Introduction

This newsletter provides a brief summary of some of the latest research and publications that may be of interest to practitioners in the field of addiction and mental health. Each newsletter will cover one of the themes of the Alberta Addiction and Mental Health Research Partnership Program and provides structured accounts of research on a given topic, based on a limited search of the literature for recent publications. We do not thoroughly assess the quality of the research identified so this publication acts as a signpost for further reading and assessment, rather than as a definitive account of what should be included in clinical practice.

This month’s edition focuses on Alcohol.

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Alcohol-related risk of suicidal ideation, suicide attempt, and completed suicide: A meta-analysis
doi:10.1371/journal.pone.0126870

Study Design: Meta-analysis

Focus of the Study: There is evidence that alcohol use disorder (AUD) is associated with an increased risk of suicide; however, there are inconsistencies throughout the studies. Reviews of the relationship between AUD
and suicidal thoughts and suicidal behavior focused on a specific population and did not consider the association between AUD and suicidal ideation and attempt. This meta-analysis estimated the association between AUD and suicidal ideation, suicide attempt, and completed suicide separately in 29 studies with 420,732 participants.

Key Findings:
» Overall analysis indicates that AUD is associated with an increased risk of suicidal ideation, suicide attempt, and completed suicide.
» Age or gender did not impact the relationship between AUD and suicidality.
» The authors reported that the body of evidence is sufficient to consider AUD as an important predictor of suicide and a substantial source of premature death.

Implications for Practice: As there appears to be increased risk of suicidal ideation, suicide attempt and completed suicide associated with alcohol use disorder, clinicians working with individuals diagnosed with alcohol use disorder should consider suicide risk assessment with these clients.

Link to abstract: http://www.ncbi.nlm.nih.gov/m/pubmed/25993344

The use of the internet for prevention of binge drinking among the college population: A systematic review of evidence

Study Design: Systematic review

Focus of the Study: Binge drinking behavior is most prevalent among college students. The popularity of internet use with students has made internet-based intervention approaches appealing to this population. There has been limited research or review of these interventions to examine their benefits and any limitations. This study systematically reviewed 14 internet-based intervention studies targeting binge drinking among college students that were published between 2000 and 2014.

Key Findings:
» Overall drinking amount and frequency were decreased in all but one of the 14 studies.
» Periodic internet-based interventions were more effective than one-time interventions.
» Most college students with problem drinking behaviors chose internet-based interventions over health education seminars, reading materials, or professional assessment.
» Effective intervention strategies included sharing personalized results of assessments (e.g., Alcohol Use Disorders Identification Test [AUDIT]), and providing normative facts on consumption rates and peer behaviors.

Implications for Practice: Internet-based interventions may be an efficient way to reach many binge drinking college students who may not seek information or help through other means. Including personalized feedback within internet-based interventions may increase the effectiveness of these interventions.

Link to abstract: http://www.ncbi.nlm.nih.gov/m/pubmed/26047832

Alcohol-adapted anger management treatment: A randomized controlled trial of an innovative therapy for alcohol dependence

Study Design: Randomized controlled trial

Focus of the Study: Individuals treated for alcohol dependence frequently relapse and return to problem drinking. Previous research has demonstrated a link between anger and alcohol dependence, and that anger levels can play a significant role in relapse. Improving anger management skills may help individuals to better cope with anger and improve other cognitive and behavioral coping skills that could reduce the likelihood of...
relapse. This study examined the efficacy of an innovative alcohol-adapted anger management treatment (AM) for 76 outpatient alcohol dependent men and women. Alcoholics Anonymous Facilitation treatment (AAF) was used as an empirically-supported intervention comparison. Participants were assessed at pretreatment, treatment end, and 3 and 6 months after the end of treatment.

**Key Findings:**

» AM and AAF were both associated with an increase in abstinence, and a decrease in drinks per day and adverse alcohol consequences. Changes were stable during the 6-month follow-up.

» AM and AAF were both associated with decreases in anger, maladaptive angry thoughts, and an increase in self-confidence regarding not drinking to anger-related triggers. Changes were stable during the 6-month follow-up.

» Participants receiving AAF were more likely to attend Alcoholics Anonymous (AA) meetings than those in the AM group.

» Improvements in anger and anger-related variables predicted positive post-treatment alcohol outcomes for both treatments; however, improvement in trait anger (i.e., intensity of anger and disposition to experience angry feelings) was a stronger predictor of improved drinking outcomes for AM than for AAF participants.

» Improvements in AA involvement predicted positive post-treatment alcohol outcomes for both treatments; however, higher AA meeting attendance was a stronger predictor of decreased heavy drinking and adverse alcohol consequences for AAF than for AM participants.

**Implications for Practice:** This study provides preliminary support for alcohol-adapted anger management treatment in the treatment of alcohol dependence for anger-involved individuals. Targeting anger may be a useful treatment approach for reducing alcohol use, particularly among individuals who prefer not to attend AA-style groups.


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**Brief alcohol interventions for adolescents and young adults: A systematic review and meta-analysis**


**Study Design:** Systematic review and meta-analysis

**Focus of the Study:** Heavy episodic drinking, or binge drinking, among adolescents and young adults is a widespread concern. Recent research has identified brief interventions, a technique used to initiate change for unhealthy behaviors, as a potential approach to reduce drinking in this population group. This study examined the effectiveness of brief interventions on alcohol consumption and alcohol-related outcomes for adolescents (age 11 to 18) and young adults (age 19 to 30) who were not seeking treatment. Specifically, this study investigated: 1) the overall effects of brief alcohol interventions on alcohol consumption and alcohol-related problems; 2) the persistence of the effects of brief alcohol interventions; and 3) the variation in effects associated with intervention and participant characteristics.

**Key Findings:**

» Brief alcohol interventions were associated with modest decreases in alcohol consumption and alcohol-related problems in adolescents and young adults.

» The effects of brief alcohol interventions continued for up to one year after the end of intervention.

» The effects of brief alcohol interventions were relatively similar across participant demographics (e.g., age, gender, ethnicity), delivery sites (e.g., primary care, school, self-administered), intervention formats (e.g., computerized, non-computerized, individual, group), and intervention length.

> Although different intervention components resulted in relatively similar effects, some modalities and therapeutic components were associated with larger effects. Notably, motivational interviewing showed beneficial effects for both adolescents and young adults, while decisional balance and goal-setting exercises had a significant effect on adolescents but not young adults.

**Implications for Practice:** Brief alcohol interventions can have beneficial effects on alcohol consumption and alcohol-related problems in adolescents and young adults who are not seeking treatment. Addiction and mental health professionals using brief alcohol interventions may want to consider the positive effects of certain treatment modalities (e.g., motivational interviewing) and therapeutic components (e.g., decisional
Childhood adversities as specific contributors to the co-occurrence of posttraumatic stress and alcohol use disorders

Study Design: Retrospective cohort study

Focus of the Study: People with co-morbid posttraumatic stress disorder (PTSD) and alcohol use disorder (AUD) often present with more severe clinical profiles than those with PTSD and no AUD; however little is known about the extent to which childhood adversities factor into the development of AUD in people with PTSD. This study examined how trauma and other environmental adversities that occurred in childhood may have contributed to the development of AUD in a community sample of individuals with PTSD. Data was collected from CoLaus – a large population-based study in Switzerland.

Key Findings:
- Sexual abuse occurring before the age of 16 was strongly associated with comorbid AUD and PTSD. This association was not observed for lifetime sexual abuse.
- Overall childhood trauma and being raised in a foster home were also associated with comorbid AUD and PTSD.
- Approximately 70% of people with comorbid AUD and PTSD experienced at least one trauma in their childhood; only 32% of people with PTSD alone had at least one experience of childhood trauma.
- Those with comorbid AUD and PTSD were more likely to experience adversities at a younger age (i.e., 14 vs. 24 years old), than those with PTSD alone.

Implications for Practice: Early identification and treatment of those with histories of childhood trauma may help reduce the possible co-occurrence of PTSD and AUD. Furthermore, AUD treatment is likely to benefit from screening for and assessment of PTSD symptoms related to childhood trauma and other adversities, as they are potential triggers of AUD.

Link to full abstract: http://www.ncbi.nlm.nih.gov/pubmed/26163721

Alcohol use, smoking and their co-occurrence during pregnancy among Canadian women, 2003 to 2011/12

Study Design: Retrospective cohort study

Focus of the Study: The effects of smoking and alcohol use during pregnancy are well-researched; however, gaps in the literature still exist. Currently, it is not known to what degree having a lifetime history of smoking predicts alcohol consumption during pregnancy. Furthermore, there is limited research on risk factors for smoking only, alcohol use only, and co-occurring smoking and alcohol use during pregnancy.

Using data collected between 2003 to 2011/2012 from five cycles of the Canadian Community Health Survey, this study examined: 1) the estimated prevalence of smoking during pregnancy in Canada by province and territory; 2) changes in the prevalence of smoking during pregnancy over this time period; 3) association of person’s smoking status (e.g., being a lifetime non-smoker; being a daily or occasional smoker during pregnancy, etc) with alcohol use during pregnancy; and 4) risk factors associated with alcohol use only, smoking use only, or co-occurring smoking and alcohol use during pregnancy.

Key Findings:
- Among women who had given birth within five years of taking the survey, 14% reported smoking during pregnancy, 53% reported smoking daily and 48% reported smoking occasionally. Almost 69% of daily
smokers reported they smoked six or more cigarettes per day.

» British Columbia had the lowest prevalence of smoking during pregnancy (9%) while the Territories had the highest (40%). Quebec saw a decrease in odds of smoking during pregnancy from 2003 to 2005 and from 2003 to 2011.

» Women who smoked during pregnancy were two-and-a-half times more likely to have consumed alcohol and to report binge drinking during their pregnancy. Compared to pregnant women who were lifetime non-smokers, women who had a lifetime history of smoking but did not smoke during pregnancy were also twice as likely to have consumed alcohol during pregnancy.

» Compared to women who did not drink during pregnancy, women who did were more likely to be:
  - Younger (i.e., under 29 years old)
  - Caucasian
  - Unemployed
  - Single (i.e., separated, single or never married)
  - Less educated
  - Making a low annual household income (under $40,000 per year)

» Binge drinking in the 12 months prior to the survey was the only common predictor for smoking-only, alcohol-use only, and co-occurring smoking and alcohol use during pregnancy. Being a visible minority was the only common protective factor against all three outcomes (smoking-only, alcohol-use only, and co-occurring smoking and alcohol use during pregnancy).

» Being unemployed, single, and exposed to second-hand smoke during pregnancy all predicted smoking-only behavior among pregnant women. Being unemployed was protective against alcohol use during pregnancy. Having a higher education, being older and having a higher household income were protective against smoking-only during pregnancy.

» Having an extreme amount of perceived life stress, and being exposed to second-hand smoke during pregnancy were predictive of co-occurring alcohol use and smoking during pregnancy.

Implications for Practice: Screening for smoking status may help identify women of child-bearing age who are at risk of consuming alcohol during pregnancy. Education programs, prevention efforts and interventions to reduce smoking and drinking behaviors in pregnant women should focus on providing clear, consistent information on the harmful effects of these behaviors on the developing fetus and infant. Targeted treatments addressing the co-occurrence of drinking and smoking should be available to women of child-bearing age.


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