Articles Summarised

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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 Effectiveness of Mental Health Services and System: Technology.

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A smartphone application to support recovery from alcoholism

Study Design: Randomized controlled trial

Focus of the Study: There is evidence that continuing care for alcohol use disorders (AUDs), and more
generally drug use disorders produces better patient outcomes. Despite this evidence, patients leaving residential treatment for AUDs are not usually offered evidence-based aftercare. Smartphone technology could be a viable option in providing effective continuing care to patients leaving treatment for AUDs. This study describes the findings of a randomized controlled trial with respect to effectiveness of a smartphone application called the Addiction Comprehensive Health Enhancement Support System (A-CHESS) in supporting recovery and improving continuing care for AUDs. Patients in the control group received treatment as usual for 12 months; those in the A-CHESS group were provided a smartphone with the A-CHESS application, in addition to the treatment as usual for the 8-month intervention period, followed by treatment as usual only during the 4-month follow-up.

The primary outcome of the study was ‘risky drinking days’, defined as days on which the patient drank more than four standard drinks for men, or more than three standard drinks for women in a two hour period. The study adopted the National Institute on Alcohol Abuse and Alcoholism definition of a standard drink, which defines a standard drink as one containing about 14 g of pure alcohol.

The secondary outcomes of the study were ‘abstinence’ and ‘negative consequences of drinking’. Abstinence was defined as a patient reporting no drinking in the past 30 days. Negative consequences of drinking considered in this study included the following: not eating properly, hurting someone, having one’s status damaged, having financial problems, losing a job, being arrested, having an accident, and involvement with the Department of Children and Family Services).

Key Findings:
» A-CHESS group patients reported significantly fewer risky drinking days than control patients during intervention and follow-up periods. The difference between the two groups in the reported number of risky drinking days by month, however, was significant at 4 and 12 months, but not at 8 months.
» A-CHESS patients were more likely than controls to report abstinence at 4, 8 and 12 months. Similarly, the odds of reporting abstinence were greater for A-CHESS patients than for control patients at 4, 8, and 12; the odds is the fraction of the number of patients reporting abstinence over the number reporting relapse in the previous 30 days. Significant differences were apparent at months 8 and 12.
» No significant differences existed between groups when comparing negative consequences of drinking (e.g., losing a job, being arrested, having financial problems, etc.).

Implications for Practice: A smartphone application may be beneficial in the provision of aftercare for patients leaving residential treatment for AUDs. Smartphone technology provides personalized care and constant recovery support that could also prove useful in other chronic illnesses.

Link to full abstract


Study Design: Randomized controlled trial

Focus of the Study: Executive dysfunction after pediatric traumatic brain injury (TBI) is linked with a wide range of functional problems. Delivery of an online family-centered problem-solving therapy soon after TBI has the potential to improve outcomes for children. This study evaluated the long-term benefits of a web-based, family-centered counselor-assisted problem-solving (CAPS) intervention, introduced within the first seven months after injury, in adolescents with executive dysfunction after moderate to severe TBI. The CAPS intervention was compared with an Internet resource condition (IRC) group, in which participants were given a homepage with links to online TBI resources and had no access to the CAPS content. The primary outcome of the study was the parent reported Global Executive Composite (GEC) of the Behavior Rating Inventory of Executive Function, a proxy for overall executive function. Two subscales of GEC, the Behavioral Regulation Index (BRI) and the Metacognition Index (MI) were the secondary outcomes of the study; lower scores on the scales indicate fewer problems.

Key Findings:
» Older adolescents (>14-17 years) in the CAPS intervention had lower GEC ratings than IRC group
participants at 6, 12, and 18 months after assessment.

» Older adolescents in the CAPS group also demonstrated lower Behavioral Regulation Index (BRI) ratings at 12 and 18 months and lower Metacognition Index (MI) ratings at 6, 12, and 18 months after assessment in comparison to the IRC group.

» Younger adolescents (12-14 years) showed no significant group differences on the GEC, BRI, or MI ratings.

Implications for Practice: Early intervention using CAPS can improve long-term executive function in older adolescents with TBI. The findings also suggest that the age at which intervention is given can be important in treatment outcomes.

Cognitive processing therapy for posttraumatic stress disorder delivered to rural veterans via telemental health: A randomized noninferiority clinical trial

Study Design: Randomized controlled trial

Focus of the Study: Access to mental health care in rural areas is often difficult due to minimal resources and lack of funding for mental health services. Video teleconferencing (VTC) has the potential to improve access to services for individuals living in rural and remote communities. This study compared the efficacy of delivering cognitive processing therapy-cognitive only version (CPT-C) via VTC to in-person CPT-C in a rural sample of American veterans with posttraumatic stress disorder (PTSD). A secondary aim of the study was to measure the clinical effectiveness of CPT-C.

Key Findings:
» At least half of participants in both of the VTC and in-person groups showed significant reductions in PTSD symptoms at posttreatment that were maintained at follow-up periods of 3 and 6 months.
» Nearly a third of participants no longer met diagnostic criteria for PTSD at posttreatment and follow-up periods. No meaningful differences existed between groups.
» Participants receiving CPT-C via VTC reported high levels of therapeutic alliance, belief in treatment credibility, and satisfaction with care. There were no differences between groups on therapeutic process measures.
» Only a few, minor technical difficulties occurred in the VTC condition. Difficulties did not disrupt sessions.

Implications for Practice: There is some evidence that providing CPT-C via VTC can be as effective as face-to-face treatment when treating rural veterans with PTSD. Further research is recommended for the use of VTC technology in delivering other trauma-focused interventions.

Internet-delivered treatment for substance abuse: A multisite randomized controlled trial

Study Design: Randomized controlled trial

Focus of the Study: Despite the availability of effective treatments for substance use disorders, the lack of access to specialized care and the stigma associated with treatment pose as barriers to treatment. Delivering treatments via the internet is one way to overcome these barriers while maintaining the delivery of high-quality interventions at a reduced cost, and with minimal burden on clinical staff. This study assessed the effectiveness of the therapeutic education system (TES), which is an internet-delivered behavioral intervention (i.e., community reinforcement approach plus contingency management) for
substance use disorders.

**Key Findings:**
- Rates of abstinence at the end of treatment were higher for the internet-delivered intervention group compared with the treatment-as-usual group.
- Patients who were not abstinent at the beginning of the study were more than twice as likely to be abstinent at the end of treatment if they were in the internet-delivered intervention group than if they received treatment as usual. Among those patients who were abstinent at the beginning of the study, there was no significant difference in rates of abstinence between the internet-delivered intervention group and the treatment-as-usual group.
- Patients who were abstinent at the beginning of treatment were more likely to be abstinent at 3- and 6-month follow-up compared with those who were not abstinent, regardless of intervention group.
- There were fewer dropouts from treatment among patients in the internet-delivered intervention group than in the treatment-as-usual group.

**Implications for Practice:** Although further research is needed, the results of the study suggest that internet-based interventions, such as TES, are another means of providing supplementary, evidence-based treatment for substance abuse. It may be a particularly helpful option for those patients who struggle with treatment adherence.

[Link to full abstract](https://www.mailoutinteractive.com/Industry/View.aspx?id=567440&q=0&qz=0ca6f9)

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**Online CBT for preschool anxiety disorders: A randomized control trial**


**Study Design:** Randomized controlled trial

**Focus of the Study:** Anxiety in preschool aged children is common, chronic, and can lead to a number of negative consequences if not treated. Parental attitudes towards therapy and difficulties acquiring childcare can be barriers to face-to-face therapy for anxiety in children. Online Cognitive Behaviour Therapy (CBT) has the potential to be more flexible and accommodating for children and their families. The purpose of this Australian study was to investigate the feasibility and efficacy of an online, early intervention CBT program for preschool anxiety disorders. Parents were also involved in the intervention and were provided psychoeducation, anxiety management strategies, and coaching strategies. Comparisons were made between those who were randomly assigned to the waitlist only group and those who also received the online intervention.

**Key Findings:**
- There was a greater improvement in children that received online CBT compared to children on the waitlist from the time of initial assessment to the 10-week follow-up assessment. The improvement was defined in terms of reduction in clinical severity, anxiety symptoms and internalizing behavior and an increase in levels of overall functioning.
- At the 10-week follow up assessment, the symptoms in the online CBT group were below the clinical threshold, whereas the symptoms were still clinically significant in the waitlist group.
- There was an improvement in children that received online CBT compared to children on the waitlist from the 10-week follow up assessment to the 6-month follow up assessment. The improvement was defined in terms of reduction in clinical severity, anxiety symptoms and internalizing behavior. The effects were maintained in the levels of overall functioning from the 10-week follow up assessment to the 6-month follow up assessment.
- For the online CBT group, there was significant improvement from the initial assessment to the 6-month follow up and from the 10-week follow up to 6-month follow up compared to the waitlist group.

**Implications for Practice:** The study used a modified version of an existing online treatment program that was intended for school-aged children. If developed further, online, parent-focused CBT may be an effective option for reducing anxiety symptoms and internalizing problems in preschool children. Online programs have the potential to be more flexible and may be an easier service to access than face-to-face CBT for children and their families.

[Online CBT for preschool anxiety disorders: A randomized control trial](https://www.mailoutinteractive.com/Industry/View.aspx?id=567440&q=0&qz=0ca6f9)
E-mental health self-management for psychotic disorders: State of the art and future perspectives

Study Design: Systematic review

Focus of the Study: Mental health services have recently experienced the emergence and growth of e-mental health technologies. However, the magnitude to which the information technology is used to support self-management for people with psychotic disorders is unclear. The purpose of this review was to investigate the scope of information technology in supporting self-management among service users with psychotic disorders.

Key Findings:
» A diverse range of self-management interventions were identified, including psychoeducation, medication management, communication and shared decision making, management of daily functioning, lifestyle management, peer support, and real-time self-monitoring by daily measurements (experience sampling monitoring).
» E-mental health interventions were at least as effective as typical mental health care. Interventions with a focus on medication management and to a smaller extent on psychoeducation and on communication and shared decision making were more effective than typical care approaches to mental health care.
» There was a lack of evidence for the cost-effectiveness of e-mental health self-management interventions.
» Development of e-mental health interventions based on service users’ involvement was not common practice in e-mental health interventions for self-management of psychotic disorders.

Implications for Practice: The study findings indicate that some e-mental health interventions can be at least equally effective as typical mental health care.

Additional Resource
The Mental Health Commission of Canada (MHCC) has established a steering committee of experts and thought leaders from across the country to help direct, guide, and advise the development of a briefing paper on e-Mental health in Canada. Based on the information the committee gathered and the input of experts and organizations across Canada, the MHCC developed a briefing paper titled E-Mental Health in Canada: Transforming the Mental Health System Using Technology in the spring of 2014. The paper outlines some key strengths, highlights successful programs and services in Canada and abroad, and presents recommendations to inform e-Mental health’s current and future use. Click here to view the paper.

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