility for emotional information in major depressive disorder and non-psychiatric controls. *Emotion, 6*, 429–437.
- Dizen, M., Berenbaum, H., & Kerns, J. G. (2005). Emotional awareness and psychological needs. *Cognition and Emotion, 19*, 1140–1157.
- Giles, J. (2006). No such thing as excessive levels of sexual behavior. *Archives of Sexual Behavior, 35*, 641–642.
- Gohm, C. L., & Clore, G. L. (2000). Individual differences in emotional experience: Mapping available scales to processes. *Personality and Social Psychology Bulletin, 26*, 679–697.

- Gohm, C. L., & Clore, G. L. (2002). Four latent traits of emotional experience and their involvement in well-being, coping, and attributional style. *Cognition and Emotion, 16*, 495–518.
- Goldman, R. N., Greenberg, L. S., & Pos, A. E. (2005). Depth of emotional experience and outcome. *Psychotherapy Research 15*, 248–260.
- Goodman, A. (2001). What's in a name? Terminology for designating a syndrome of driven sexual behavior. *Journal of Sexual Addiction and Compulsivity, 8*, 191–213.
- Greenberg, L. S., & Paivio, S. C. (1997). Varieties of shame experience in psychotherapy. *Gestalt Review, 1*, 205–220.
- Greenberg, L. S., & Paivio, S. C. (1998). Allowing and accepting painful emotional experiences. *International Journal of Action Methods: Psychodrama, Skill Training, and Role Playing, 51*(2), 47–61.
- Greenberg, L., & Safran, J. (1989). Emotion in psychotherapy. *American Psychologist, 44*, 19–29.
- Hunt, M. G. (1998). The only way out is through: Emotional processing and recovery after a depressing life event. *Behaviour Research and Therapy, 36*, 361–384.
- Izard, C. E., Libero, D. Z., Putnam, P., & Haynes, O. M. (1993). Stability of emotion experiences and their relations to traits of personality. *Journal of Personality and Social Psychology, 64*, 847–860.
- Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59*(1), 12–19.
- Kafka, M. P. (1997). Hypersexual desire in males: An operational definition and clinical implications for males with paraphilias and paraphilia-related disorders. *Archives of Sexual Behavior, 26*, 505–526.
- Kafka, M. P. (2001). The paraphilia-related disorders: A proposal for a unified classification of nonparaphilic hypersexuality disorders. *Journal of Sexual Addiction and Compulsivity, 8*, 227–239.
- Kafka, M. P. (2003). Sex offending and sexual appetite: The clinical and theoretical relevance of hypersexual desire. *International Journal of Offender Therapy and Comparative Criminology, 47*, 439–451.
- Kafka, M. P. (in press). Hypersexual Disorder: A proposed diagnosis for *DSM-V*. *Archives of Sexual Behavior*.
- Kafka, M. P., & Hennen, J. (2002). A *DSM-IV* Axis I comorbidity study of males ( $n = 120$ ) with paraphilias and paraphilia-related disorders. *Sexual Abuse: Journal of Research and Treatment, 14*, 349–366.
- Kafka, M. P., & Prentky, R. A. (1994). Preliminary observations of *DSM-III-R* Axis I comorbidity in men with paraphilias and paraphilia-related disorders. *Journal of Clinical Psychiatry, 55*, 481–487.
- Kafka, M. P., & Prentky, R. A. (1998). Attention-deficit/hyperactivity disorder in males with paraphilias and paraphilia-related disorders: A comorbidity study. *Journal of Clinical Psychiatry, 59*, 388–396.
- Kalichman, S. C., & Rompa, D. (1995). Sexual sensation seeking and sexual compulsivity scales: Reliability, validity, and predicting HIV risk behavior. *Journal of Personality Assessment, 65*, 586–601.

- Kingston, D. A., & Firestone, P. (2008). Problematic hypersexuality: A review of conceptualization and diagnosis. *Journal of Sexual Addiction and Compulsivity, 15*, 284–310.
- Krueger, R. B., & Kaplan, M. S. (2001). The paraphilic and hypersexual disorders: An overview. *Journal of Psychiatric Practice, 7*, 391–403.
- Lane, R. D., & Schwartz, G. E. (1987). Levels of emotional awareness: A cognitive-developmental theory and its application to psychopathology. *American Journal of Psychiatry, 144*, 133–143.
- Leiblum, S. R., & Nathan, S. G. (2001). Persistent sexual arousal syndrome: A newly discovered pattern of female sexuality. *Journal of Sex and Marital Therapy, 27*, 365–380.
- Levine, M. P., & Troiden, R. R. (1988). The myth of sexual compulsivity. *Journal of Sex Research, 25*, 347–363.
- Mahoney, S., & Zarate, C. (2007). Persistent sexual arousal syndrome: A case report and review of the literature. *Journal of Sex and Marital Therapy, 33*(1), 65–71.
- Mancini, F., & Gangemi, A. (2004). Fear of guilt of behaving irresponsibly in obsessive-compulsive disorder. *Journal of Behavior Therapy and Experimental Psychiatry, 35*, 109–120.
- Mancini, F., & Gangemi, A. (2006). The role of responsibility and fear of guilt in hypothesis-testing. *Journal of Behavior Therapy and Experimental Psychiatry, 37*, 333–346.
- Miner, M. H., Coleman, E., Center, B. A., Ross, M. W., & Rosser, B. R. S. (2007). The Compulsive Sexual Behavior Inventory: Psychometric properties. *Archives of Sexual Behavior, 36*, 579–587.
- Miner, M. H., Raymond, N., Mueller, B. A., Lloyd, M., & Lim, K. O. (2009). Preliminary investigation of the impulsive and neuroanatomical characteristics of compulsive sexual behavior. *Psychiatry Research: Neuroimaging, 174*, 146–151.
- Moser, C. (1993). A response to Aviel Goodman's "Sexual addiction: Designation and treatment." *Journal of Sex and Marital Therapy, 19*, 220–224.
- Nelson, K. G., & Oehlert, M. E. (2008). Psychometric exploration of the sexual addiction screening test in veterans. *Journal of Sexual Addiction and Compulsivity, 15*(1), 39–58.
- Pascual-Leone, A., & Greenberg, L. S. (2007). Emotional processing in experiential therapy: Why "the only way out is through." *Journal of Consulting and Clinical Psychology, 75*, 875–887.
- Paul, E. L., McManus, B., & Hayes, A. (2000). Hookups: Characteristics and correlates of college students' spontaneous and anonymous sexual experiences. *Journal of Sex Research, 37*, 76–88.
- Raymond, N. C., Coleman, E., & Miner, M. H. (2003). Psychiatric comorbidity and compulsive/impulsive traits in compulsive sexual behavior. *Comprehensive Psychiatry, 44*, 370–380.
- Reid, R. C. (2007). Assessing readiness to change among clients seeking help for hypersexual behavior. *Journal of Sexual Addiction and Compulsivity, 14*, 167–186.

- Reid, R. C., & Carpenter, B. N. (2009). Exploring relationships of psychopathology in hypersexual patients using the MMPI-2. *Journal of Sex and Marital Therapy, 35*, 294–310.
- Reid, R. C., Carpenter, B. N., Draper, E. D., & Manning, J. C. (in press). Exploring psychopathology, personality traits, and marital distress among women married to hypersexual men. *Journal of Couple and Relationship Therapy*.
- Reid, R. C., Carpenter, B. N., & Lloyd, T. Q. (2009). Assessing psychological symptom patterns of patients seeking help for hypersexual behavior. *Sexual and Relationship Therapy, 24*(1), 47–63.
- Reid, R. C., Carpenter, B. N., Spackman, M., & Willes, D. L. (2008). Alexithymia, emotional instability, and vulnerability to stress proneness in patients seeking help for hypersexual behavior. *Journal of Sex and Marital Therapy, 34*, 133–149.
- Reid, R. C., & Garos, S. (2007). *A new measure of hypersexual behavior: Scale development and psychometrics*. Poster session presented at the annual convention of the American Psychological Association, San Francisco, CA.
- Reid, R. C., Harper, J. M., & Anderson, E. H. (2009). Coping strategies used by hypersexual patients to defend against the painful effects of shame. *Clinical Psychology and Psychotherapy, 16*, 125–138.
- Reid, R. C., Karim, R., McCrory, E., & Carpenter, B. N. (2010). Self-reported differences on measures of executive function and hypersexual behavior in a patient and community sample of men. *International Journal of Neuroscience, 120*, 120–127.
- Reid, R. C., & Woolley, S. R. (2006). Using emotionally focused therapy for couples to resolve attachment ruptures created by hypersexual behavior. *Journal of Sexual Addiction and Compulsivity, 13*(1), 219–239.
- Rinehart, N. J., & McCabe, M. P. (1998). An empirical investigation of hypersexuality. *Journal of Sex and Marital Therapy, 13*, 369–384.
- Schneider, J., & Irons, R. (2001). Assessment and treatment of addictive sexual disorders: Relevance for chemical dependency relapse. *Substance Use & Misuse, 36*, 1795–1820.
- Sealy, J. R. (1995). Psychopharmacologic intervention in addictive sexual behavior. *Journal of Sexual Addiction and Compulsivity, 2*, 257–276.
- Tangney, J. P., Wagner, P. E., Fletcher, C., & Gramzow, R. (1992). Shamed into anger? The relation of shame and guilt to anger and self-reported aggression. *Journal of Personality and Social Psychology, 62*, 669–675.
- Todd, T. (2004). Premature ejaculation of “sexual addiction” diagnoses. In S. Green & D. Flemons (Eds.), *Quickies: The handbook of brief sex therapy* (pp. 68–86). New York, NY: Norton.
- Weiss, D. (2004). The prevalence of depression in male sex addicts residing in the United States. *Journal of Sexual Addiction and Compulsivity, 11*(1–2), 57–69.
- Whelton, W. J., & Greenberg, L. S. (2005). Emotion in self-criticism. *Personality and Individual Differences, 38*, 1583–1595.