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Young Women's Risk of Sexual Aggression in Bars: The Roles of Intoxication and Peer Social Status

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Abstract

Introduction and aims. Previous research suggests a link between women's drinking and sexual victimization; however, little is known about other factors that influence risk and how risks are linked to drinking-in-the-event. We examined how amount of alcohol consumed and peer group factors were associated with whether young women were targeted for sexual aggression on a night out at bars.

Design and methods. 114 women recruited in small groups in the bar district reported how many drinks they had consumed and were breath tested at recruitment and on their way home. At recruitment, they also ranked other members of their group in terms of status (e.g., popularity, group influence). In the exit survey, they reported any sexual aggression they experienced that night (i.e., persistence after refusal and unwanted sexual touching).

Results. 28.9% of women reported persistence only, 5.3% unwanted touching only, and 18.7% both. Sexual aggression was associated with consuming more alcohol on the survey night and whether other group members experienced sexual aggression that night. The relationship with amount consumed was stronger for touching than for persistence. Having a lower-status position in the group was associated with increased risk of sexual aggression among women who had consumed five or more drinks.

Discussion and conclusions. Prevention should address social norms and other factors that encourage men to target specific women for sexual aggression, including perceptions by staff and patrons that intoxicated women are "easy" or more blameworthy targets and the possible role of women's social status in their peer groups.

Keywords: sexual aggression, intoxication, drinking in the event, drinking group, licensed premises

Introduction

Although sexual aggression is not frequent in all types of drinking establishments (1-3), sexual aggression in the form of unwanted sexual advances appears to be part of the culture of some venues (4-9). In these environments, unwanted sexual advances by men toward female strangers (8) are considered normal, often linked to asserting masculine identity (10, 11) and done to amuse or compete with male friends (12, 13). Aggressive sexual advances are particularly likely in highly sexualized large dance clubs frequented by young adults (14) where the presence of people engaging in consensual sexual contact both raises expectations that sexual advances will be welcome (15) and makes it possible for predatory sexual behaviours to occur without repercussions for the aggressor (16).

Research on factors that may influence whether women are likely to experience sexual aggression has found that experiencing unwanted sexual advances has been associated with both how intoxicated women are at the time (17, 18) as well as to their usual drinking pattern (17, 19, 20), although it is not clear the extent that usual drinking predicts experiencing aggression beyond the association with drinking at the time. For example, it is possible that there are other aspects of a *pattern* of heavy drinking (e.g., risky lifestyle generally, usual drinking companions, location of drinking) that could increase risk of sexual aggression. In addition, few studies have validated self-report measures with biological measures of alcohol use such as blood alcohol concentration.

It should be noted that understanding factors that increase risks for women does not imply that women are responsible for sexual aggression directed toward them; rather, this research can be used to better understand the broader context for more effective prevention. Specifically, higher alcohol consumption by women could increase their risks of sexual aggression in different ways. Intoxicated women may not communicate effectively that an act is unwanted (21) or be less aware of their

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surroundings and the risks to which they are exposed (22). However, women's alcohol consumption can also affect the likelihood that they will be targeted by men because some men perceive women who have been drinking to be more sexually available and willing to engage in sexual contact than are sober women (23-25).

If women experience sexual aggression primarily because of their suitability as targets, it is important to consider other factors that might increase women's likelihood of being targeted, such as their age and size (i.e., height, weight, body mass index (BMI)), with younger or smaller women possibly more vulnerable.

Another critical aspect that has not been considered by previous research is the role of the woman's social group when out at a bar. For example, women might be more likely to be targeted for sexual aggression if they are with other women who are also targeted, possibly because of the overall level of intoxication of group members, the way they dress or the types of bars the group frequents.

Another group dynamic that could affect a woman's risk of experiencing unwanted sexual advances is her social status within the group. Status in a peer group has been defined as the amount of control a person has over desirable group resources such as group decisions and attention, with higher status persons having greater control (26). Higher status group members also tend to best embody group norms (27, 28) and are the most visible members of a group (29). Thus, group status in social settings such as a drinking establishment might be expected to be visible to observers of the group – with higher status members more at the centre of group activities and more in control of group behaviours while lower status members are more likely to be on the periphery and to have less control over what the group does. Although status within peer groups has been examined among

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3 adolescents (e.g., 30, 31), only recently has this issue been examined related to young adults in
4 drinking contexts (32), with the finding that higher status group members tend to drink more.
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8 Men's sexual behaviour in bars (7, 13) and other locations (33) is done, at least in part, to
9 compete with and impress their male peers. Therefore, men may target higher status women to
10 impress their peers and possibly gain status and prestige in their own peer group or because these
11 women are more intoxicated than are their lower status peers (32). On the other hand, evidence from
12 other contexts has linked lower status to increased risk of being targeted for aggression generally. In
13 particular, teens with lower status within their social group (e.g., 34) have been found to be
14 especially likely to be targets of aggression at school, possibly because they are less able to stand up
15 for themselves and less likely to have others stand up for them. Lower status group members have
16 also been found to be less assertive, controlling and demanding than higher status members (30).
17 Thus, lower status women could be perceived as having fewer personal and group resources that
18 could be used to cause negative consequences for men making unwanted sexual advances (12).
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34 Finally, women's intoxication and group factors may also be related to the *type* of sexual
35 aggression directed toward them. Observational research (7) found that women's intoxication was
36 more strongly related to the invasiveness of men's unwanted sexual advances than to men's
37 persistence. This finding suggests that more intoxicated women may be especially vulnerable to
38 sexual aggression involving invasive physical contact.
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46 **Hypotheses**

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48 The overall aim of this research was to examine two forms of sexual aggression experienced by
49 women on a night out at bars: unwanted sexual touching and sexual advances that are persistent
50 despite women's clear refusals. We hypothesized that young women's experiences of sexual
51 aggression would be associated with (a) higher levels of alcohol consumption on the night the sexual
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3 aggression occurred, (b) a usual pattern of drinking large amounts per occasion, (c) being smaller
4 and younger and (d) being with other women who experienced sexual aggression on the same night.
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6 We also hypothesized that alcohol consumption and intoxication would be more strongly associated
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8 with unwanted sexual touching than with persistence. Finally, we explored whether status with peers
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10 in their group was related to experiencing sexual aggression and the extent that significant predictors
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12 of sexual aggression were moderated by how much alcohol the participant had consumed.
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15 16 17 18 **Method**

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20 Young bar-goers aged 19 to 29 years were recruited in same sex groups of 3-5 individuals
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22 (average group size 3.4) in the bar district of a mid-sized city in Ontario, Canada, between 10pm and
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24 12:30am on Thursday, Friday and Saturday nights from May to July of 2012. The bar district
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26 included large dance clubs and other venues geared to entertainment of young adults. The study
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28 involved an “entry” survey (on the way to the bars), an “exit survey” as participants were leaving the
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30 bar district for the night and a follow-up online survey. This study was approved by the Research
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32 Ethics Board at the Centre for Addiction and Mental Health.
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35 36 37 **Procedures**

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39 Participants were recruited by teams of 2 to 3 researchers using the “fixed line method” (35) in
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41 which the first group of apparently eligible persons who crosses a fixed line on the sidewalk is
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43 approached, then the next to cross the line, and so on. Although both men and women were
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45 recruited, the present study includes only women because prior research (7) found that almost all
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47 sexual aggression in bars involved female targets. Of the 257 eligible female groups approached, 41
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49 (139 women) participated, with all group members completing the entry survey and providing a
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51 breath alcohol sample at a mobile research lab parked near the recruitment area. The entry survey
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3 included where and when they had consumed alcohol that night and a rating procedure for assessing
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5 peer status of their group members.
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8 Each participant received a \$10 gift card for completing the entry survey, was asked to return to
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10 the area to complete a brief exit survey when leaving the bar district and given an inactive gift card
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12 that would be activated when they completed the 30-minute online follow-up survey. They were also
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14 provided with a business card containing the study investigators' contact information and the study's
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16 website address where information about local helping services was listed. The field supervisor also
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18 wrote an identification number on this card and on the participant's forearm (using a non-permanent
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20 marker) that enabled their exit and entry surveys to be linked. Additionally, participants who were
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22 willing to provide recruiters with their cell phone numbers (78%) were sent a text message about the
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24 online survey and a second message reminding them to return for the exit survey, with messages
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26 deleted from staff cell phones immediately after the final message was sent to preserve anonymity.
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31 The exit survey included questions on experiences of sexual aggression that night and measures
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33 of alcohol consumption including breath alcohol and participants received a \$25 gift card. The exit
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35 survey was completed by 114 (82.0%) of the 139 women who participated in the entry survey. Those
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37 who did not return included 6 complete groups (19 women), 2 members of a 4-person group and 1
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39 woman from each of 4 groups. Women who did not return to complete the survey had consumed
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41 significantly more alcohol at entry (4.16 drinks vs. 3.08 drinks, $p = .05$) compared to those who
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43 returned.
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48 The online survey which asked about usual drinking pattern was completed by 101 (88.6%) of
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50 the women who completed the exit survey. The value of the gift card for completing the online
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52 survey varied (either \$50 or \$100 – randomly distributed as part of a separate study of the effects of
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54 incentives on participation rates).
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Measures

Sexual aggression experienced by the participant. The exit survey asked: “When you were out drinking tonight, did anyone (a) touch you sexually in a way that you did not want to be touched or do something else sexual to you that you didn’t want them to do?” (unwanted touching) or (b) “... keep trying to hit on you when you had clearly given them the message that you were not interested?” (persistence)?

Sexual aggression experienced by others in group. A dichotomous measure of whether any group members, excluding the participant, experienced sexual aggression that night was created based on the self-reports of all other group members who completed the exit survey.

Alcohol consumption. Participants were shown a picture with examples of a Canadian standard drink (12 oz. of 5% alcohol beer, 5 oz. of 12% wine, 1.5 oz. of spirits such as vodka, etc.). Entry measures included number of standard drinks consumed prior to recruitment, number of drinks they planned to have that night, and a breath sample for estimating breath alcohol concentration (BrAC). Entry measures included number of drinks consumed since the entry survey and another breath sample. Participants in the online survey reported their usual frequency of drinking alcohol in the past 12 months (never, less than once a month, 1 to 3 times a month, once a week, 2 to 3 times per week, 4 to 6 times a week, everyday – converted into days per year), usual number of drinks on drinking days and largest number of drinks on any occasion.

Age, height, weight. Participants were asked their age, height and weight as part of the entry survey, with height and weight used to calculate body mass index (BMI).

Within-group status. A measure of group status was developed for this research (32) based on Resource Control Theory (26). Specifically, at entry each participant ranked others in her group according to the extent each person: 1) makes group decisions; 2) has opinions that are listened to by

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3 other group members; 3) possesses popularity; and 4) with whom it is important to comply. Peer-
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5 nominated status scores were calculated by averaging participants' rankings from their peers across
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7 the four different dimensions with higher scores reflecting higher status (Cronbach's α for scale =
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9 .83).
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12 **Analyses**

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15 Significance testing for bivariate relationships between sexual aggression and other variables
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17 was done using two-level Hierarchical Linear Modelling (HLM, v 6.08) Bernoulli regression to
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19 account for recruitment being done in groups, with all analyses using participant-level (level 1)
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21 variables. Any persistence or touching (versus no sexual aggression) was regressed onto predictor
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23 variables (i.e., alcohol consumption, BrAC, etc), which were grand mean centred (except for status
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25 which was group-mean centred to compare women to others in her group) and included a random
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27 error component. Models were also computed with touching versus only persistence regressed onto
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29 predictor variables. Finally, multivariate logistic regression models were computed in HLM to test
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31 for significant interactions of alcohol consumption with other predictors.
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36 **Results**

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39 Of the 114 female participants in the exit survey, 28.9% reported persistence only, 5.3% being
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41 touched only, 18.4% reported experiencing both, and 47.4% reported neither. Thus, over 50% of
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43 women reported experiencing one or both types of sexual aggression on the evening of the exit
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45 survey.
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49 As shown in the first three columns of Table 1, those who reported experiencing any sexual
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51 aggression (i.e., any persistence or touching) had consumed more alcohol compared to those who
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53 reported no aggression (significant for number of drinks planned to have that evening, number of
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55 drinks consumed between exit and entry surveys and total number of drinks, and approaching
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3 significance for number of drinks at entry to study and BrAC at exit). They also reported drinking
4 significantly more drinks on usual drinking occasions, although this association became
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6 nonsignificant when total drinks on the night of the survey was controlled for. In addition, women
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8 who experienced sexual aggression had lower status in their groups and were more likely to have
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10 group members who also reported sexual aggression. Age and height/weight/BMI were not
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12 significantly associated with experiencing sexual aggression.
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16 We also examined predictors of any invasive contact (i.e., touching with or without persistence)
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18 versus persistence only. As shown in the last three columns in Table 1, compared to participants who
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20 experienced persistence only, those who experienced touching had consumed more alcohol
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22 (significant for number of drinks at entry and total number of drinks), but were not significantly
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24 different on usual drinking pattern. In addition, those who experienced touching tended to be
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26 younger ($p < .10$).
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32 To assess the extent that alcohol consumption moderated the impact of other variables, we tested
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34 for significant interactions of other variables with total number of drinks consumed (selected as the
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36 most robust drinking measure). We identified only one significant interaction, namely, a significant
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38 interaction of status within group and total drinks (regression models with main effects and
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40 interaction shown in Table 2). In order to identify the nature of the interaction, we categorized
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42 consumption as less than five drinks versus five or more drinks and status score as less than 6.25 (the
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44 median) versus 6.25 and higher. The results shown in Figure 2 indicate that lower status women
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46 were at higher risk than were higher status women but only among those who had consumed five or
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48 more drinks.
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52 Discussion

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3 Our findings suggest that young female bar-goers are at very high risk of experiencing
4 aggressive sexual advances in the form of persistence and unwanted sexual touching, with over 50%
5 of participants who were attending weekend nightspots in the entertainment area of a mid-sized city
6 experiencing such aggression *on the night of the study*. Two main factors predicted being targeted
7 for sexual aggression: having consumed more alcohol (evident for both self-report and BrAC
8 measures) and having lower status within the group. The relationship between alcohol consumption
9 and sexual aggression was particularly strong for unwanted sexual touching.
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20 The role of intoxication is consistent with other evidence that more intoxicated women are at
21 higher risk of sexual victimization (17, 18). The finding that there was no significant relationship
22 between usual drinking pattern and experiencing sexual aggression after controlling for amount
23 consumed on the night of the aggression suggests that the link between usual drinking pattern and
24 being the victim of sexual aggression (17, 19, 20) was fully explained by the relationship between
25 usual drinking and amount consumed when the sexual aggression occurred.
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34 The relationship between number of drinks consumed and sexual aggression may be due to the
35 effects of intoxication on the woman, such as making her less able to communicate clearly that the
36 behaviour was unwanted (21) or even to recognize risks of sexual assault (36); however, if the
37 relationship were due to reduced communication ability on the part of the woman, one would expect
38 a stronger association between number of drinks and persistence (where communication is a key part
39 of the process) compared to unwanted touching (which often happens without preliminaries (7)). In
40 fact, the reverse was found, with those who were touched having consumed significantly more
41 drinks at entry and more total drinks compared with those who reported only persistence. This
42 finding is consistent with observational research showing that the woman's intoxication level was
43 more strongly related to level of sexual invasiveness by men than to persistence (7). Thus, the
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3 findings from the present study are consistent with the premise that more intoxicated women are
4 targeted (37) because they are seen as more sexually available (23, 25, 38) or less able to resist (39).
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8 We found that women who had experienced sexual aggression were more likely to have group
9 members who also reported sexual aggression. This may indicate some aspect of the group (e.g.,
10 intoxication of group members, dress) that made them more likely to be targeted but also may reflect
11 effects of the type of establishment visited by the group. For example, men may be able to justify or
12 normalize non-consensual touching in highly permissive environments where people publicly
13 engage in a range of consensual sexual acts (see 11, 18, 19, 40). Thus, especially in these
14 environments, staff and management need to make special efforts to prevent aggressive sexual
15 advances. It should be noted, however, that this relationship could be due to several group members
16 being affected by the same incident. Thus, future research needs to examine why particular groups
17 may be more likely to be targeted as well as the extent that similarities in experiences of members of
18 the same group reflect multiple group members being affected by the same incident.
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34 Lower status women were more likely to experience sexual aggression than were higher status
35 women but only if they had consumed a larger number of drinks. Perhaps higher status women who
36 are intoxicated are more likely to be protected by friends whereas lower status women in the same
37 condition are more likely to be on the fringe of the group and therefore more easily targeted. Or, as
38 noted in the introduction, lower status women, especially if they are intoxicated, might be targeted
39 because they would be expected to be less assertive (30) and therefore less likely to stand up for
40 themselves or make trouble for the man. The increased risk for women who have lower status
41 positions within their peer groups sheds new light on women's risk of sexual victimization in bars
42 and warrants further research.
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Strengths and limitations. Strengths include: using both self-report and breath alcohol measures of alcohol consumption on the night of the survey; controlling for drinking that night when assessing associations with usual drinking; and recruiting in groups so that group variables could be examined. Limitations include sampling only all female groups and only groups of up to five people. Thus the findings are only generalizable to small-to-moderate sized all female groups going to venues in a city centre entertainment district. As well, we do not know whether there was any effect of asking participants to rank the status within the group of each member prior to going out drinking.

Implications and future directions. To date, most prevention has focused on the female victims of sexual aggression, suggesting that women should limit their consumption (41) and protect one another when out drinking; however, evidence suggests that women are not very good at keeping to plans to protect one another once they have consumed alcohol (42). Therefore, a better approach would be to direct prevention efforts at stopping men from making unwanted sexual advances by changing the context in which aggressive sexual advances occur and by counteracting the assumption by both men and women that sexual aggression in some drinking settings is acceptable, even inevitable. Prevention also needs to address the perceptions of male bar staff (1), as well as male (25) and female bar goers (22), that sexual aggression can be excused when the target is intoxicated, or that certain women are acceptable targets because of their status, drinking or style of dress (1, 3, 25, 42, 43). Finally, young men need to be informed of the types of behaviours that constitute sexual aggression and the negative effects of these behaviours on women.

In terms of future research, both qualitative and quantitative research is needed to better understand the factors that influence sexual aggression, including research examining the role played by bar staff and management and men's motives and attitudes toward sexual aggression and their reasons for targeting specific groups and individual women.

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Table 1. Descriptive statistics and bivariate analyses of variables predicting (1) any sexual aggression and (2) any unwanted touching versus persistence only

Alcohol consumption measures and other participant characteristics	(1) Experiencing no sexual aggression (touching or persistence) compared to any sexual aggression			(2) Experiencing any touching compared to persistence only		
	No touching or persistence (n = 54) Mean or %	Any persistence or touching (n = 60) Mean or %	Odds of any persistence or touching (95% confidence interval) ²	Persistence only (N = 33) Mean or %	Touching (N = 27) Mean or %	Odds of touching versus persistence only (95% confidence interval) ²
<i>Drinking measures on night of entry/exit survey</i>						
# drinks at entry to study	2.59	3.53	1.21† (0.98, 1.50)	3.00	4.19	1.25* (1.03, 1.52)
BrAC at entry ³	0.031	0.042	1.05 (0.95, 1.16)	0.039	0.045	1.051 (0.93, 1.18)
# additional drinks planned to have that evening	2.13	3.32	1.42** (1.09, 1.84)	3.24	3.41	1.04 (0.85, 1.27)
# drinks consumed from entry to exit study	2.17	3.40	1.291* (1.06, 1.58)	3.15	3.70	1.08 (0.92, 1.26)
Total # drinks	4.75	6.88	1.219** (1.06, 1.41)	6.15	7.81	1.17* (1.03, 1.32)
BrAC at exit ³	0.044	0.063	1.087† (0.99, 1.20)	0.065	0.061	0.98 (0.87, 1.09)
<i>Past 12 months drinking pattern measures from online survey¹</i>						
Drinking frequency (days per year)	60.78	78.96	1.00 (0.97, 1.01)	71.57	88.36	1.01 (0.995, 1.02)
Usual quantity when drinking	5.14	6.71	1.20* (1.03, 1.41)	6.52	6.95	1.04 (0.88, 1.26)

Alcohol consumption measures and other participant characteristics	(1) Experiencing no sexual aggression (touching or persistence) compared to any sexual aggression			(2) Experiencing any touching compared to persistence only		
	No touching or persistence (n = 54) Mean or %	Any persistence or touching (n = 60) Mean or %	Odds of any persistence or touching (95% confidence interval) ²	Persistence only (N = 33) Mean or %	Touching (N = 27) Mean or %	Odds of touching versus persistence only (95% confidence interval) ²
Usual quantity controlling for total # drinks on exit night			0.98 (0.83, 1.16)			
Estimated annual volume of consumption (days X usual consumption)	365.7	572.3	1.001† (1.00, 1.001)	553.21	596.64	1.000 (0.999, 1.002)
Maximum quantity on a single occasion (past 12 months)	9.78	10.74	1.04 (0.94, 1.16)	10.68	10.82	1.01 (0.88, 1.16)
Individual characteristics						
Age	22.63	21.58	0.84 (0.68, 1.03)	22.06	21.00	0.84† (0.70, 1.01)
Height	65.04	64.67	0.96 (0.81, 1.13)	64.91	64.37	0.83 (0.64, 1.08)
Weight	143.46	133.91	0.99 (0.98, 1.01)	135.02	132.59	0.995 (0.974, 1.02)
BMI	23.91	22.51	0.93 (0.84, 1.03)	22.57	22.43	0.99 (0.88, 1.12)
Variables related to other group members						
Proportion who had at least one group member (excluding themselves) who reported sexual aggression	61.1%	88.3%	7.40* (1.37, 40.09)	81.8%	96.3%	5.78 (0.64, 52.36)
Score on status in drinking group	6.81	6.04	0.74** (0.59, 0.92)	5.98	6.10	1.05 (0.76, 1.45)

¹101 of the 114 participants in the exit survey completed the online survey; these included 51 who reported no sexual aggression, 28 who reported persistence only, and 22 who reported touching only or both touching and persistence. Two participants who reported no drinking in the past 12 months were scored as 0 on usual and maximum consumption.

² Odds ratios computed using HLM in a separate bivariate model for each predictor variable.

³BrAC readings were multiplied by 100 prior to calculating odds ratios.

Note: Values shown to 2 digits except where more decimals for odds ratios needed because of large range of values on predictor variable.

*p < .05, **p < .01, ***p < .001, †p < .10

Table 2. Odds ratios and 95% confidence intervals from multivariate logistic regression of sexual aggression on total number of drinks consumed and status in group using HLM

	Odds of sexual aggression by total drinks only (95% confidence interval)	Main effects model showing odds of sexual aggression by total drinks and status (95% confidence interval)	Model including interaction term showing odds of sexual aggression by total drinks, status and interaction of drinks by status (95% confidence interval)
Total # drinks	1.22** (1.06, 1.41)	1.28** (1.12, 1.47)	2.65** (1.39, 5.09)
Status score		0.67** (0.52, 0.86)	1.23 (0.73, 2.10)
Total # drinks X status score			0.895* (0.818, 0.980)

Figure 1. Percent reporting sexual aggression by total drinks consumed on night of exit survey (< 5 vs. 5+) for low status (status score less than 6.25) versus high status (status score of 6.25 or higher) members of group

