

Abstract

This study compares 29 homosexual, 74 bisexual, and 546 heterosexual women using six measures of psychopathology. Demographics gathered included ethnicity, religion, socioeconomic status, self-described current psychiatric disorders, and use of psychoactive medications. In addition, two clinicians summarized diagnostic information provided by participants and estimated a primary and secondary diagnosis when appropriate. Results demonstrated no differences between homosexual and heterosexual women on any of the variables. Bisexual women, however, scored significantly higher than homosexual women on Low-Serotonin, Depression, Survivor Guilt, and Neuroticism. Bisexual women also scored significantly higher than homosexual women on Low-Serotonin, Depression, and Neuroticism. These results suggest that bisexual women are at higher risk for psychopathology. In prior research comparing women differing in sexual orientation, homosexual and bisexual women were commonly collapsed into one category, and compared to heterosexual women as a separate category. The results of this study emphasize the importance of categorizing homosexual and bisexual women separately, if comparisons of women differing in sexual orientations are to yield accurate and useful data. There have been few empirical investigations of bisexual women as a separate category, even in studies comparing women differing in orientation. These results demonstrate the importance of recognizing and identifying a group that may be facing a unique set of problems and social conditions. Bisexual women may be confronted with greater social isolation, in addition to subtle discrimination, without the benefit of belonging to an identified though stigmatized group, who gain confidence from the solidarity associated with clear group membership. We suggest that future research be conducted in order to identify and understand the particular stressors faced by bisexual women, who it seems, may have been systematically neglected as a group. The lack of prior research may be a manifestation of the problems faced by this group, present a possible explanation for these findings. Our results call for further studies, focused on identifying the particular stressors currently facing bisexual women. The social isolation and neglect experienced by this group may have prevented them from receiving supportive and effective treatment, with attention to their unique problems and particular needs.

Introduction

Although homosexuality itself was finally no longer labeled as a mental disorder in the mid-seventies, the debate on the possible psychological problems associated with homosexuality has continued on, as homosexuals are also stigmatized in many social groups and communities. Today, this discussion often takes the form of suggesting that homosexuals have higher rates of mental health problems, when compared to heterosexuals (Cochran, Sullivan & Mays, 2003; Cochran & Mays, 2000; Gilman et al., 2001; Hereil et al., 1999; Sandfort, de Graaf, Bijl, & Schnabel 2001). Others report on studies demonstrating no differences between homosexuals and heterosexuals in rates of psychopathology (Gonstork, 1982, 1991; Foss, Paulsen, & Galstork, 1989). While this perhaps quietly political debate continues, there seem to be few investigations of the rates of mental disorders in bisexual individuals.

Same-sex sexual behavior has occurred throughout the history of our species (Greenberg, 1989); however, the prevalence of homosexuality and bisexuality has often been unknown or underrated, due to the bias against homosexuality in many human cultures. Homosexuality has also gone "unobserved" in non-human animals, despite the frequency of varied sexuality in other animals. This bias is seen in the work of ethnologists, zoologists and other scientists observing animal behavior (Baginhl, 1999). Variability in sexual preferences and orientations are only now

being "discovered" and acknowledged as common-place, though homosexual behaviors are still labeled as "deviant" by many (Kirkpatrick, 2000). Our culture, in general, continues to hold the belief that homosexual behavior is rare, and to conclude that people engaged in same sex encounters or pair bonding, are abnormal, or are deviating from "the norm." Thus, goes the logic, homosexuals, or people attracted to, or preferring a same sex partner, briefly or in a pair bond, are likely to suffer from some type of psychopathology.

In 1973, The Council of the American Psychiatric Association, voted unanimously to remove the diagnosis of homosexuality from the Diagnostic and Statistical Manual and to recognize homosexuals' civil rights (Lafferty, 2000); however, it was not until 1987 that homosexuality was completely removed from the manual. The American Psychological Association followed suit and has continued to pass amendments to eliminate prejudice and to insure the rights of homosexuals (APA, 1975, 1987, 1992, 1997). While many mental health professionals were supportive of the removal of the diagnosis, some continue to believe homosexuality represents a deviance, a psychopathological condition, a disorder, connected to higher rates of mental illness (Garnets, Hancock, Cochran, Goodchilds, & Peplau, 1991; King et al., 2004; Shilds & Schroeder, 2002).

Since Hooker's (1957) landmark study, demonstrating that homosexuality and psychopathology are not intrinsically connected, other studies have reached similar conclusions. In contrast, other investigators have reported that homosexuals experience more mental health problems. In most studies, bisexual individuals were not included as a separate group; instead, researchers most often collapsed bisexuals and homosexuals into one category, as is commonly done when a group is thought to have too small numbers to be studied statistically. The assumption has been that bisexuals and homosexuals are similar in terms of the variables being investigated. This assumption however, has failed to be supported by empirical research.

The data used in this analysis is part of a larger study on emotions and personality, still underway. While the larger study was not designed to study sexual orientation in particular, we are always interested in human variation, at the level of the individual and/or the group. The larger study overall was designed to better understand the traits or attributes that may contribute to vulnerability to psychopathology. The findings surprised us; we expected to find no differences between the groups in the present study. Every study leads to the next, and this data analysis, using a subsample of a larger study, has definitely opened our eyes to the need for future research, as we have yet to explain these results to our satisfaction.

Results

We found that 25 (33.8%) bisexual, 149 (27.3%) heterosexual and 9 (31.0%) homosexual participants indicated a current psychiatric disorder; and 7 (9.5%) bisexual, 44 (8.1%) heterosexual and 4 (13.8%) homosexual participants had a secondary disorder as well (see Table 1). Additionally, 24 (32.4%) bisexual, 146 (26.7%) heterosexual and 9 (31.0%) homosexual were currently using a psychoactive medication (see Figure 1).

Using an ANOVA, we found bisexuals significantly higher than heterosexual women in Low-Serotonin, Depression, Survivor Guilt, and Neuroticism. Bisexual women were significantly higher than homosexual women on Low-Serotonin, Depression and Neuroticism (see Figure 2 and Table 2).

Table 1. Mental Disorders as Self-Reported by Respondents: Primary Diagnosis

Sexual Orientation	Mental Disorders	Frequency	Percent
Bisexual	None	49	66.2
	ADHD	1	1.4
	Anxiety	5	6.8
	Bipolar	3	4.1
	Depression	14	18.9
	OCDD	2	2.7
	TBD	7	9.3
Heterosexual	None	327	72.7
	ADHD	3	5
	Anxiety	18	3.3
	Bipolar	15	2.7
	Depression	98	17.9
	OCDD	4	7
	Addiction	1	2
	Alzheim	1	2
	Cyclothym	1	2
	Insomnia	2	4
PTSD	6	1.1	
Homosexual	None	346	100.0
	ADHD	20	89.4
	Depression	6	27.6

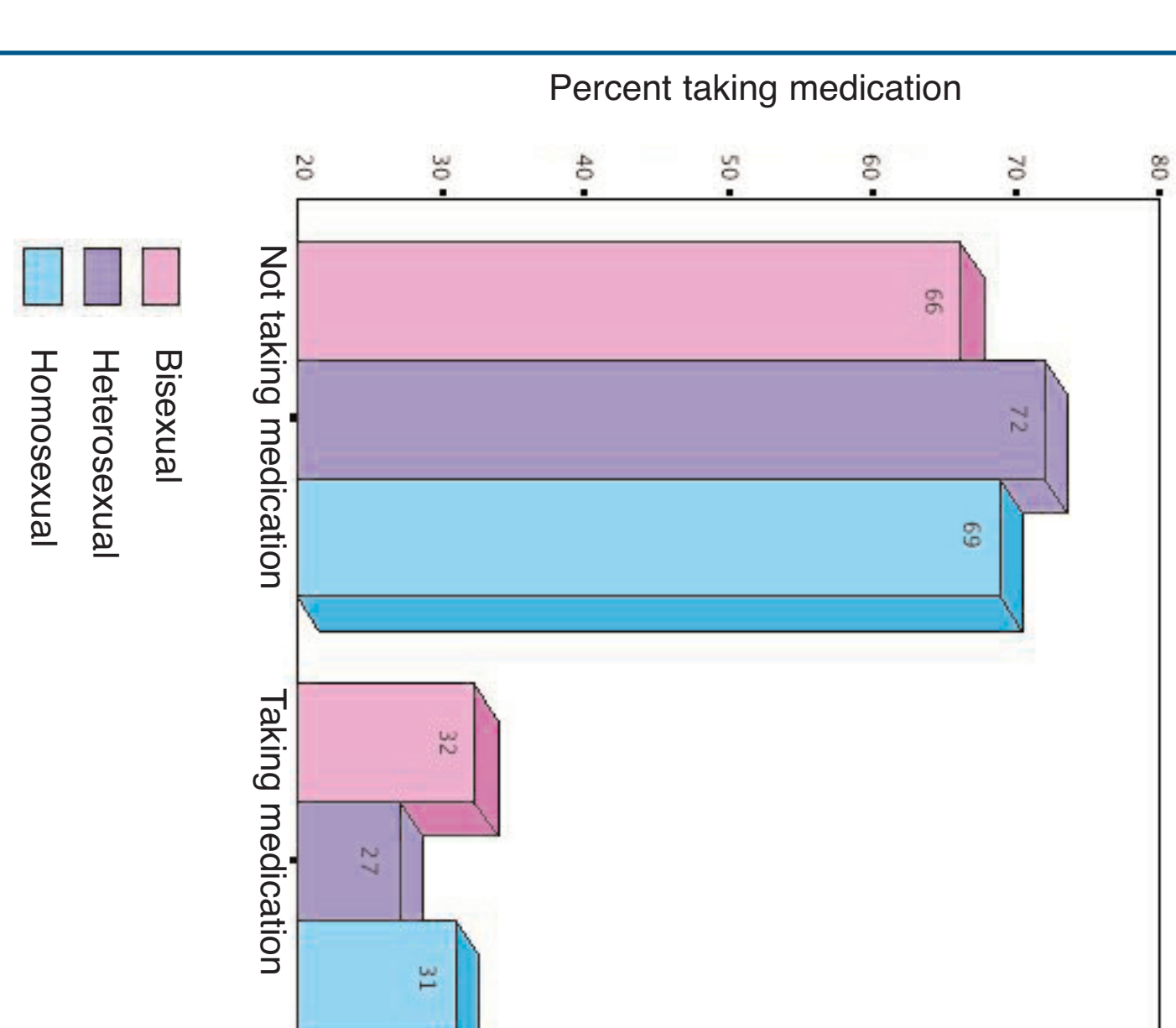


Figure 1. Percent on Medication

Comparing Vulnerability to Distress among Bisexual, Homosexual and Heterosexual Women

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Figure 2. Women's Sex Orientation

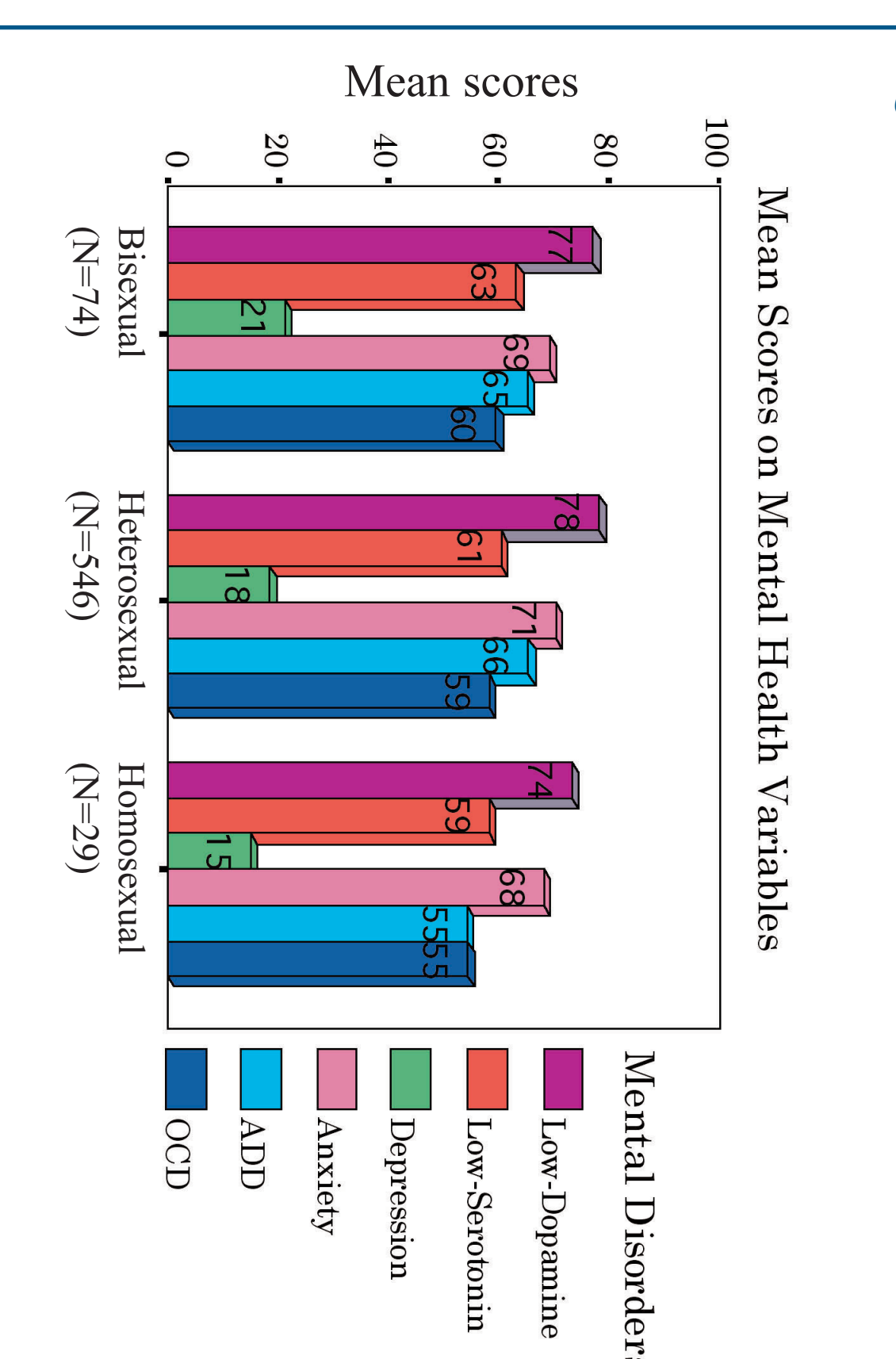


Table 2. Dependent Variable Analysis

Sum of Squares	Mean Square	F	Significance
Low-Dopamine	345,233	172.617	.886 .413
High-Velocity	42,095	21.047	2.297 .101
Low-Serotonin	1313,154	656.577	6.111 .002**
Survivor Guilt	556,674	282.937	3.658 .026*
Omnipotent Guilt	260,700	130.350	2.671 .070
Depression	900,311	450.166	3.070 .047*
Anxiety-Self	876,888	438.444	1.239 .290
Anxiety-Other	10,665	5.333	.433 .649
Anxiety-Overall	959,411	479.706	1.102 .333
ADD	1714,600	857.300	1.646 .194
Extroversion	11,623	5.811	.100 .905
Agreeableness	21,769	10.884	.308 .735
Conscientiousness	241,112	120.556	2.589 .076
Neuroticism	318,474	159.237	3.248 .039*
Openness	210,223	105.112	2.238 .107
OCD	383,965	191.982	2.025 .134

* Significant at p<.05 level

** Significant at p<.01 level

Methods

Participants
In this Internet-based study there were 649 women (546 heterosexual, 74 bisexual and 29 homosexual), recruited through listserve postings, word of mouth, and repeated postings in the "Volunteer" section of Craigslist (www.craigslist.org) in several cities. Interested participants were invited to go to the Emotions, Personality, and Altruism Research Group (EPARG) website (www.eparg.org). Participation was anonymous and no identifying information was collected. Participants ranged from 18 to 76 years old with a mean of 32.6 years (SD=10.39); mean age in bisexual group was 28, in the heterosexual group 33, and in the homosexual group, 32 years. Most participants (91.1%) were living in the United States, although there was a range of ethnic backgrounds. The majority of the women across the orientation groups were European American, though Jewish, African, Latin and Asian ethnicities were represented in smaller numbers. Current socioeconomic status across orientations was working, lower-middle, and middle class. Religions included Protestant, Catholic and Jewish; a large number of participants indicated no religious identification. The women were highly educated across all orientations: 87.5% bisexual, 70.6% heterosexual, and 65.6% homosexual participants indicated graduating from college or post-college education.

Instruments
Neurotransmitter Attributes Questionnaire (NAQ; O'Connor, Lewis, & Berry, 2005), a 51-item questionnaire, was derived from questions typically asked by psychiatrists who specialize in psychopharmacology, in an effort to determine which medications might help the patient most effectively. The questions selected were those whose answers indicated the need for treatment with a dopamine-enhancer or a serotonin-enhancer.
Interpersonal Guilt Questionnaire-67 (IGQ-67; O'Connor, Berry, Weiss, Bush & Sampson, 1997) is a 67-item questionnaire designed to assess empathy-related guilt or guilt related to the fear of harming others. Two of four subscales were employed in this study: Survivor Guilt, characterized by the pathogenic belief that by pursuing normal goals and achieving happiness or wellbeing, one will cause others to suffer simply by comparison, and

Omnipotent Responsibility Guilt, characterized by the belief that one has omnipotent responsibility for the happiness and wellbeing of others' feelings, moods, actions, and life situations.

Center for Epidemiologic Studies Depression Scale

(CES-D; Radloff, 1977) is a 20-item self-report inventory. The cut off score for depression is equal to or greater than 16, although many clinicians mark a mild depression starting well below 16 (O'Connor et al., 2005).

Generalized Anxious Temperament (GAT; Aiskal, 1998)

a 26-item instrument, asks participants to describe how they have been "through most of your life." The GAT-Self includes items about worrying about the self. The GAT-Other, includes items related to worrying about others.

Jasper-Goldberg Adult ADD Screening Examination

(AADD; Jasper, & Goldberg, 1993, revised 2003), a 24-item self-report instrument, designed to be used for screening and not diagnostic purposes. It asks respondents to indicate how they have felt for "most of your adult life." While a score of 70 or above indicates a likely diagnosis of ADD, other psychiatric problems (e.g., Bipolar II Disorder) may also account for a high score.

Obsessive Compulsive Inventory-R (Foa, Kozak, Salukovskis, Coles, & Amir, 1998)

an 18 item self-report questionnaire, was revised from the longer OCI, which measures the overall severity of Obsessive Compulsive Disorder symptoms.
Brief Big Five Inventory (BFI; John, Donahue & Kentle, 1991). The BFI-44 is a 44-item measure of the Big-Five personality factors: Neuroticism, Extroversion, Agreeableness, Conscientiousness, and Openness (to experience).

Procedure

Participants accessed the EPARG website, indicated informed consent by clicking on the appropriate button, and then proceeded to the study. Data posted to Filemaker Pro and then was transferred to SPSS 11.0 for analysis.

Discussion

Results of this study suggest that bisexual women may be at higher risk for psychopathology. We hypothesize that this higher risk may be in part be due to a smaller visible bisexual community, repeated stressful experiences of "coming out," and lack of acceptance by either the heterosexual or the homosexual communities. These results make clear that collapsing bisexual and homosexual women into one group, as is commonly done in studies, may lead to inaccurate data analysis and conclusions. These results demonstrate the need for further study, specifically designed to better understand

the social factors contributing to the vulnerability that appears in bisexual women in this study. While our N is still low, and we need to repeat this study in a larger and more varied population in order to reach any final conclusions, it is hard to dismiss these findings. The challenges, stigmatization and social isolation faced by the bisexual female population may be particularly stressing, as there may not be a solid and supportive bisexual group, with whom to identify strongly. Whatever the explanation, it is clear that the challenges and needs facing bisexual women need to be acknowl-

edged and better understood, in order to provide supportive and effective treatment. It is possible that bisexual women have been neglected by health providers, as they have by the research community, reflecting their position in the larger culture, and perhaps explaining these results most strikingly. Whatever these results mean, it is clear that "culturally sensitive" treatment efforts are called for, to meet the needs of the population represented in this study.