What Both Sexes and All Genders Need to Know About Lower Risk Drinking

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The Canadian Centre for Substance Use and Addiction introduced revised Lower Risk Alcohol Drinking Guidelines in January 2023. These were based on updated evidence and used a risk-based approach to giving advice to consumers and clinicians. The risk-based messages for alcohol use described when and to what extent health risks escalated for those who use alcohol. The results were a departure from the 2012 advice, that indicated a weekly limit of 10 drinks for women and 14 for men was acceptable. The new risk-based guidance provided evidence that after 2 drinks per week, risks increased for all consumers.

But the problem is, we live in sexed bodies and experience life in gendered ways, but sex and gender specific messages were not highlighted in the new advice. This leaves males and females uneducated about the impact of alcohol on their bodies, and women, men and gender diverse people in the dark about the social impacts of alcohol that might affect them in particular ways.

During the development of the revised guidance, we conducted evidence reviews

of the impact of alcohol on women and females and on men and males, and also searched for any evidence on impacts on sexual or gender minorities. We summarized our findings in two articles published in 2023 and 2024. The evidence tells a real story of differential impacts on bodies and some of the reasons why. It also tells a real story of differential social impacts for gender groups.

For females, in general it takes much less alcohol intake to have negative health impacts, compared to males. This is in part because of gastric enzymes that affect the processing of alcohol and the speed with which alcohol reaches the bloodstream. This results in more organ damage to females from less alcohol ingestion, and faster intoxication than among males. Males have higher levels of gastric enzymes that work to process alcohol before it leaves the stomach and liver, resulting in lower absorption. These processes work in the context of genetics, body weight, water content, and fat distribution that affect the processing of alcohol, and that are typically different between females and males. All of this needs to be understood by all consumers and clinicians. While these factors do not always fall neatly in two binary boxes, the sex-linked factors involved are key to understanding how male and female bodies deal with alcohol.

Socially, the impacts of alcohol use among all genders are wide ranging and diffuse. The level of adherence to prevailing masculinities and femininities, and the pressures of occupations, subcultures, or peer groups to drink in certain ways (binging or in moderation) and in certain settings (colleges, sports, military, fraternities, or in pubs) all affect alcohol use. Social practices regarding alcohol use are often gendered, with typical masculine socialization encouraging alcohol use, and typical feminine socialization discouraging alcohol use, especially that leading to intoxication. For women, these attitudes extend to considerable social stigma for women who are intoxicated or heavy drinkers, particularly if they are pregnant or mothers.

These social practices, combined with the sex-linked differences in how bodies respond to alcohol itself, explain the almost universal overall higher consumption levels and alcohol use disorders among men and boys, and lower overall consumption among women and girls. Among sexual and gender minorities, evidence is less well developed, but there are indications that both social norms and social stressors contribute to more problematic alcohol use among some subgroups of both sexual minorities and gender diverse groups.

Of course, in real life sex and gender factors interact, especially around reproduction. We found evidence regarding the effects of alcohol use on fertility in males and females, conception, pregnancy, fetal and maternal outcomes, and infant and child development. Both male and female alcohol use negatively affects these processes, including impacts on sperm production and motility, fetal development, parenting practices, and subsequent infant and child development. Other important areas of sex/gender interaction were illustrated in the impact of alcohol use among both women and men on increasing risk of being victimized by, or perpetrating sexual assault, domestic violence, dysfunctional family dynamics, intergenerational trauma and other negative impacts.

So what do we all need to know about alcohol use and its particular impact on our bodies and social experiences? Our work has surfaced some key messages for females and women and for males and men. For females and women, it is important to know that consuming less alcohol is simply safer and healthier. Consuming less alcohol compared to male companions is advised due to the higher risk of organ damage, breast cancer, and faster intoxication in females, and increased risk of and vulnerability to assault among girls and women due to the alcohol use of both men and women.

For males and men, it is important to understand the impact of prevailing social forces on drinking behaviour, and how resisting peer pressures, male drinking norms, or competitive drinking is advised, healthier, and lower risk. Prevailing dominant masculinities often have an impact on all gender groups, with men and boys feeling pressure to drink to prove ‘manliness’, and heterosexuality, and to distinguish themselves from anything ‘feminine’ or being perceived as gay. These pressures lead directly to higher consumption, alcohol-related aggression and fighting, accidents and injuries among men. For all sexual and gender minorities, both bodily characteristics and social pressures combine to determine the impacts of alcohol use. This means that assessing the impacts of sex-linked processes on alcohol use, combined with prevailing social drinking norms among sexual and gender minority subcultures is needed for individuals and clinicians in assessing risk, and for health promoters in creating messaging.

For anyone, more precise messages regarding alcohol use that educate and specify impacts of hormones, body size and composition, anatomy and physiology on processing alcohol would be beneficial. These processes are not generally discussed or translated into public health information. There is an urgent need to

create tailored health promotion messages that reflect on these factors and link them with the wide range of social impacts of alcohol and then clearly explain how these factors interact to create differential risks for people. While risk-based messages may be scientifically precise, people need more concrete information about the actual impacts and costs for them in order to make informed decisions. Similarly, health promoters and clinicians need to take sex/gender factors into account when creating messaging or giving advice, diagnosing disorders, creating treatment plans, or linking up the relational, family or intergenerational impacts of alcohol in their patients. Failure to do so is ignoring valuable evidence and contributing to risky drinking.

— Lorraine Greaves, PhD

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