



“Implementation of Mindfulness-Based Cognitive Therapy”

Day: Wednesday 11th July 2018 Time: 3.30 – 4.45 pm Track: Clinical applications

Mindfulness-based Cognitive Therapy (MBCT) has gained widespread attention over the last few decades. In this symposium, different aspects of implementing MBCT, such as tailoring, adherence, diffusion of aspects of the intervention and scaling up the delivery of MBCT are explored. The first presenter will discuss a qualitative study on perceived needs for psychological well-being in adolescents as a precursor to offer a tailored mindfulness intervention. The second presenter will address the association between adherence to homework in MBCT and outcomes of depression, including risk of relapse/recurrence and short- and long-term depression severity. The last presenter will explore the possible population-health impact of scaled-up MBCT delivery using contemporary simulation modeling techniques. There will be ample space for interaction and discussion with the audience.

Symposium overview

Presenter 1 **Kristen Rawlett** - Precursor to a Tailored Mindfulness Intervention with Adolescents: Engaging the Community

Presenter 2 **Marleen ter Avest** - The role of adherence in Mindfulness-Based Cognitive Therapy for recurrent depression

Presenter 3 **Graham Meadows** - Scaling up delivery of mindfulness-based cognitive therapy - an application of agent-based simulation modelling to inform strategic health services planning

Chair: ***Graham Meadows***



Precursor to a Tailored Mindfulness Intervention with Adolescents: Engaging the Community

Kristen Rawlett

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Abstract

Purpose: To assess the perceived needs for psychological well-being in urban dwelling adolescents in Baltimore, Maryland as a precursor to formulating and implementing a tailored, school-based mindfulness intervention for at-risk middle school students.

Method: Focus groups composed of teachers, family members and students 11 to 14 years of age in a Baltimore City, Maryland middle school participated in focus groups facilitated by the Principal Investigator and were audio recorded. The digital audio files were transcribed and written transcripts were analyzed for coding, content analysis, and thematic comparison across research team members. Recurrent themes, similarities, and differences were identified by the team members.

Results: Predominant themes were reached after six focused groups (N=29). Approximately 70% of the participants were female. The age range of participants ranged from 11 to 68 years old. The racial profile of the groups was as follow: 22 African-American, 4 multi-racial, 1 Latino, and 2 Caucasian. Not accounting for demographic factors, themes revolved around finding solutions to promote mental health in adolescent of Southwest Baltimore. Themes included communication, hobbies, personal health and emotional support. Mechanisms identified at apply the concepts include: (1) affordable or free after school programs such as interview and communication skills, sports, music, personal hygiene, grieving counseling, etc.; (2) parent support groups that target: family dynamic and time management.

Conclusion: Stakeholders perceived that at-risk adolescents benefit from facilitators resulting in tangible programs for psychological well-being. This study informs future behavioral interventions, including mindfulness programs, to increase psychological well-being of adolescents in this community and future research should examine needs based on race/ethnicity, gender, age and family dynamics.

Implications and Contributions

Individual focus groups of teachers, parents and students, at a urban middle school were conducted to better understand ideas to support adolescent psychological well-being from the stakeholders perspective. Resulting themes suggest participants want to focus on facilitators that will result in real-time action items and programs for students and their families. The information gleaned from this study will guide future mindfulness programs tailored to individual groups and participants.



The role of adherence in Mindfulness-Based Cognitive Therapy for recurrent depression

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Background and objectives: Homework is an essential element in Mindfulness-Based Cognitive Therapy (MBCT). It consists of daily formal and informal mindfulness exercises and greater adherence to homework is assumed to lead to greater benefit (e.g. reduction of depressive symptoms). Research on the effects of MBCT homework on depression outcomes, especially on the long-term, is however scarce. The current study aims to investigate the association between adherence to homework in MBCT and outcomes of depression, including risk of relapse/recurrence and short- and long-term depression severity.

Methods: Data was drawn from the MOMENT study (Huijbers et al., 2012), which consists of two completed RCTs in patients with recurrent depression. The first RCT compared the combination of MBCT and maintenance antidepressant medication (mADM) with MBCT followed by medication discontinuation (Huijbers et al., 2016), the second RCT compared the combination of MBCT and mADM with mADM alone (Huijbers et al., 2015). Adherence was measured using daily calendars filled out prospectively by participants during MBCT. The risk of relapse was assessed every three months during the 15-month follow-up period based on the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I, First, Gibbon, Spitzer, & Williams, 1996). Depression severity was measured within that same time frame with the Inventory of Depressive Symptomatology – Clinician rated (IDS-C30; Akkerhuis, 1997). For the current study, data from 164 patients who participated in the MBCT intervention and provided sufficient data to estimate adherence and depression outcomes were used.

Results: A negative association between adherence to formal homework during MBCT and short-term depression severity was found: an additional 2.3% of variance in short-term depressive symptoms was explained, after controlling for depressive symptoms at baseline, condition and number of prior episodes ($b = -.16$, $p = .02$). No effect was observed on long-term outcomes.

Discussion and conclusion: Adherence to formal homework during MBCT seems to have a modest but positive impact on short-term depressive symptom severity, long-term effects were not found. A possible explanation for the latter could be that patients practiced less during the course of the study. To encounter methodological problems, future studies should use experience sampling methods.



Scaling up delivery of mindfulness-based cognitive therapy - an application of agent-based simulation modelling to inform strategic health services planning

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Background and Objectives: As an intervention to reduce recurrence of major depressive episodes (MDEs) for people with three or more prior MDEs, mindfulness-based cognitive therapy (MBCT) is firmly evidence-based including positive health economic evaluations. However, MBCT is typically available to few of those it could benefit. Scaling up MBCT delivery to have substantial population health impact invites questions including of MBCT's overall funding priority, then about training and credentialing strategies. Exploring possible scenarios for wide-scale MBCT implementation is difficult to do through real-world experiments: here we explore how application of contemporary simulation modelling techniques may add evidence on how best to scale-up MBCT delivery and possible resulting population-health impact.

Methods: An agent-based model (ABM) in 'Netlogo' software - running either on a PC or web-based - simulates instructors and about 2500 people with three or more prior MDEs as 'agents'. This is set within estimation of an Australian population. Simulated people are followed through life with rules governing occurrence and persistence of MDEs. Model development and calibration was informed by research evidence, expert knowledge and data including systematic reviews, longitudinal studies, local survey and cost data. The model simulates the impact over time of MBCT provision on incidence, prevalence, duration of depressive episode, levels of instructor experience and disability-adjusted life years. The impact of changes to referral practice, capacity, acceptability, and delivery models for MBCT are explored.

Results: Modelling suggests the possibility of an overall 0.2% reduction in population one-year prevalence of MDEs with health-gain accumulating over decades. A trade-off emerges between the priorities of maximising access and of developing a sustainable pool of expert providers who can train others. Health economic properties for MBCT at scale are positive.

Discussion and conclusion: This work provides estimates for the likely impact of MBCT at implementation scales and over timelines that would be impossible to design as real-world experiments. ABM as a technique is valued not only for answering questions for also for generating them; arising from this modelling we can see research questions related to what may constitute an ideally balanced strategy for defining competencies for delivery and for training others.