Systematic review of cross-sectional studies of marketing and alcohol use

Alcohol Marketing and Underage Drinking Consensus Project

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Summary of Cross-sectional Studies

- Many cross-sectional studies have investigated the associations between exposure to alcohol marketing and drinking beliefs, attitudes, and behaviors among young people.
- Multiple reviews that include cross-sectional studies have been conducted.
- Few, if any, systematic reviews or meta-analyses have been published.
Reviews of Cross-sectional Studies

- Cross-sectional survey research relies on self-reports of exposure to media messages and alcohol consumption measured at a single point in time.

- Myriad Measures of Exposure
  - Exposure or Potential Exposure
  - Attention
  - Receptiveness (Liking, Affect, Identification)
  - Recall/Recognition

- Cross-sectional survey studies provide consistent evidence that exposure to marketing and pro-substance media messages is associated with
  - Substance behaviors
  - Perceived prevalence of substance use behaviors
  - Expectancies and other alcohol-related beliefs

- Associations may be stronger for youth

Limitations of Cross-sectional Studies

- Cross-sectional survey research relies on self-reports of exposure to media messages and alcohol consumption at a single point in time
  - Correlational
    - Recall bias
    - Selective attention
    - Spuriousness (associations result of common predisposing factors)
    - Ignores cumulative effects

- Given the subtle nature of many substance use messages, their processing may not be captured by explicit measures of recall

- Associations tend to be modest and sometimes inconsistent across measures and studies

- Publication bias

Reviews


For countervailing views.....


  “Substantial shortcomings are found in the studies, which preclude a causal interpretation.”


  “The empirical results are consistent with publication bias, omitted variable bias in some studies, and lack of a genuine effect, especially for mass media.”


  “...data ... suggest there is an association between exposure to alcohol advertising or promotional activity and subsequent alcohol consumption in young people. Inferences about the modest effect sizes found are limited by the potential influence of residual or unmeasured confounding.”
Tom in the Making

- Viewers held significantly more positive attitudes toward drinkers after the pro-alcohol episode than after the anti-alcohol episode, $t(190) = 3.50, p < .001, d = 0.51$.

- Including an epilogue after a pro-alcohol episode was related to more negative attitudes toward drinkers compared to a pro-alcohol episode with no epilogue, $t(190) = 3.82, p < .001, d = 0.55$.

- The pro-alcohol narrative without an epilogue was related to significantly more positive attitudes toward drinkers when compared with all other conditions, $t(190)s > 3.50, ps < .001, ds ≥ 0.50$.

- Pro-alcohol narrative condition with an epilogue did not differ significantly from the two anti-alcohol narrative conditions, $t(190) = .95, p = .34$ and $t(190) = .32, p = .75$.

Regression Results for Attitudes toward Drinkers and Drinking Intentions

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<th>Dependent Variable:</th>
<th>Attitudes toward Drinkers</th>
<th>Drinking Intentions</th>
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Review of Cross-Sectional Studies
Proposed Approach
PRISMA Flow Diagram

Identification

Records identified through database searching

Additional records identified through other sources

Records after duplicates removed

Records excluded

Screening

Records Screened

Full-text articles assessed for eligibility

Full-text articles excluded

Eligibility

Studies included in review

Studies included in meta-analysis

Included

Studies included in review
Step 1: Abstract Screening

- Initial abstracts will be screened based on inclusion criteria:
  - Participants aged 12-18
  - Exposure – alcohol marketing*
  - Outcomes – initiation (lifetime), QF, heavy use, problems*
  - All countries?
  - English language
  - Published
  - Cross-sectional design
  - Date published*

*Will make decisions about these criteria after we see the studies
Step 2: Full-text Review

- Full-text articles assessed for quality and eligibility by 2 members of research team
  - Quality assessment based on Newcastle-Ottawa Quality Assessment Scale
    - Clearly defined exposure
    - Clearly defined outcome
    - Response rate
    - Important controls included (minimized omitted variable bias)
  - Confirm eligibility

- Create an data base with each study’s authors, year, effect size, exposure, outcome, etc.
  - Contact study authors if necessary information is missing (e.g., effect sizes) or we need clarification
Step 3: Summarize Literature

- Final set of screened studies will be summarized
- Organize literature by
  - Exposure type
  - Outcome (e.g., initiation/lifetime, Q-F, heavy use, problems)
  - Year
  - Age group
  - Gender
  - Race/ethnicity
- Summary review
Step 4: Meta-analysis and Meta-regression

- Will attempt a meta-analysis if there is enough consistency across studies.
- Will explore meta-regression with publication year, exposure measures, covariates (e.g., age, gender, race/ethnicity) for different alcohol use outcomes (e.g., initiation, frequency, quantity, heavy episodic drinking, problems).
- Sensitivity analysis.
- Assess for publication bias (e.g., funnel plots; p-curves) and selective reporting.
Questions

- What criteria will be used to exclude studies before they are sent to us?
- Will we have list of all initially screened publications?
- Will we need to search reference lists of papers we review?
- Do we have a target date range for studies to include?
- Should we focus on specific outcomes and exposures?
- Will we need to check-in with group as we make decisions about inclusion or exclusion criteria?
- How many studies will we have?
- Timeline?
Disclosure

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- Dr. Lipperman-Kreda and Dr. Finan have no conflicts of interest to declare.