A number of studies have linked maladaptive shame to higher levels of hypersexual behavior and tendencies to ruminate. However, little research has examined factors that may attenuate the negative impact that shame and rumination may have on hypersexuality. Drawing on data collected from male patients (N = 172) assessed for hypersexual disorder in a DSM-5 field trial, path analysis was used to explore relationships among shame, rumination, self-compassion, and hypersexual behavior. The findings from this study showed that self-compassion partially mediated the relationship between shame and rumination and hypersexual behavior. The implications of these results are discussed and directions for future research are offered.

Shame, Rumination, Hypersexuality, and Self-Compassion

Shame is a complex emotion that is often observed as a painful, self-focused affect. While shame is commonly experienced as a transitory emotion by many people, internalized shame becomes maladaptive when it perpetuates a more chronic and pervasive negative evaluation of the self. Individuals with high levels of shame often feel worthless, inadequate, and powerless to alleviate their source of emotional pain. Moreover, the patterns of rumination and cognitive rigidity associated with shame impair healthier alternative perspectives, leaving shame-based individuals feeling psychological distress. In some individuals, the inability to change further intensifies self-criticism, exacerbating their sense of failure, inadequacy, or incompetence. To make matters worse, rumination maintains these shameful appraisals through repetitive patterns of passively focusing on feelings of psychological distress and negative affect. Given the emotional distress associated with shame, it should come as no surprise that individu-
als may seek to escape shame through activities that offer temporary relief, including substance use, gambling, eating, and sex. Unfortunately, overindulgence in these behaviors can increase shame. For example, losses associated with problem gambling have been shown to elicit shame. Shame has also been linked to obesity, disordered eating behaviors, and substance-abuse. In recent years, several studies have found associations between shame and hypersexual behavior. For example, shame was the strongest predictor of hypersexuality when compared with other unpleasant emotions such as anger or sadness. Replication studies have extended these findings by noting that guilt, contrasted with shame, is inversely related to hypersexuality. Further evidence of relationships between hypersexual behavior and shame have been observed in studies of perfectionistic tendencies, in which excessive concern about mistakes (paralleling the construct of shame in negative self-appraisals, such as seeing mistakes as a sign of personal failure or feeling like less of a person because of shortcomings) emerged as the strongest predictor of hypersexual behavior compared with other facets of perfectionism. Hypersexual patients have also been shown to lack effective coping strategies for defending against maladaptive shame and tend to respond with higher levels of withdrawal and tendencies to attack themselves and others compared with healthy controls. Interestingly, one study using structural equation modeling found that shame exerted its effect on hypersexual behavior through neurotic feelings of depression, anxiety, interpersonal sensitivity, and proneness to stress. Although unsupported by empirical data, anecdotal perspectives attempting to explain how shame activates hypersexual behavior often cite the self-medication hypothesis, which postulates that individuals use a "substance" to relieve states of emotional distress. Regardless of the mechanism of action, these studies collectively link shame to hypersexual behavior and suggest that it plays an important role in the lives of hypersexual patients.

Despite the psychological distress associated with shame and hypersexual behavior, there is a paucity of rigorous outcome research evaluating the efficacy of treatments for hypersexual patients. Therefore, novel interventions aimed at ameliorating suffering in this population are needed. Findings from emerging research showing that self-compassion attenuates psychological distress associated with negative affective experiences, including shame, suggest an interesting avenue for exploration.

Self-compassion consists of an attitude of universal and unconditional acceptance (even though some behaviors such as hypersexuality may be identified as self-destructive and in need of change) focused inwardly on the self. Researchers suggest that self-compassion involves the ability to treat oneself with kindness and concern in the face of negative life events, as one would do a loved one who was suffering. Self-compassionate individuals understand that personal suffering and shortcomings are part of the human condition and incorporate non-judgmental attitudes toward their own shortcomings and failures. The facets of self-compassion have been operationalized in the literature as a) self-kindness, b) common humanity, and c) mindfulness. Self-kindness entails the ability to treat oneself kindly in the face of failures or mistakes as opposed to reacting with self-critical thoughts characterized by shame. Common humanity refers to the ability of an individual to recognize that personal suffering is part of a greater human experience, thus reducing the person’s feelings of isolation and promoting adaptive coping. The mindfulness component of self-compassion highlights adaptive coping by cultivating perspectives that avoid over-identifying with emotionally painful thoughts. Mindfulness also includes being attentive to, rather than avoiding, uncomfortable emotions, thoughts, and somatic sensations in a non-judgmental manner.

Research has linked self-compassion to enhanced psychological well-being. For example, individuals who self-report increased levels of self-compassion show lower levels of anxiety, depression, and neuroticism and higher levels of positive affect, optimism, and happiness. Many authors have suggested self-compassion attenuates emotional distress by acting as a coping strategy for promoting positive psychological functioning. A self-compassionate individual is able to embrace suffering and personal shortcomings with kindness, which, in turn, is hypothesized to diminish the need to engage in various behaviors used to escape internalized shame. Thus, the non-judgmental attitude inherent in self-compassionate individuals allows them to be curious and contemplative about their personal mistakes and avoid self-critical and shaming reactions that might otherwise influence behav-
iors such as substance misuse, overeating, problem gambling, and hypersexuality.\textsuperscript{33,46}

In the study described in this article, we were particularly interested in positive outcomes associated with self-compassion in populations exhibiting behavioral dysregulation. For example, self-compassion has been found to reduce distress and attenuate eating following the preload (food/drink consumed prior to a meal) among highly restrictive eaters.\textsuperscript{29} Self-compassion has also been linked to smoking reduction\textsuperscript{34} and it has been shown to significantly decrease self-judgment, isolation, and over-identification in individuals who abuse alcohol.\textsuperscript{30} Although some researchers have expressed concern that self-compassion might increase complacency (e.g., letting go of self-critical thoughts might equate to permissive attitudes leading to poor decisions or apathy toward behavior modification), self-compassion has actually been shown to enhance self-improvement and motivation to change by allowing individuals to confront their shortcomings without harsh self-judgments or self-depreciation.\textsuperscript{32} Interventions that enhance self-compassion are of particular interest since they have been shown to reduce symptoms commonly observed in hypersexual patients such as depression, anxiety, and shame.\textsuperscript{11} These findings led us to consider whether self-compassion might mediate the relationship among shame, rumination, and patterns of behavioral dysregulation related to sexual appetite in hypersexual patients. If self-compassion attenuates the negative effects that shame and rumination exert on hypersexual behavior, then providers might consider integrating strategies to increase self-compassion in order to enhance coping among hypersexual patients with high levels of internalized shame. We also included rumination as a variable of interest in this study to assess its relationship to hypersexual behavior and because previous work has highlighted the need to consider the interaction of shame, rumination, and psychological distress.\textsuperscript{9,10} In a previous study, we did find a positive relationship between rumination and hypersexuality but shame was not specifically assessed in that investigation.\textsuperscript{8} In addition to our predictions about the mediating role of self-compassion, we also anticipated that rumination would be linked to hypersexuality given the excessive and recurring (e.g., repetitive) sexual thoughts, urges, and behaviors commonly reported by hypersexual patients.

\section*{METHODS}

\section*{Participants}

The patients in this study were 172 men who were recruited during a DSM-5 field trial investigating the proposed diagnosis of hypersexual disorder, which has been described in greater detail elsewhere.\textsuperscript{47} These participants were consecutively selected at outpatient clinics based on 1) a primary complaint of hypersexual behavior reported during intake and 2) willingness to participate in and consent to the research protocol. All patients in this study met the DSM-5 proposed diagnostic criteria for HD.\textsuperscript{1} Demographic information for the sample is summarized in Table 1.

\section*{Measures}

\textbf{Hypersexual Behavior Inventory (HBI).} The HBI is a 19-item, 3-factor, self-report measure scored on a 5-point Likert format (from 1 = never to 5 = very often), with possible scores ranging from 19 to 95.\textsuperscript{48} Confirmatory factor analysis has replicated the factor structure with excellent goodness of fit (root mean square error of approximation [RMSEA] = 0.05; comparative fit index [CFI] = 0.95) and the HBI items demonstrate good validity and reliability with alpha coefficients ranging from 0.89 to 0.95. Scale items reflect the DSM-5 proposed classification criteria for HD. HBI scores \( \geq 53 \) are considered clinically significant and scores of \( \geq 62 \) have been shown to correctly classify 94\% of patients as meeting the proposed DSM-5 diagnostic criteria for HD as assessed through a structured clinical interview.\textsuperscript{47} The items administered in the current sample showed high internal consistency (\( \alpha = 0.94 \)), with scores ranging from 53–95 (mean = 75.5, standard deviation [SD] = 12.5).

\textbf{Shame Inventory (SI).} This study used Part I of the SI, which consists of three items answered on a 5-point Likert scale that ask about frequency, intensity/severity, and negative impact of maladaptive shame in response to a definition of shame.\textsuperscript{49} The items have shown good internal consistency, with an alpha coefficient of 0.80 and a test-retest reliability coefficient of 0.85 over a 1-week period. The SI inventory has also demonstrated convergent validity with two existing trait-based measures of shame and
divergent validity with a measure of guilt. The SI has also successfully discriminated between clinical populations and healthy controls. The items administered in the current sample showed high internal consistency (α = 0.91).

**Table 1. Sociodemographic characteristics of study participants (N = 172)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hypersexual patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Mean = 43.4 years, SD = 12.1 yrs</td>
<td></td>
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<tr>
<td>Race</td>
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<td>Native American</td>
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<td>White/Caucasian</td>
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<tr>
<td>Relationship status</td>
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<tr>
<td>Never married</td>
<td>35</td>
</tr>
<tr>
<td>First marriage</td>
<td>68</td>
</tr>
<tr>
<td>Remarried</td>
<td>31</td>
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<tr>
<td>Separated</td>
<td>13</td>
</tr>
<tr>
<td>Divorced</td>
<td>15</td>
</tr>
<tr>
<td>Widowed</td>
<td>1</td>
</tr>
<tr>
<td>Cohabitating</td>
<td>9</td>
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<tr>
<td>Education</td>
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<td>High school</td>
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<tr>
<td>Some college</td>
<td>38</td>
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<tr>
<td>2 year associate</td>
<td>4</td>
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<tr>
<td>4 year bachelor’s</td>
<td>48</td>
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<td>Master’s degree</td>
<td>37</td>
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<td>Doctoral degree</td>
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<tr>
<td>Sexual orientation</td>
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<td>Heterosexual/straight</td>
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<td>Homosexual/gay</td>
<td>14</td>
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<tr>
<td>Bisexual</td>
<td>14</td>
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<tr>
<td>Annual Income</td>
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</tr>
<tr>
<td>$80,000–$99,999</td>
<td>19</td>
</tr>
<tr>
<td>$100,000 or above</td>
<td>70</td>
</tr>
</tbody>
</table>

SD: standard deviation

**Self-Rumination Scale (SRS).** The SRS is a 10-item self-report scale with items endorsed on a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree), with possible scores ranging from 10 to 60. The items have demonstrated excellent internal consistency (α = 0.91) and reflect conceptualization of self-rumination depicted by patterns of passively focusing on disappointing moments, unfavorable outcomes, and a perceived inability to disregard unwanted thoughts about negative situations in one's life. Although the scale is reported to require further psychometric development, the items administered in the current sample showed high internal consistency (α = 0.92).

**Self-Compassion Scale–Short Form (SCS).** The SCS is a 12-item self-report scale with items endorsed on a 5-point Likert scale (1 = almost never to 5 = almost always). The SCS contains six subscales that purport to capture aspects of self-compassion including Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-Identification, with variable internal consistency (α = 0.504 to 0.86). Confirmatory factor analysis found support for the factor structure of the SCS (RMSEA = 0.08, CFI = 0.97, standardized root mean square residual [SRMR] = 0.07, non-normed fit index [NNFI] = 0.96), and the total scale score showed a high correlation (r = 0.98) with the original 26-item scale and adequate internal consistency (α = 0.86). The items administered in the current sample showed high internal consistency (α = 0.88).

**Procedures**

All participants completed a demographic survey, study measures, and received a structured diagnostic clinical interview to assess for the DSM-5 proposed criteria for HD per the protocol used in the DSM-5 Field Trial for Hypersexual Disorder. Patients were classified as hypersexual based on their responses to the HD structured interview which asked about 1) a reported pattern of hypersexual behavior that persisted for at least 6 months; 2) reported preoccupation with sexual thoughts, urges, and the pursuit of sexual activities in response to dysphoric moods or to avoid, cope or deal with stress; 3) reported inability to reduce or control the frequency of sexual fantasies, urges, and behaviors; 4) pursuit of sex despite the risk for physical or
emotional harm to self and/or others; 5) personal distress induced by frequency or intensity of sexual fantasies, urges, and behaviors; 6) significant problems in personal relationships, social interactions, work, or other important aspects of daily living related to the hypersexual behavior; and 7) whether sexual activities were substance-induced or limited exclusively to mania. As noted in the procedures outlined in the field trial, trained clinicians administered the Mini International Neuropsychiatric Interview to each patient to assess for psychopathology (e.g., bipolar disorder, substance-related disorders) that might provide an alternative explanation for symptoms of HD. Although a very small number of patients in the field trial met criteria for HD and a comorbid paraphilic disorder, we limited the analysis in this study to patients without a paraphilia. Study procedures were approved by the Institutional Review Board at the University of California, Los Angeles and all subjects signed informed consent prior to participation.

RESULTS

Correlations Between Study Variables

A summary of zero-order correlations between the study variables is shown in Table 2. As depicted in Figure 1, shame emerged as a significant predictor of hypersexual behavior \((r = 0.42, p < 0.0001, R^2 = 0.17)\) and was inversely correlated with self-compassion \((r = -0.58, p < 0.0001, R^2 = 0.34)\). As expected, shame was also positively correlated with rumination \((r = 0.53, p < 0.0001)\). Rumination emerged as a significant predictor of hypersexual behavior \((r = 0.36, p < 0.0001, R^2 = 0.13)\) and was inversely correlated with self-compassion \((r = -0.61, p < 0.0001, R^2 = 0.37)\).

Self-compassion showed a significant inverse relationship with hypersexual behavior \((r = -0.44, p < 0.0001, R^2 = 0.18)\).

Path Analysis

Path analysis was performed using the EQS structural equations program. In addition to examining relationships between the study variables, the path analysis also revealed a significant shame × rumination interaction effect on self-compassion \((β_{std} = 0.11, p < 0.05)\) and hypersexuality \((β_{std} = 0.42, p < 0.05)\) as shown in Figure 1. Thus, for a one SD unit increase in rumination, the effect of shame on self-compassion increases by 0.11, and vice versa. Likewise for a one SD unit increase in rumination, the effect of shame on hypersexuality increases 0.42. The simple effects of shame \((β_{std} = -0.11, p < 0.05)\) and rumination \((β_{std} = -0.11, p < 0.05)\) on hypersexuality were significantly reduced after adding self-compassion to the model, although both shame and rumination retained some predictive power as can be seen in Figure 1. Thus, self-compassion partially mediates the effects of shame and rumination on hypersexuality. These simple effects are negative because of the interaction. Higher levels of shame or rumination would yield a positive value for the simple effect. The indirect effect of shame on hypersexuality through self-compassion was also significant \((β_{std} = 0.12, p < 0.05)\) as was the indirect effect of rumination on hypersexuality through self-compassion \((β_{std} = 0.12, p < 0.05)\). The indirect effect of the shame × rumination interaction through self-compassion on hypersexuality was not significant \((β_{std} = -0.03, ns)\) indicating that although self-compassion mediates the relationship between shame and rumi-
nation on hypersexuality, it does not mediate their interaction—that is, the direct effects are moderated by the interaction, but the mediated effects are not significantly moderated by the interaction.

**DISCUSSION**

The primary goal of this study was to investigate whether the effects of shame and rumination on hypersexual behavior are mediated by self-compassion. Our results offer support for partial mediation and suggest that cultivating self-compassion attenuates the influence that shame and rumination exert on hypersexuality. Although the mechanisms of action for self-compassion were not studied, it is plausible that self-compassion reorganizes the relationship with negative affect associated with shame and normalizes unpleasant experiences or personal suffering as part of the greater human experience (e.g., feeling comforted by the perspective that when we suffer, we are not alone, and thus others can understand our difficult moments and empathize with our challenging life experiences). Indeed, experiencing unpleasant emotions such as disappointment or fear of failure in the wake of multiple unsuccessful attempts to modify hypersexual behavior or looking at the more undesirable aspects of ourselves requires understanding, patience, and self-kindness. Self-compassion may also influence a stance of firm love toward the self that activates other unpleasant emotions such as healthy feelings of guilt that might promote change and has been inversely related to hypersexuality. Moreover, self-kindness and non-judgmental aspects of self-compassion may provide an antidote to harsh self-critical appraisals characterized by shame that appear to influence hypersexual behavior.

Our path analysis found an interaction between the shame-rumination variables and self-compassion. This is not that surprising given previous work that has linked shame with rumination and because both constructs involve an element of repetitively focusing on shortcomings or negative affect whereas self-compassion elicits kindness toward the self in a non-judgmental fashion. Likewise, shame and rumination appear to interact synergistically in a way that exacerbates hypersexual behavior.

Replicating previous work, our results indicate that higher levels of shame significantly predict higher levels of hypersexuality. Our results also indicate that higher levels of rumination predict higher levels of hypersexuality, independent of the shame × rumination interaction. This novel finding is interesting given that ruminative cognitions appear to have some overlap with perseverative thoughts and these thinking patterns are, in turn, more prevalent in hypersexual populations than in healthy controls. Moreover, perseverative thinking among hypersexual patients appears to be particularly likely in those individuals who also present with higher levels of psychopathology, although comorbid obsessive-compulsive disorders are rare in treatment-seeking samples of hypersexual men. Thus, the relationship between rumination and
hypersexuality may be characterized by a generalized pattern of perseverative thinking or by more focused perseverative thoughts specific to sex, or possibly a combination of both. Alternatively, ruminative response styles studied in relation to depression\(^5\)\(^6\)\(^8\)\(^9\)\(^10\) may explain the high correlations with hypersexuality, given that depression is also commonly found in hypersexual patients.\(^5\)\(^5\)\(^7\)\(^5\)\(^8\)\(^9\)

The mindfulness component of self-compassion should also be given consideration as a useful factor in attenuating shame in hypersexual patients. Some preliminary research has found that mindfulness is inversely related to hypersexuality after accounting for negative affect, impulsivity, and proneness to stress.\(^6\) However, as others have noted, the mindful aspect of self-compassion is more narrowly focused (as compared with general mindfulness) and seeks to obtain a balanced awareness of unpleasant cognitions and emotions associated with personal suffering. Conversely, mindfulness as a broader concept seeks to pay attention to any experience, whether it be pleasant, unpleasant, or neutral with non-judgmental acceptance. Moreover, mindfulness focuses on the experience without attempting to modify it, whereas mindful aspects of self-compassion seek to comfort, soothe, and alleviate personal suffering in the wake of distressing experiences.\(^6\)

Limitations

Despite a number of interesting findings, this study had a number of limitations. First, this study is correlational and therefore does not address causal relationships with hypersexual behavior. Second, it possesses the limitations commonly associated with the utilization of self-report measures. Third, the participants in this study were all males (mostly heterosexual and Caucasian); thus generalizing our findings to hypersexual women, samples with more diverse ethnic representation, and so on, should be done with caution until further research can replicate our results in these populations.

Future Research Considerations

The findings from this study raise several questions for future research. The most likely extension of our results would be to conduct an outcome study assessing the efficacy of self-compassion in attenuating shame, rumination, and patterns of hypersexual behavior. Studies examining the mechanisms of action associated with self-compassion and shame would also make a novel contribution to the existing literature.\(^6\)\(^7\) Because self-compassion was a partial mediator of the effects of shame and rumination, it did not account for all of the variance in hypersexual behavior, suggesting that other factors also play a role in the relationships between the variables examined in our study. Facets of stress proneness or impulsivity and their relationship with shame, rumination, and hypersexual behavior might be the focus of future research. In addition, the role of depression should be strongly considered since it has been linked to shame, rumination, self-compassion, and hypersexual behavior. Insofar as the concept of hypersexuality is in its infancy, theory-driven hypotheses are needed to guide future work and facilitate more systematic study of hypersexual behavior.\(^6\) Given the rise in social science publications related to hypersexuality over the past several years, it is evident this construct is of interest. Future research will benefit from more diverse samples, replication of findings, and etiological investigations to help elucidate the characteristics and associated features of hypersexuality.

References

SHAME, RUMINATION, AND SELF-COMPASSION IN MEN ASSESSED FOR HYPERSEXUAL DISORDER

52. Wahl K, Ertle A, Bohn A, et al. Relations between a rumi-
native thinking style and obsessive-compulsive symptoms
in non-clinical samples. Anxiety Stress Coping 2011;24:
217–25.
53. Reid RC, Carpenter BN, Lloyd TQ. Assessing psychological
symptom patterns of patients seeking help for hypersexual
54. Black DW, Kehrberg LD, Flumerfelt DL, et al. Character-
istics of 36 subjects reporting compulsive sexual behavior.
55. Kafka MP, Hennen J. A DSM-IV Axis I comorbidity study
of males (n = 120) with paraphilias and paraphilia-related
56. Reid RC. Assessing readiness to change among clients
seeking help for hypersexual behavior. J Sex Addict
Compulsivity 2007;14:167–86.
57. Reid RC, Carpenter BN. Exploring relationships of psy-
chopathology in hypersexual patients using the MMPI-2.
58. Calmes CA, Roberts JE. Repetitive thought and emotional
distress: Ruminiation and worry as prospective predictors
of depressive and anxious symptomatology. Cognit Ther
59. Just N, Alloy LB. The response styles theory of depression:
Tests and an extension of the theory. J Abnorm Psychol
1997;106:221–9.
60. Nolen-Hoeksema S. Responses to depression and their
effects on the duration of depressive episodes. J Abnorm
Psychol 1991;100:569–82.
61. Nolen-Hoeksema S. The role of rumination in depressive
disorders and mixed anxiety/depressive symptoms. J
62. Segerstrom SC, Tsao JI, Alden LE, et al. Worry and rumi-
nation: Repetitive thought as a concomitant and predictor
63. Raymond NC, Coleman E, Miner MH. Psychiatric comor-
bidity and compulsive/impulsive traits in compulsive sexual
64. Rinehart NJ, McCabe MP. An empirical investigation of
65. Reid RC, Bramen JE, Anderson A, et al. Mindfulness, emo-
tional dysregulation, impulsivity, and stress proneness
among hypersexual patients. J Clin Psychol 2014;70:
313–21.
66. Neff KD, Germer CK. A pilot study and randomized con-
trolled trial of the Mindful Self-Compassion Program. J
67. Reilly ED, Rochlen AB, Awad GH. Men’s self-compassion
and self-esteem: The moderating roles of shame and mas-
68. Reid RC. Personal perspectives on hypersexual disorder. J
Sex Addict Compulsivity 2013;20:4–18.