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Sexual orientation of men with pathological gambling: prevalence and psychiatric comorbidity in a treatment-seeking sample

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Abstract

Although gay men represent a high-risk group for psychiatric illness and impairment, they are largely an understudied population. The purpose of the present study was to examine the sexual orientation and clinical correlates of men with pathological gambling (PG). Sexual orientation was assessed in 105 men presenting with PG. Gay and bisexual men with PG were compared with heterosexual men in terms of gambling symptoms, impairment, and co-occurring psychiatric disorders. Of 22 men (21.0%) with PG, 15 were gay (14.3%) and 7 were bisexual (6.7%). Gay and bisexual men vs heterosexual men were more likely to be single (81.8% vs 21.7%; $\chi^2_2 = 28.2$; $P < .001$), have a lifetime (81.8% vs 44.6%; $\chi^2_1 = 9.7$; $P = .002$) or current (68.2% vs 34.9%; $\chi^2_1 = 7.9$; $P = .005$) impulse control disorder, and have a lifetime substance use disorder (59.1% vs 31.3%; $\chi^2_1 = 5.7$; $P < .05$). Gay and bisexual men with PG also showed a trend toward greater impairment ($P = .04$). Psychiatric comorbidity and impairment are high in gay and bisexual men with PG. Research is needed to optimize patient care for gay and bisexual men with PG.

1. Introduction

Although sexual orientation is a complex construct, the National Health and Social Life Survey found that approximately 3% of men in a community sample identified as gay or bisexual [1]. Gay and bisexual men experience high rates of depression, anxiety, and substance use disorders [2–9]. In fact, some studies suggested that almost half of gay and bisexual men (42%–49%) suffer from a psychiatric disorder [10]. In particular, gay and bisexual men appear to suffer from substance use disorders at 2 to 3 times the rate found in the general population [11,12]. Gay as compared with heterosexual men also report lower qualities of life [2,10]. Together, these findings suggest that gay men represent a high-risk group for various psychiatric illnesses, particularly addictive disorders.

Pathological gambling (PG) is a relatively prevalent impulse control disorder more frequently found in men [13]. Because of its phenomenological similarities to substance use disorders, PG has been described as a behavioral addiction [14]. Pathologic gambling is associated with functional impairment and high rates of psychiatric comorbidity [15–17]. Although past-year adult prevalence rates for PG are estimated at 1%, PG has not been assessed in most epidemiological studies on psychiatric disorders [18], including those investigating sexual orientation [6].

This study had 3 purposes: (1) to examine the relationship of sexual orientation to psychiatric disorders by examining the sexual orientation of men with PG; (2) to compare the rates of

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psychiatric disorders in gay and bisexual men with PG with those of heterosexual men with PG; and (3) to examine how these 2 groups differ in terms of psychosocial functioning.

2. Methodology

2.1. Subjects

Participants were 105 consecutive male outpatients aged 18 years or older and who met *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* criteria for PG. Participants were recruited by advertisements and referrals for a cognitive-behavioral study, pharmacologic studies, or outpatient treatment. The institutional review boards of the University of Minnesota and the Butler Hospital approved the studies and consent statements. All participants provided written informed consent.

2.2. Assessments

All subjects met *DSM-IV* criteria for PG using the clinician-administered Structured Clinical Interview for Pathologic Gambling, a valid and reliable diagnostic instrument [19]. Psychiatric diagnoses for mood, anxiety, substance use, psychotic, somatoform, eating, and adjustment disorders were assessed using the Structured Clinical Interview for *DSM-IV* (Table 1) [20].

Subjects were individually and privately interviewed by the first author regarding their same-sex sexual relationships and sexual orientation. Specifically, subjects were asked about their sexual behavior, attraction, and sexual identity. Subjects were classified as gay or bisexual based on their sexual identity. In addition, subjects who identified as gay or bisexual were asked if they currently lived with a partner. Information were elicited without the use of a standardized assessment.

Impulse control disorders were examined using the Minnesota Impulsive Disorders Interview, a reliable and valid semistructured clinical interview for trichotillomania, pyromania, intermittent explosive disorder, kleptomania, compulsive buying, and compulsive sexual behavior (Table 2) [21]. In a study on co-occurring impulse control disorders in psychiatric inpatients, the Minnesota Impulsive Disorders Interview demonstrated the following classification accuracy rates for each impulse control disorder based on subsequent structured clinical interviews: compulsive buying, sensitivity of 100% and specificity of 96.2%; kleptomania, sensitivity of 89.5% and specificity of 93.0%; PG, sensitivity of 100% and specificity of 98.4%; intermittent explosive disorder, sensitivity of 100% and specificity of 97.4%; compulsive sexual behavior, sensitivity of 80.0% and specificity of 96.9%; pyromania, sensitivity of 100% and specificity of 100%; and trichotillomania, sensitivity of 100% and specificity of 98.5% [21].

The Sheehan Disability Scale (SDS), a 3-item reliable and valid self-report measure of functioning at work, in social/leisure activities, and in home/family life, assessed functional impairment [22]. The SDS total score ranges from 0 to 30, with higher scores reflecting greater functional impairment.

2.3. Statistical analysis

Subjects grouped by sexual orientation (gay and bisexual vs heterosexual) were compared on measures of sociodemographics; lifetime and current rates of impulse control disorder as well as nonimpulse control disorder psychiatric comorbidity; and impairment. Between-group differences were tested using Pearson χ^2 analysis, Fisher exact test, or *t* test (two tailed). Because we performed multiple comparisons, we used an adjusted α level of $P < .01$; we did not adjust the α level to reflect all statistical comparisons because this is the first study on this

topic and is therefore exploratory—in addition, the Bonferroni correction tends to be overly conservative [23].

3. Results

One hundred five consecutive male subjects (mean age \pm SD = 46.1 \pm 11.5 years; range = 21–75 years) were assessed. Twenty-two (21.0%) subjects identified themselves as gay or bisexual (95% confidence interval [CI] = 13.2%–28.8%): 15 (14.3%) identified as gay (95% CI = 7.6%–21.0%) and 7 (6.7%) identified as bisexual (95% CI = 1.9%–11.5%). Most subjects were white (n = 102; 97.1%) and had some college education (n = 82; 77.1%). Gay and bisexual men were more likely to live alone (χ^2_2 = 28.2; P < .001). There was no significant difference in terms of age, education, or race/ethnicity between the gay and bisexual and heterosexual male gamblers.

Gay and bisexual men were more likely than heterosexual men to report a lifetime (81.8% vs 44.6%; χ^2_1 = 9.7; P = .002) or current (68.2% vs 34.9%; χ^2_1 = 7.9; P = .005) impulse control disorder (Table 2). Of those with impulse control disorders, proportions acknowledging compulsive sexual behaviors differed most between gay and bisexual men and heterosexual men (lifetime: 59.1% vs 16.9%, χ^2_1 = 16.2, P < .001; current: 50.0% vs 9.6%, χ^2_1 = 19.1, P < .001). Gay and bisexual men were more likely than heterosexual men, on a trend level, to report a co-occurring lifetime nonimpulse control psychiatric disorder (95.5% vs 73.5%; χ^2_1 = 4.9; P = .03). Of those with these disorders, proportions acknowledging substance use disorders differed most between gay and bisexual men and heterosexual men (59.1% vs 31.3%; $\chi^2_{1,103}$ = 5.7; P < .05). Proportions acknowledging current substance use disorders did not differ significantly between gay and bisexual men and heterosexual men (13.6% vs 9.6%; P = .16). Gay and bisexual men vs heterosexual men scored higher on the SDS, although this did not reach statistical significance (14.7 vs 12.8; $t_{1,103}$ = -2.1; P = .04).

4. Discussion

To our knowledge, this is the first study to examine the relationship between sexual orientation and psychopathology in men with PG. Although general sociodemographic characteristics between gay and bisexual men and heterosexual men with PG were largely similar, gay and bisexual men were more likely to report living alone without a partner, consistent with population-based surveys of gay men [6]. However, the proportion of gay and bisexual men in this study (20.1%) is considerably higher than that in the general population (3%), raising the possibility that gay and bisexual men might be at increased risk for PG, as appears to be the case for other psychiatric disorders [6,8,10]. These findings suggest the need to include PG and sexual orientation measures in future psychiatric epidemiological studies. Specifically, because of the complexity of sexual orientation, measures should assess sexual identity, sexual attraction, sexual fantasy, and sexual behavior [24,25].

More frequent acknowledgement of impulse control disorders and other psychiatric disorders was observed in gay and bisexual men compared with heterosexual men with PG. These between-group differences appeared largely attributable to higher proportions of gay and bisexual men acknowledging compulsive sexual behaviors and substance use disorders. These findings suggest that PG in gay and heterosexual men is associated with impaired impulse control over a wider range of addictive activities than in heterosexual men with PG. The diagnosis of compulsive sexual behavior has merited some skepticism, particularly in the context of gay men who may simply have more sexual outlets than heterosexual men. The

sexual behaviors described by this sample, however, were consistent with the diagnosis of compulsive sexual behavior proposed by various clinicians [26,27].

The observed rate of lifetime substance use disorder in gay and bisexual men with PG (59%) is notably higher than the rates reported in the general population (26.6%–29.0%) [18] or in general surveys of gay men [6]. In addition, the lifetime rate of substance use disorders in the heterosexual men in this sample is slightly lower than the rates found in other samples of individuals with PG (36%–63%) [13]. The lifetime rate of substance use disorders in this entire sample was approximately 37.1%, but the rate of lifetime substance use disorders in the heterosexual gamblers was only 31.3%. Although exact reasons for this difference are unclear, one possible explanation may be that this sample consisted of treatment-seeking pathologic gamblers and that these subjects may have less lifetime comorbidity as compared with general population samples of gamblers. In addition, no previous study examined whether the elevated rates among gamblers were associated with gay or bisexual orientation. Because both individuals with PG and gay men appear to be at risk for substance use disorders, gay gamblers may be at even greater risk of developing a substance use disorder.

Furthermore, although the rates of current and lifetime compulsive sexual behaviors found in this study's entire sample (18.1% and 25.7%, respectively) are consistent with those reported among pathologic gamblers (23%) [13], the rates of current and lifetime compulsive sexual behaviors among gay and bisexual male pathologic gamblers in this sample (50% and 59%, respectively) are notably higher. Future studies should assess more closely the role of sexuality in patients with co-occurring addictions.

The greater impairment in gay and bisexual men as compared with heterosexual men with PG is consistent with findings in other populations of gay men. Decreased scores on quality-of-life measures have been linked to low self-esteem in gay men [2]. The extent to which these factors influence addictive behaviors such as PG remains to be explored.

Identification of sexual orientation among gamblers may have treatment implications. Given the elevated rates of other addictive behaviors, gay and bisexual male pathologic gamblers may require more intensive or specialized treatment services as compared with heterosexual gamblers and the treatment interventions may need to address a wide range of impulsive behaviors and disinhibition. Systematic PG efficacy studies to date have not examined the differential treatment response of PG based on sexual orientation; future studies should investigate this issue.

This study has several limitations. Subjects were categorized based on self-identification of their sexuality. Sexual orientation was not assessed with a standardized instrument. Because sexuality is often a difficult issue for men, gay or bisexual orientation may be underreported. Conversely, however, the subjects may be generally more disinhibited and therefore more likely to accurately report their sexual orientation despite society's lack of acceptance. Treatment-seeking pathologic gamblers may differ from individuals who do not seek treatment or have a less severe form of gambling pathology. The extent to which these results generalize to the larger population of pathologic gamblers warrants future study.

5. Conclusions

The results of this exploratory study suggest that a gay or bisexual orientation may be common in people with PG and frequently co-occurs with other addictive behaviors. Additional research on this topic are needed, including larger prevalence studies and studies that may shed light on the relationship between sexual orientation and PG (eg, prospective studies and studies on etiology and pathophysiology). Also greatly needed are treatment studies to identify efficacious treatments for gay and bisexual patients with multiple addictive behaviors.

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Table 1
Psychiatric comorbidity in gay/bisexual men compared with heterosexual men with PG

SCID diagnosis	Gay/Bisexual men (n = 22)		Heterosexual men (n = 83)	
	Lifetime	Current	Lifetime	Current
Any mood disorder	6 (27.3)	0 (0)	25 (30.1)	5 (6.0)
Any anxiety disorder	4 (18.2)	2 (9.1)	28 (33.7)	7 (8.4)
Substance use disorder	13 (59.1) *	3 (13.6)	26 (31.3)	8 (9.6)
Psychotic disorder	0 (0)	0 (0)	0 (0)	0 (0)
Somatoform disorder	2 (9.1) *	1 (4.5)	0 (0)	0 (0)
Eating disorder	2 (9.1) *	0 (0)	0 (0)	0 (0)
Adjustment disorder	2 (9.1)	0 (0)	3 (3.6)	0 (0)
Any SCID diagnosis	21 (95.5) *	6 (27.3)	61 (73.5)	16 (19.3)

Values are expressed as n (%). SCID indicates Structured Clinical Interview for *DSM-IV*.

* $P < .05$, significantly different from heterosexual male gamblers.

Table 2

Impulse control disorders in gay/bisexual men compared with heterosexual men with PG

MIDI diagnosis	Gay/Bisexual men (n = 22)		Heterosexual men (n = 83)	
	Lifetime	Current	Lifetime	Current
Compulsive buying	5 (22.7)	4 (18.2)	12 (14.5)	10 (12.0)
Compulsive sexual behavior	13 (59.1) ***	11 (50.0) ***	14 (16.9)	8 (9.6)
Kleptomania	1 (4.5)	0 (0)	3 (3.6)	2 (2.4)
Intermittent explosive disorder	2 (9.1)	1 (4.5)	4 (4.8)	4 (4.8)
Trichotillomania	0 (0)	0 (0)	2 (2.4)	2 (2.4)
Pyromania	0 (0)	0 (0)	0 (0)	0 (0)
Any MIDI diagnosis	18 (81.8) **	15 (68.2) **	37 (44.6)	29 (34.9)

Values are expressed as n (%). MIDI indicates Minnesota Impulsive Disorders Interview.

** $P < .01$, significantly different from heterosexual male gamblers.

*** $P < .001$, significantly different from heterosexual male gamblers.