

## **The Ultimate High: Sexual Addiction and the Bug Chasing Phenomenon**

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*This study sought to explain the existence of a controversial sub-culture of gay men, a group whose main attribute is an active desire to voluntarily contract HIV. The following research reasons “bug chasing” as being symptomatic of sexual addiction. A quasi-randomized survey of personal advertisements of HIV-negative bug chasers and barebackers—gay men who intentionally eschew condom use without the desire to seroconvert—revealed that chasers were: (a) considerably different from their barebacker counterparts regarding paraphiliac activities, and (b) significantly more likely than barebackers to rank higher on behavioral and psychological measures of sexual addiction.*

### INTRODUCTION

For most people, sexual activity is an enjoyable aspect of life. Unfortunately, it can be risky and dangerous behavior as is illustrated by the stubborn and inexorable spread of the human immunodeficiency virus (HIV). To reduce the danger of sexually transmitting the virus, some governments and health organizations have conducted campaigns aimed at informing individuals about effective safe sex practices (Myhre & Flora, 2000). Although there are signs that such efforts have been successful (Nicoll et al., 2001), there remain groups of individuals who do not follow such practices and therefore put themselves at risk (Mansergh et al., 2002; Wolitski, Valdiserri, Denning, & Levine, 2001).

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Such is the case with a new subculture that has been noticed by journalists and researchers (Freeman, 2003; Gauthier & Forsyth, 1999; Hatfield, 2004; Hill, 2003; Moskowitz & Roloff, 2006). Self-titled the “bug chasers,” they comprise a small group of physiologically healthy, HIV-negative gay men who actively look to be voluntarily infected with HIV. It is an underground culture whose communication and interaction are facilitated by the Internet and Internet chat rooms (Freeman; Hill). The group has its own distinctive vocabulary, emblems, shared attitudes and values, and, albeit new, history (Hill). The study of any culture or subculture has the potential to be influenced by ethnocentrism; and viewing the practices of a group with one’s same cultural norms is inaccurate and most certainly biased (Calloway-Thomas, Cooper, & Blake, 1999). But because this group’s desires facilitate disease dissemination, undoubtedly affecting outgroup populations, cultural relativism becomes a non-issue. It is our goal to understand what would drive an HIV-negative person to actively and voluntarily seroconvert and thus, understand a way to discourage such activities.

We report the results of a study that casts bug chasing as symptomatic of sexual addiction. Hypotheses derived from this perspective are tested by comparing the content of personal ads created by bug chasers with those composed by another group of gay men who intentionally practice unsafe sex, the “barebackers.” In the following sections, we will examine explanations for the bug chasing phenomenon, offer an alternative perspective based on sexual addiction, and then offer hypotheses consistent with this perspective.

## LITERATURE REVIEW

### Bug Chasing

Bug chasing is a relatively new occurrence; hence, there are no well developed theories and few published studies that provide a clear diagram or explanation for this health deviancy. Chasing was brought to mainstream attention through a *Rolling Stone* magazine article by Gregory Freeman (2003) entitled, “In Search of Death.” In the article, the author summarized his interviews with both a bug chaser who actively pursued infection as well as with a bug chaser who had already seroconverted. Freeman (2003) did not identify any cause for such pathology but simply noted the experiences of his interviewees and their reasons for adopting such behaviors. The *Rolling Stone* article stimulated a series of Internet responses and articles by gay community and HIV authorities, many of whom suggested possible reasons for such behaviors.

Four explanations have been proffered for this phenomenon. Some believe that bug chasing has emerged as a function of some gay men’s yearning to be accepted by a community, to be included in the greater HIV-positive “brotherhood” (Freeman, 2003; Gauthier & Forsyth, 1999; Triunfol, 2003).

These (HIV-negative) gay men seem to feel that the HIV-positive population has significantly stronger bonds of community and cohesiveness than does the general homosexual population (Hatfield, 2004; Hill, 2003). This culture is exceedingly more enticing for these men and so, membership is alluring.

Although plausible, this explanation does not seem to account for why someone would engage in risky behavior. Desire for affiliation with the HIV-positive community can be accomplished in less risky and more beneficial ways than seroconversion, e.g., becoming advocates for better care and treatment of HIV-positive individuals or becoming a care taker.

Others contend infection has become substantially more sustainable and livable and as a corollary, HIV has become a virtually meaningless hindrance toward “sexual nirvana” (Freeman, 2003; Hatfield, 2004). This perspective is known as the diabetes metaphor. HIV is tantamount to living with diabetes—where the effects and severity of the disease may be treated with a series of drug therapies. Vigilance and an assiduous eye toward one’s health are all that are really necessary to survive. Considering the perception that the disease is livable, after infection, even the riskiest behaviors are performable (Freeman; Gauthier & Forsyth, 1999; Hill, 2003).

Fortunately, strides have been made toward extending the life of HIV-positive individuals but it is unclear why this turn of events would prompt individuals to seek seroconversion. This explanation only suggests that individuals should be indifferent to a partner’s serostatus rather than exclusively seeking HIV-positive partners.

A third perspective argues that this phenomenon is merely a psychological reactance effect (Brehm & Brehm, 1981), where the bombardment of safe-sex information and anti-infection “propaganda” has created a psychological and behavioral reversal in some in the community (Gauthier & Forsyth, 1999; Triunfol, 2003). Gay men are simply exhausted. The preponderance of awareness posters and safe sex warnings has fatigued the vitality of prophylaxis.

Certainly, it is possible that some gay men are reacting negatively to health campaigns aimed at promoting safe sex practices. They feel saturated with messages and as a consequence, feel that their behavioral freedom to engage in sexual practices is being threatened. This explanation could account for why some gay men do not practice safe sex (e.g., Crossley, 2004) but does not indicate why they might exclusively seek HIV-positive partners. In other words, the threatened freedom concerns sexual practices (e.g., not using condoms or encouraging bodily fluid exchange) rather than avoiding serodiscordant partners.

And last, some believe that these gay men have come to think that infection is an inevitable result of their lifestyle—that bug chasing increases the locus of control regarding imminent infection. Bug chasers want to be able to choose who infects them and under what circumstances they are infected (Freeman, 2003; Gauthier & Forsyth, 1999; Hill, 2003); and similar to the Pygmalion effect (Rosenthal & Rubin, 1978), they believe that because

it *will* happen, they should play an active role in its occurrence as a means to increase autonomy and recapture their fate.

This explanation relies upon inconsistent processes. On one hand, a bug chaser is so fatalistic that he believes it is impossible to avoid becoming HIV-positive, but on the other hand, he feels sufficiently in control to bring about infection. In our view, such fatalism is more likely to produce a sense of helplessness which leads to indifference about safe sex practices and partners' HIV status rather than a desire to become infected.

Unfortunately, there is no conclusive research that addresses the veracity of any of these explanations and hence, they remain speculative at best. More importantly though, we do not believe that they adequately account for why an individual would engage in potentially self-destructive behavior. We offer a perspective that argues that bug chasing may be symptomatic of a negative state, sexual addiction.

### Sexual Addiction

To help explain our perspective, it is essential that we explicate what we mean by bug chasing and sexual addiction. A bug chaser is a gay man who actively seeks to have unprotected sex with gay men who are HIV-positive. As suggested by Gauthier and Forsyth (1999), and supported by Moskowitz and Roloff (2006), this definition has three important aspects. First, bug chasing is an active process by which a person seeks sexual contact with others. As such, bug chasers do not passively wait for seroconversion but openly seek contact with partners who are HIV-positive. Second, bug chasers have a preference for HIV-positive or HIV-ambiguous partners. Such partners are most likely to be sources for seroconversion. Finally, bug chasers prefer to have unprotected sex with their partners. To increase the probability of infection, bug chasers eschew the use of condoms while taking the receptive role in anal intercourse (Moskowitz & Roloff).

The National Council on Sexual Addiction and Compulsivity (2003) defines sexual addiction as "engaging in persistent and escalating patterns of sexual behavior acted out despite increasing negative consequences to self and others." First researched in the early 1980's by Patrick Carnes (1983), sexual addiction can be understood by looking at behavioral clusters or levels. The first of these levels is victimless sexual behavior, and its most notable attributes include excesses in masturbation, consensual sexual activity and the use of pornography. The second level contains what society considers more deviant sexual behaviors such as exhibitionism and scatology. Finally, third level activities that an addicted individual may exhibit are victimizing sexual behaviors, i.e., rape or incest.

These levels should not be interpreted as stages of addiction, but merely as classifications of behaviors. That is to say, the individual who finds himself unable to cope without looking at pornography (a level one behavior) may

be just as addicted to sex as the exhibitionist haphazardly flashing bystanders in a park (a level two behavior). For some, escalation does occur across or within levels, but these individuals may ultimately be no more addicted than those who stay fixated on one behavior or within one level. Simply, these different levels are a measure of society's interpretation of the behaviors within a level. Rape and incest are physically and psychologically harmful, and so should be treated as separate from victimless behaviors of which only the addict may be cognizant, e.g., excess masturbation.

This early research sparked other studies into sexual addiction. Where Carnes (1983) viewed addiction with respect to behaviors performed, others have endeavored to understand the psychology behind it. There are two perspectives regarding the causes of sexual addiction. The first focuses on anxiety. Work performed by Quadland (1985) suggested that sexual want is triggered by feelings of anxiety. These anxious feelings result from "loneliness" or "low self-esteem" but are construed by the individual as a need for sex. This triggers a search for a sexual encounter. More recent research proposed a more elaborate model regarding the relationship between anxiety and sexual addiction (Gold & Heffner, 1998). Early learning by an individual associates the reduction of anxiety with sexual behavior. So any increase in anxiety is met with a need to decrease it through some sort of sexual behavior. The decrease is temporary and, when enough anxiety rebuilds, another sexual encounter is needed. Gold and Heffner claimed that at a point, previously engaged behaviors no longer provide sufficient release of anxiety and so; additional sexual activities or more intense activities are introduced into the repertoire.

For many years, it was assumed that anxiety was the primary cause of sexual addiction. However, newer studies indicated that a second model is valid. According to this approach, sexual addiction and mood, most notably depression, could be substituted for anxiety in Gold and Heffner's (1998) model. Research suggested that in negative mood states and during bouts of depression a significant increase in sexual interest and activities is likely to occur (Bancroft, Janssen, Strong, & Vukadinovic, 2003). Moreover, when depressed, some individuals become less concerned with the consequences of their actions and are more likely to engage in risky sexual behavior (Bancroft et al., 2003; Bancroft, Janssen, Strong, & Vukadinovic, 2003).

Bancroft and Vukadinovic (2004) reinforced depression as a key to understanding sexual addiction in their follow-up research. They claimed that in depressive states, a search for the fulfillment of needs is activated. These needs include, "personal contact through sex," "feeling validated by another person," or "enhancing one's self-esteem." And to return to Gold and Heffner's (1998) model, sexual activity serves as a means to return to psychological equilibrium and relational balance.

The research we reviewed indicates that sexual addiction has three characteristics. First, it is driven by need fulfillment. Second, the degree to which

a given sexual behavior satisfies needs erodes with repetition and in order to satisfy needs, an individual must escalate the intensity of sexual contact. Finally, to enhance sexual intensity, individuals engage in behavior that is increasingly risky to their well being.

In our view, the characteristics of sexual addiction provide a plausible explanation for bug chasing. To improve mood, some individuals become addicted to sexual activity, but in order to ensure satisfaction, they must increase the riskiness of their actions. Bug chasers are suffering at the most severe level defined by Carnes (1983), victimization. They have an increased tolerance for their sexual behaviors, and as a corollary, need to escalate the risk and significance of the sexual act to get "high" (Bancroft et al., 2003; Bancroft, Janssen, Strong, & Vukadinovic, 2003). This means that they may be willing to engage in a variety of self-destructive sexual behaviors as a means of ensuring gratification. These include playing a passive role in dominating sexual encounters and engaging in paraphiliac, fetish-like behaviors that are self-debasing. And at some point, they seek the ultimate risk, that they will contract the ultimately terminal, human immunodeficiency virus.

## HYPOTHESES

To demonstrate that bug chasing is a symptom of sexual addiction, it is necessary to demonstrate that individuals in that group show greater signs of sexual addiction than do members of other groups within the gay community. Before assessing the propensities toward sexual addiction in each group, the propensities toward individual deviant sexual behaviors must first be analyzed by group.

Carnes' (1983) research cited three different, escalating levels of sexual behaviors: victimless sexual behavior, deviant sexual behavior, and victimizing sexual behavior. His research also suggested that where level one can range in its malignancy, levels two and three are exclusively pathological, and often illegal. Non-bug chasers, or what we refer to as barebackers, should be different from their chaser counterparts. This group should be relatively normal vis-à-vis the bug chasing community and should be a representation of the sorts of prototypical behaviors enacted by most gay men. Because they are not actively looking for seroconversion, they are going to be on a less depressed, less anxious, and more psychologically adjusted plane than the bug chasing group. They are simply less likely to hold the attributes of addiction.

### Hypothesis 1

Bug chasers differ from barebackers with regard to their preferences for sexual aggressiveness, involvement in scenes/subcultures, and interest in sexual activities/fetishes-like behaviors.

Chasers are suffering at the last of the aforementioned levels defined by Carnes (1983) as victimization. They may have exhausted the first two steps, or have an increased tolerance for their sexual behaviors, and as a corollary, need to escalate the risk and significance of the sexual act to gain that “ultimate high.” Bug chasing, if considered a sexual activity, would probably be categorized as a level three activity in Carnes’ model. The bug chaser is taking on the passive-victim role by, in essence, choosing to be killed.

## Hypothesis 2

Bug chasers are more likely than barebackers to show signs of sexual addiction on both behavioral and psychological measures.

## METHODS

### Procedures

Three hundred personal advertisements were pulled off of a barebacker website. Barebacking is “a phenomenon whereby some men intentionally engage in unprotected anal sex” (Mansergh et al., 2002, p. 653). This site contains the personal ads of gay men who wish to engage in such behavior. The personal ads contain responses to items through which an individual can provide background information, preferences for partners and sexual practices, as well as messages created for potential partners. The ads were kept perfectly intact and in their original chronological order by creation date and time. In terms of which profiles were selected, we only retrieved those profiles that had been recently visited by their creators. This ensured that the bug chaser still advertised as a person in search of HIV and it also ensured that the non-bug chaser was still actively advertising on the site.

### Participants

A total of 300 advertisements were drawn from the website. We selected the first 150 advertisements in which the individual self-identified as being a bug chaser, and the first 150 in which the individual did not self-identify as a bug chaser, but rather as just a barebacker. Within the bug chasing sample, we identified several problematic cases. There were 19 (12.7%) aberrant profiles in which the individuals self-identified as bug chasers, but reported an antithetical preference for exclusively HIV-negative partners. Because of this inconsistency, we reviewed each of the 19 profiles for missing data, confusion, and other blatant anomalies. After careful consideration, we decided to remove 16 of the 19 (10.7% of the initial sample of bug chasers) from the statistical analyses. It was abundantly clear, above and beyond the

HIV-negative only partner preference, that the 16 were completely clueless about the function and meaning of creating such a profile.

The final sample consisted of 284 ads. All bug chasers and barebackers reported that they were HIV-negative. The bug chasers ranged in age from 20 to 50 years ( $M = 31.0$ ,  $SD = 7.4$ ), while barebackers ranged in age from 20 to 58 years ( $M = 32.8$ ,  $SD = 8.8$ ). Location was divided into three ranges, local areas (population < 100K), midsized cities ( $100K \leq$  population < 500K), and major metropolitan areas ( $500K \leq$  population). Of the sample of bug chasers, 24.4% lived in local areas, 22.1% in midsized cities, and 53.4% in major metropolitan areas. Of the barebackers, 19.9% lived in local areas, 36.3% in midsized cities, and 43.8% in major metropolitan areas. The racial composite of the sample of bug chasers was comprised of 87.9% White men, 4.0% Black men, 4.0% Latino men, 1.6% Asian men, and 2.4% other, whereas the sample of barebackers was 85% White, 7.4% Black, 4.4% Latino, 1.4% Asian, and 1.4% other.

## Measures

Each advertisement contained two sets of information that were analyzed in this study. These items were created by the administrators of the website. First, individuals could answer a variety of items by selecting categories or by responding on Likert-type scales. Second, they could also respond to a number of open-ended items. These responses were formed into three sets of measures: behavioral preferences, scenes, and indicators of sexual addiction.

*Behavioral preferences.* Three sets of behaviors were created. First, two measures of sexual aggressiveness were formed. Individuals had the option to rate themselves and rate potential partners on a five-point sexual aggressiveness scale, 1 being very passive and 5, very aggressive. Second, respondents could express being active/dominant (no = 0, yes = 1) or passive/submissive (no = 0, yes = 1) with regard to 18 *non-normative* sexual or fetish-like behavior (Baltazar, 1997; Carnes, 1983, 2001; Kelley & Byrne, 1992; Krafft-Ebing, 1886; Lowenstein, 2002): verbally abusing another, being verbally abused by another, dominant role playing, passive role playing, dominating another, being dominating by another, urinating on another, being urinated on, defecating on another, being defecated on, playing with another's feet, having another play with one's feet, playing with another's armpit, having another play with one's armpit, getting fisted, fisting another, using sex toys on another, and having another use sex toys on oneself. To reduce the number of items, two exploratory factor analyses with Varimax rotations were performed on the dominant and submissive sides of the behaviors. A minimum Eigenvalue of 1.0 was used as a cutoff and selected items were clustered based on a minimum primary factor loading of .50 (Kaiser, 1960). Scree tests confirmed the validity of using the above criteria (Cattell, 1966). As Table 1 illustrates, four factors emerged that reflect dominant roles and

**TABLE 1** Factor Analysis: Loadings for Dominant and Submissive Components

	Components			
	Dominant 1	Dominant 2	Submissive 1	Submissive 2
Dominant Foot Play	<b>.500</b>	.380	—	—
Dominant Verbal Abuse	<b>.805</b>	.247	—	—
Dominant Role Playing	<b>.785</b>	.188	—	—
Domination	<b>.802</b>	.109	—	—
Dominant Urination	.313	<b>.683</b>	—	—
Dominant Fisting	.275	<b>.694</b>	—	—
Dominant Armpit Play	.380	<b>.579</b>	—	—
Dominant Sex Toy Play	.207	<b>.653</b>	—	—
Dominant Defecation	-.034	<b>.735</b>	—	—
Submissive Sex Toy Play	—	—	<b>.526</b>	.404
Submissive Urination	—	—	<b>.562</b>	.394
Submissive Verbal Abuse	—	—	<b>.814</b>	.207
Submissive Role Playing	—	—	<b>.823</b>	.163
Submission	—	—	<b>.871</b>	.176
Submissive Fisting	—	—	.349	<b>.578</b>
Submissive Foot Play	—	—	.250	<b>.732</b>
Submissive Armpit Play	—	—	.174	<b>.694</b>
Submissive Defecation	—	—	.099	<b>.736</b>

Extraction method: Principal Component Analysis. Rotation method: Varimax with Kaiser Normalization. Dominant and submissive components were derived from two separate factor analyses. Loadings bolded to show the defining components of each of the four factors, i.e., Dominant Foot Play, Dominant Verbal Abuse, Dominant Role Playing, and Domination drive the factor, Dominant 1.

submissive roles across the 18 activities. Factor scores were used in the analyses.

*Scenes.* Within each ad, several items asked about an individual's preferences for scenes and "individual types." We were most interested in the leather culture with its high degrees of sexual promiscuity, lasciviousness, and sadomasochistic propensities (Graham, 1998; Grumley, 1977; Thompson, 1991). These were coded absent or present; e.g., "I'm a leatherman," or "I'm looking for a leatherman," became, no = 0, or yes = 1.

*Sexual addiction.* Research into sexual addiction usually defines two operational constructs (Irons & Schneider, 1996). Quadland (1985), and Gold and Heffner (1998) provide more of a socioemotional explanation for how and why addiction develops and is maintained; Carnes (1983, 2001) suggests more of a classification of behaviors to explain affliction. Hence, a measure reflecting each one was created.

To assess the more psychological perspective of sexual addiction, the free-response areas of the 284 profiles were coded by two trained individuals working independently. Each profile was coded for the presence of two self-descriptors, sexual self-humiliation and sexual need (not present = 0, present = 1, for both). The main definition used for sexual self-humiliation was the use of masochistic expressions that self-referenced the individual in a sexually pejorative way (Carnes, 1983, 2001; Sandnabba, Santtila, &

Nordling, 1999; Santtila, Sandnabba, Alison, & Nordling, 2002). Exemplars for sexual self-humiliation were derived from previous research (namely, Carnes; Sandnabba et al.), and included: "I'm a whore/slut/pig," "... use me," "... make me your slave," "let me be your cumdump [*sic*]," etc. The main definition used for sexual need was the use of expressions that categorized the individual as either unable to function without copious sex, in constant search or constant contemplation about sex and sexual activities, or aroused by behavioral escalation (Carnes; Gold & Heffner, 1998; Irons & Schneider, 1996; Levine & Troiden, 1988; Quadland, 1985). Exemplars for sexual need were also derived from previous research (namely, Carnes; Kalichman & Rompa, 1995, 2001), and included: "no-limits sex," "need sex all the time," "ready for sex 24/7," "rape me," etc. Since both of these coded variables were measured on a binary scale and chance agreement could have been a substantial factor, Cohen's Kappas were calculated. Sexual self-humiliation intercoder reliability was .834. Sexual need intercoder reliability was .743. Both were acceptable. All disagreements were settled by a third party.

To assess the more behavioral model, a scale summing across 18 items concerning sexual and psychosexual variables was created,  $\alpha = .854$ . These 18 items were those that were previously factor analyzed. Where the 18 were factored into four variables for the purpose of having a more comprehensive understanding of specific behaviors for testing the first hypothesis, they were consolidated into a single scale to give an overall numerical index of willingness toward deviant sexual behavior for the second hypothesis. The higher an individual scored on the scale and thus, showing willingness toward behaviors enacted by sex addicts, the more likely he was to fall into Carnes' (1983, 2001) higher behavioral levels.

## RESULTS

### Statistical Overview

All ordinal and interval data were analyzed using t-tests, and  $\chi^2$  was used for analyzing all dichotomous variables. Missing data was found to be a significant problem. Since the participants had the option to leave certain fields blank or "unspecified" in their profiles, some chose not to enter a response. Hence, the sample size will vary across the analyses.

### Behaviors

*Passivity and aggressiveness.* We began our results by analyzing self- and partner-sexual aggressiveness differences between bug chasers and barebackers. Considering chasing is the ultimate behavioral expression of submission, it was expected that bug chasers would differ accordingly from barebackers. Table 2 contains means and standard deviations of bug

**TABLE 2** Self- and Partner-Sexual Aggressiveness by Group

	N	M	SD	SEM
Self*				
Bug Chasers	127	2.72	1.07	.10
Barebackers	137	3.11	.96	.08
Partner*				
Bug Chasers	123	4.24	.78	.07
Barebackers	131	3.82	.86	.08

\* $p < .001$ . Very passive = 1. Very aggressive = 5. Independent sample  $t$ -test for self-aggressiveness: ( $M$  diff =  $-.392$ ,  $SD_{pooled} = 1.015$ ),  $t(262) = -3.129$ ,  $d = -.386$ ,  $p < .001$ . Independent sample  $t$ -test for partner-aggressiveness: ( $M$  diff =  $.419$ ,  $SD_{pooled} = .82$ ),  $t(252) = 4.048$ ,  $d = .511$ ,  $p < .001$ .

chasers and barebackers with regard to these behavioral attributes. When self-reporting, barebackers were more likely to rate themselves as neither passive nor aggressive whereas bug chasers, passive. When reporting on a potential partner, barebackers were more likely to want a partner who was neither passive nor aggressive whereas bug chasers, aggressive.

The contrasting tendencies of bug chasers to be passive and report wanting an aggressive suitor were further supported by other variables, namely interest in the leather community. Individuals could select whether they self-identified as leathermen or were in search of leathermen, i.e., hyper-masculine men whose machismo is derived most conspicuously from wearing leather clothing, keeping their hair buzzed, and engaging in notoriously rougher, passive-aggressive sexual activities (Graham, 1998; Grumley, 1977; Thompson, 1991). As expected from the analysis on self-sexual aggressiveness, a significantly larger portion of bug chasers (29.1%) were more likely than barebackers (12.7%) to consider themselves leathermen,  $\chi^2(1, N = 284) = 11.767$ ,  $\Phi^2 = .042$ ,  $p = .001$ . Furthermore and in support of previous results, a majority of bug chasers (53%) reported wanting a partner who considered himself a leatherman over and beyond barebackers (38.7%),  $\chi^2(1, N = 284) = 5.853$ ,  $\Phi^2 = .021$ ,  $p = .016$ .

*Sexual behavior preferences.* No hypotheses were generated concerning the specific differences the two groups would show on the individual paraphiliac, fetish-like behavior factors; however, it was hypothesized ( $H1$ ) that the two groups would be different. Yet as a corollary of the aforementioned results on sexual aggression, it seemed that (a) barebackers should be no more inclined toward the dominant side of fetish-like behaviors than the submissive side, and bug chasers, more inclined toward the submissive rather than dominant side; and (b) bug chasers should be less inclined than barebackers toward the active fetish-like behaviors and more inclined than barebackers toward the passive fetish-like behaviors.

Table 3 shows a matched-pair analysis of the active and passive sides of these behaviors within the barebacker and bug chaser groups. Echoing

**TABLE 3** Dominant and Submissive Comparison: Within-Group Analysis

	Barebackers				Bug Chasers			
	D1, S1	D2, S1	D1, S2	D2, S2	D1, S1	D2, S1	D1, S2	D2, S2
M diff	.256	.193	.188	.125	-.286	-.216	-.210	-.139
SD	1.312	1.340	1.198	.964	1.210	1.425	1.566	1.130
SEM	.107	.109	.098	.079	.105	.123	.135	.098
T	2.386	1.759	1.919	1.583	-2.737	-1.751	-1.553	-1.429
DF	149	149	149	149	133	133	133	133
D	.195	.144	.157	.130	-.236	-.152	-.134	-.123
Sig.	<b>.018</b>	.081	.057	.116	<b>.007</b>	.082	.123	.155

Matched-pair t-test where, D = Dominant factor, S = Submissive factor. For principal components of these factors, see Table 1.

previous dynamics and supporting our prediction, there was no real significant difference between active and passive fetish-like behaviors among barebackers except regarding some of the more power-laden activities, e.g., active/passive verbal abuse, general submission/domination. The main reason for this significant difference was attributed to the implicit dichotomy within this factor; that is to say, one cannot simultaneously prefer being psychologically submissive and dominant.

Contrary to our predictions, intragroup analyses of the bug chasers suggested they were actually quite similar to barebackers. There was no substantial statistical difference between active and passive fetishes. It was only in the more power-laden fetish-like behaviors that passive was different from active; and again, the components comprising this factor were inherently dichotomous. Yet there was one aspect to emerge from these within group analyses to suggest initial behavioral intergroup individuation. Mean differences within bug chasers suggested that it was not that they tend toward dominant roles; it was that they tend toward submissive ones. Whereas within barebackers, it was not that they tend toward dominant roles; it was that they *do not* tend toward submissive ones.

Table 4 describes independent sample t-tests between barebackers and bug chasers for the four behavioral factors. Though it was thought that barebackers would favor the dominant factors over their chaser counterparts, there was no statistical difference between the two. Results comparing the groups on the submissive factors did confirm our hypothesis. Submissive factor 1, comprised mainly of the receptive sides of urination, sex toy play, verbal abuse, role play, and general submission, showed the greatest difference between the two groups, and following closely behind was submissive factor 2, comprised of subservient fisting, foot and armpit play, and defecation.

Within the bug chaser and barebacker groups, the degree to which dominant and passive orientations differ was ultimately insignificant. However, the valences of those mean differences were contrary. This did not suggest that barebackers were necessarily more dominant than bug chasers,

**TABLE 4** Active and Passive Sexual and Fetish-Like Behavior by Group

	N	M	SD	SEM
Dominant 1				
Bug Chasers	134	-.02	1.02	.09
Barebackers	150	.02	.99	.08
Dominant 2				
Bug Chasers	134	.05	1.07	.09
Barebackers	150	-.05	.93	.08
Submissive 1**				
Bug Chasers	134	.27	.97	.08
Barebackers	150	-.24	.97	.08
Submissive 2*				
Bug Chasers	134	.19	1.14	.10
Barebackers	150	-.17	.82	.07

\*\*Different at  $p < .001$ . \*Different at  $p < .005$ . For principle components of these factors, see Table 1.

Independent sample t-test for Dominant 1: ( $M$  diff =  $-.032$ ,  $SD_{pooled} = 1.005$ ),  $t(282) = -.267$ ,  $p = .789$ ,  $d = -.032$ .

Independent sample t-test for Dominant 2: ( $M$  diff =  $.102$ ,  $SD_{pooled} = 1.00$ ),  $t(282) = .857$ ,  $p = .396$ ,  $d = .102$ .

Independent sample t-test for Submissive 1: ( $M$  diff =  $.510$ ,  $SD_{pooled} = .970$ ),  $t(282) = 4.430$ ,  $p < .001$ ,  $d = .526$ .

Independent sample t-test for Submissive 2: ( $M$  diff =  $.366$ ,  $SD_{pooled} = .981$ ),  $t(282) = 3.070$ ,  $p = .002$ ,  $d = .373$ .

but it did suggest that bug chasers were indeed more submissive than their less pathological counterparts. The prediction that barebackers would show more of a general interest in the active side of the fetishes and bug chasers, more interested in the passive side was only partially proved. Bug chasers were more interested in passive sexual activities, but they were no more likely than barebackers to express interest in the active sides of behaviors.

### Indications of Sexual Addiction

*Psychological measures.* Two subscales reflecting psychological measures of addiction were used, sexual self-humiliation and sexual need. Bug chasers (30.6%) were significantly more likely to self-humiliate in their sexual presentation. Only 13.3% of barebackers used self-humiliating language,  $\chi^2(1, N = 284) = 12.507$ ,  $\Phi^2 = .044$ ,  $p = .001$ . Considering the Quadland (1985), and Gold and Heffner (1998) models indicating a strong link between depression, anxiety, humiliation, and sexual addiction, the propensity this self-humiliation variable represented supports a higher level of addiction-related tendencies within the bug chasing group. The sexual need variable provided a much more unambiguous interpretation of actual addiction. A significantly larger percentage of bug chasers (35.8%) than barebackers (24.7%) explicitly stated needing sex all the time, and/or being addicted to sex and sexual behaviors,  $\chi^2(1, N = 284) = 4.199$ ,  $\Phi^2 = .014$ ,  $p = .04$ .

*Behavioral measures.* The degree to which the two groups differed on the 18 item scale of sexual and psychosexual behaviors was then examined. The higher an individual scored on the scale, the more likely he was to fall into Carnes' (1983, 2001) higher levels—levels that include activities such as scatology, urination, exhibitionism, etc. Means were derived for both barebackers and bug chasers. For level one and two behaviors, bug chasers ( $M = 5.49$ ,  $SD = 4.16$ ) were more likely than barebackers ( $M = 3.69$ ,  $SD = 3.65$ ) to exhibit or show interest,  $t(282) = 3.862$ ,  $d = .458$ ,  $p < .001$ . This suggested that bug chasers, as a group, were more prone toward behaviors indicative of addiction.

To gain a better understanding of the interplay between our psychological and behavioral measures of sexual addiction, we found the behavioral scale mean for the entire group of individuals who explicitly claimed to need sex was a little more than two points higher than for the entire group that did not,  $M = 5.99$ ,  $SD = 4.61$  and  $M = 3.92$ ,  $SD = 3.54$  respectively,  $t(282) = 4.104$ ,  $d = .508$ ,  $p = .001$ . Then we compared the mean for those who claimed to need sex to the mean of bug chasers,  $M_{diff} = .505$ ,  $SD = 4.39$ ,  $t(133) = 1.404$ ,  $p = .163$ ,  $d = .115$ . Since there was no significant difference between bug chasers and sex addicts on the behavioral scale, we further concluded an association between chasing and addiction.

There was an even stronger relationship between one's poor sexual self-concept and their want to perform sexual behaviors. For the entire group of individuals who expressed self-humiliation in their profiles, the mean from the behavioral scale was almost 4 points higher than for the entire group that did not,  $M = 7.34$ ,  $SD = 3.90$  and  $M = 3.77$ ,  $SD = 3.68$  respectively,  $t(282) = 6.640$ ,  $d = .944$ ,  $p < .001$ . Again, we compared the mean for those who claimed to sexually self-humiliate to the mean of bug chasers,  $M_{diff} = 1.85$ ,  $SD = 4.03$ ,  $t(133) = 5.157$ ,  $p < .001$ ,  $d = .459$ . Although they were significantly different, the statistics showing that those who self-humiliate rank highest on the behavioral scale, and that bug chasers are more like to self-humiliate than barebackers, provide ancillary support for the association between chasing and sex addiction. Granted we cannot necessarily claim causality, and the precise translations between behaviors, sexual self-concept, and addiction remain nebulous at best; in this research, there is a strong and undeniable link between the three.

## DISCUSSION

The first question guiding this research concerned the behavioral differences between bug chasers and barebackers. It was posited that bug chasers would be less inclined than barebackers toward the dominant fetish-like behaviors and more inclined than barebackers toward the submissive behaviors. This hypothesis was partially verified. Bug chasers were sexually passive and reported greater interest in partners who identify as sexually aggressive.

Incidentally, they were more likely than barebackers to be involved in the leather scene. Though more likely to tend toward passively-oriented behaviors, they were no more likely than their bareback counterparts to be active performers of fetishes. Overall, chasers were recipient or subservient regarding roles.

Through the previously mentioned results, it becomes evident that built into the bug chasing culture is a voluntary power inequity. Relinquishing sexual aggression to another becomes an aphrodisiac where the bug chaser becomes the passive victim to the serodiscordant partner's aggressive killer. Infection becomes a sort of suicidal pregnancy; the idea of being "bred" becomes an actualization. Chasing becomes the ultimate expression of subjugation, humiliation, and passivity—all of which are simply not voiced by the bareback community, all of which are incredibly arousing for chasers.

But aggression is merely one of myriad variables on which the two groups behaviorally differ. Bug chasers' affinity for the submissive sides of paraphilias and fetish-like behaviors is of substantial relational importance. Adding to these ideas of subjugation and humiliation, by embracing activities such as sexual want of another's feet, getting fisted, or taking another's urine or excrement, a truly explicit picture of depravity and degradation emerges. Where the barebacker is equal, the bug chaser is unworthy.

The values and expressions of the leather culture seem to be extremely attractive for the bug chaser. This is of little surprise. The preponderance of sadomasochistic behaviors and passive/aggressive relational dynamics make the leather identity alluring for the chaser. In terms of being leather-oriented, the overwhelming themes of hypermasculinity and reception found throughout the leather culture are certainly appealing to the bug chaser (Thompson, 1991). And the machismo and harshness associated with leather are arousing; the inclusiveness found within the culture's values makes assimilation and acceptance easier than in other social expressions of homosexuality (Graham, 1998; Grumley, 1977).

The second hypothesis concerned the degree to which the groups differ over sexual addiction measures. It was initially thought and later confirmed that bug chasers would show stronger indications of sexual addiction. On three different measures, the 18 point scale of sexual behaviors, the sexual self-humiliation, and sexual need coding schemes, the bug chasing group ranked higher on all three. Although we did not intend to test alternative explanations of bug chasing, we do not believe that the four cited at the beginning of this report provide adequate accounts for our results. The willingness of bug chasers to engage in a wide variety of self-destructive sexual activities and fetishes does not seem to reflect (a) a desire to join the community of individuals who are HIV-positive, (b) the belief that HIV is livable, (c) a negative reaction to safe sex campaigns, or (d) a desire to control the conditions under which HIV is contracted. They seem to reflect a cluster of

symptoms associated with sexual addiction in which an individual is seeking increasingly risky behavior.

### Limitations

This research was some of the first to utilize quantitative methodology to examine bug chasing and bug chasers. Considering the measures that shield protected groups, sampling was a definite limitation for this study. It would have been much more interesting and much more enlightening to have surveyed and questioned real individuals rather than deriving results from individuals' profiles. An unforeseen limitation of the profile method was missing data and so, the exact meaning, significance, and effects of an individual purposely omitting certain information were unknown. Also, using preexisting profiles introduced a lack of control over the variable fields. No additional questions could be added. Finally, past history was largely ignored in this study. Granted the profiles were extremely informative and strong results were provided, what they gave was merely a snapshot of the individual at a particular point in time.

### Future Research into the Bug Chasing Phenomenon

Where our results only described bug chasers and compared them to barebackers, the "gift giver" culture has been conspicuously omitted from the analysis. Gift givers are the HIV-positive side of this serodiscordant culture. Bug chasers search for gift givers to infect them. Thus, the bug chaser and gift giver become "bug brothers" (Gauthier & Forsyth, 1999). No academic or peer-reviewed summary has yet been established documenting their behaviors or propensities. As have been written with respect to the bug chasing phenomenon, some articles and internet responses have documented giver appearances within the greater homosexual population (namely Gauthier & Forsyth, 1999; Hill, 2003; Triunfol, 2003). But are these gift givers the metaphoric and actual positive to the bug chaser's negative? Are they sexually aggressive where bug chasers are rather passive? Do they enjoy more of the active fetishes over the passive ones? Are they exclusively looking for bug chasers to infect or are they engaging in "sneaking," where the giver purposely deceives an HIV-negative individual as to attempt an involuntary seroconversion? Are they also addicted to sex and paraphiliac behaviors? All of these questions still need answering and only until a similar profile of gift givers is created can a truly robust picture of voluntary seroconversion be understood.

### Implications and Conclusions

It would be convenient to blame the appearance of bug chasing on HIV-fatigue or on the availability of highly active antiretroviral therapies (HAART).

It would be easy to attack the leather community as a parent culture and remove accountability from individual chasers. The results of this study even seem to support some of these culpabilities. However, the implications of bug chasing and the solutions to the problem cannot so easily be packaged into community interventions or anti-HIV posters in bathhouses and gay bars. The current research shows above all else that this is such a multifaceted problem, a single answer or solution would be insufficient.

Quadland (1985), Gold and Heffner (1998), and others suggest that sexual addiction is a condition derived from assuaging depression and anxiety with sex; and research from the Gay and Lesbian Medical Association states that depression, anxiety, and suicide affect gay men significantly more than any other population (Dean et al., 2000). This increased likelihood coupled with the general increased availability of sex makes the gay community more likely to fall victim to sexual addiction (Pincu, 1989). So the question is not how does one stop bug chasing but rather, how does one stop individuals from becoming sexual deviants and sexual addicts? Intolerance, discrimination, hatred, and, inter- and intragroup alienation are all issues that cause depression and anxiety (Dean et al.). Healthcare workers and HIV prevention advocates must first start looking for the self-medication of these negative feelings with increased sexual frequency and behavior, and correct this above all else. Behaviors like drug abuse, alcoholism, sex addiction, and now its correlate, bug chasing, are symptoms of a greater depression. By merely treating the symptom and not the problem, the gay community leaves itself ripe for further infections. For in the final analysis, substance abuse, sex abuse, and bug chasing are all forms of escapism, where the individual psychologically vacations through other- rather than self-focus.

A further implication of this study is the recognition of bug chasing as a real behavior and not merely a dubious phenomenon. Though chasing is by no means normative, workers in the field must begin to link an increase in general STD infections with perhaps an active search for STDs by individuals. Current sexual practices are insufficiently risky for some individuals and by bringing them to the next level, a further and more elaborate orgasm is achieved. Only through intervention and disassociation can STD's and HIV be made less sexy and more dangerous. A study on African men suggests that in cultures where HIV is prevalent its meaning and implications change. For Malawi youths, seroconversion has become a sort of status symbol where infection is construed as a measure of sexual virility, masculinity, and pride (Kaler, 2003). Some homosexual individuals in Western cultures seem to be adopting similarly pathological conceptions about the virus. It is only by disproving these false correlations that chasing will be perceived as unattractive.

But none of this is easy. How does one convince pharmaceutical companies to stop lucratively imaging HIV/AIDS as livable? How does one re-stigmatize HIV/AIDS while still being sensitive to those who inadvertently or

incidentally contracted the disease? How does one ask a group to emphasize the virulence of a disease that affects as many as 20% of its members (Van de Ven et al., 2002)? The truth is that most bug chasers are not showing up at health clinics and are certainly not talking about their intentions with their healthcare providers. No matter the improvements made by organizations, this is a phenomenon that will continue to live and thrive outside of the walls of neighborhood health clinics, hospitals, and doctors' offices. Unfortunately, the only way to stop bug chasing is by making HIV/AIDS as terrifying as it was for gay men circa 1985. All that is certain is that since this study's sample was collected, over 200 new HIV-negative bug chaser profiles have been created.

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