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Alcohol Consumption and Associated Risk Factors for Alcohol Use Disorder in Hungarian Women: A Systematic Review

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Background

- Hungary has one of the highest rates of alcohol use disorder (AUD) and mortality from liver cirrhosis in the world (Bloomfield et al., 2006; Elekes, 2014)
- While the field of addiction research has assessed the impact of AUD in Hungary, researchers have predominately looked at AUD in Hungarian men (Bloomfield et al., 2006; Elekes, 2014; Mihailovic et al., 2020)
- The literature shows there is a correlation between AUD and intergenerational trauma across all cultures (Meulewaeter et al., 2019, & Marsh et al., 2015), yet there is little research that assesses the impact of intergenerational trauma in Hungary and how it contributes to AUD
- Given the impact of events in Hungary such as World War II (Ritter, 2019) and the Hungarian Revolution of 1956 (Benziger & Weiner 2011), the relationship between intergenerational trauma and AUD is a critically unexplored issue
- AUD is continuing to rise in women globally (Webb et al., 2022), yet this is a virtually unexplored area among Hungarian women specifically

Key Questions

1. What is the relationship between Hungarian women and alcohol use?
2. What is intergenerational trauma's impact on Hungarian women's alcohol use?
3. Do women with marginalized identities (e.g., BIPOC, LGBTQ, refugees) experience intergenerational trauma and alcohol use differently than Hungarian women in general?

PICOT	KQ1	KQ2	KQ3
Population	Women who are of Hungarian descent and living in Hungary	Same as KQ1	Do women with marginalized identities (e.g., BIPOC, LGBTQ, refugees) experience intergenerational trauma and alcohol use differently than Hungarian women in general?
Intervention	Alcohol and/or alcohol use, misuse, or disorder	Intergenerational trauma	Marginalized identities (e.g., BIPOC, LGBTQ, refugees)
Comparator groups	Men who are of Hungarian descent living in Hungary	Same as KQ1	Women who are of Hungarian descent and living in Hungary who do not have one or more marginalized identities (e.g., BIPOC, LGBTQ, refugees)
Outcomes	The impact of gender on alcohol use, misuse, or disorder	The impact of intergenerational trauma on alcohol use, misuse, or disorder	The impact of having a marginalized identity (e.g., BIPOC, LGBTQ, refugee) on alcohol use, misuse, or disorder
Timing	Post-1946	Same as KQ1	Same as KQ1
Setting	The geographical boundaries of Hungary as defined by the Treaty of Trianon in 1920	Same as KQ1	Same as KQ1

Table 1. PICOTS (population, intervention, comparator, outcomes, timing, and setting) for each key question

Methods

- The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines were used as a framework
- Ovid MEDLINE, SCOPUS, and PsycINFO were used to conduct a systematic search from 1946 to present
- Inclusion criteria for this review were: (i) articles about alcohol consumption in the Hungarian population, (ii) women included in the study, (iii) articles written in English or Hungarian, (iv) articles about individuals aged 15 or older, and (v) quantitative studies of 10 or more individuals
- The author conducted the abstract and full text screening of the literature; Excel was used for text abstraction, and Zotero was used for reference download
- The author assessed risk of bias using the Mixed Methods Appraisal Tool (MMAT), Version 2018 (Hong et al., 2018) and strength of evidence using the Agency for Healthcare Research and Quality (AHRQ, 2011) "Methods Guide for Effectiveness and Comparative Effectiveness Reviews"

Results

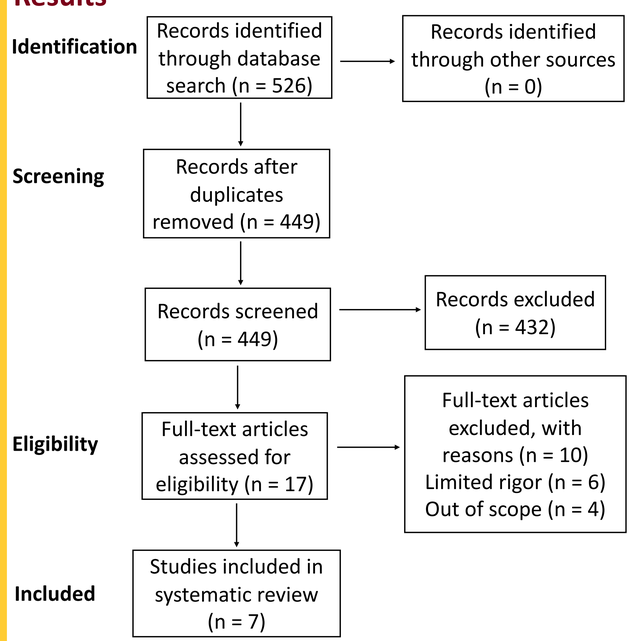

Figure 1. PRISMA flowchart for literature search

First Author (Year)	Methods	Participants	Outcomes	Risk of Bias
Csoboth (2006)	Participants filled out a questionnaire addressing socioeconomic factors, physical and mental health, and health-damaging behaviors	N = 3,615 Hungarian women, aged 15-24. No mean or SD provided for age. 2,016 were students and 1,599 were not students (working either outside or inside the home, or unemployed).	Only 18% of participants reported total abstinence from alcohol. 12.9% of fathers and 2.1% of mothers regularly consumed excessive alcohol; 14.4% of participants reported at least one parent consuming excessive amounts of alcohol regularly. Drug use and regular or excessive alcohol consumption was in strongest association with parental high education.	High
Gerevich (2007)	Trait aggression was measured by the total score of the Buss-Perry Aggression Questionnaire (AQ) and scores of the subscales including physical aggression, verbal aggression, anger, and hostility	N = 1,432. Mean age = age 47.4, SD = 17.3. Individuals receiving inpatient treatment for AUD in Hungary versus the general population. Inpatient sample n = 233, 29% female. General sample n = 1199, 55% female.	Individuals receiving inpatient treatment for AUD experienced higher levels of trait aggression than the general population. The authors conducted various analyses including age, education level, and gender as covariates, but the significant findings did not change, and the effect size. remained virtually the same.	Low
Horváth (2019)	Data of past-year alcohol users were analyzed from the nationally representative sample of the National Survey on Addiction Problems in Hungary 2015	N = 1,619. Mean age = 33.14, SD = 12.32. 47.8% female. Hungarian adults ages 18-64; participants who had used alcohol in the past 12 months were selected for further analysis.	Participants that consumed higher levels of alcohol experienced higher levels of anxiety, depression, hostility, obsessive-compulsivity, interpersonal sensitivity, and psychiatric or AUD-related treatment involvement. Younger men with lower levels of education with earlier onset of the first alcoholic drink were at increased risk of AUD.	Moderate
Institóris (2013)	A roadside survey was conducted to determine the incidence of alcohol and the most frequent illicit and licit drug consumption	N = 2,738. No mean or SD provided for age. 25% female. Drivers participated in a survey.	Illicit drugs were detected in 27 cases (0.99%), licit drugs in 85 cases (3.14%), and alcohol (cut off: 0.1 g/l) was found in 4 (0.13%) cases. All alcohol positive cases were men over the age of 35.	High
Németh (2011)	In a 'Health Tent' at Europe's biggest music and cultural festival, attendants completed the DMQ-R SF and answered other alcohol-related questions	N = 390. Mean age = 23.6, SD = 4.4. 55.9% female. Attendees were recruited at a music festival.	For both genders, social motives were the most frequently indicated motivational dimension for alcohol consumption, followed by coping, conformity and enhancement. Social motives were consistently related to drinking, and coping to alcohol-related problems.	High
Pilling (2012)	Drinking characteristics of mourning persons (alcohol consumption, dependence symptoms, and harmful consequences of alcohol use) in the first three years of grief were examined among persons between 18-75 years using the AUDIT	N = 4457. Mean age = 49.9, SD = 17.94. 59.9% female. Participants had lost a close relative (spouse, mother, or father) in the past three years.	Men bereaved for one year scored higher on two dimensions of AUDIT (dependence symptoms and harmful alcohol use), while men bereaved for two years scored higher on all three dimensions of AUDIT compared to the non-bereaved.	Moderate
Varvasovsky (2000)	Participants filled out ta survey instrument based on the Alcohol Use Disorders Identification Test (AUDIT) and Luebeck Alcoholism Screening Test (LAST) instruments designed to screen for current and lifetime problem drinking respectively	N = 3,140. No mean or SD provided for age. 52.4% female. Patients admitted to medical, surgical, trauma, psychiatric and neurological wards over a 2-week period who stayed in hospital for at least 24 hours.	In all, 23.5% of men and over 53.5% of women reported never drinking alcohol. Of those who did drink, about one in eight men and less than 1% of women reported drinking 5 or more drinks on a day when they drank.	Moderate

Table 2. First author, methods, participants, outcomes, and risk of bias in included studies

Discussion & Conclusion

Outcome	Studies: N	Study Limitations	Directness	Consistency	Precision	Strength of Evidence	Findings
Hungarian women and alcohol use	7	Moderate	Indirect	Consistent	Imprecise	Low	Hungarian women consume less alcohol than Hungarian men
Trauma and alcohol use	2	High	Indirect	Consistent	Imprecise	Low	A history of trauma correlated with increased alcohol use
Trauma and marginalized identities	0	Insufficient	Indirect	Unknown	Imprecise	Insufficient	There was insufficient evidence for this outcome

Table 3. Strength of evidence in included studies based on AHRQ (2011) criteria

- Reporting bias was detected in several of the included studies
- There was insufficient evidence regarding intergenerational trauma and Hungarian women's alcohol use, as well as trauma and alcohol use for Hungarian women with marginalized identities
- The evidence suggests that Hungarian women consume less alcohol than Hungarian men and experience lower rates of alcohol use, misuse, or disorder
- The evidence suggests that Hungarian women may experience greater alcohol use if it is more prevalent in their families
- The evidence suggests that Hungarian women are more likely to experience AUD if they have a mental health disorder, and they may be as likely as Hungarian men to experience social motives for consuming alcohol
- Hungarian women may be less likely to drink and drive, may be less likely to experience alcohol misuse or dependence during intense periods of grief, and may be less likely to have a history of binge drinking
- The evidence suggests that a history of trauma is correlated with higher levels of alcohol consumption
- While this systematic review's evidence is limited, the findings may be broadly applicable to Hungarian women's experiences of alcohol use, misuse, or disorder; additionally, the evidence may be relevant for women living in other formerly Soviet-occupied countries outside of Hungary
- Future research should focus on changing patterns of alcohol consumption in Hungarian women, as well as the impact of having a marginalized identity in Hungarian women and whether this is correlated with an increase in alcohol consumption or trauma

Studies Included in Systematic Review*

Csoboth, C., Szumska, I., Purebl, G. (2006). Self-rated health and health damaging behaviour among young women in Hungary in connection with family background. *Sozial- und Praventivmedizin, 51*(1), 45-53. https://doi.org/10.1007/s00038-005-0006-8
Gerevich, J., Bacskai, E., Czobor, P. (2007). Aggression levels in treatment seeking inpatients with alcohol-related problems compared to levels in the general population in Hungary. *Journal of Nervous & Mental Disease*, *195*(8), 669-72. https://doi.org/10.1097/nmd.0b013e31812001fc
Horváth, Z. et al. (2019). An empirically based typology of alcohol users in a community sample using latent class analysis. *European Addiction Research, 25*(6), 293-302. https://doi.org/10.1159/000501516
Institoris, L., et al. (2013). The frequency of alcohol, illicit and licit drug consumption in the general driving population in south-east Hungary. *Forensic Science International, 224*(1-3), 37-43. https://doi.org/10.1016/j.forsciint.2012.10.022
Németh, Z., et al. (2011). Why do festival goers drink? assessment of drinking motives using the DMQ-R SF in a recreational setting. *Drug & Alcohol Review, 30*(1), 40-6. https://doi.org/10.1111/j.1465-3362.2010.00193.x
Pilling, J. et al. (2012). Alcohol use in the first three years of bereavement: A national representative survey. *Substance Abuse Treatment, Prevention, and Policy 7*, 3. https://doi.org/10.1186/1747-597x-7-3
Varvasovszky, Z., McKee, M. (2000). Problem drinking among hospitalized patients in Hungary. *Alcohol & Alcoholism, 35*(6), 574-9. https://doi.org/10.1093/alcalc/35.6.574

*For a list of full references, please email horgo001@umn.edu