Articles Summarised

» Group motivational interviewing for adolescents: Change talk and alcohol and marijuana outcomes
» Probability and predictors of the cannabis gateway effect: A national study
» Comorbidity and temporal relations of alcohol and cannabis use disorders from youth through adulthood
» Multidimensional family therapy decreases the rate of externalising behavioural disorder symptoms in cannabis abusing adolescents: Outcomes of the INCANT trial
» A positive association between anxiety disorders and cannabis use or cannabis use disorders in the general population: A meta-analysis of 31 studies
» Cannabis use and mania symptoms: A systematic review and meta-analysis

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 Substance use disorders - Cannabis.

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Group motivational interviewing for adolescents: Change talk and alcohol and marijuana outcomes

Study Design: Randomized controlled trial

Focus of the Study: Polysubstance use common among adolescents. They frequently mix alcohol and marijuana which can produce unpredictable, and potentially deleterious, reactions. Group motivational interviewing (MI) has shown promise as an intervention for adolescent substance use. Change talk, self-
expressed speech that is an argument for change, may be an important mechanism for change that drives positive outcomes in group MI. This study evaluated 129 adolescent group MI sessions to determine how facilitator and peer behavior affected change talk and sustain talk, self-expressed arguments against change, and how change talk and sustain talk influenced alcohol and marijuana outcomes.

Study participants were youth (14 - 18 years old) in teen court for a first-time alcohol and other drug offence and had not reported more than 5 days of alcohol or marijuana use in the past 90 days or use of any substance, other than alcohol and marijuana, more than twice in the past 90 days.

Key Findings:
» Open-ended questions and reflections of change talk by the facilitator increased group change talk; however, when the facilitator voiced sustain talk, change talk decreased, and there was an increased likelihood of more sustain talk.
» When adolescents voiced change talk, they were more likely to continue with further change talk in the group. Conversely, when sustain talk was produced by adolescents, they were more likely to continue with additional sustain talk.
» Group change talk was associated with decreases in past 30-day alcohol use and heavy drinking, and lower intentions to use alcohol. Change talk did not influence marijuana outcomes.
» Group sustain talk was associated with greater intentions to use marijuana, increased alcohol and marijuana benefit expectancies, and less motivation to change.

Implications for Practice: This study suggests that use of MI in group settings may help at-risk adolescents change their substance use in the short term. Change talk, in particular, may be a useful skill that practitioners can integrate into their adolescent group treatment sessions. As many adolescents will be in the precontemplation or contemplation stage of change while in treatment, counselors should consider reflecting change talk and diverting from sustain talk to decrease the chances of iatrogenic effects.
comorbidity and temporal relations of alcohol and cannabis use disorders from youth through adulthood

Study Design: Prospective cohort study

Focus of the Study: Cannabis use disorders (CUDs) and alcohol use disorders (AUDs) are two of the most prevalent mental health disorders in developed countries. Little is known, however, about the extent of the comorbidity or temporal relationships between the two disorders. Understanding these relationships would aid in understanding the etiology of these disorders. The objective of this study was to understand the comorbidity patterns and temporal relationships between CUDs and AUDs using measures across three developmental periods in time (i.e., youth aged 6-17, young adults aged 18-23, and adults aged 24-30) and to compare these differences between males and females.

Key Findings:
- Having a CUD or AUD during one developmental stage (i.e., youth, young adulthood or adulthood) significantly predicted having a CUD or AUD respectively in the next developmental stage; this finding was true for all three developmental periods.
- Analysis of gender differences indicated that males had higher prevalence rates of AUDs and CUDs than females. For male youths, having a CUD predicted subsequent CUDs in later developmental periods (i.e., young adulthood and adulthood). CUDs in female youth did not predict CUDs among adult women, which suggests that females may have some protective factors that males do not.
- Having an AUD during youth significantly predicted CUD in young adults. Similarly, having CUD during youth significantly predicted AUD in young adults, which suggests a general comorbidity between the two disorders.
- Having a CUD during youth significantly predicted AUD in adults. However, having an AUD in youth did not predict having CUD in adulthood. This suggests that the occurrence of cannabis use disorder in youth may be a greater predictor of adult substance use disorders than youth SUDs have on adult CUDs.
- Although the association between CUDs and AUDs remained in adulthood, it was not as strong as when measured in young adulthood. This suggests that the comorbid relationship between alcohol and cannabis use weakens as the cohorts aged.

Implications for Practice: Due to the high comorbid relationship between CUDs and AUDs, it may be beneficial to screen clients for both disorders even if only one drug is indicated as a concern.

Link to full abstract

Multidimensional family therapy decreases the rate of externalising behavioural disorder symptoms in cannabis abusing adolescents: Outcomes of the INCANT trial

Study Design: Randomized controlled trial

Focus of the Study: Studies have shown that cannabis use is associated with a wide range of mental health and behavioral disorders including internalizing disorder symptoms (e.g. nervousness and fearfulness) and externalizing disorder symptoms (e.g. arguing and stealing). Additionally, a large proportion of youth that use cannabis come from conflict-prone families. Multidimensional family therapy (MDFT) has been shown to be an effective treatment for cannabis dependence. This western European study examined and compared the effectiveness of MDFT versus individual psychotherapy (IP) in treating internalizing and externalizing symptoms in adolescents who abuse cannabis, and in improving family functioning.

Key Findings:
- MDFT and IP both reduced internalizing symptoms and both had the same effect over time in treating the internalizing symptoms.
- MDFT and IP both reduced externalizing symptoms. However, MDFT was more effective over time in treating
externalizing symptoms.
» MDFT and IP both improved family functioning in terms of greater cohesion between family members and less conflict amongst them. However, teens from conflict-prone families benefited more from MDFT than from IP.
» Retention and treatment outcomes were similar in self-referred youth and youth who were coerced into treatment by schools, services or programs.

Implications for Practice: Externalizing symptoms are often linked with conduct disorder and criminal behavior. Therefore, treatments for cannabis use that are also effective in lowering externalizing symptoms may help youth to abstain from delinquency.

A positive association between anxiety disorders and cannabis use or cannabis use disorders in the general population: A meta-analysis of 31 studies

Study Design: Systematic review and meta-analysis

Focus of the Study: Although cannabis use has been linked to psychosis in schizophrenia, the link between anxiety and cannabis use is not as clear. The present study reviewed 31 primary research papers studying the relationship between anxiety and cannabis use, and systematically assessed their findings through meta-analyses on the retrieved data. Specifically, meta-analyses were performed on three subsets of studies examining: anxiety vs. cannabis use/no use (N=15); anxiety vs. cannabis use disorder (CUD)/no CUD (N=13), and comorbid anxiety and depression vs. cannabis use/no use (N=5). Confounding variables such as other substance use, other psychiatric disorders and demographics were accounted for. A secondary analysis on a subset of studies also examined temporal relationships between cannabis use and anxiety symptoms.

Key Findings:
» In all three meta-analyses, a small, positive association between anxiety disorders and cannabis use or CUD was found. This suggests that those with anxiety, or comorbid anxiety and depression were more likely to use cannabis or have CUD.
» One at a time removal of studies from the meta-analyses that examined association between anxiety and either cannabis use or CUD did not render the results insignificant. Thus, the positive association between anxiety and either cannabis use or CUD was stable and not dependent on any one study.
» The positive association between anxiety and cannabis use or CUD remained, even after adjusting for possible confounders such as demographics, other substance use and/or other comorbid psychiatric disorders. This suggests that the observed higher prevalence of anxiety in cannabis users (with or without CUD) is not solely due to the aforementioned confounders.
» Any level of cannabis use, including infrequent use, was found to be positively associated with clinically relevant anxiety symptoms.
» A small subset of studies (N=5) that examined baseline and follow-up anxiety rates showed that those who were using cannabis at baseline measurements were more likely to report experiencing symptoms of anxiety at follow-up. The positive relationship between cannabis use at baseline and anxiety at follow up was small; however, it remained even after adjusting for confounding variables.

Implications for Practice: Cannabis use and anxiety disorders are both common phenomena in the Western world; this review and meta-analyses indicate that people with anxiety, or anxiety and depression are more likely to use cannabis, or have CUD. Clinicians should be aware of this association, especially those working with populations prone to higher prevalence of both anxiety and cannabis use, such as youth and young adults. Treatment programs for anxiety should potentially screen for cannabis use to better tailor treatment approaches, and cannabis intervention programs for schools and communities should include anxiety as a risk factor of cannabis use.

Cannabis use and mania symptoms: A systematic review and meta-analysis

Study Design: Systematic review and meta-analysis

Focus of the Study: The association of cannabis use and symptoms of mania is not well understood. This study aimed to determine a) if cannabis use among those with bipolar disorder leads to an increase in mania symptoms or episodes, and b) if cannabis use among those without bipolar disorder increases the risk of mania symptoms occurring. A systematic review and meta-analysis of 6 studies consisting of 2391 individuals was completed.

Key Findings:
» Overall findings from the systematic review suggest that there is a relationship between cannabis use and the onset or exacerbation of mania symptoms.
» Cannabis use tripled the odds of mania symptoms in community populations of those who used cannabis prior to the onset of bipolar disorder (i.e., it increased the risk of new onset mania symptoms by three-fold).
» Results from the same community populations above suggest that cannabis use is associated with both bipolar disorder and symptoms of mania; however, the manic symptoms were often measured to be at sub-clinical levels.
» In those with pre-existing bipolar disorder, evidence found cannabis use frequently precedes the onset of mania symptoms, even when controlling for baseline mania symptoms. This suggests that cannabis use is associated with new manic symptoms.

Implications for Practice: The studies reviewed here tentatively suggest a potential causal relationship between cannabis use and development of mania. Furthermore, cannabis use appears to worsen manic symptoms in those already diagnosed with bipolar disorder. These findings highlight the importance of substance abuse prevention programs, in particular for youth with whom cannabis use is quite prevalent. Clinicians need to be aware of these associations in order to be able to educate their patients that the use of cannabis can potentially affect their illness, and offer ways to reduce or stop cannabis use.

Link to full abstract

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