Alcohol-Related Victimisation:

Differences Between Sexual Minorities and Heterosexuals in an Australian National Sample

Running title: Alcohol-Related Victimisation

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Abstract

Introduction. Alcohol-related violence and other types of victimisation are prevalent, but unevenly distributed across the population.

Aims. The study investigated the relationship between alcohol-related victimisation and sexual orientation (heterosexual, homosexual, bisexual, other) in a national sample.

Design. The study used cross-sectional data from the 2010 Australian National Drug Strategy Household Survey.

Method. Logistic regression was used to assess the association of sexual orientation with three types of victimisation (verbal abuse, physical abuse and feeling threatened by a person intoxicated on alcohol in the last 12 months) and controlled for probable confounding variables.

Results. Of 24,858 eligible respondents aged 14 years or older, 26.8% experienced victimisation. Less than 30% of heterosexual men and women suffered victimisation compared with nearly 50% of gay men and bisexual women. Controlling for alcohol, tobacco and illicit drug use, age group, mental health, Indigenous status and socio-economic factors, logistic regression stratified by gender found that the odds of both verbal (adjusted odds ratio (AOR) = 1.52) and physical abuse (AOR=2.04) were greatest for lesbians, while gay men had the greatest odds (AOR=2.25) of feeling threatened.

Discussion & Conclusions. Across all types of victimisation, some or all sexual minority groups had increased odds of being victimised in the last 12 months compared with their heterosexual counterparts. The pattern of results shows the importance of disaggregating sexual minority status in considering the impact of alcohol-related victimisation and in developing interventions or policies.

Keywords

alcohol, illicit drugs, abuse, violence, sexual orientation

1. Introduction

In Australia, at least 70,000 alcohol-related assaults were reported to the police in 2005 including 24,000 alcohol-related domestic violence assaults [1]. Cases that come to the attention of the police only represent a small percentage of assaults, with survey data indicating that 3%-4% of the adult population experienced an alcohol-related assault in the last 12 months [2, 3]. The relationship between alcohol use and violence victimisation is complex, with potentially multiple explanatory factors involving both the victim and the perpetrator [4]. Thus, individuals may drink more as a coping mechanism for the sequelae of prior physical abuse or their use of alcohol may make them appear to be more "deserving" victims for violence [5]. Alcohol use resulting in intoxication or incapacitation may place individuals at risk of violence [6, 7] or there may be common factors underlying both alcohol use and vulnerability to victimisation including pre-existing mental health problems [5, 8].

Sexual orientation and sexual identity have also been identified as risk factors for being the victim of violence, with sexual minority groups incurring higher rates of general violence and sexual violence than the population as a whole [9-12]. These disparities are evident across a range of different forms of victimisation and occur across the lifespan [13, 14]. Alcohol use disorders are also over-represented in sexual minority groups [15, 16], with alcohol consumption a risk factor for incurring violence [5, 6, 17]. Similarly, the prevalence of illicit substance use and disorders is higher among sexual minority groups, albeit with large differences in the prevalence between groups and by gender [16]. Substance use is associated with both the perpetration and experience of interpersonal violence in young people [18, 19].

The lack of heterosexual comparison groups has been identified as a deficiency of many early studies of violence, substance use and sexual minority status [20]. Similarly, the aggregation of sexual minority groups in population studies has been criticised [12, 20]. Further, there are likely

to be differences between males and females, with young males particularly over-represented in in the occurrence of alcohol-related violence [1, 21].Therefore, in considering the potential associations of alcohol use with other problems including victimisation, it is important to stratify by gender and disaggregated minority status [12].

The Australian National Drug Strategy Household Surveys (NDSHS) commenced in 1985, with its tenth iteration in 2010. The survey covers a range of topics including the following: (1) the use of alcohol, tobacco and illicit drugs; (2) victimisation arising from the use of alcohol or illicit drugs by others; and (3) demographic characteristics. The aim of this study was to examine the association between sexual minority status and being the victim of one of three types of alcohol-related victimisation, controlling for potentially confounding factors. It was hypothesised that victimisation would vary between the disaggregated sexual minority groups and that the odds of victimisation would be greatest for males. Finally, few population data on victimisation incurred by sexual minority groups have been reported from outside the United States of America (USA) [22], a deficit that this report aims to reduce.

2. Method

2.1 Survey and sample

The survey method for the 2010 Australian National Drug Strategy Household Survey (NDSHS) has previously been described in detail [23]. The survey targets the national Australian population aged 12 and over. However, as those aged less than 14 years received a shortened version of the questionnaire, this analysis is restricted to those aged 14 and above. Participants are recruited from households via a multistage, stratified area, random sample design, with the respondent selected via the next birthday method. Those in hostels, institutions, motels, and the homeless are not represented. The 2010 survey used the drop-and-collect technique whereas previous surveys also included computer assisted telephone interviews [23]. From a sample of 81,708 households, 52,690 eligible participants were contacted, which subsequently resulted in 26,648 (50.6%)

respondents of whom 26,157 were aged 14 years and above. Of these people, 24,858 (95%) answered the question on sexual orientation and comprise the study sample. Permission to access the unidentified data from the NDSHS was granted by the Australian Institute of Health and Welfare (AIHW). Additional permission was granted to use detailed information on a restricted variable (sexual orientation) with the caveat that only proportions and logistic regression outcomes were reported, to ensure participant confidentiality. Given that these data are in the public domain, no further ethical approval was sought.

2.2 Measures

The primary outcome was alcohol-related victimisation that was assessed with three items in the NDSHS (*"In the last 12 months, did any person under the influence of or affected by alcohol… verbally abuse you, physically abuse you, put you in fear"*). The key independent variables from the NDSHS were the following:

1. Sexual orientation (*"Do you think of yourself as... Heterosexual or straight; Homosexual (gay or lesbian); Bisexual; Not sure, undecided; Something else, other")*
2. Psychological distress assessed with the Kessler 10 (K-10) [24] and scores were categorised as low (10-15), moderate (16-21), high (22-29), and very high (30-50)
3. Socio-economic indices for areas (SEIFA) in quintile strata (with 1 being the lowest level of advantage and 5 being the highest level of advantage)
4. Age group (14-19, 20-29, 30-39, 40-49, 50-59, 60+ years)
5. Indigenous status (of Aboriginal Australian or Torres Strait Islander decent coded as yes/no)
6. Frequency of alcohol consumption category for the last 12 months (daily, weekly, less than weekly, ex-drinker e.g. no alcohol in the last 12 months, never drinker)
7. Alcohol consumption (in standard drinks on the last drinking day)
8. Current smoking category (daily, occasional, ex-smoker e.g. not in the last 12 months, never smoker)
9. Use of illicit drugs in the last 12 months coded as yes/no

10. Diagnosed with or treated for a mental illness in the last 12 months coded as yes/no.

2.3 Analysis

Due to low cell frequencies the sexual two orientation items "*Not sure, undecided"* and "*Something else, other"* were collapsed into one item. Logistic regression analysis, stratified by gender, was used to assess risk factors for being a victim of each of the categories of alcohol-related victimisation (verbal abuse, physical abuse or feeling threatened). The model included sexual orientation, K-10 group, SEIFA quintile, age-group, alcohol frequency category, alcohol consumption, smoking category, illicit drug use and mental illness. Results were reported as adjusted odds ratios (AOR) with 95% confidence intervals (95% CI) with $p<.001$ used to assess statistical significance. The first analysis used heterosexual as the reference group. A subsidiary analysis was also conducted including just the sexual minority groups, with homosexual as the reference category. The second hypothesis used non-stratified data to examine between gender differences across the whole sample. The data were weighted by geographical area, household size, age and sex from estimated resident population data to reflect the national population [25]. Due to differences in the sampling methodology for the 2010 survey compared with the earlier surveys, time series analyses were not undertaken.

3. Results

3.1 Prevalence

From the 11,109 male respondents, the weighted prevalence of sexual orientation groups were 95.6% heterosexual, 1.6% homosexual, 0.7% bisexual and 2.1% other. Among the 13,749 females, the respective proportions were 95.9%, 0.9%, 1.3% and 2.0%. Overall 26.8% of participants experienced at least one form of victimisation. Table 1 shows the weighted prevalence of each form of victimisation by sexual orientation. Across all categories, heterosexual women had a lower prevalence of victimisation than women from any sexual minority group. Among the males, gay and bisexual men had a higher prevalence of each type of victimisation than did heterosexual men.

3.2 Multivariate analysis

After controlling for SEIFA quintile, age group, mental health, psychological distress, Indigenous status, and use of alcohol, tobacco and illicit drugs, homosexual (AOR = 1.18) and bisexual (AOR = 1.18) men had greater odds of verbal abuse than did heterosexual men. All three sexual minority categories of women had increased odds of verbal abuse compared with heterosexual women (range AOR = 1.05-1.52) (Table 2). The subsidiary analysis shows that of the sexual minority groups, bisexual men had increased odds of verbal abuse compared with homosexuals. Among women, both bisexual and those categorised as 'other', had lower odds than their homosexual counterparts (Appendix A).

Table 3 shows the results for physical abuse. After adjusting for the same set of variables as listed above, among males, homosexuals had reduced odds (AOR = 0.74) of physical abuse compared with heterosexual males while both bisexuals and 'others' had increased odds (range AOR = 1.22-1.69). Among females, those categorised as homosexual (AOR = 2.04) bisexual (AOR = 1.30) and 'others' (AOR = 1.95) all had increased odds of physical abuse compared with their heterosexual counterparts. The subsidiary analysis found that the bisexual men and 'others' had increase odds while for women, bisexual and 'others' had decreased odds of physical violence than their homosexual comparators (Appendix A).

After controlling for the other key variables, all of the male sexual minority groups had increased odds compared with heterosexual males of being 'put in fear' (range AOR 1.41-2.25). Among the female sexual minority groups, lesbians had higher odds (AOR = 1.76) of being put in fear, but both bisexual women and those categorised as 'other' had lower odds (AOR = 0.94-0.97) than heterosexual women (Table 4). The subsidiary analysis shows that all the sexual minority groups had lower odds of being put in fear than their homosexual counterparts (Appendix A).

Some common patterns emerged across the three types of alcohol-related victimisation. For each type of victimisation, higher levels of mental distress indexed by K-10 category (range AOR = 1.49-4.75) and by those reporting a diagnosis or treatment for a mental health disorder (range AOR = 1.23-1.39) had greater odds than those in the lowest K-10 category or without a diagnosis/treatment. Similarly, illicit drug use in the last year increased the odds of each type of victimisation (range AOR = 1.28-2.03) compared with non-users. Finally, for all age groups and for both males and females the odds of each type of victimisation were increased compared with those aged 60 years and older (range AOR 1.98-7.59).

3.3 Between gender differences

The final analyses examined non-stratified data for the entire sample. Overall males had greater odds of being verbally abused (AOR = 1.24, 95% CI 1.23-1.24) and physically abused (AOR = 1.45, 95% CI 1.44-1.46) than females but females had greater odds of being put in fear than males (AOR = 1.27, 95% CI 1.27-1.28).

4. Discussion

Data from this nationally representative sample showed that for each of the three types of alcohol-related victimisation, some or all of the sexual minority groups had increased odds of being victimised compared with their heterosexual counterparts. Most notably, among bisexual women the prevalence of physical abuse was more than three times that of heterosexual women. However, there were differences both between genders and between sexual minority groups in the patterns of victimisation that they incurred, emphasising the importance of considering the patterns of harm in a more nuanced manner. The first hypothesis was supported with extensive variation in victimisation between the disaggregated sexual minority groups. The second hypothesis was partially supported with males having greater odds of some forms of victimisation, but not across all types.

Overall, nearly 1/3rd of respondents had incurred one of the alcohol-related events. Although for each type of event, the odds were greatest for those aged 20-29 years, the decline with each 10-year period was relatively small, with even those aged 50-59 years having twice the odds of the oldest age group of suffering an alcohol-related incident. Nevertheless, this is consistent with findings that harms arising from the drinking of others impact across the whole community with 73% reporting some form of harm in the last 12 months [1]. It is also notable that Indigenous Australians had increased odds of incurring most forms of alcohol-related victimisation. Violent alcohol-related harm has been identified as major cause of disease burden for Indigenous Australians [26].

Across the three categories of sexual minority women, increased odds of verbal and physical abuse were found. Data from the USA also reports that lesbian and bisexual women have higher rates of victimisation on a range of measures, including both childhood and adult sexual and physical abuse, with bisexual women reporting the highest prevalence in each instance [27]. Furthermore,

bisexual women have greater odds of high-risk behaviours such as binge drinking and marijuana use plus higher perceived stress than do heterosexuals, while lesbians do not [28]. It has been suggested that bisexual individuals are subject to greater discrimination that homosexuals via biphobia and monosexism that results in isolation and mental health problems [29] which may account for these outcomes. However, although the increased prevalence of victimisation was replicated in our Australian data, after adjusting for other factors, lesbians had greater odds of each form of victimisation than did bisexual women. This difference may reflect societal differences in the Australian setting compared with the USA or the range of controls included in the current analyses.

With respect to those categorised as 'other' ("*Not sure, undecided"* or *"Something else, other"*) increased odds of verbal or physical abuse compared with heterosexual women were found. General community data indicates that women are more likely than are men to be the victim of verbal abuse as a result of someone else's drinking [30]: the current data suggest that this effect is greater among women from sexual minorities.

Face-to-face interviews from a national survey in the USA indicates that gay men incur a greater prevalence and number of occurrences of victimisation than both bisexual and heterosexual men, assessed across their lifetime [10]. In the current study, compared with heterosexuals, all of the male sexual minority groups, and especially bisexuals, had a higher prevalence of physical abuse. However, after controlling for potentially confounding variables, although they did report a marked increase (225%) for feeling threatened, gay men had lower odds of physical violence than did heterosexuals. The reasons for this finding are unclear. Previous Australian data also show a high prevalence of victimisation, with 44% of young bisexual/homosexual men reporting verbal abuse and 19% physical abuse in their lifetime, but no comparison was made to the general male population [31]. Thus the current findings require replication and future research is needed on

other risk factors for physical abuse, besides sexual identify, that could account for the high prevalence in this group.

Research from Queensland, Australia, found that all forms of physical violence were more prevalent against men than against women from sexual minority groups (and greater still against transgender groups) [32]. In the current study gay men had lower odds of physical abuse than did heterosexual men, but lesbians had higher odds compared with heterosexual women. This may reflect the disinhibiting effects of alcohol in reducing the social norms constraining violence against women, in contrast to the findings of others, where higher rates of physical abuse, which include non-alcohol-related violence, are found against men [32].

4.1 Limitations

There are a number of limitations should be considered in the interpretation of these findings. The cross-sectional nature of the data means that no causal attributions can be made. While it is probable that sexual orientation predates the occurrence of these 12-month instances of victimisation, the temporal ordering with respect to measures of mental health and victimisation is clearly open to debate. In particular, the relationship between higher scores on the K-10 or treatment / diagnosis with a mental condition could be the result of victimisation or they could be pre-existing factors that increased the odds of being victimised. Sexual orientation was derived from a single item. While this approach has been used in other large sample studies [20], some researchers have used a more refined method by also questioning sexual behaviour [27], or assessing identity, attraction and behaviour [16]. SEIFA quintiles were used as a control for socio-economic factors, but no clear relationship was apparent with victimisation. Other Australian studies have also found weak relationships between SEIFA categories and domestic violence and between SEIFA and some alcohol measures [33, 34] which reinforces the interpretation that victimisation is not strongly related to this socioeconomic measure.

The NDSHS used households as its sampling unit and therefore omits some of the most vulnerable groups, such as the homeless, those in institutions or living in temporary accommodation (hotels/motels). Sexual minority groups are grossly over-represented among homeless youth [35] and young adults [36] so the results presented here are likely to be a conservative estimate of the relationship between sexual minority status and these forms of alcohol-related victimisation. Nevertheless, the sample in terms of the proportion from sexual minority groups, is comparable with other studies such as the "Second Australian Study of Health Relationships" (for males, homosexual 1.9%, bisexual 1.3%, other 0.1% and for women, homosexual 1.2%, bisexual 2.2%, other 0.2%) [37] and the Australian Longitudinal Study of Women's Health (lesbian 1.1%, bisexual 1.1%) [28]. This suggests that the data are representative, within the limits of its target sample of householders.

Although the NDSHS data were based on a representative sampling frame, the response rate of approximately 50% means that we cannot preclude the possibility that there were systematic differences between the participants and those who declined. Even though a substantial sample was recruited, the absolute numbers in some cells was small, necessitating caution in the interpretation of the results. Finally, changes to the sampling method inhibit use of time series analysis in examining potential changes in victimisation over time.

4.2 Research implications

These nationally representative data provide a glimpse into the alcohol-related victimisation suffered by sexual minority groups and show that they incur victimisation on a range of measures. These findings call for more tightly specified research, for example to provide information on the perpetrators, most notably whether or not they are from sexual minority groups or the general population. Exploring this relationship is further complicated for those reporting as bisexual, where at least in the case of intimate partner violence, the perpetrator is likely to be of the opposite sex [38] and may or may not be from a sexual minority group. The use of alcohol and illicit drugs

by both the victim and perpetrator also requires further examination. With respect to victimisation of women by men, increased levels of intoxication by either person are associated with more severe injuries to the victim [39] and with more severe assault occurring when the perpetrator is intoxicated [40]. Given the over-representation of substance use disorders in minority groups [15, 16] this requires urgent attention. However, there is preliminary evidence that within same sex relationships, treatment for alcohol disorders is associated with improved relationship scores and reduced violence [41, 42]. Finally, as with the issue of mental health measures noted above, there is a need for research to clarify the temporal ordering of events – does substance use pre-date or follow victimisation.

4.3 Conclusions

These findings extend the limited population data concerning the victimisation of sexual minorities from outside the USA [22]. Compared with the general community, sexual minority groups incur high levels of verbal abuse, harassment, vandalism of their property and physical violence [43] they also have worse mental health, report greater use of both illicit drugs and tobacco, and a greater proportion have used alcohol in the last year [43]. The current study focused on alcohol-related victimisation - verbal abuse, physical abuse and feeling threated by someone who was intoxicated. Alcohol-related victimisation is pervasive in the Australian community with more than 1 in 4 people reporting some type of victimisation in the previous year but for sexual minorities the situation is far worse with nearly 1 in 2 impacted. These data emphasise the importance of attending to disparities in efforts aimed at preventing or addressing alcohol-related violence across the whole community and to inform the development of interventions or policies to reduce the victimisation suffered by specific groups.

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Conflict of interest

The author has no conflicting interests to declare with respect to this paper.

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