



RESEARCH SUMMARY
Date Compiled: October 2022

Key takeaways from included research:

- A Finnish study looked at sets of twins to clarify the impact of adolescent alcohol misuse on adult physical health and wellbeing. They discovered evidence that alcohol problems are a primary driver that links adolescent alcohol misuse with poor health outcomes across the lifespan.
- Since alcohol is a leading risk factor for a multitude of conditions and contributes to socioeconomic health inequalities, researchers wanted to look at associations between socioeconomic circumstances and alcohol consumption. In their research, they found there is urgent need for alcohol control policies and interventions in low-income and lower-middle income countries to reduce heavy episodic drinking.
- Traumatic exposure and experiences are often linked with problematic drinking. In a new study researchers examined over 9,000 health records of deployed service members to determine the association between opioid prescription use after injury and alcohol use disorder and the severity of the disorder. Their findings suggest the incidence of alcohol use disorder was higher among injured, opioid prescribed users, than those without.
- In a study of paired college students and their parents, researchers looked to see if student reports of their parent's drinking behavior could be used to predict student drinking behaviors. Researchers found that student reports of parent's behavior is a reliable predictor of student behaviors towards alcohol.
- Another study examined the effectiveness of a phone-delivered intervention to reduce alcohol problems among the general population. Researchers found that the intervention was effective at reducing hazardous alcohol use and reduced alcohol problem severity after two or more sessions.

EXPLORING THE RELATIONSHIPS BETWEEN ADOLESCENT ALCOHOL MISUSE AND LATER LIFE HEALTH OUTCOMES

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Background: We sought to clarify the impact of adolescent alcohol misuse on adult physical health and subjective well-being. To do so, we investigated both the direct associations between adolescent alcohol misuse and early midlife physical health and life satisfaction and the indirect effects on these outcomes attributable to subsequent alcohol problems.

Method: The sample included 2733 twin pairs (32% monozygotic; 52% female) from the FinnTwin16 study. Adolescent alcohol misuse was a composite of frequency of drunkenness, frequency of alcohol use, and alcohol problems at ages 16, 17, and 18.5. The early midlife outcomes included somatic symptoms, self-rated health, and life satisfaction at age 34. The mediators examined as part of the indirect effect analyses included alcohol problems from the Rutgers Alcohol Problem Index at ages 24 and 34. Serial mediation and co-twin comparison models were applied and included covariates from adolescence and early midlife.

Results: There were weak direct associations between adolescent alcohol misuse and early midlife physical health and life satisfaction. However, there was stronger evidence for indirect effects, whereby young adult and early midlife alcohol problems serially mediated the relationship between adolescent alcohol misuse and early midlife somatic symptoms ($\beta = 0.03$, 95% CI [0.03, 0.04]), self-rated health ($\beta = -0.02$, 95% CI [-0.03, -0.01]), and life satisfaction ($\beta = -0.03$, CI [-0.04, -0.02]). These serial mediation effects were robust in co-twin comparison analyses.

Conclusions: These results provide evidence that alcohol problems are a primary driver linking adolescent alcohol misuse and poor health outcomes across the lifespan.

Source: Pascale, A., Stephenson, M., Barr, P., Latvala, A., Aaltonen, S., Piirtola, M., ... & Salvatore, J. E. (2022). Exploring the relationships between adolescent alcohol misuse and later life health outcomes. *Alcoholism: Clinical and Experimental Research*. <https://doi.org/10.1111/acer.14917>

THE SOCIOECONOMIC GRADIENT OF ALCOHOL USE: AN ANALYSIS OF NATIONALLY REPRESENTATIVE SURVEY DATA FROM 55 LOW-INCOME AND MIDDLE-INCOME COUNTRIES

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Background: Alcohol is a leading risk factor for over 200 conditions and an important contributor to socioeconomic health inequalities. However, little is known about the associations between individuals' socioeconomic circumstances and alcohol consumption, especially heavy episodic drinking (HED; ≥ 5 drinks on one occasion) in low-income or middle-income countries. We investigated the association between individual and household level socioeconomic status, and alcohol drinking habits in these settings.

Methods: In this pooled analysis of individual-level data, we used available nationally representative surveys—mainly WHO Stepwise Approach to Surveillance surveys—conducted in 55 low-income and middle-income countries between 2005 and 2017 reporting on alcohol use. Surveys from participants aged 15 years or older were included. Logistic regression models controlling for age, country, and survey year stratified by sex and country income groups were used to investigate associations between two indicators of socioeconomic status (individual educational attainment and household wealth) and alcohol use (current drinking and HED amongst current drinkers).

Findings: Surveys from 336,287 participants were included in the analysis. Among males, the highest prevalence of both current drinking and HED was found in lower-middle-income countries (L-MICs);

current drinking 49.9% [95% CI 48.7–51.2] and HED 63.3% [61.0–65.7]). Among females, the prevalence of current drinking was highest in upper-middle-income countries (U-MIC; 29.5% [26.1–33.2]), and the prevalence of HED was highest in low-income countries (LICs; 36.8% [33.6–40.2]). Clear gradients in the prevalence of current drinking were observed across all country income groups, with a higher prevalence among participants with high socioeconomic status. However, in U-MICs, current drinkers with low socioeconomic status were more likely to engage in HED than participants with high socioeconomic status; the opposite was observed in LICs, and no association between socioeconomic status and HED was found in L-MICs.

Interpretation: The findings call for urgent alcohol control policies and interventions in LICs and L-MICs to reduce harmful HED. Moreover, alcohol control policies need to be targeted at socially disadvantaged groups in U-MICs.

Source: Xu, Y., Geldsetzer, P., Manne-Goehler, J., Theilmann, M., Marcus, M. E., Zhumadilov, Z., ... & Probst, C. (2022). The socioeconomic gradient of alcohol use: an analysis of nationally representative survey data from 55 low-income and middle-income countries. *The Lancet Global Health*, 10(9), e1268-e1280. [https://doi.org/10.1016/S2214-109X\(22\)00273-X](https://doi.org/10.1016/S2214-109X(22)00273-X)

POSTCOMBAT-INJURY OPIOID PRESCRIPTION AND ALCOHOL USE DISORDER IN THE MILITARY

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Introduction: Previous studies have identified combat exposure and combat traumatic experience as problematic drinking risk factors. Increasing evidence suggests that opioid use increases the risk of alcohol use disorder. This study investigated the association between opioid prescription use after injury and (1) alcohol use disorder and (2) severity of alcohol use disorder among deployed military servicemembers.

Methods: Deidentified health records data of 9,029 deployed servicemembers from a retrospective cohort study were analyzed. Data were randomly selected from the Department of Defense Trauma Registry and included servicemembers with combat injuries during deployment in Iraq or Afghanistan (2002–2016). Pharmacy records and International Classification of Diseases, Ninth and Tenth Revision diagnosis codes were used. Three groups were identified (no opioid prescription use, nonpersistent opioid prescription use, and persistent opioid prescription use) and were compared on the basis of alcohol use disorder risk using Cox proportional hazard models. Data analyses were performed in 2021.

Results: Of the 9,029 servicemembers with combat injury, 2,262 developed alcohol use disorder (1,322 developed severe alcohol use disorder). Compared with no opioid prescription use, increased alcohol use disorder risk was associated with persistent opioid prescription use, with a hazard ratio of 1.13 (95% CI=1.02, 1.26). After covariate adjustment, increased risk remained statistically significant (hazards ratio=1.24; 95% CI=1.10, 1.39). There was no significant difference in alcohol use disorder risk between no opioid prescription use and nonpersistent opioid prescription use. The risk of severe alcohol use disorder did not vary by opioid use among servicemembers with alcohol use disorder diagnosis.

Conclusions: The findings of the study suggest that the incidence of alcohol use disorder was higher among injured servicemembers with persistent opioid prescription use than among those without opioid use. If replicated in prospective studies, the findings highlight the need for clinicians to consider the current and history of alcohol use of patients in initiating treatment involving opioids.

Source: Alcover, K., Poltavskiy, E., Howard, J., Watrous, J., Janak J., Walker, L., & Stewart, I. (2022). Postcombat-Injury Opioid Prescription and Alcohol Use Disorder in the Military. *American Journal of Preventive Medicine*. <https://doi.org/10.1016/j.amepre.2022.07.010>

A COMPARISON OF PARENTS' AND STUDENTS' REPORTS OF GENERAL AND ALCOHOL-SPECIFIC PARENTING BEHAVIORS ACROSS THE FOUR YEARS OF COLLEGE

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Objective: Whether college students' reports of their parents' behaviors are as reliable a predictor of student drinking as their parents' own reports remains an open question and a point of contention in the literature. To address this, the current study examined concordance between college student and mother/father reports of the same parenting behaviors relevant to parent-based college drinking interventions (relationship quality, monitoring, and permissiveness), and the extent to which student and parent reports differed in their relation to college drinking and consequences.

Method: The sample consisted of 1,429 students and 1,761 parents recruited from three large public universities in the United States (814 mother-daughter, 563 mother-son, 233 father-daughter, and 151 father-son dyads). Students and their parents were each invited to complete four surveys over the course of the students' first four years of college (one survey per year).

Results: Paired samples t-tests revealed that parent reports of parenting constructs were typically more conservative than student reports. Intraclass correlations revealed moderate associations between parent and student reports on quality of parenting, general monitoring, and permissiveness. The associations between parenting constructs and drinking and consequences were also consistent when using parent and student reports of permissiveness. Results were generally consistent for all four types of dyads, and at each of the four time points.

Conclusions: Taken together, these findings provide additional support for the use of student reports of parental behaviors as a valid proxy of parents' actual reports and as a reliable predictor of college student drinking and consequences.

Source: Trager, B. M., Sell, N. M., Hultgren, B. A., Turrisi, R., Morgan, R. M., & LaBrie, J. W. (2022). A Comparison of Parents' and Students' Reports of General and Alcohol-Specific Parenting Behaviors Across the Four Years of College. *Journal of Studies on Alcohol and Drugs*, jsad-22.

<https://doi.org/10.15288/jsad.22-00002>

EFFECTIVENESS OF A STAND-ALONE TELEPHONE-DELIVERED INTERVENTION FOR REDUCING PROBLEM ALCOHOL USE

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Importance: Despite the magnitude of alcohol use problems globally, treatment uptake remains low. Telephone-delivered interventions have potential to overcome many structural and individual barriers to help seeking, yet their effectiveness as a stand-alone treatment for problem alcohol use has not been established.

Objective: To examine the effectiveness of the Ready2Change telephone-delivered intervention in reducing alcohol problem severity up to 3 months among a general population sample.

Design, Setting, and Participants: This double-blind, randomized clinical trial recruited participants with an Alcohol Use Disorders Identification Test (AUDIT) score of greater than 6 (for female participants) and 7 (for male participants) from across Australia during the period of May 25, 2018, to October 2, 2019. Telephone assessments occurred at baseline and 3 months after baseline (84.9% retention). Data collection was finalized September 2020.

Interventions: The telephone-based cognitive and behavioral intervention comprised 4 to 6 telephone sessions with a psychologist. The active control condition comprised four 5-minute telephone check-ins from a researcher and alcohol and stress management pamphlets.

Main Outcomes and Measures: The primary outcome was change in alcohol problem severity, measured with the AUDIT total score. Drinking patterns were measured with the Timeline Followback (TLFB) instrument.

Results: This study included a total of 344 participants (mean [SD] age, 39.9 [11.4] years; range, 18-73 years; 177 male participants [51.5%]); 173 participants (50.3%) composed the intervention group, and 171 participants (49.7%) composed the active control group. Less than one-third of participants (101 [29.4%]) had previously sought alcohol treatment, despite a high mean (SD) baseline AUDIT score of 21.5 (6.3) and 218 (63.4%) scoring in the probable dependence range. For the primary intention-to-treat analyses, there was a significant decrease in AUDIT total score from baseline to 3 months in both groups (intervention group decrease, 8.22; 95% CI, 7.11-9.32; $P < .001$; control group decrease, 7.13; 95% CI, 6.10-8.17; $P < .001$), but change over time was not different between groups (difference, 1.08; 95% CI, -0.43 to 2.59; $P = .16$). In secondary analyses, the intervention group showed a significantly greater reduction in the AUDIT hazardous use domain relative to the control group at 3 months (difference, 0.58; 95% CI, 0.02-1.14; $P = .04$). A greater reduction in AUDIT total score was observed for the intervention group relative to the control group when adjusting for exposure to 2 or more sessions (difference, 3.40; 95% CI, 0.36-6.44; $P = .03$) but not 1 or more sessions (per-protocol analysis).

Conclusions and Relevance: Based on the primary outcome, AUDIT total score, this randomized clinical trial did not find superior effectiveness of this telephone-based cognitive and behavioral intervention compared with active control. However, the intervention was effective in reducing hazardous alcohol use and reduced alcohol problem severity when 2 or more sessions were delivered. Trial outcomes demonstrate the potential benefits of this highly scalable and accessible model of alcohol treatment.

Source: Lubman, D. I., Grigg, J., Reynolds, J., Hall, K., Baker, A. L., Staiger, P. K., ... & Manning, V. (2022). Effectiveness of a Stand-alone Telephone-Delivered Intervention for Reducing Problem Alcohol Use: A Randomized Clinical Trial. *JAMA psychiatry*.
<https://doi.org/10.1001/jamapsychiatry.2022.2779>