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Interim results from a 2-hour version of Mindfulness Oriented Recovery Enhancement: One MORE

Adam Hanley, Eric Garland

Center on Mindfulness and Integrative Health Intervention Development

Mindfulness is an effective treatment for chronic pain, but traditional, 8-week, mindfulness-based interventions (MBIs) require a time and resource investment too burdensome for many patients and providers. The solution may be to distill the most potent therapeutic elements of a traditional MBI into a brief, 2-hour intervention.

This presentation will review interim results from a randomized clinical trial examining the effects of a 2-hour version of Mindfulness Oriented Recovery Enhancement (MORE) -- One MORE -- on immediate and distal pain-related outcomes among chronic pain patients (N=25), relative to waitlist controls.

Results revealed One MORE reduced patients' pain intensity ($F=40.69$, $p<.001$, Cohen's $d=3.68$) and pain unpleasantness ($F=55.47$, $p<.001$, Cohen's $d=4.30$) from immediately before to immediately after the 2 hour session. At the 2-week follow-up assessment, participants randomized to One MORE also reported significantly less pain ($F=12.71$, $p=.003$, Cohen's $d=1.84$), pain catastrophizing ($F=5.98$, $p=.029$, Cohen's $d=1.26$), anxiety ($F=6.00$, $p=.029$, Cohen's $d=1.26$), and depression ($F=4.72$, $p=.049$, Cohen's $d=1.12$).

By the time of ISCR's Inaugural Conference in February, we should have 1-month, 2-month, and 3-month follow-up data on these participants to examine the durability of the observed effects.

Adverse Events Reporting in Mindfulness Randomized Controlled Trials : A Systematic Review

Aya Cheaito, Isabel Guhde, Kristina Eichel, Amara Krag and Willoughby Britton.

University of Vermont

In response to poor-quality reporting of Randomized Controlled Trials (RCTs), the CONSORT guidelines and PRISMA harms statement established criteria to improve the quality of efficacy reporting. In this systematic review, we examined the adherence of 83 Mindfulness Based Intervention RCT studies to the given guidelines during a decade (2005-2015). Attrition rate, reason reporting, and adverse event reporting were examined, finding that 18.6% of collected studies did not include any information on attrition, 32.1% did not provide reasons for drop out, and some studies reporting “no adverse events” listed attrition reasons that could be seen as adverse events. In addition, majority of studies didn't include any statement on the monitoring of harms, with only 0.5% taking an active approach to harm monitoring through steps such as interviews with participants. Finally, 49% excluded participants who did not receive an “adequate” dose of intervention. This study is key for helping RCT studies in mindfulness research in adhering to adequate scientific reporting. Previous studies (Lindahl et al., 2017) have discussed possible adverse events associated with mindfulness practices (e.g. trauma survivors ; Treleaven, 2018). Adequate adverse events reporting is essential for the field to move forward and to acknowledge diversity in responses to different types of cognitive treatments.

Impact of Loving-Kindness Induction on Self-Other Related Mind-Wandering and Wellbeing: an RCT Study

Qi Wang, Dusana Dorjee

University of York

Presentation title: Impact of Brief Loving Kindness and Mindfulness Meditation Inductions on Self-Other Related Mind Wandering Thoughts and Wellbeing: A Randomized Control Trial

Mind-wandering, described as task-irrelevant thoughts, is often self-focused and associated with negative affect (Andrews-Hanna et al., 2013; Wang et al., 2018). This presentation will report preliminary findings from a study which investigated whether the self-focused aspect of mind-wandering can be reduced by Loving-Kindness Meditation (LKM) that invites other-related positive thoughts in contrast to mindfulness meditation that is more self-focused. Both types of meditation were expected to reduce negative affect in comparison to a control attention induction condition and changes in state wellbeing were also investigated. The study builds on a recently developed wellbeing theory, that expands the scope of wellbeing from self-focus to caring and compassionate other-focus (Dorjee, 2021), and on a recently proposed notion of humanity-oriented trait, a positive personality trait of loving-kindness, compassion, and intention to give and receive love (Wang & Dorjee, 2021). Implications of this work for cultivating wellbeing in education and workplace will be discussed.

Assessing Compassion and Self–Other Processing with Thematic Images of Suffering and Threat

Brandon King, Alea C. Skwara, Savannah V. VandenBos, Erika L. Rosenberg, Kamilah Majied, Anthony P. Zanesco, & Clifford D. Saron

University of California, Davis

Emerging research suggests that meditation training can alter modes of self–other processing in ways that are conducive to compassion and prosociality. In this presentation, I will describe emerging approaches and tools for interrogating these domains in contemplative research. First, I will present longitudinal data showing that intensive training in focused attention meditation can increase the motivational salience of others’ suffering, as compared to the salience of threats to oneself. Second, I will introduce a dedicated stimulus set of high-resolution images of suffering and threat. The image set depicts a thematically and socially diverse set of content, including themes of human, animal, and environmental suffering, direct danger, interpersonal violence, perpetrators of harm, and pleasant scenes. Example themes of suffering include homelessness, poverty, grief, refugees, aging and loneliness, and starvation. Example themes of threat include snakes, spiders, sharks, guns, terror, weapons, and explosions. I will present normative data showing that these themes can be discriminated in affective space based on individual differences in empathy and approach–withdrawal tendencies. Considering the salience of self-oriented threats vs. other-oriented suffering offers an important perspective for understanding how compassion can be cultivated through intentional practice.

**Translation, Cross-Cultural Adaptation, and Psychometric Validation of the English Version of the
Po**

Dana Dharmakaya Colgan, Kaylie Green, MS, Ashley Eddy, MS, Christiane Brems, PhD, ABPP,
C-IAYT, Karen J. Sherman, PhD, Holger Cramer, PhD, DSc, Barry Oken, MD, PhD, Michael
Christopher, PhD

Oregon Health and Science University and NUNM

The Postural Awareness Scale (PAS) was developed among a sample of German speakers to measure self-reported awareness of body posture. We conducted an English translation and cross-cultural adaptation of the PAS and assessed the psychometric properties of the English version of the PAS. Forward and backward translations were conducted. The translated scale was then pretested in a small sample of English-speaking adults (n=30), followed by cognitive interviews. Finally, consensus of the translated scale was achieved among an expert committee (n=5), resulting in the Postural Awareness Scale-English Version (PAS-E). Psychometric properties of the PAS-E were investigated among a sample of individuals with chronic pain (n=301). The results obtained from an exploratory factor analysis showed a two-factor solution and were supported by a confirmatory factor analysis. The scale demonstrated good internal consistency and satisfactory construct validity. No significant differences related to sex at birth or pain duration were found. PAS-E demonstrated good psychometric properties, and therefore, can and should be used both for research and clinical practice.

Bringing Mindfulness to Autistic Individuals

Dot Lucci

NESCA Neuropsychology & Education Services for Children and Adolescents

Bringing “traditional” mindfulness practices to neurodivergent young adults doesn’t always work. Jenna Nuremberg defines neurodiversity as “recognizing and celebrating the diversity of the brain make ups instead of pathologizing some as normal and others as abnormal”. In celebrating all brain make ups, we practitioners need to meet our clients where they are and adapt our mindfulness practices to meet their physical, cognitive, sensory, social and communication profiles. Individuals with Autism Spectrum Disorder (ASD) identified traditional approaches and techniques “sitting upright and still in a relaxed posture and focusing on your breath” as extremely difficult. This presentation highlights how the voices/experiences of ten Autistic individuals shaped mindfulness practices and how by coupling them with technology their learning and participation were enhanced. Addressing the interoception challenges many ASD individuals experience, Hearthmath's Inner Balance App was used as a way “bring the inside world of sensations/feelings” outside. By listening to their needs and understanding their “brain make ups” we adapted and created alternative mindfulness practices that resonated with them. Their participation and engagement increased as did their feelings of success and a reduction in anxiety allowing them to experience a greater sense of peace and well-being.

Psychometric Evaluation of the FFMQ-15 in an Asian American Community Sample

Gahwan Yoo, Doris F. Chang, Ph.D. & Sumie Okazaki, Ph.D.

New York University Silver School of Social work

Measures of mindfulness have been developed and validated primarily for White samples in the Global North, though mindfulness practice is growing worldwide. For mindfulness research to advance in more inclusive and ecologically valid ways, culturally valid measures of mindfulness are needed. We conducted a psychometric evaluation to assess whether the Five-Facet Mindfulness Questionnaire (FFMQ-15) might be suitable for use with Asian Americans as a whole and according to ethnicity and gender. A national sample of English-proficient Asian Americans was recruited based on geographical and ethnic quotas. We analyzed individuals specified one ethnicity and gender (N=625). Measurement invariance and internal consistency were examined across ethnic groups (East Asian, South Asian, and Southeast Asian Americans) and gender (male and female). The FFMQ-15 facets showed acceptable internal consistency reliability ($\alpha > 0.6$) for each ethnic and gender subgroup except the Describing facet. Across groups, partial measurement invariance was confirmed. In the Describing facet, there was no consistent pattern for the item "I can't find the right words to describe how I feel." Results increase confidence in using the FFMQ-15 among Asian Americans. Nevertheless, further research is needed to improve the culturally appropriate measurement of the Describing factor of the FFMQ-15 for Asian Americans.

Compassionatomy: Can Compassion Contemplative Practices Help Medical Students Maintain Empathy During Anatomy Labs?

Federica Klaus, Federica Klaus, Jane M. Chun, Thupten Jinpa, Madison A. Chakoumakos, Niveda Rao,
Lisa T. Eyler, Geoffroy Noel

Sanford Institute for Empathy and Compassion, University of California, San Diego

Background: Compassion training (CT) in clinical learners has been used in medical education to enhance patient care and decrease provider burnout, however it has never been incorporated into an anatomy class.

Methods: All first-year medical students at UC San Diego (n=140) experienced CT (10-15min, combinations of contemplative themes related to a prosocial quality, guided meditations and/or on-the-spot practices) during 8/20 anatomy labs. Longitudinal study participants (n=36) completed session evaluations.

Results: Identification with the donor increased over the year (visual description of connection between self and donor) with a trend for more identification after CT than non-CT sessions. Greater identification with the donor was associated with higher pleasure but not arousal. There was no significant change over sessions in arousal or pleasure and no differences between anatomy sessions with and without CT in arousal or pleasure. Levels of engagement with CT increased over the year and were higher during sessions with vs without CT. More engagement in contemplative practices outside anatomy was reported in the weeks following CT than non-CT sessions.

Discussion: Identification with the donor increased over time, was experienced as pleasurable and tended to be greater after CT sessions. CT during anatomy encouraged contemplative practices outside of the course.

Scoping Review of the Therapeutic Potential of Psychedelics in the Treatment of Cancer-Associated Ps

Haley Mather, Dr. Julie Deleemans and Dr. Linda Carlson

University of Calgary

Background: Enhanced psychospiritual well-being has been shown to buffer against hopelessness, depression, and anxiety in cancer patients and survivors. As existential-related approaches form the basis for emerging novel therapeutics to meet this growing need, evidence suggests using PAT may decrease psychosocial distress in people with cancer. However, research regarding the effectiveness of such therapies is sparse. Thus, we conducted a scoping review to examine: 1) quantitative and qualitative research evaluating PAT for cancer patients and survivors, and 2) current and pending legislative and regulatory requirements.

Methods/Results: Using the Arksey and O'Malley approach, 13 articles met inclusion/exclusion criteria including 8 RCTs, 3 qualitative, and 2 mixed methods (psilocybin = 8; ketamine = 4; LSD = 1). Review findings indicated that the majority of patient experiences were positive. Limited information was found regarding governmental policy for PAT indicating policy-making is in the early stages.

Conclusions: The body of research exploring the effectiveness of psychedelic therapies for treating psychosocial concerns in people with cancer is growing. Further research using controlled trials is needed to clarify the safety and efficacy of PAT's for this population. Scarce literature exists regarding the regulatory climate of PAT in cancer settings.

SELF-COMPASSION AND HETEROCOMPASSION: CORRELATION IN THE HEALTHY POPULATION AND PSYCHIATRIC PATIENTS

Javier García-Campayo, Adrián Pérez-Aranda, Alberto Barceló-Soler, Willem Kuyken, Ruth Baer, Jesús Montero-Marín

According to the Buddhist tradition, self-compassion (SC) and heterocompassion (HC) are strongly correlated in all populations. However, this fact had not been previously assessed owing to a lack of reliable measures for heterocompassion. This question was addressed in the context of the Spanish validation of the Sussex-Oxford Compassion Scale, both for Self (SOCS-S) and for others (SOCS-O).

A cross-sectional convenience sample (N=811) was recruited online from the Spanish population, with the only inclusion criteria being an understanding of the Spanish language and willingness to participate. Participants were administered the Spanish versions of SOCS, Neff's Self-Compassion Scale, Compassion Scale, Depression Anxiety Stress Scale, and Short-Warwick Edinburgh Mental Well-being Scale.

The Spanish version of SOCS showed adequate psychometric properties. There were strong general factors of SC and HC in both SOCS and SCS models. SC was strongly associated with distress (inversely) and wellbeing (directly), while HC was only associated with wellbeing to a lesser extent. The correlation between SC and HC constructs was low ($r=0.3$) and only in healthy people, as both compassion subtypes were found to be decoupled in psychiatric patients.

New research seems mandatory to confirm the low correlation between SC and HC in the healthy population and in specific population subgroups.

Healing Your Map - understanding discernment, trauma and human behavior

Jodee Gibson

International Coaching Federation

Imagine the idea that everyone on the planet was born with a blank map. You have a map. I have a map. Every single person on this planet has their very own map. Since the moment you were conceived, your map has been and will continue to collect information, unconsciously encoding each and every moment of your life. The intensity and presence of trauma that you knowingly or unknowingly experienced as a child becomes the foundation of your map. And that culmination of content is where your values, beliefs, stories and patterns emerge from, further building the highly subjective perspective through which you experience the territory (the world).

If your map was unknowingly built in trauma, the lens through which you experience the territory is quite possibly laden in adrenaline, unknowingly normalizing and consistently projecting a fight or flight mode, regardless of the situation. The reality that that perspective creates is the exact space that most people attempt to numb out. As a mastery level coach and licensed NLP trainer, my content is founded in deep coaching principles, neuroscience, consciousness, energy and trauma. My content offers a simple yet in-depth approach to identifying and processing your map, releasing the normalized trauma and creating access to the life you have always dreamt of.

Dissecting Yoga: A Randomized Control Study

John Eusebio, Charlotte Sahyoun, David R. Vago, Sara W. Lazar, Norman Farb

University of Toronto

Yoga is increasingly recognized for its physical and mental health benefits, yet its mechanisms of action remain unclear. In addition to the benefits of physical exercise, yoga may also cultivate interoception; the sense of the body's internal state, and the ability to notice and respond adaptively to physiological cues. Complicating matters, yoga training often varies between movement-focus (MF) or interoception-focus (IF), yet few studies have explored whether differences in emphasis impact yoga's benefits. A randomized trial explored the effects of interoceptive emphasis in yoga training on attention and subjective wellbeing. Over 10 weeks, community-dwelling adults with moderate depressive symptoms (N=58) were randomized to either MF or IF yoga training sessions, twice a week. We conducted assessments at baseline, post-intervention, and one-month follow-up, including self-reports of mood and interoception, and task performance on a Sustained Attention to Response Task. Relative to MF, IF yoga practitioners showed greater improvements in sustained attention, but no differences in self-reported mood or interoception. Sustained attention improvements were greatest for those with high interoception, but only in the IF group. These findings support the potential for interoception to extend yoga's attentional benefits, particularly in those with high interoceptive awareness.

CHAMindWell: Evaluating feasibility and effects of a population-based approach to mental wellness

Joseph Rosansky, Fiona K. Rice, MA, Saul Granados, BA, Rocio Hernandez Chavez, Ana Baumgaurt-Schreck, LICSW, Phillip S. Wang, MD, Carl Fulwiler, MD, Zev Schuman-Olivier, MD

Center for Mindfulness and Compassion

We created a population mental wellness program, CHAMindWell, in response to increased demand for mental health treatment during the COVID-19 pandemic. This program is designed to regularly assess participants' mental health symptoms using Computerized Adaptive Testing for Mental Health (CAT-MH) via online surveys and provide personalized coaching and care recommendations based on survey results. We began piloting CHAMindWell with patients at a large, public hospital system in Massachusetts on 12/16/2020. Since then, we have enrolled n=1,236 participants, of which 60.7% (n=751) have engaged with the program and completed at least one baseline survey. Of those who have engaged, 26.8% (n=201) completed at least one follow-up survey between 3- to 6-months after their first. This poster will compare demographic characteristics of those who enrolled versus engaged with the program and those who engaged at least once versus those who continued engaging 3- to 6-months later. It will also examine the symptomatology reported by those who engaged at least once and changes in symptomatology among those who completed 3- to 6-month follow-up surveys.

Effects of Mindfulness Training on Opioid Use & Anxiety During Primary Care Buprenorphine Treatment

Joseph Rosansky, Leah Howard, BA, Thomas Fatkin, BA, Kayley Okst, BA, A. Kiera Fredericksen LICSW, Paula Gardiner, MD, Colleen Labelle MSN, RN-BC, CARN, Gareth Parry, PhD, Benjamin Cook, PhD, Roger Weiss, MD, Zev Schuman-Olivier, MD

Harvard Medical School/Cambridge Health Alliance

Patients with opioid use disorder who experience anxiety, pain, and non-opioid substance use are more likely to relapse and/or drop out of treatment with buprenorphine/naloxone (B/N). We developed the live-online Mindful Recovery Opioid Care Continuum (M-ROCC) to address these concerns. We aim to compare the effects of supplementing B/N treatment with M-ROCC versus a live-online active control condition. We hypothesize that M-ROCC's stage-oriented, motivationally informed program will differentially reduce illicit opioid use, anxiety, and pain interference. We plan to randomize n=198 participants through referrals from office-based B/N treatment providers, online telemedicine B/N providers, and social media advertisements. The primary outcome will be abstinence from illicit opioids, measured by self-reported use and oral fluid toxicology testing. Secondary outcomes include changes in PROMIS anxiety and pain interference scores. This trial is funded by the NIH HEAL Initiative through NCCIH (R33AT010125). Data collection is projected to end by 2023 and we expect to publish results in 2024. As of 9/26/2022, this trial had enrolled n=164 participants and randomized n=116. Participant baseline characteristics will be explored. If M-ROCC is found to be effective in this virtual format, it will demonstrate that live-online mindfulness groups can improve outcomes in B/N treatment.

Mindfulness-Based Interventions and Social Anxiety Disorder: Literature Review

Kento Suzuki

Brown University School of Public Health

This literature review has the following 2 objectives: 1) to assess the efficacy of MBIs on SAD symptomatology reduction and 2) to examine the possible SAD treatment mechanisms of MBIs.

In order to accomplish these two aims, a meta-analysis was conducted on relevant literature in the following 7 databases: PubMed, Embase, Cochrane Library, PsycInfo, Web of Science, ScienceDirect, and MEDLINE.

51 papers were found to be eligible for the qualitative analysis of mechanisms, and after the secondary screening, 18 unique original empirical studies were assessed in the quantitative analysis of the efficacy of MBIs.

The following 14 factors were identified as mediating factors between MBIs and SAD symptomatology reduction: acceptance, avoidance/safety behaviors, awareness, attenuation/modulation of self-referential processing, broadened awareness, cognitive reappraisal, decentering, emotional clarity, empathy, mindfulness, positive/negative affect, positive/negative self-views, post-event processing, and self-compassion.

The quantitative analysis revealed promising evidence that MBIs have statistically significant SAD treatment effects. However, MBIs' superiority over other evidence-based treatment methods, such as CBT, could not be guaranteed.

Limitations seen in the current literature and future research suggestions are also explored in this study.

Designing and Testing an Evidence-Based Program for Clinician Burnout

Lia Antico, Judson Brewer

Mindfulness Center, Brown University

Clinicians struggle with burnout, anxiety, depression, and empathy fatigue. The pandemic has been a burnout accelerant and had a negative impact on suicidal thoughts and resignation. Intensive mindfulness training had greater effects on burnout than the average trainings. However, shorter and more practical formats are needed to not inadvertently contribute to overload. The goal of this research project is to develop a brief training to support and increase empathy while decreasing burnout, to test the best method for delivery, and to gather effect sizes for future randomized controlled efficacy and effectiveness trials. We developed a 7-day clinician burnout audio course and used user centered design to iteratively refine it by collecting feedback from about 30 clinicians in two rounds. We are running a single arm study to test the efficacy of the audio course under the format of podcast in physicians. We measure anxiety, depression, burnout, intolerance of uncertainty and empathy before and after the podcast and one month after that for follow-up. We expect that the podcast will reduce anxiety, depression, burnout, intolerance of uncertainty and will increase empathy. Successively, we will test the efficacy of the audio course under the format of an app in clinicians. Outcomes from these studies will be used to calculate effect sizes of future randomized controlled trials.

Harm in meditation-based interventions

Matthew Hirshberg

University of Wisconsin-Madison

Researchers are placing greater attention on the potential for meditation-based interventions (MBIs) to cause harm. Recently, several papers have produced estimates of harm or adverse events following meditation (e.g., Britton et al., 2021; Goldberg et al, 2022; Hirshberg et al., 2020; 2021; Lindahl et al., 2017) that vary in their conclusions about the potential for harm in MBIs. In this paper presentation, I will explore the sources of this variability. In particular, I will focus on definitions of harm/adverse events, uses of causal attribution, harm in secular MBIs and intensive/long-term meditation practice, and the role that base rates of harm/adverse events must play when estimating harm in MBIs. Along the way, I will use descriptions of harm found within traditional meditation lineages to shape the discussion. At the conclusion, I will ask whether one's answer to the question "What is the purpose of meditation?" determines one's definition of harm, attributions of harm, and consequently, how MBIs ought to be implemented and studied.

Trait mindfulness and emotion regulation responsiveness to negative affect in daily life

Megan Fisher, Megan Fisher, Elizabeth Duraney, Katherine Friess, Patrick Whitmoyer, Rebecca Andridge, and Ruchika Prakash

Ohio State University

Background: Adaptive emotion regulation is predicated on the ability to flexibly use emotion regulation strategies to meet changing contextual demands. Although trait mindfulness has been linked to enhanced emotional well-being and use of adaptive emotion regulation strategies, there is limited research examining associations between trait mindfulness and emotion regulation flexibility. Further, a rich literature suggests that emotion regulation processes change with age but no study to date has assessed whether the role of trait mindfulness on emotion regulation responsiveness to negative emotions—a component of emotion regulation flexibility—differs between young and older adults.

Methods: We recruited 130 young and 130 older adults to assess trait mindfulness, emotion regulation strategy use, and emotion regulation responsiveness of six strategies in daily life.

Results: Trait mindfulness was related to reduced distraction and expressive suppression use across age groups. Further, trait mindfulness was associated with reduced expressive suppression responsiveness in young adults and increased detached reappraisal responsiveness among older adults.

Discussion: Our findings highlight the importance of understanding how trait mindfulness is linked with strategy use and responsiveness to negative affect changes in daily life and how these patterns may shift across the lifespan.

Adapting Mindfulness Training for Delivery Within Youth Mentoring : Acceptability Considerations

Megan Moran, Talia Thompson, Reagan L. Miller, Jill Krause, Brock A. Rigsby, Addie Rzonca, Lauren B. Shomaker, Rachel G. Lucas-Thompson

Background: Evidence suggests mindfulness-based intervention (MBI) supports the health and well-being of youth at risk for adverse outcomes. However, many youth face limited opportunities to receive MBI. Delivering MBI within mentoring programs may support more equitable and effective dissemination. This study explored the modifications necessary to support MBI delivery within a mentoring program for youth at risk for adverse outcomes.

Methods: Post-intervention survey measures of acceptability were collected from participating youth (N=99, 10-19y). Interviewers conducted focus groups with participating youth (N=7), college-student mentors (N=4) and the program's leadership team (N=4). Questions aimed to identify areas of (mis)alignment between the MBI and the mentoring program in terms of values, goals, and practicalities. Data were reduced through coding and development of themes.

Results: Data revealed four themes: Reduced feasibility and acceptability when delivered online, Alignment with program value of 'connection', Differences in adult and adolescent perspectives, and Accommodations needed. Results shared will include direct quotes to highlight participant voice from three stakeholder groups with distinct connections to the adapted MBI.

Discussion: Findings reveal key considerations when adapting MBI for delivery in potentially high-impact community settings.

Motivation for practicing mindfulness: Changes with MBI and associations with outcomes

Megan Moran, Reagan Miller, Addie Rzonca, Jill Krause, Melanie S. Adams, Brock A. Rigsby, Mark A. Prince, Rachel G Lucas-Thompson

Background: Mindfulness-based intervention (MBI) has been associated with positive health outcomes in adults; however, there are important gaps in our knowledge of MBI moderators. Motivation is likely to play a critical role in whether participants complete the recommended dosage of MBI and participate in a way that facilitates full benefits. Thus, understanding whether motivation for practicing mindfulness changes pre- to post-MBI, and how various dimensions of motivation (e.g., interest, competence) are associated with MBI outcomes could be important for boosting MBI effectiveness.

Methods: In a sample of adults (N=62) receiving a 6-week MBI, we explored changes in motivation for practicing mindfulness as well as associations between baseline motivation and attendance and pre-post changes in mindfulness, self-compassion, emotion regulation, and stress.

Results: Some dimensions of motivation for practice increased and were associated with pre-post reductions in stress and emotion regulation.

Discussion: Results align with existing literature on the role of motivation in supporting attendance and outcomes in behavioral interventions. Our findings suggest there may be potential for optimizing MBI through attending to differences in motivation and justify continued examination of these constructs with larger samples, control groups, and additional measurement timepoints.

3 Doors Compassion Project shows changes in compassion, stress, and non-dual awareness

Michael Gawrysiak, Ryan Pohlig, Michael Szczechowski, Sebastian Ehmann, Marcy Vaughn, Gabriel Rocco, Alejandro Chaoul, Claire Clark

West Chester University of Pennsylvania

While secularized mindfulness training programs have demonstrated efficacy in mitigating psychiatric phenomenon, traditional contemplative meditation training has been less well researched. The present study evaluated the 3 Doors Compassion Project (3DCP), a remotely delivered, 9-month structured meditation program that teaches Tibetan Mind-Body practices. A longitudinal design was used to collect monthly self-reported measures of compassion (Pommier et al., 2020), stress (Cohen et al., 1994), and non-dual awareness (Hanley et al., 2018) among 3DCP participants ($n = 23$). General linear mixed modeling demonstrated significant improvements throughout the duration of the 3DCP program with compassion incrementally increasing an average of .036 points per month ($p = .001$), stress incrementally decreasing by 1.014 points per month ($p < .001$), and non-dual awareness increasing by .5 points per month ($p = .01$). Findings suggest the utility of ancient Tibetan Buddhist traditions in positively impacting the challenges of modern life. Discussion will focus on special consideration for constructs to measure among traditional contemplative meditation training and the need for continued investigation into the benefits of programmatic Tibetan Mind-Body meditation training.

**VIABILITY AND PRELIMINARY EFFECTIVENESS OF MINDFULNESS FOR PEOPLE
WITH MULTIPLE SCLEROSIS**

Olga Duraes, Msc Olga Durães Araújo, Dr Phd Marcelo Demarzo, Dr Denis Bichuetti, Janira Santos
Lima Barbosa, Sara Maria Bittencourt Santos, Thaís Guedes Georgini

Unifesp

INTRODUCTION: There is a high prevalence of physical and psychological suffering among the population diagnosed with Multiple Sclerosis. Receiving this diagnosis can often cause increased levels of stress, depression, anxiety and suffering. Thus, the present study has as its primary outcome to evaluate the impacts of a Mindfulness Based Health Promotion Program on the quality of life of patients at UNIFESP's Diseases Outpatient Clinic.

OBJETIVE: To assess the feasibility and effects of a Mindfulness-Based Health Promotion Program (MBHP) on the quality of life of patients diagnosed with Multiple Sclerosis and the impact of mindfulness intervention on specific scales for measuring MS attended by clinic of the São Paulo Hospital. The expected results are as follows: •Patients who participate in the intervention may decrease their levels of stress, anxiety and depression • Patients will be able to increase their quality of life through full awareness and attention practices •Reduce the impacts that Multiple Sclerosis can have on the lives of patients diagnosed with this disease, decreasing the presence of fatigue and increasing gait capacity.

CONCLUSION: Although the study is still in the beginning, there was an improvement in well-being, as well as in acceptance in relation to the disease, providing evidence in the improvement of fatigue and depression

How does moral behavior decouple in adolescents when reciprocated with an unexpected immorality? Ins

Pooja Sahni, Manvi Jain, Karsheet Negi, Mannu Brahma

Indian Institute of Technology Delhi

Introduction:

A noble person is mindful and thankful of the favors he receives from others - The Buddha. Although most people understand gratitude on an instinctual level, it can be surprisingly challenging to define. Is it a feeling? A quality? A conduct? In order to fully understand gratitude in a way that can be scientifically studied, researchers have created some conceptual frameworks. For example, Robert Emmons and Michael McCullough define gratitude as a two-step process: 1) "recognizing that one has obtained a positive outcome" and 2) "recognizing that there is an external source for this positive outcome." Examining this framework, in this study a cohort of 30 school girls aged 14- 16 years (M=14.6years, SD=1.8 years) were recruited. Continuous EEG was recorded while the participants played a psychological subitizing task based game. The game was designed consisting of three blocks with ten rounds each. The result of each round of the block was predetermined in an order-effect based manner to evoke the corresponding emotional context: a) neutral, b) frustration, and c) gratitude. In this presentation we will share the insights from the behavioral as well as spectral analysis of the three different conditions. The presentation will also discuss implications of gamification as education strategy for inculcating gratitude in adolescents.

Benefits of Between-Session Mindfulness Support for Participants in a Mindfulness Intervention

Rachel Lucas-Thompson, Mark A. Prince, Brock A. Rigsby, Melanie A. Adams, Reagan Miller, Addie Rzonca, Jill T. Krause, Megan J. Moran, Timothy F. Piehler, Nicole Morrell, Lauren B. Shomaker

Colorado State University

Background: Mindfulness-based interventions (MBI) improve health, but effects tend to be small to moderate. Non-MBI studies indicate that supplements to group interventions, such as tailoring intervention content to current experiences (i.e., “just-in-time”, JIT, interventions), increase effectiveness. We provide the first test of whether addition of a JIT intervention to an evidence-based MBI boosts effect sizes.

Methods: We conducted a randomized controlled trial with 62 university students who participated in a 6-week, group MBI and were randomized to receive varying types of support between sessions (i.e., daily intervention messages and/or JIT support during stress). We compared those who received any support to those who received none.

Results: Participants who received between-session support attended more sessions; there were trivial condition differences in acceptability or facilitator quality ratings. Participants who received support between sessions showed greater increases in mindfulness and smaller increases in mental health problems than participants who received no support. Presented will be a test of one possible mechanism for these differences: daily engagement in mindfulness practice.

Discussion: Together, results suggest that incorporating a multi-modal adaptive supplement into an MBI can boost program effects without decreasing intervention acceptability.

Qualities of free-moving thoughts predict cognitive flexibility after short-term meditation

Winson Yang, Miranda Scolari, Ph.D.

Texas Tech University

Mindfulness is important for cognitive flexibility as it sensitizes us to our mental states. However, the processes involved are still unclear. This study aimed to investigate two possible mechanisms of mindfulness-- meta-awareness and free-moving thought—that support changes in cognitive flexibility. We hypothesized that meta-awareness and free-moving thoughts mediate between meditation practice training and mental flexibility. Fifty participants underwent eight 20-minute sessions of either mindfulness meditation (MM) training or documentary movie watching (MV) intervention over three weeks. Before and after the intervention, participants completed several cognitive tasks, a free association semantic task (FAST), and rated the dominance of the word on their mental state for each generated word in the FAST. A synchronous mediation model revealed that free-moving thought dynamics predicted cognitive switch cost for the MM group but not the MV group. Individuals who transitioned more to positive dominance (felt more in control) had lower switch costs. Finally, meta-awareness marginally predicted cognitive switch costs in which higher meta-awareness was associated with lower switch costs. The study posed several implications for mechanisms of mindfulness, whereby flexible behaviors, emotions, or thoughts require changes in meta-awareness and qualities of free-moving thoughts.

Virtual Reality Guided Mindfulness (VRGM) for Chronic Cancer Related Pain: Preliminary Findings

Zen Gajtani, Zen Gajtani, Mohamad Baydoun, Haley Mather, Kathryn A. Birnie, & Linda E. Carlson

Department of Oncology, Division of Psychosocial Oncology, Cumming School of Medicine, University of Calgary, Canada

Purpose: Chronic cancer-related pain (CRP) adversely impacts cancer survivors' quality of life. Virtual reality (VR) may be an effective medium for delivering mindfulness, which has been shown to reduce chronic pain but remains unexamined in cancer survivors. We investigated the feasibility of a VR guided mindfulness (VRGM) intervention for adult cancer survivors with chronic CRP.

Methods: This mixed-methods feasibility study uses a single-arm, pretest– posttest design with semi-structured interviews conducted post-intervention. Cancer survivors (N=24) participate in the 6-week, home-based intervention consisting of 10-15 minutes VRGM practice daily. Feasibility and psychosocial outcomes (pain, sleep, depressive and anxiety symptoms, fatigue, quality of life, and mindfulness) are assessed at 3 time points.

Results: Participants (N=20) report pain severity ranging from moderate to severe, with pain duration lasting from 1–6 years post-treatment. The most common types of chronic CRP reported are muscle, joint, bone and headache pain. Data collection is ongoing. Preliminary results will be presented.

Conclusion: This novel intervention provides a potential alternative treatment to opioid analgesics for survivors experiencing chronic CRP. Results from the present study will inform the development of a larger VGRM trial and ultimately help to reduce suffering in people with cancer.

Mindfulness and Progressive Muscle Relaxation Interventions Reduce Depression, Stress, and Negative

Deanna M. Kaplan, PhD, Lindsey M. Knowles, PhD, Melissa Flores, PhD, Sydney E. Friedman, MA,
Mary-Frances O'Connor, PhD

Emory University School of Medicine

Background: Mindfulness Training (MT) and Progressive Muscle Relaxation (PMR) may mitigate the profound impacts of bereavement on mental health. This study examined whether MT and PMR improved psychological outcomes compared to a wait-list condition in widow(er)s.

Methods: Ninety four widow(er)s between six months to four years post-loss were randomly assigned to a 6 week MT or PMR intervention, or a wait list. Measures of depressive symptoms (CES-D), stress (PSS), positive and negative affect (PANAS-X), mindfulness (MAAS), coping flexibility (PACT-flexibility), sleep quality (PSQI), satisfaction with life (SWLS), and loneliness (UCLA Loneliness Scale) were each assessed at baseline, post intervention, and 1 month follow-up.

Results: Repeated measures ANCOVAs revealed between condition differences for depressive symptoms ($F = 2.91, p = 0.021$), negative affect ($F = 3.91, p = 0.004$), and perceived stress ($F = 2.96, p = 0.019$). Compared to wait-list, MT and PMR showed greater reduction in depression and negative affect from baseline to post-intervention (only MT showed greater reduction through 1-month follow-up). MT also showed greater reduction in stress from baseline to 1-month-follow-up compared to wait-list.

Discussion: Results suggest MT and PMR may improve secondary psychological outcomes of bereavement. The translational implications of these findings are discussed.

Adolescents' Experiences of Distress and Well-being During Intensive Mindfulness Practice

Michael Tumminia, Shana E. DeVlieger, Sharon Colvin, Thomas Akiva, and Brian M. Galla

University of Pittsburgh

In recent years, mindfulness has gone mainstream, reaching many adolescents through school programs and smartphone applications. Yet there is little empirical understanding of what mindfulness practice is like for adolescents. In this talk, I will share the findings of a mixed-methods study that captured adolescents' experiences as they embarked on a period of intensive mindfulness practice. Implications for adolescent development and contemplative science will be discussed.

Twenty-three youth participated in a 6-day mindfulness retreat and completed self-report surveys, daily diaries, and discussed their experiences during mindfulness practice in focus groups. Qualitative data were analyzed to categorize common patterns of experiences and quantitative data were examined for subgroup differences.

Adolescents reported an array of experiences of distress from cognitive, to emotional, and physical distress during mindfulness practice. They also described a range of well-being experiences from cognitive, to emotional, and to social well-being. The frequency of experiences of distress and well-being reported were relatively balanced overall, yet girls and experienced meditators reported greater distress.

This study paints a descriptive picture of adolescents' experiences during mindfulness practice and suggests that their experiences might reflect core developmental concerns.

Vacation or Therapy? Exploring the contemplative journey of retreat guests around the world

Dhevaksha Naidoo, Professor Marc Cohen, Dr Adrian Schembri

NICM Health Research Institute, Western Sydney University

In this session we will explore...

The demographics, motivations and experiences of more than 2500 wellness retreat guests in 50 countries.

WHO visits wellness retreats? Exploring the demographics

WHY visit wellness retreats? Exploring the motivations

WHAT experiences do people have when they go? Exploring the experiences

Wellness retreats are a global phenomenon and a growing segment of the \$563USD billion wellness tourism industry. Yet, despite retreats being promoted as transformational experiences to promote lifestyle change and wellbeing, only a few published studies have explored their health outcomes and no previous research has investigated what motivates guests to attend.

The global retreat study was as an anonymous online survey available in nine languages (English, Portuguese, Chinese, Japanese, German, Russian, Hungarian, Slovak and Czech). Participants were eligible to participate if they had attended one or more residential retreats within the previous 12 months.

The most important factors for attendance were relaxation and holiday, to reduce stress and improve mental health or improve general health and learn coping mechanisms. The vast majority reported feeling better and happier after their retreat experience. Almost half had one or more medical conditions with the large majority reporting relief after the retreat experience.

College students' perceptions about mindfulness-based interventions during the COVID-19 pandemic

Evelin Cristina Cadriest Ribeiro Mello, Júlia Ribeiro da Silva Vallim, Heitor Fagundes Gottberg, Marcelo Demarzo, Vânia D'Almeida, Anderson da Silva Rosa

Universidade Federal de São Paulo

Background: the COVID-19 pandemic accentuated many of the challenges faced by the educational system in higher education, such as: the implementation of remote teaching, accessibility to educational resources, and the organization of strategies that involve health care and well-being. Concerning aspects of mental health, university education brings many challenges to students, managing psychological stress, increasing responsibilities, financial demands, and pressures linked to academic performance.

Methods: this research is a qualitative study with a thematic oral history method and data collected through individual interviews with a semi-structured script.

Results: from the reports of the students interviewed, it was possible to identify that the practice of mindfulness led to an improvement in the ability to stay focused on academic and daily tasks; there was also a greater willingness to deal with adverse emotional states, avoiding automatic reactions; and the possibility of cultivating openness and self-acceptance with internal experiences, favoring better emotional management.

Discussion: the COVID-19 pandemic brought significant changes in students' academic and daily life; approaches based on mindfulness constructs can help them with resources and strategies that improve the management of these impacts.

Demystifying Dukkha (Suffering)

Jyothi Shyamsunder

What did the Buddha really teach? For more than a decade as a lay practitioner, teacher of mindfulness (vipassana) my curiosity found its answer in his teachings on Dukkha. Dukkha is universal, it binds us together yet we run away from it. But why? What is Dukkha? What is its nature? Why do we have dukkha? Can the answer be found only in a monastery or in a Guru? Is this only for the privileged few? My wisdom said No.

This paper will present Dukkha in a different light through my personal life experiences of humor, sadness, love, excitement, fear. It will help to see how anyone through investigation and practical application of mindfulness in daily life can awaken to the subtle qualities of Dukkha and contemplate on the fact that only by clearly understanding Dukkha they can move towards liberation, freedom and joy. This in itself will lead them to understand the noble truths, eight-fold path and dependent origination. I present how Dukkha is the essence of the Buddha's teachings, only because there is Dukkha do we all want to move beyond it. Are we ready to look at Dukkha in a new light? Are we ready to make our own lives an experiential laboratory to understand it? Are we ready to use this understanding to move towards liberation, freedom & joy while we still go about doing our daily chores? Can we make this understanding accessible to every being in the simplest yet powerful way.

Meditation in a College Setting: Investigation of Practice Time and its Effects

Matthew Kaharudin

UC Berkeley, UC Berkeley

Meditation and mindfulness has been studied extensively in the context of interventions. However, there has been less emphasis on the impact of meditation classes within a university context. Furthermore, more light could be shed in terms of the optimal amount of meditation to experience the benefits of the practice.

At UC Berkeley, a student-led meditation class has been taught since Fall of 2019. Self-reported data regarding mood, behavior, attitude, stress, life satisfaction, empathy, nature-connection and mystical experiences has been collected at the beginning and at the end of the semester to investigate changes as a result of taking the class.

The preliminary results over the years have shown that positive mood, behavior and attitude, along with mystical experiences have been significantly higher than reports from controls and reports from the beginning of the semester. A significant positive correlation has also been found between these measures and the amount of meditation practiced.

The research will discuss these effects as a whole, while identifying potential implications, confounds and limitations. Ultimately, the main question this research will address is whether practicing more meditation could possibly lead to more positive benefits, investigating whether there could be a minimum recommended amount of practice students should practice every week.

Challenges & supports impacting implementation of the school-based Peace of Mind program

Sebrina L. Doyle Fosco, Melia Brown, MAT, Deborah L. Schussler, Ed.D.

Penn State University

Research on school-based mindfulness programs (SBMPs) suggests that a variety of factors may impact successful implementation and sustainability including, alignment with school mission, support and training of educators, community perception, curricular integration, and time. This presentation centers on investigating challenges and supports for implementation of the Peace of Mind (PoM) program, an SBMP used in multiple East Coast urban K-8 schools; these schools were in a variety of different stages of curriculum adoption and implementation. Interviews/focus groups (n=28) and mixed-methods surveys (n=23) were collected from PoM program staff, teachers, administrators, and specialized staff. The interview protocol was based on the Kitson et al. (1998) PARiHS framework which focuses on context (e.g., culture), facilitation (e.g., training) and evidence (e.g., benefits). Data was coded thematically to understand implementation and the factors that impact using PoM. Several challenges were indicated including lack of time for implementation, missing resources, and language barriers. Noted supports included program alignment, personal mindfulness practice, teachers' familiarity with PoM, and administrative support. This presentation will also report on practices that have helped others to successfully integrate an SBMP into their schools with consistency and sustainability.

Mindfulness-Based Teaching and Learning: Preparing MBTL Specialists for Education and Clinical Care

Seonaigh MacPherson, Rose Mina Munjee, Jackie Seidel, Diana Winston

Faculty of Education, Community, and Human Development, University of the Fraser Valley

This symposium presents issues in the teaching and learning of mindfulness in mainstream education. Drawing insights from research and pilot programs, the session raises stimulating ideas and critical questions in the teaching and learning of mindfulness. Examples from both post-secondary and preK-12 contexts are included.

Introduction: Mindfulness-Based Teaching and Learning (MBTL): Preparing Mindfulness Specialists in Education and Clinical Care

Seonaigh MacPherson

Introducing Mindfulness and MBTL Courses in Two Western Canadian Universities

Jackie Seidel and Seonaigh MacPherson

This component explores issues and experiences in different institutions introducing discrete for-credit mindfulness courses.

Standards and Milestones for Mindfulness Specialists: The MBTL Teacher Competency Framework (MBTL-TCF)

Diana Winston

This component presents a new validated standards framework for the transprofessional practice of MBTL .

Preparing Mindfulness Teachers to Address Race-Based Trauma: A Qualitative Study

Rose Mina Munjee

This component presents findings from a grounded theory study of the experiences of BIPOC students practicing mindfulness in the wake of race-based trauma.

Preparing Mindfulness Teachers to Serve Diverse Learners

Seonaigh MacPherson

A pilot program using a "trickle-down" approach to prepare mindfulness specialists to serve marginalized populations.

A Contemplative Approach to Teaching and Learning in Culturally Responsive Education

Timothy Jester

University of Alaska Anchorage

This research project led to the design of a contemplative pedagogical framework through action research in courses in an M.Ed. program in Alaska.

Alaska is home to the largest percentage of Indigenous students in the United States. It also has one of the nation's most culturally and linguistically diverse school systems. Situated in this context, the M.Ed. program supports educators' development in culturally responsive teaching. Self-awareness, compassion, and wisdom are key underlying qualities in the vision of a culturally responsive educator. The presenter teaches core M.Ed. courses that aim to support these deeper qualities through contemplative pedagogies. This presentation describes the pedagogical framework that emerged through cycles of action research in selected graduate classes.

Question

How can I infuse contemplative pedagogies in my graduate classes in ways that support students' development as culturally responsive educators?

Methods

This qualitative study used action research to examine the presenter's teaching practices. Methods included reflective journals, student work, and a questionnaire.

Results

The framework articulates core conditions for enacting pedagogical actions of listening, contemplating, and practicing mindfulness. Students demonstrated self-awareness, compassion, and insights about themselves, their students, and their teaching contexts.

From Inward Out: Mindfulness Meditation Increases Help-Giving Depending on Preexisting prosociality

Yael Malin

The Hebrew University, Jerusalem, Israel

Our recent study showed that mindfulness practice increases help towards an ingroup member, however, it is unclear whether this effect depends on the beneficiary's identity and the benefactor's preexisting traits. An ongoing interest in interpersonal-aimed mindfulness programs raises the importance of empirically uncovering its prosocial effects. The current study examined the effect of mindfulness meditation, along with the participants' preexisting traits, on response toward a stereotyped stranger in distress. A total of 210 undergraduates completed baseline prosociality scales and were randomly assigned to two sessions of mindfulness, music, or lecture conditions. Afterward, they listened to an interview with a student dealing with HIV and were surveyed on their empathic feelings and willingness to volunteer in an organization helping such students. Results indicated increased volunteering rates in the mindfulness condition (52%), relative to music (30%) and lecture (31%) conditions [$\chi^2(2, N=185)=7.51, p=.005$]. The effect of mindfulness on empathic feelings was dependent on preexisting prosocial traits ($b=1.22, SE=.37, p<.001$). Lastly, mindfulness increases help-giving, even when the person in need is a stereotyped stranger. Whereas empathic feelings toward the beneficiary appear to depend on baseline prosociality, the interpersonal effect of mindfulness is limited.

Integrating mindfulness into the college curriculum: Expanding student awareness of self and society

Robin Bond, Kathleen Rodgers

Honors College, Washington State University

In 2018, the Washington State University Honors College established a certificate program in mindfulness-based emotional and social intelligence to promote the benefits of mindfulness and to prepare students for a life of personal and professional integrity and engagement. Faculty redesigned regular honors courses to include elements of mindfulness, self-reflection, and contemplation. Two examples are 300-level classes in the humanities and social sciences, respectively, on topics not directly related to mindfulness but conducive to exploring issues around adversity and empathy. HONORS 380 explores ancient Greek literature along with mindfulness practice and contemplative activities, building on the overlap between foundational teachings of mindfulness and insights of Greek poetry: the recognition that suffering lies at the heart of all human experience. HONORS 370 explores global poverty through a social justice and equity lens to encourage compassion and self-awareness. Reflection on emotional and physical responses to course content helps students identify their values in relation to physiological responses. Through mindful journaling students develop mindfulness habits to process stress responses. Both classes exemplify how regular class content can be integrated with mindfulness to support personal growth and compassion among undergraduates.

Creating a Summer Course for Contemplative Studies

Joseph Diehl, Richard Jaffe, PhD, Moria Smoski, PhD

Duke University

An interdisciplinary team at Duke University received funding from Duke's Graduate School to create a summer undergraduate course for Contemplative Studies (COST). Inspired by COST courses created by Dr. Harold Roth, we designed this course to introduce students to COST as an interdisciplinary field that includes the sciences (e.g., psychology, biology, cognitive neuroscience), philosophy, religious studies, and the arts to investigate the underlying philosophy, psychology, and phenomenology of contemplation. This course will introduce students to a wide range of contemplative practices and experiences found in religious, spiritual, and secular traditions, and their impact on the practitioner's physical, cognitive, and affective qualities.

This talk will discuss key components of the course, including the use of first-, second-, and third-person methods of investigation as well as meditation labs. I will review evidence-based pedagogical principles integral to this six-week course, including changes in learning objectives, changes in class format to cover as much material as possible while remaining committed to addressing material in the course with the nuance and richness it deserves, and a final assignment that enables students to work progressively toward a final research paper while sequentially building on each week's material and learning objectives.

"Why Are the Japanese So Good at Kendo?" Bodymind Praxis and the Way of the Sword

B.V.E. Hyde

Durham University

Japan dominates kendo. It is a long-debated question amongst Western kendoka as to why they fall so far behind. A recent proposal is that they are leaving out feeling and looking at kendo purely intellectually and physically (Roquelaure 2021, p. 18). This study develops this proposal into a mature theory of bodymind praxis in kendo. For the Westerner, if it is true that this is why the Japanese are so good at kendo, the most important question is how to achieve it themselves. There are several possible methods, including relentless training in which we eventually cease to distinguish between feeling, thinking and acting, or what has been called ‘cultural insight training’ (Kasulis 1990a, p. 40; 1990b, pp. 433, 448; 2002, p. 22) or, the original solution proposed with the suggestion to feel more, enculturating kendo into one’s own local culture (Roquelaure 2021, p. 19 f.). In theory, this should allow Westerners to properly comprehend, or ‘live’ (ibid. p. 18) – or ‘engage’ (Kasulis 2018) – kendo. However, it is questionable to what extent bodymind praxis is the way forward for kendo outside Japan: this study concludes by raising this concern in conjunction with the equally recent rise of statistical analysis in kendo, which relies entirely on an emotionless intellectual examination of physical phenomena to arrive at a complete understanding of kendo.

Exploring the subjective experience of Tonglen meditation through Micro-phenomenology

Catherine Andreu, Catherine Andreu, Constanza Baquedano, Alejandro Troncoso, David Martínez,
Ausiàs Cebolla

In the search for resources to face suffering skillfully, the teachings of Buddhism appear highly relevant, due to its intention to develop skills that help us overcome suffering. One of the core practices in Tibetan literature is Tonglen. Although some secular contemplative trainings have included Tonglen to develop compassion, the specific practice of Tonglen has not been properly studied yet. A micro-phenomenological study was done as a first approach to describe the experience of practicing Tonglen. We recruited and interviewed 11 long-term meditators (6 female) from different secular contexts and Tibetan Buddhist lineages. Meditators had a range of 10-35 years of meditation experience including Tonglen. The total duration of each interview was about 90 minutes. The interviews were audio-recorded for later transcription and analysis. The micro-phenomenological analysis method was applied to describe in detail the procedure and experience of Tonglen practice, considering the diachronic and synchronic dimensions of the experience. Three researchers analyzed each interview to comply with the triangulation process required for this type of analysis. The results of the micro-phenomenological analysis will be presented. Additionally, the usefulness of micro-phenomenology to describe the Tonglen experience, as well as to open a possible new line of research, will be discussed.

A Historical Encounter Between Pragmatism and Vedānta

Chris Zajner

University of Western Ontario

William James considered Vivekananda the paragon of monists. Yet he comes to reject Vivekananda's philosophy as a result of monism's ineluctable philosophical conundrums and it did not suit his active temperament. James's simplified assessment of Vivekananda's philosophy, however, reveals he had only a limited understanding of Vedānta. Here I argue that James's understanding of Vedānta was mainly only of rāja yoga—which is evinced by the fact that he disagrees with what he perceives as a lack of ability to justify meliorism. But this conception of James's, leaves out of consideration karma yoga—or the active principle of Vedānta—which advocates work as the means to realize the divine. Contra James's conception, it is more illustrative to understand Vedānta not as a doctrine of extreme “monism” but rather an attitude that cultivates every particular temperament. With this rectification, it becomes much clearer that there are significant parallels in viewpoints between both that have been underappreciated. The 'contemplative' or passive (mis)understanding of eastern thought is able to parse through this historical convergence between two seminal thinkers of the late 19th century. The inherent respect of both for the other's mode of thought, demonstrates an ideal in that will hopefully serve as a model to unify contemplative achievements, with 'active' impacts on the world.

Learning from mind and body: contemplative practices and new dance dramaturgy

Zachary Dorsey

James Madison University

In 2017 and 2019, I led a Study Abroad program in Ireland where, among other things, our students and faculty participated in Global Water Dances Day, an international event where performers in communities around the world made dances in support of water security as a local and global issue. I worked with Róisín O’Gorman (a lecturer at University College Cork and a somatic movement educator) to strategize a series of mindfulness and guided mediation activities where dancers explored how the very water in their body’s cells moved, which I then translated as choreographer into public performance. As a new work dramaturg – a choreographer’s collaborator, researcher, and interlocutor - I have used similar moments of contemplative practices to help dancers understand and embody a character, a given historical event, a setting, a feeling, or a particular theme. This oral presentation explores the utility of contemplative practices toward the devising and performing of new choreography, drawing on my own experiences as an artist as well as recent scholarship on performance and cognition. In addition to conclusions drawn about the creation of concert dance (dance performed for an audience), I anticipate that the examination of contemplative practices alongside choreographic practices will open up wider insights about ways of being and moving through the world.

Contemplative States of Absorption in Abrahamic Traditions

Nathan Fisher

University of California, Santa Barbara

While the trait of absorption has received a considerable amount of scientific study, states of absorption have been comparatively understudied, and even less scholarly or scientific attention has been paid to those that are cultivated within the contemplative traditions of Judaism, Christianity, and Islam. This presentation explores canonical descriptions of states of contemplative absorption in these Abrahamic traditions, specifically how they are cultivated using sensory deprivation and sensory withdrawal, can entail functional impairment considered normative in some contexts, have both positive or negative valence, and in certain cases are set apart as the goal of the meditative path. The import of this survey goes beyond just historical significance since these traditions assume, and recent research suggests the plausibility, that such states may be hyper-plastic and pivotal in both adaptive and maladaptive directions, which if empirically confirmed would have significant clinical and pedagogical implications.

Strategies for Healing : Critical Thinking, Cognitive Acceptance, and Unitive Being and Belonging

Kim Clark, J.D.

Pacific School of Religion

Preamble: The notion of race is a persistent human consideration in decision-making, often resulting in grave error which—like cascading, ferocious flood waters—spreads fear, suffering and death across the earthscape. Race is a bias in thinking. It rips through our minds, tearing the bonds of humanity apart, leaving behind the blood of millions of women and men, boys and girls, babies and old people, floating in the streams of time.

In this experiential workshop, participants will engage with oppositional cultural practice as a contemplative way of life. Through the dynamic processes of dialogue and deliberation, relationships will be built and strengthened, gaps bridged, conflicts resolved, innovative solutions to problems generated, collaborative action inspired and more. Attendees will be provided opportunities to become more fully engaged in reducing decision-making errors that take place in themselves, their workplaces, neighborhoods, communities, and increasingly at the national and international levels. Exploring critical analysis and critique, values and goals, participants will be encouraged to learn more about themselves, their groups/communities, the larger society and the world. Key features include: suspending assumptions, creating space that encourages a different kind of conversation, using ritual and symbolism to encourage openness, and active listening

.Exploring the intersection of contemplative research and evaluation theory and methods

Michael Harnar, Michael Coplen

Western Michigan University

This session will be an introduction to evaluation theory and research to explore ways it can inform contemplative and mindfulness research and vice versa. Evaluation has grown in recent decades and is now an international practice, with over 150 international voluntary organizations for the professionalization of evaluation. Some of the logic and practice of evaluation has found purpose in the growing field of contemplative research.

After brief descriptions and definitions of evaluation and clarifying where research and evaluation differ (and where they do not), some useful evaluation theories will be reviewed, including a discussion of evaluation quality standards. Evaluation has expanded the development of existing tools and has also developed its own methods. For instance, the most significant change technique has gained traction in international development evaluation and the logic model is central to the design of a theory driven evaluation approach.

Finally, a review of how evaluation shows up in contemplative research will be put forward, setting the stage for a discussion of how evaluation is being applied and where it could be strengthened using established evaluation theories and tools. Attendees are encouraged to bring their own logic models or other tools they currently use in evaluating their contemplative research or programs.

Psychedelic Preparedness

Rosalind McAlpine, Sunjeev Kamboj

University College London

'Psychedelic Preparedness' can be defined as a state of mind preceding a psychedelic experience that is conducive to receiving the most benefit from the experience; this will likely be characterised by a sense of psychological, physical and social 'readiness' for the experience itself and any changes that arise as a result of the experience. Here we will present the methodology and findings of our recent project to develop and validate the novel Psychedelic Preparedness Scale.

We completed three phases of scale development and validation, using both qualitative and quantitative methods, to create a rigorous measure — (Phase 1) item development, (Phase 2) scale development, and (Phase 3) scale evaluation; these were further broken down into nine steps, in line with Boateng's (2018) 'Best Practices for Developing and Validating Scales for Health, Social, and Behavioral Research.'

Focused attention and open monitoring meditation modulate semantic expectations as indexed by N400 t

Constanza Baquedano, Constanza Baquedano, Vladimir Lopez, Antoine Lutz, Diego Cosmelli

Universidad Adolfo Ibañez

The N400 ERP component has been proposed to reflect an automatized and conserved semantic processing mechanism (including self-perception). Here we used it as a marker to investigate its modulation by meditation states. During meditation, thoughts and feelings are observed as events in the mind, with a non-elaborative and non-judgmental attitude, without over-identifying with them and without reacting to them in an automatic, habitual pattern. Based on this standard account of these meditative states, we hypothesized that meditative states would decrease N400 compared to a non-meditative state. We use descriptive sentences combining semantic congruence with self-relatedness to explore possible modulation of the N400 ERP through two different meditative states, Focused Attention (FA) and Open Monitoring (OM), and contrast them with a non-meditative (NM) state in experienced meditators. Replicating and extending previous N400 literature, we found a classical N400 effect in the NM condition. However, during FA meditation, the N400 effect disappeared. During OM meditation, the N400 congruency effect disappeared for self-related stimuli, but persisted for other-related sentences. Our results suggest that meditative states can affect semantic expectations that are usually considered automatic and conserved across different states of consciousness.

Examining the Protective Effects of Short-form Mindfulness Training on Sustained Attention

Jordan Barry, Anthony Zanesco, Ekaterina Denkova, Scott Rogers, Amishi Jha

University of Miami

In a prior Stage 1 study of active-duty military cohorts (N=55) experiencing a high-demand interval (Jha et al., 2016), the impact of mindfulness training (MT) on sustained attention was investigated. Overall, performance on the Sustained Attention to Response Task (SART) degraded over the 8-week interval. However, those who received an 8-week, 24-hour MT program and self-reported 12 or more minutes of daily out-of-class MT practice (High practice group) sustained performance, while those in the Low practice group and a convenience no-training control (NTC) group significantly declined. The current study was designed to provide Stage 2 methodological advances over this prior work with a: 1) larger sample size (N=232) and group randomization; 2) less time-intensive, 4-week, 8-hour MT program to promote better engagement; and 3) objective tracking of MT practice engagement via a web-based app. MT participants were split into High vs. Low practice groups based on the amount of MT practice engagement. SART results revealed that while the High practice group sustained performance, the Low practice and NTC groups significantly declined over the 4-week interval. Benefitting from methodological advances, these results further highlight the importance of MT practice in achieving attentional benefits with short-form MT.

Comparative meditation study examining psychopathology, EEG spectral power, and heart coherence

Lorne Schussel, Craig Tenke, Lisa Miller

Columbia University, Spirituality and Mind Body Institute

Paper examines a multimodal meditation-visualization and active control practice over a 2 week period. Experimental group involves visualization of a "best self"(n=31) and projected loving kindness. Findings include attenuation of psychopathology (GAD & PHQ) decreased in Theta, and increases in Gamma spectral power for the multi-modal practice vs. an active mediation control (n=35) that consisted of concentrated breathing and relaxation. Results were paradoxical in nature with increases of HR for multi component meditation and decreases in HR for relaxation control despite reduction psychopathology and increase theta power in the meditation-visualization group. Results suggest the a "relaxation response" was not necessarily the component of reduced psychopathology rather a "positive" component related to activation from visualization. Other findings include net changes of inter-hemispheric brain coherence for both meditation practices as well as heart coherence shifts. Other positive metrics were examined including Gratitude, Compassion, DSES, Trust, Personal Growth, Mindfulness, and Social Connection) Data analysis revealed significant effects for multi-modal group psychopathology GAD attenuation ($U = 316.5, z = -1.62, p \leq .05$) as well as for the PHQ ($U = 321.5, z = -1.54, p = .06$). Trust had a stronger effect for the experimental group, $t(23) = -1.90, p = .04$.

Impact of mindfulness training over mind-wandering and executive control: Two meta-analyses and an integrative theoretical framework

Luis Cásedas, Miguel Vadillo, Jonathan Schooler, Juan Lupiáñez

The practice of mindfulness meditation has been proposed to enhance a range of cognitive processes, yet meta-analytical evidence and convincing theoretical explanations of this phenomenon are still scarce. This poster will provide a panoramic view of the state of the art of the impact of mindfulness meditation training on mind-wandering and executive control processes. In particular, both published and unpublished meta-analytical data from randomized controlled research will be presented to shed light on whether or not, and to what extent, mindfulness training affects the aforementioned cognitive processes. In addition, an original theoretical proposal of the potential mechanisms accounting for the relationship between mindfulness, mind-wandering, and executive control will be delineated.

SUncovering the Brain Activity During the First-Time Breathing Meditation Experience

Sang Seong Kim, Sunhwa Hwang, Youngmin Jung, Eunmi Kim*

*Corresponding author

This study has investigated the prefrontal hemodynamic features of first-time breathing meditation compared to random thinking. 18 college students without prior meditation experience were measured by 15-channel prefrontal functional Near-Infrared Spectroscopy (fNIRS) during 3 minutes of random thinking and 3 minutes of breathing meditation task. During meditation, Oxyhemoglobin (HbO) level decreased throughout the prefrontal cortex (PFC), particularly in the left ventrolateral prefrontal cortex (VLPFC). Functional connectivity within PFC decreased overall, with a clear decrease in connectivity between the right VLPFC and the rest of the PFC. Findings suggest that meditation state in the earliest level of training may be characterized by relaxation and altered mode of emotion regulation. Whole-brain imaging with complementary measures such as cognitive tasks and scales would provide more clues about the underlying mechanism behind decoupling of right VLPFC from the rest of the PFC.

Accessing the Impact of Achieving Jhana States on Stress and Emotional Balance Biomarkers

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Jhana is a deep meditative state, which induces an altered state of consciousness involving reduced external awareness and increased internal focus and joy. Despite an increasing number of studies on meditation that focus on interventions to reduce stress and enhance happiness, there is a paucity of research on the stress reduction and enhanced happiness at hormonal levels in deep meditative states such as Jhana. In this study, we aimed to investigate the impact of achieving Jhana states on salivary α -amylase (sAA as a stress biomarker) and urinary serotonin metabolite, 5-hydroxyindoleacetic acid (5-HIAA as an emotional balancer).

Two Jhana experts and two sex- and age-matched control participants enrolled in this study. Jhana experts went to the retreat center to restore their Jhana state by practicing anapanasati (a technique which involves awareness of one's own respiration). First morning urine and saliva samples were collected from both groups for 14 days. The collected samples were analyzed to detect the sAA and 5-HIAA concentrations with assay kits. Spearman's rank correlation coefficient was used to measure the strength of association between two biomarkers.

The results showed that both sAA and urinary 5-HIAA concentrations were higher in Jhana experts than in the control participants. The correlation between two biomarkers was negative in the control participants but positive in Jhana experts. Jhana experts may be more prone to stress, as evidenced by higher levels of sAA. Nonetheless, Jhana experts may maintain an emotional balance during stressful situations due to high levels of 5-HIAA. The study suggested that helping individuals achieve and maintain Jhana states may improve their quality of life. Given the limitations of a small sample size in this study, it is crucial to conduct further research with larger populations and the use of relevant psychological scales and biomarkers to gain a comprehensive understanding of the effects and mechanisms of Jhana meditation.

Keywords: Jhana, meditation, salivary α -amylase, serotonin metabolite, stress

Mindfulness attenuates nociceptive-specific and negative affective multivariate pain signatures.

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Mindfulness meditation (MM) reduces pain. Machine learned multivariate fMRI signatures are highly predictive of identifying nociceptive-specific, affective, and placebo-based pain responses, respectively. Yet, it is unknown if state MM modulates said signatures. The 1) neurologic pain signature (NPS), a marker of nociceptive-specific pain, 2) generalized negative affect (NAPS), indicative of negative affect from noxious stimuli, and 3) stimulus intensity independent (SIIPS), a marker of placebo, were employed to determine if MM lowers pain and corresponding signatures.

In 2 separate studies employing BOLD or perfusion-fMRI, 77 healthy volunteers were randomized to a 4 session MM (N=38) or book-listening (N=39) regimen. After interventions, scans were acquired during ten, 12s noxious 49°C heat stimuli (right calf) during rest and MM/rest (controls). Pain ratings (0=“no pain”; 10=“worst imaginable”) were collected after each series.

MM reduced pain ($p < .001$). Stimulus-based activation beta maps were resampled to match voxel dimensions of each signature. Betas were compared to signature weights by the dot product to create scalar responses. MM reduced NPS and NAPS as compared to rest and controls ($ps < .001$). SIIPS was not modulated by MM or controls.

We provide novel evidence that MM reduces objective pain markers corresponding to nociception and negative affect but not placebo.

Resetting the present: Higher cortical entropy predicts mindfulness meditation-induced analgesia

Alex Jinich-Diamant, Gabriel Riegner, Grace Posey, Jennifer Baumgartner, Nailea Gonzalez, Julia Birenbaum, J. William Vaughan, Youngkyoo Jung, Robert Kraft, Fadel Zeidan

Pain is modulated by interactions between nociceptive afferents and cognitive-affective factors. Recent work indicates nociceptive processing may be driven by hierarchical probabilistic internal models that predict impending sensory events by integrating their expected probabilities with ascending afferent information. Shannon entropy is a marker of the uncertainty in the probability of spontaneous neural activity. Mindfulness meditation (MM), a highly analgesic practice premised on sustaining non-reactive awareness to the present moment, may elicit pain relief via higher entropic states. The present study randomized 40 healthy volunteers to 80 minutes of MM training or book listening. Post completion, fMRI was acquired during noxious 49°C to the calf during rest (all subjects) as compared to MM and rest (controls). Pain ratings were collected after each scan. Time series correlations between 96 cortical regions were used to build functional connectivity networks across a spectrum of densities (0.02 to 0.27) and compared across conditions. MM significantly 1) reduced pain ($p < .001$) and 2) increased cortical entropy ($p_s < .05$; 9/26 network densities) as compared to controls. Importantly, higher MM-driven entropy predicted lower pain. These novel findings indicate that MM induces a high cortical entropy state to reset the influence of pre-stimulus predictions that modulate pain.

Social Coherence through Embodied Relational Mindfulness: Contemplative Hyperscanning Research

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Research on western mindfulness meditation and awareness has primarily taken for granted intrapersonal and metacognitive perspectives, consequently under-emphasizing embodied and relational dimensions of mindfulness. Phenomenological perspectives maintain, however, that self-experience occurs corporeally and inextricably within social contexts. Embodied and relational dimensions of mindfulness include bottom-up processing in one's own experience together with the larger relational field. Such practices can cultivate increased social coherence, arguably the most important public health need of our time. Given this overview, formulated here is a novel research proposal on embodied relational mindfulness, using hyperscanning methods that include portable devices like HRV and fNIRS, as well as EMA for self-reported experiences. Healthy participants from diverse racial and cultural backgrounds will participate in a daily three-week training based on core principles of embodied relational mindfulness, which includes relational contemplative practices within triadic groups. Hypotheses include increased relational synchrony through listening and speaking, greater capacity to integrate stressful states, and improved understanding between diverse perspectives. Implications may be far ranging and could include applications in mental health, as well as in diverse communities.

Self-compassion vs Reappraisal Following Social Rejection: Application of the Situated Action Cycle

Erin Mistretta

Arizona State University

Rejection is a common experience that can place individuals at risk for poor mental health outcomes. Identifying transtheoretical mechanisms by which rejection leads to poor mental health, particularly depression and anxiety, can help focus efforts to develop more tailored, effective intervention strategies. This project explored the effectiveness of two distinct emotion regulation strategies, detached reappraisal and self-compassion, on mechanisms involved in the processing of rejection. Outcomes are framed within the Situated Action Cycle, which offers an integrated approach to examine mechanisms of cognitive, affective, and behavioral processing. Participants who report at least moderate levels of rejection sensitivity were recruited to participate in the study.

This session will focus on the extent to which brief self-compassion and reappraisal writing interventions create meaningful change in attentional, cognitive, and affective facets of the Situated Action Cycle, specific pos/neg attentional bias, controllability and centrality appraisals, and pos/neg affect. Results from the study reveal possible mechanisms of self-compassion interventions for individuals most at risk.

Yoga as a long-term mental health promotion tool in non-communicable diseases

Praseeda Menon, Lee Majewski, Ravi Kulkarni, Akshata Badave

Kaivalayadhama Yoga Institute & Research Centre

Yoga has shown short-term beneficial effects in mental health but evidence regarding long-term psycho-emotional changes is rare. The current study examined whether a 3-week intensive yoga therapy program would serve as a long-term mental health promotion tool in people with non-communicable diseases (NCDs).

The study enrolled 31 participants from 4 batches of yoga retreats - 15 cancer survivors and 16 with other NCDs such as diabetes. Mental health data was collected online during 1 year at 5 timepoints from participants using standard psychological tests.

Results indicated highly significant differences in various mental health variables over the long-term. In particular, anxiety, depression, and perceived stress reduced, whereas mood states, multidimensional quality of life, coping, and flourishing improved at 3 weeks as well as after 3, 6 and 12 months each, compared to baseline. Moreover, non-significant differences between measurements at 3-week and at any of the follow-up timepoints indicated that the 3-week mental health improvement sustained at all follow-up timepoints, including at 1-year.

This study demonstrated that intensive yoga therapy programs show tremendous potential as a long-term mental health promotion tool for people suffering from chronic NCDs by building psycho-emotional regulation skills, which contribute to psychological empowerment in the long run.

The Relationship Between Mental Health Symptoms and Attendance in Mindfulness Based Intervention

Addie Rzonca, Brock A. Rigsby, Jill Krause, Megan Moran, Melanie S. Adams, Reagan Miller, Rachel Lucas-Thompson, Mark Prince

Colorado State University

Recent research has demonstrated that adolescents and young adults dealing with symptoms of anxiety and depression can benefit significantly from mindfulness-based intervention (MBI). However, it is important to consider the barriers MBI participants with elevated anxiety and depression may face in attending and participating in such interventions. The present study seeks to further the understanding of the relationship between mental health symptoms and attendance in MBI. Participants ($M_{age}=21.72$, $SD=4.84$; 65% female) were 89 university students participating in a 6-week MBI. Participants' reported symptoms of anxiety and depression before and after completion of the MBI, and attendance was taken throughout. The results of a multiple regression analysis indicated that both anxiety symptoms and depressive symptoms were significant predictors of attendance. Interestingly, greater depressive symptoms predicted lower attendance, whereas anxiety symptoms predicted significantly greater attendance. These results indicate that future research may need to explore how to best support individuals with depressive symptoms in order to make MBI more engaging and accessible to them.

In-person versus online delivered mind-body interventions for cancer survivors during COVID-19

Andy McLennan, Mohamad Baydoun (PhD), Devesh Oberoi (PhD), Linda Carlson (PhD)

University of Regina

Mind-body interventions (MBI's) are an effective treatment option for people living with and surviving from cancer to help manage unwanted physical and psychological symptoms related to treatment and the illness itself. Many of these interventions exist and are used in clinical research; however, COVID-19 caused most research intervention trials and clinical programs to halt completely or adapt an online modality. The Mindfulness and Tai Chi for Cancer Health (MATCH) study, a large-scale study that compared MBCR to a structured TCQ program in improving psychological and physical health outcomes for cancer survivors, adapted to an online, Zoom delivered, program at the outset of COVID-19 and during the program itself. We therefore conducted a qualitative study to explore the experiences of our participants who took the program completely in-person, those who took the program completely online (on zoom), and a smaller group of participants who had to shift from in-person to online delivery during their tai chi classes. We derived four themes from the data: 1) purpose for enrolling and perceived benefits, 2) barriers and challenges by mode-of-program delivery, 3) facilitators by mode-of-program delivery, and 4) COVID-19 and shifting to online program delivery. Results have provided novel evidence on the adaptation of MBI's to online delivery during the COVID19 pandemic.

The frequency of mind wandering increases with greater time-on-task

Anthony Zanesco, Ekaterina Denkova, Amishi Jha

University of Miami

Attention has a seemingly inevitable tendency to turn inward towards one's thought and this bias towards mind wandering has been suggested to increase over time during task performance. Yet, the extent to which the occurrence of mind wandering over periods of task engagement may vary across a range of tasks or situations remains unclear. Herein, we investigated this topic by conducting a systematic literature search and meta-analysis of individual participant data (IPD). Our search located 57 research articles providing roughly 400,000 total responses to experience sampling mind wandering probes. Latent growth curve models estimated the initial occurrence of mind wandering and linear change in mind wandering over sequential probes for each study. The results from these analyses were then summarized using multivariate meta-analysis. Our findings suggest that the occurrence of mind wandering increases with greater time-on-task, implicating mind wandering in failures of vigilance and worsening behavioral performance with time-on-task. This review provides a comprehensive assessment of normative rates of mind wandering during task performance, exhausting all publicly available IPD.

**EFFECT OF COMPASSION FOCUSED THERAPY ON SELF-CRITICISM AND
SELF-SOOTHING: A META-ANALYSIS**

Ausiàs Cebolla

University of València

Compassion is oriented toward perceiving and relieving suffering. Hence, its development is beneficial for mental health. Many interventions aimed at cultivating compassion in patients have been empirically supported. This meta-analysis analyses the effectiveness of Compassion-Focused Therapy (CFT) in decreasing self-criticism, a vulnerability factor that has been related to several mental health problems. A literature search was conducted in the PsycInfo, Web of Science, Medline and Scopus databases, through which 7 controlled trials (N = 640) and 7 observational studies (N = 207) were retrieved. The results of the meta-analysis determine that CFT decreases the level of self-criticism and increases the ability to experience soothing. The size of the effect varies depending on the design of the study and the subscale of the test used to measure self-criticism (Forms of Self-Criticizing/Attacking and Self-Reassuring Scale). CFT has proven to be an effective intervention for reducing self-criticism. However, given that the number of studies is small and that only half of them are controlled trials, the results must be interpreted cautiously. More randomized controlled trials comparing CFT with other therapies are needed to determine the effect of this intervention on self-criticism with more scientific evidence.

Efficacy of a Wellbeing Training-based on Contemplative Practices in a sample of social workers

Ausiàs Cebolla, Pedro Sarrion, Ramon Rosaleny, David Martinez-Rubio, Joana Vidal, David Alvear

University of Valencia

Few programs have combined positive psychology strategies with contemplative practices traditions. This study aims to investigate the effect of a Wellbeing Training-based on Contemplative Practices (WTCP) compared to MBCT in terms of well-being, mindfulness, compassion and symptomatology as well as acceptability and adherence in a group of social workers. A sample of 82 participants were randomly assigned to WTCP group (n=47) and to MBCT group (n=35). An evaluation of the main measures was carried out in two moments, pre and post intervention. The results showed no significant differences in Time * Group interaction for any of the main variables. Large effect sizes were shown in in both programs in mindfulness, compassion, symptomatology and happiness. Both conditions showed the same effect size for well-being variable, but WTCP showed less drop out. Research on common factors (therapeutic alliance, group cohesion) and locus of control over well-being as mediating variables that could better explain the results are proposed as future lines of investigation.

Trait Mindfulness and Sleep: Observing nonreactivity in the prediction of sleep health.

Bailin Xie, Lianne Tomfohr-Madsen, Hangsel Sanguino, Makayla Freeman, Jeshna Kumari, Ivan Sedov

University of Calgary

The sessions will describe a study that investigated the associations between trait mindfulness and sleep health and that examined the interactions between theoretically related mindfulness subscales. Participants ($n = 160$, Mage = 19.91) reported trait levels of mindfulness and sleep was assessed using questionnaires and actigraphy. Higher mindfulness scores in awareness, nonreactivity, and nonjudgment were associated with better sleep health. The associations between observing and sleep health were moderated by nonreactivity. Results indicate that observing is associated with better sleep health at higher levels of nonreactivity and worse sleep health at lower levels, helping to explain the often-contradictory findings between observing and health outcomes.

Effects of mindfulness-based practices for incarcerated people

Chanda Williams

Pacifica Graduate Institute, University of California, San Francisco, Prison Yoga Project

There are nearly 2 million people incarcerated in the United States. Many of these individuals suffer from the effects of trauma, substance abuse, and addiction. Prison contemplative programs are classes or practices (which include meditation, yoga, contemplative prayer, or similar) that are effective for various physical and mental disorders, including drug and alcohol addiction. This poster describes a qualitative, post-hoc study that seeks to increase the understanding and explore the long-term impact of trauma-informed, mindfulness-based yoga therapy for incarcerated populations.

**Effects of a 10 week clinical trial comparing Qigong and Exercise/Nutrition in Fatigued Female
Cancer**

Chloe Zimmerman, Chloe Zimmerman; Simona Temereanca; Dylan Daniels; Cooper Penner; Tariq
Cannonier; Stephanie R. Jones and Catherine Kerr+.

Brown University/Alpert Medical School

Cancer-related fatigue (CRF) is a burdensome side effect of cancer and its treatment. Exercise, nutrition, health/psycho-education, and mind-body therapies all show promise in treating CRF. However, studies directly comparing the efficacy of these treatments are lacking. We conducted a parallel single blind randomized control trial with women with CRF to directly compare the effects of Qigong (a form of mind-body intervention) (n=11) to an intervention that combined exercise, nutrition and health/psycho-education (n=13). Both interventions showed mean fatigue improvement of more than double the pre-established minimal clinically important difference of three (Qigong: 7.068 +/- 10.30, Exercise/Nutrition: 8.846 +/- 12.001). Both groups significantly improved fatigue from pre- to post treatment ($F(1,22)=11.898$, $p=.002$, generalized eta squared effect size=.116) There was no significant difference in fatigue improvement between groups ($p=.70$), suggesting a potential equivalence or non-inferiority of interventions. Qigong also significantly improved secondary measures of mood, emotion regulation, and stress. These findings provide preliminary evidence for divergent mechanisms of fatigue improvement across interventions, with Qigong providing a gentler and lower-intensity alternative to exercise/nutrition. This clinical trial was registered with clinical trials.gov (NCT03259438).

The Mindful-Gut Pilot Trial: A Protocol

Dr. Julie Deleemans, Julie M. Deleemans, PhD., and Linda E. Carlson, PhD., R.Psych

University of Calgary Cumming School of Medicine

Background: Research suggests a link between the gut microbiome, gastrointestinal (GI) and psychosocial symptoms in people with cancer. MBCR shows beneficial effects on psychosocial health outcomes in cancer cohorts, but it is unclear whether MBCR can impact the gut microbiome and changes in GI and psychosocial symptoms.

Aims: to investigate effects of MBCR training on (i) gut microbiome composition; (ii) Correlations between changes in GI (e.g. abdominal pain, diarrhea), and psychosocial symptoms (e.g. depression, cognitive function), and bacterial taxa.

Methods: we will use a single-arm, pre-test post-test design. Participants (N= 30) will include post-treatment adult cancer survivors, diagnosed with a solid tumour or blood cancer. Participants will complete the 9-week MBCR program. Stool samples will be collected at baseline and week-9 (post-intervention) and analyzed using the GA Map dysbiosis index and 16s rRNA gene sequencing. GI and psychosocial outcomes will be assessed using PROMIS patient reported outcome measures at baseline and post-intervention. Accrual, retention, and adherence data will be collected. Analyses will include descriptive statistics, paired-samples t-tests, and Spearman's rho correlations.

Implications: This study will be the first to determine whether MBCR training impacts the gut microbiome, and how this relates to GI and psychosocial health.

Exploring predictors of adherence to mindfulness-based training and health education interventions

Elizabeth Duraney, Elizabeth J. Duraney, Madhura Phansikar, Megan E. Fisher, Ruchika S.

The Ohio State University

Mindfulness-based interventions have shown promise for improving psychological and cognitive health in older adults. However, little is understood about factors that predict adherence to these interventions. This information is crucial for modifying intervention components and designing tailored interventions that may maximize adherence. The present study will analyze potential cognitive and psychosocial variables as predictors of adherence to two lifestyle interventions. Seventy-four older adults were randomized to a 4-week mindfulness-based training intervention or a 4-week health education training intervention (active control) designed to reduce mind-wandering. The following predictors will be explored: education, sex, working memory, emotion dysregulation, emotion regulation, mindfulness, positive affect, negative affect, mind wandering, depression, and perceived expectations. Adherence will be operationalized as total self-reported practice minutes over the intervention. To account for predicted multi-collinearity among the predictor variables, partial least squares regression will be used to determine the relative importance of the predictor variables for predicting adherence.

Effects of MBSR and an attention placebo control activity on heart rate variability in migraineurs

Frances (Frannie) Marin, Frances Marin, Michael Datko, Zev Schuman-Olivier, Ronald Garcia, Riccardo Barbieri, Danielle Giachos, Alison Goldstein, Isabella Grimaldi, Quinn Matos, Vitaly Napadow

Cambridge Health Alliance Center for Mindfulness and Compassion

Episodic migraine is associated with autonomic nervous system (ANS) dysfunction. Mindfulness-based interventions have been shown to improve ANS regulation, and this effect may be augmented by treatments that enhance parasympathetic mechanisms such as transcutaneous vagus nerve stimulation (tVNS). In this pilot study, 22 participants (Age: M(SD)=41.9(13.4), 21 women) were assigned to an 8-week MBSR course or an attention placebo control intervention (Ctl) and received either active tVNS or a sham stimulation during the intervention. Following 1 week of introduction to the intervention, participants completed a 30-minute meditation (MBSR) or a nature video control activity (Giachos et al., 2022) while wearing a Biostamp nPoint ECG device to assess heart rate variability (HRV), an index of ANS regulation. We found no baseline differences between MBSR and Ctl groups on high frequency HRV power, an index of vagal tone (MBSR mean=262.1ms², Ctl mean=338.5ms², $t = -0.68$, $p = 0.51$, $d = 0.31$), suggesting that our Ctl activity is well-matched with formal MBSR practice in its effect on ANS activity at baseline. Therefore, any post-intervention effects on HRV could result from active components of MBSR and tVNS rather than from different attentional demands between MBSR and the Ctl activity. Future work will examine interacting effects of these interventions on post-training HRV outcomes.

Trait Mindfulness factor structure and its relation to depression

Gayathri Batchalli Maruthy, Lyndahl Himes and Bart Rypma

The University of Texas at Dallas

Trait mindfulness (TM) is the disposition of nonjudgmental present moment awareness, measured using the Five Facet Mindfulness Questionnaire (FFMQ). The FFMQ consists of Observe, Describe, Act with awareness (AwA), Nonjudge (NJ) and Non-react (NR) facets. Discrepancies in the relationship between the Observe and other facets in the form of negative associations, especially the NJ facet, remain unexplored. We examined this relationship to determine its nature and implications for understanding TM using Multiple Factor Analysis (MFA). The MFA revealed two orthogonal factors. One factor reflected a mindfulness ability consisting of the NJ, NR and AwA facets. The other factor reflected an observation ability consisting of the Observe facet. We explored interactions between the two factors on depression using factorial ANOVA. We divided our sample into two groups (low, high) on each of the two factors yielding four groups. Results revealed an interaction between the observation and mindfulness groups on depression. In the low mindfulness group, those who were high in observation ability showed higher depression levels than those who were low in observation ability. No such difference was observed in the high mindfulness group. These results suggest that associations between TM and psychological health are complex and depend upon optimum relative levels of FFMQ facets.

How Mindfulness and Emotion Regulation are Linked to Fear of Cancer Recurrence

Hanna Conradi, Linda E. Carlson, PhD., R.Psych

University of Calgary

Background: Fear of cancer recurrence (FCR) affects 73% of people living with cancer (PLWC). However, mechanisms that sustain FCR are poorly understood. Emotion regulation (ER) involves internally altering emotional experiences and is linked to mental health outcomes. Rumination, repetitive negative thinking about emotional experiences, is a maladaptive ER strategy associated with heightened anxiety and depression which are known correlates of FCR. Similarly, avoidance-oriented coping has been linked to heightened FCR.

Aims: Because mindfulness-based interventions (MBIs) reduce maladaptive ER and MBIs for PLWC are shown to improve psychosocial symptoms of cancer, this study aims to explore the associations between FCR, ER, and mindfulness in a diverse sample of PLWC.

Methods: This cross-sectional correlational study will assess 276 participants recruited for an MBI clinical trial at baseline. Assessments will include the Rumination-Reflection Questionnaire, Acceptance and Action Questionnaire, Fear of Cancer Recurrence or Progression Inventory and the Mindfulness Attention and Awareness Scale. Descriptive statistics, univariate correlations and multivariate linear regression analyses will be used to analyze the data.

Implications: Results will inform future MBIs that target specific psychosocial symptoms and populations of PLWC to reduce the incidence and severity of FCR.

Correlations Between Spirituality, Mood, and Stress Following Meditation Training

Jack Patel, Michael Baime, MD, Michelle Keck, MA, Michael Gawrysiak, PhD

The Penn Program for Mindfulness, Perelman School of Medicine, University of Pennsylvania

Although Buddhist meditation techniques evolved to enhance spiritual experience within a religious context, they are often presented in secular settings to improve psychological and medical health. Mindfulness-based stress reduction (MBSR) is known to reduce stress, improve mood states, and enhance subjective spiritual experience. This study investigated the correlations among changes in mood, stress, and spirituality before and after an 8-week MBSR program. Participants in the Penn Program for Mindfulness at the University of Pennsylvania (n=147) completed the Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being (FACIT-SP-Ex), the Profile of Mood States (POMS), and the Perceived Stress Scale (PSS). Paired sample T-tests showed significant improvements in all POMS subscales, the FACIT-SP-Ex, and the PSS ($p < 0.001$ for all measures). Determination of Pearson's r demonstrated significant correlations between all variables before and after the intervention ($p < 0.001$ for all correlations). The degree of correlation among results changed from pre- to post-intervention; PSS results more strongly correlated with FACIT-SP-Ex results post-intervention, while the association with all other variables decreased. Our presentation will consider the relationship between stress and spiritual experience, and how these results may illuminate factors that contribute to spirituality.

Mindfulness meditation reduces aggression and improves well-being in highly stressed police officers

Joseph Glaser-Reich, Lora Khatib, Fadel Zeidan

UC San Diego

Law enforcement officers are at risk of decreased mental and physical health due to the high demands and stressful nature of their work. This study examined the feasibility and efficacy of three, distinct eight-week mindfulness-based interventions to improve psychological health and reduce aggression for officers. Participants completed measures of aggression, stress, depression, anxiety, and mindfulness. Officers were then randomized into one of three interventions. Participants completed study assessments, again, after four and eight-weeks of training. Fifty officers completed the study. At baseline, 92% of officers reported moderate to high levels of stress. After training, no significant between group differences were found. Officers reported significant decreases in aggression, stress, depression, difficulties in emotion regulation, and anxiety ($p < .05$). Higher trait mindfulness, after training, mediated the relationship between lower aggression, stress and depression, respectively. Mindfulness training produced improvements in health and decreased aggression in highly stressed police officers and may offer an efficacious tool benefiting law enforcement officers and corresponding communities.

IMPACT OF MINDFULNESS ON POLICE MENTAL HEALTH: A REVIEW

Lorne Schussel, Rachel Pham

Columbia University, Spirituality and Mind Body Institute

Police work is one of the world's most dangerous global professions. The population is consistently exposed to complex and high stress situations. . The consequences of duty-related police officer trauma has a major impact on mental health, e.g. higher rates of PTSD. Job-related stress disorders cause many police officers to retire early or die prematurely. The high mental, social and behavioral costs of police work demonstrate a massive need for preventative and resilience based interventions.

With high levels of both chronic stress and chronic pain, law enforcement provides a unique population in which to study the potential mitigating impact of cognitive and affective reactivity on the stress-pain link. Mindfulness has been used with various populations. Poster aims to examine such research findings and summarize:

Goals

This review aims to synthesize the existing peer-reviewed literature pertaining to Police Mindfulness Based Interventions based in the United States.

1. Identify and synthesize peer-reviewed literature
2. Organize the literature by type of intervention and common results
3. Identify themes, limitations and recommendations for future studies

Mindfulness Training-Related Enactment Corresponds with Improvements in Wellbeing

Malena Price, Cindy Ripoll-Martinez, Anthony P. Zanesco, Ekaterina Denkova, Scott L. Rogers, Amishi P. Jha

University of Miami

Mindfulness training (MT) has been shown to benefit emotional wellbeing (i.e., self-reported affect and stress). Yet, it remains unclear if and how MT-related enactment, the engagement in skills and strategies in daily life outside of the intervention setting, contributes to such benefits. Herein, we adopted an individual differences approach to examine the relationship between MT-related enactment, indexed by the Applied Mindfulness Process Scale (AMPS), and MT-related changes in self-reported emotional wellbeing in active-duty soldiers. Participants randomized to receive MT ($n = 161$) or serve as no-training controls ($n = 71$) completed the Positive and Negative Affect Schedule (PANAS) and the Perceived Stress Scale (PSS) before (T1) and after (T2) a 4-week MT interval. Only MT participants completed the AMPS at T2. Using structural equation modeling, a latent factor of enactment was created, and separate models were run to examine the correspondence between enactment and T1 to T2 change scores for PANAS and PSS. Individuals with higher enactment scores were found to have greater improvement in positive PANAS ($r = 0.23$, $p = 0.012$), and greater reduction in negative PANAS ($r = -0.22$, $p = 0.016$) and PSS ($r = -0.21$, $p = 0.019$) from T1 to T2. Thus, individual differences in MT-related enactment may be a key factor contributing to improved emotional wellbeing in active-duty soldiers.

Investigating the Impact of Biofeedback Training and Mindful Self Compassion Training on Anxiety

Mays Imad, Sophie Barr, Jack Howell, Madelyn Rose

Connecticut College

Anxiety in college is very common. Even before the Pandemic, the American College Health Association's Fall 2018 National College Health Assessment reported that 63% of college

students in the US felt overwhelming anxiety in the past year. The sharpest increase in anxiety occurs during the initial transition to college among first year students where there seems to be a persistent rise in students' levels of anxiety, depression, and stress. Such a rise in psychological distress remains elevated throughout the first year and possibly even beyond.

Given the high prevalence of mental distress and anxiety among college students and the scarcity of resources to address students' mental health, there is a pressing need for innovative approaches to deal with these issues in meaningful and sustainable ways. The dominant approach to address students' mental health has focused on risk factors and interventions.

Another approach is to focus on protective factors that promote self-regulation and resilience.

In this session, we will present data highlighting various evidence-based approaches to reducing stress and increasing mindfulness among first year college students. Specifically, we will highlight the positive impact of education, biofeedback and self-compassion training on student stress and anxiety.

Mindful Parenting and Adolescent Adjustment: Positive Parenting as a Mediator?

Melanie Adams, Stephen Aichele, Rachel G. Lucas-Thompson, J. Douglas Coatsworth

Colorado State University

Background: Adolescent maladjustment is rising but can be ameliorated by mindful parenting. We assessed whether this association is mediated by parental high autonomy granting, low overcontrol, high trust, and low negative reaction to adolescent disclosure.

Methods: Associations were examined from an adolescent rather than parent perspective with roles of mothers and fathers addressed separately. Structural equation modeling of cross-sectional data was conducted in Mplus with a factor variable of interrelated positive parenting behaviors as the mediator.

Results: A significant negative association existed between adolescents' perceptions of mindful parenting and self-reported adolescent internalizing and externalizing behaviors. Adolescents' perception of mothers' mindful parenting (versus fathers') contributed more strongly to overall positive parenting in the household. All atemporal mediation patterns, including complementary and indirect-only mediation patterns, were significant, except for fathers' mindful parenting paired with internalizing behavior.

Discussion: Findings support positive parenting as a mediator of the association between mindful parenting and adolescent adjustment. Integrating lessons on specific positive parenting behaviors into mindfulness interventions may optimize the buffer mindful parenting provides against adolescent maladjustment.

Longitudinal associations between mindfulness and meaning in life in adolescents

Michael Tumminia, Blake A. Colaianne, Robert W. Roeser, Brian M. Galla

University of Pittsburgh

In recent years, there has been a proliferation of scientific interest in mindfulness and its effects on reducing dysfunction among adolescents. While this body of literature has tended to endorse a “deficit” model, less work has focused on mindfulness and its associations with youth flourishing and the capacity to find meaning and purpose in life. In the current analysis, we test longitudinal associations between mindfulness and meaning in life in two data sets from similar, yet separate high schools.

Students (Study 1, Exploratory: N = 599; Study 2, Confirmatory, Preregistered: N = 1,093) completed self-report measures of mindfulness and meaning in life three times during an entire academic year. Cross-lagged panel models with lag-1 effects (CL1PM) were utilized to test for prospective, reciprocal associations between mindfulness and meaning in life.

In both studies, results revealed that higher levels of mindfulness significantly ($p < .05$) prospectively predicted higher levels of meaning in life, and that higher levels of meaning in life significantly ($p < .05$) prospectively predicted higher levels of mindfulness.

Overall, this study provides evidence for bidirectional, longitudinal associations between mindfulness and meaning in life during adolescence; a developmental period that can be viewed as a "window of opportunity" for cultivating positive mental capacities.

Facilitators and Barriers to Implementing Mindfulness-based Interventions for Chronic Pain

Nainika Hira [1], Roman Palitsky [2], Deanna M. Kaplan [3]

Wright State University [1], Warren Alpert Medical School, Brown University, Department of Psychiatry and Human Behaviour [2], Emory University School of Medicine, Department of Preventive and Family Medicine [3]

Mindfulness-based interventions (MBIs) are a viable complementary treatment for chronic pain, with evidence of non-inferiority to gold-standard behavioral treatments like CBT (Davis et al., 2015). However, these interventions face an “implementation cliff,” with inconsistent adoption and sustainment in medical practice. Importantly, there are no common guidelines for practicing healthcare providers to implement MBIs within the scope of their existing practice. To understand the facilitators and barriers to implementing MBIs for chronic pain, semi-structured qualitative interviews with medical providers who treat chronic pain as part of their scope of practice (N = 18) were conducted. Interviews solicited providers’ views on MBIs for pain, focusing on provider knowledge and motivation, perceived opportunities, and barriers to implementing MBIs for pain within their specific setting, and the solutions to these challenges as they viewed them. Rapid qualitative analyses examining implementation-relevant challenges and solutions, using the Consolidated Framework on Implementation Research (Damschroder et al., 2009) and Theoretical Domains Framework (Atkins et al., 2017), will be presented. Results focus on common concerns and existing opportunities for improving the delivery and access of MBIs for pain.

The Ethnocentric Bias in Flourishing Research

Nona Kiknadze, Nona Kiknadze, Dr. Blaine Fowers, Lukas Novak, Alexander Calder

University of Miami

Modern scholarship on flourishing approaches the question of what it means to live well from a universalist perspective that assumes that there is a single, overarching model of what flourishing looks like across cultures, thereby under-emphasizing cultural differences and homogenizing the lived experience of diverse individuals. The question of what components make up flourishing has major theoretical implications for how society should function and it is of critical importance to examine the context of these assertions. Operating in such an environment, it is no surprise that Western-devised flourishing models incorporate an ethnocentric view of flourishing that is reflective of a cultural zeitgeist in which contemplative practices, environmental health, and religious values are devalued compared to individual traits and achievements. In calling out these weaknesses I underscore the need for researcher reflexivity and the importance of incorporating differing cultural perspectives into broad psychological claims of what it means to live well.

Daily Mindfulness, Negative Affect, & Eating Behaviors in Adolescents at Risk for Excess Weight Gain

Reagan Miller, Ruth M. Bernstein, Natalia Sanchez, Ana Gutierrez-Colina, Elizabeth Ruzicka,
Christopher Bell, Sarah A. Johnson, Lauren B. Shomaker, Rachel G. Lucas-Thompson

Colorado State University

Intro: Disordered eating (loss-of-control and binge-eating) and overeating are common in adolescents with high body mass index (BMI). Daily mindfulness and negative affect may underlie these eating patterns, but there are limited tests of the associations between these variables among adolescents. This study provides the first investigation of both the intraindividual and interindividual relations among daily mindfulness, negative affect, disordered and overeating.

Method: Forty-five adolescents (77% female; Mage=14.4 years) with high weight (92% with BMI; $\text{kg/m}^2 \geq 85$ th percentile) provided daily reports of negative affect, mindfulness, disordered eating, and overeating (without loss-of-control) for up to 7 days. Multilevel mixed modeling was conducted to test within- and between-person same and next-day associations.

Results: There were both within- and between-person associations of higher mindfulness with lower negative affect the same and next day. There were also between-person associations of mindfulness with disordered eating, such that greater average mindfulness related to lower odds of loss-of-control (same day) and lower odds of loss-of-control and binge-eating (next day). Findings highlight that there are dynamic relations among mindfulness, negative affect and disordered eating in adolescents at risk for excess weight gain. Implications of this work will be discussed.

Delusional ideation and associated mental health outcomes in long-term meditation practitioners

Elizaveta Solomonova, Elizaveta Solomonova, Ian Gold, Jared Lindahl, David Cooper, Charlotte Little,
Willoughby Britton

McGill University

The relationship between intensive meditation practices and mental health is complex. In addition to numerous beneficial aspects of meditation, a growing body of research reveals multiple difficulties associated with meditation and mindfulness-based practices. Delusional ideation (DI) and transient psychotic experiences are common in the general population. While acute psychotic-like experiences have been documented in the context of meditation practices, the types, prevalence, and correlates of DI in meditators have not been systematically investigated.

In this talk, we discuss findings from the Varieties of Contemplative Experience (VCE) project, a mixed-methods investigation of meditation-related challenges in Western Buddhist meditators and meditation teachers. We present a taxonomy and relative prevalence of forms of DI reported by our participants, mental health correlates, outcomes and interventions. Our findings will offer some hypotheses for why DI can occur as a result of meditation practice and will draw upon current theories emphasizing how delusions are rooted in relational contexts of social and cultural life. Finally, we propose tentative guidelines for meditation practitioners and teachers aimed at raising awareness of the complexity of psychological responses to intensive meditation practices and at developing skillful methods of reacting to such challenges.

Can Mindfulness Training Support College Students' Stress Management, Mental Health, and Engagement?

Brian Galla, Paper 1: Blair T. Johnson, Rebecca L. Acabchuk, Elisabeth A. George, Emily A. Hennessy, William Nardi, Shufang Sun, Elena Salmoirago-Blotcher, Jodi Scharf, Eric B. Loucks

University of Pittsburgh

This symposium examines the role of mindfulness to support stress management, mental health, and academic engagement in college students. Paper 1 (Loucks et al.) is a systematic review of 56 RCTs of mindfulness interventions for college students. Mindfulness significantly outperformed active and inactive controls, with the most marked effects on anxiety, depression, and mindfulness, and among clinical populations. Paper 2 (Hirshberg et al.) reports on a multi-site, propensity-score matched trial of an academic and experiential course on human flourishing in mostly first-year college students. Course enrollment predicted significant improvements on a range of well-being skills, depression, and flourishing. Paper 3 (Galla et al.) reports on an RCT of a 5-day mindfulness intervention for undergraduates in introductory physics courses. Compared to no-training control, mindfulness training led to lower psychological threat, more adaptive appraisals of physics setbacks, and greater physics engagement, with some effects enduring three months post-training. Paper 4 (Sun et al.) reports on an RCT of a mindfulness-based mHealth intervention for young adult students with elevated anxiety and/or depressive symptoms during quarantine in China. Compared to support-based mHealth control, mindfulness had a superior effect on anxiety, as well as better feasibility and acceptability outcomes.

Why Wellness Retreats? Perspectives from retreat guests in different locations

Dhevaksha Naidoo, Dr Carolyn Ee, Dr Marc Cohen

NICM Health Research Institute, Western Sydney University

Lifestyle change and renewed wellbeing is a common goal of retreat guests in different locations around the world. This study thematically analysed 132 English free text responses to a cross-sectional survey. Retreat guests were recruited globally. Respondents resided in 19 countries and attended retreats in 14 countries, with the majority from Australia, United Kingdom, United States and Saint Lucia. The five major themes were: perceived positive impact on wellbeing, connection to people and place, retreat affordability and accessibility, meaningful experiences, and lifestyle change. The mechanisms for lifestyle change and the impact on wellbeing in a retreat setting are complex, diverse, and include impacts on physical, mental, and emotional wellness. There is a need for consideration of how retreat guests integrate techniques into daily life after the immersive retreat period. This includes influencing habit formation, behaviour change, and wellness routines. Many guests expressed a desire to return to the retreat to make time for themselves, revisit meaning and regain wellbeing but noted that the cost determined how often they could attend. Supporting guests to sustain practices in everyday life and with the commitments of work and family, through tools as well as financial incentives could see retreats provide more meaningful offerings and lasting benefits.

Supporting Graduate Students in Adapting Mindfulness Practice: A Single-Case Study

Marisa DeCollibus, Jennifer Frank, PhD

The Pennsylvania State University

Background: Graduate students face a myriad of stressors, including long work hours, experiences of harassment, living far from home, trouble with work-life balance, and caretaking responsibilities. Mindfulness is one way in which graduate students may find reprieve and resilience in the face of challenge. However, practice is only as effective as it is used post-intervention. Personal health trackers include biofeedback and self-monitoring properties that support positive behavior change. The current study aims to examine the use of personal health trackers (PHT) with graduate students as one method of supporting continued mindfulness practice.

Methods: A total of $n = 8$ graduate students were provided a 7-weeklong mindfulness intervention called Just Breathe. Of the total sample, $n = 6$ students were randomly selected to wear a PHT and engage in a Daily Diary protocol of mindfulness practice.

Results: Preliminary data analysis shows that all six participants decreased in positive responses to the question, “Did you practice mindfulness today?” during the period the PHT features were turned on.

Discussion: Although data analysis is in its early stages, the decrease in positive responses to mindfulness practice after PHT features were turned on may reflect issues in the study design, which often had a long period of baseline data collection.

Impacts of a Contemplative Class in a University Context

Matthew Kaharudin

UC Berkeley, UC Berkeley

Meditation has been shown to improve well-being—increasing prosociality, empathy, awe, and connection with nature. Given the climate crisis, widespread mental illness, and extreme inequality, finding ways to address these realities is immensely valuable. To this end, we developed and tested a peer-led university curriculum based on meditation, traditional wisdom, ecology, and neuroscience.

Our presentation will compare various outcomes between (a) students in the meditation class and (b) a control group of undergraduates in psychology courses. We will also present initial findings from longitudinal follow-ups, including details on mystical experiences.

In a preliminary study, mean positive persisting effects of students nearly doubled those of controls, while mystical experiences were bolstered remarkably. With reports of alleviated well-being, empathy and connection to nature, 70% of students found the course to be more significant than anything they had ever experienced. In tandem, the efficacy of facilitating gardening projects to promote ecological concern and connection will be assessed as well.

This research investigates the integration of traditional wisdom and science through contemplative, nature-based university education—in hopes of creating replicable processes for other institutions, and to contribute towards healthier, more sustainable and cooperative societies.

Healing Centered Classrooms

Neera Malhotra

Portland State University

This round table discussion opens space for educators to come together and discuss the impact of trauma-sensitive classrooms without romanticizing the experience of trauma. I teach a capstone class called Healing Trauma and Community. The class focus on somatic practices, interpersonal neurobiology, and Zen practices in learning about how trauma impacts our nervous system and how we can collectively co-create healing-centered spaces. Using the class curriculum, participants of this round table discussion session would be invited to discuss how educators can create healing-centered spaces within academia.

Impact of Mindfulness Practices on Compassion in College Students

Ranjeeta Basu

California State University, San Marcos

This paper focuses on whether mindfulness practices can help increase the capacity for compassion among students. According to Geshe Thupten Jinpa, Tibetan Buddhist monk, compassion has a cognitive, an affective and a motivational aspect to it. Compassionate action requires that we are aware of someone else's distress. Mindfulness practices helps us bring awareness to each other. The second step requires that we are able to turn towards the suffering rather than turning away from it. Mindfulness practices help us to be with suffering. The third step requires that we are able to put ourselves in someone else's shoes. Loving kindness practices help us open our hearts and our minds to the suffering of others. Finally, it requires the wisdom to know how to alleviate the suffering and act on it.

In fall 2020 I conducted a study of the impact of mindfulness practices on compassion in the context of a course focused on social justice issues. One group of students received the contemplative pedagogy, but the other group did not. Contemplative pedagogy included guiding students through a 5-minute breath meditation, loving kindness practices and mindful listening activities throughout the semester. Compassionate behavior was measured in the context of a real-world person to person scenario. In the session we will experience these practices, discuss the findings of the study.

Implementing Mindfulness in Schools: Evaluation of the Mindfulness Director Model

Rebecca Acabchuk, Savannah L. Ngo, Saniya C. Lakhiani, Julia R. Ozimek, Roman Palitsky, and Blair T. Johnson

RoundGlass; University of Connecticut

Many schools are adding mindfulness into the school culture and curriculum to address concerns of mental health. To identify factors that facilitate the safe and effective use of mindfulness in schools, this study evaluates the Mindfulness Director Model, wherein mindfulness programs are developed and delivered through an on-site Mindfulness Director. This study evaluates five diverse sites (four schools and one university community) that used this model in 2020-2021. Using qualitative semi-structured interviews (N=8) with open-ended questions, interviewees included four first-year mindfulness directors, one fifth-year mindfulness director, and three school stakeholders (Manager of School Culture and Climate, Principal, and Director of Wellness Center). Six themes were identified throughout the interviews: 1) mindfulness directors emphasize soft leadership skills, 2) school stakeholders emphasize directorship skills, 3) establishing trust and building relationships are key initial steps, 4) it is important to define mindfulness with cultural sensitivity, 5) trial and error allows freedom to build responsive programs and engagement, and 6) assessments, trauma-informed practices, and safety monitoring are critical yet challenging. This study highlights important considerations for schools looking to implement school-wide mindfulness programs successfully.

Cultivating mindfulness and compassion in educational environments: real-world applications

Sebrina L. Doyle Fosco, Ms. Helen Min, Dr. Tyralynn Frazier, Dr. Deborah Schussler, Dr. Patricia Jennings

Penn State University

The COVID19 pandemic has shown a spotlight on the difficulties in public education; supporting social and emotional competence and wellbeing for all within these systems has become a focal point. This symposium will focus on real-world use of mindfulness and compassion-based programs to support students, teachers, and educational leaders. First, “Fidelity of a district-wide implementation of the Cultivating Awareness and Resilience in Education (CARE) program,” will report on program adherence and facilitation quality from a virtual implementation of CARE with Illinois teachers and administrators. Second, “Acceptability and usefulness of a mindfulness-based professional development program for educational leaders,” will focus on personal and social acceptability and use of practices by Pennsylvania school and district administrators after participation in CARE. Third, “The preliminary impact of compassion-based training on the well-being of teachers,” will present data on program feasibility and impact of Cognitively-Based Compassion Training with educators. Finally, “Content analysis of core components of school-based mindfulness programs,” will compare and contrast skills and practices taught across 12 widely available student-focused programs. We will also foster a wider discussion about the benefits and challenges of administering these programs in public education.

Introducing Contemplative Practices at undergraduate level in India

Shyamolima Ghosh Choudhury

Gargi College, University of Delhi

The article would begin with a brief history of contemplative practices in Indian culture, and then offer a critical reflection on some of the challenges faced in introducing an undergraduate Psychology paper by the same name in the University of Delhi. India's colonial history, a search for a 'scientific' Psychology and a disavowal of cultural elements in the professionalization of Psychology would be discussed. Next, the article would discuss some of the theoretical underpinnings of the newly introduced program, and the practical challenges faced in transacting this course in large classes. The lived experiences of teachers as well as of students would be discussed especially with respect to two foci of the paper - indigenous contemplative traditions and Western psychological contemplative traditions. Issues related to appropriation, commodification and scientification of contemplative practices would be discussed in the light of classroom experiences teaching the newly introduced (2022) undergraduate course on contemplative practices.

“I just paid attention”: The Academic Impact of Wide-Awakeness & Mindfulness in Higher Education

Sarah Montgomery

University of Northern Iowa

Educational philosopher Maxine Greene (1978) called for the need to wake up or cultivate “wide-awakeness,” a way of paying attention and being fully present to oneself and the world. Wide-awakeness involves a deep awareness of one’s experiences, recognizing that alternatives exist, and the agency to make changes personally and collectively. Mindfulness, or cultivating present moment awareness, is one way we can support students developing wide-awakeness. While scholarship is emerging on the impact of teaching mindfulness in higher education, limited research exists on how these practices directly support student academic learning. This presentation will focus on qualitative findings from teaching mindfulness practices in a year-long cohort of courses for Teacher Education majors and a year-long weekly mindfulness group open to students of all majors. Students in these groups shared that learning mindfulness practices supported them with their ability to focus on their learning, breaking tasks into smaller steps, managing stress, and reducing test anxiety. The voices and experiences of the students, including students of color in STEM majors and students from the LGBTQIA community, will be highlighted. The presentation will support attendees considering how promoting wide-awakeness via mindfulness practices can reduce barriers and fuel student academic excellence.

Uncovering Testimonios of Traditional Healing Practices Among Latinx Students in el Nuevo Sur

Sarah Nuñez

University Of Louisville

Latinx college students in el Nuevo Sur face many barriers to their educational success. Latinx students are living in a part of the country where few opportunities to embrace their cultures are present or centered in educational settings. Reclaiming and remembering their cultures within the higher education setting could act as a catalyst for their success and is the motivation for this dissertation research. This session will present the findings of research for five to ten participants. Through the unfolding of the students' testimonios, I hope to uncover and help students to rediscover healing practices as a tool for their success in college and beyond. Through this project, I intend to embark on a journey with the testimonialista to discover when healing began for them, where they learned healing practices, how they define and experience their healing, and how higher education has played a role. Using the lenses of Latinx critical race theory, traditional healing practices, Latino identity development and orientations, and community cultural wealth and situating my own lived experiences in the research, this project plans to uncover the healing practices of Latinx college students in el Nuevo Sur.

Tibetan Motivation Meditation: A Pilot Study Examining Motivational Mechanisms

Jacob Lindsley, Dr. John Edwards, Kate Gallagher, Joe Slade

Oregon State University

Background: Tibetan Buddhist literature describes many different meditation practices, each aimed at different cognitive or affective outcomes. We adapted one such meditation from the Lam Rim "Stages of the Path" literature called "Leisure and Fortune". In its own context the meditation is meant to develop spiritual motivation. Psychological motivation theories suggest possible mechanisms by which this meditation might influence people's contemplative practice.

Methods: An 8-week pilot RCT was run to examine changes in various aspects of motivation and/or meditation behavior. We used a 2 (pre vs. post measures) x2 (meditation: motivation + mindfulness vs. mindfulness alone) mixed design. Participants received one 90m Zoom training session per week. Pre and Post measures were collected and weekly meditation behavior was assessed.

Results: Preliminary results indicate that there were significant improvements in self-efficacy, self-esteem, and trait mindfulness, as well as a decrease in self-reported depressive symptoms for both groups. We also found that trait conscientiousness significantly predicted perceived utility value of the meditation.

Discussion: While no unique intervention effects were detected, the results indicated that personality influenced meditation-relevant motivational variables.

Common and Uncommon Methods of Inquiry in the Nalanda Contemplative Science Tradition

Joe Loizzo

Nalanda Institute for Contemplative Science and Weill Cornell Medical College

Western science seeks objective knowledge through impersonal methods that minimize the human element, relying on physical measures and quantitative analysis; Buddhist science seeks objective knowledge through contemplative methods that optimize the human element by training introspection and self-regulation to remove biases and reactive emotions which limit the reliability of first-person observation and by qualitative analysis. Two contemplative methods are compared to complement mainstream research.

The dualistic method involves the non-falsification of inferential predictions by an expert practitioner's unmediated perception of things-in-themselves, retrospectively analyzed logically and tested empirically for causal efficacy. The non-dualistic method trains unmediated perception through a translucent intuition accessed as the state-specific property of an extremely subtle, non-dual field of consciousness indivisible from the neurochemistry of flow states.

The latter method has 4 strengths: an interoceptive model of the CNS that maps access to non-dual flow states; a more rigorous system of training; a methodology of confidential mentoring for intersubjective validation; a rigorous hermeneutic to tailor training to individuals.

Both methods enrich conventional research while helping make findings accessible from the first-person perspective of interoceptive inquiry.

Infusing the Spirit: Classical and Modern Ideas of Ideal Mental Health in India

Kriti Gupta, Dr Jyotsna Agrawal

O.P. Jindal Global University

In recent years, mental health has been widely accepted as a holistic state of physical, mental, social and spiritual well-being. However, this modern operationalization has been criticized for emphasizing egotistical and sense-based happiness. Hence, many contemporary mental health professionals have approached indigenous ideas of mental health to gain novel insight into this issue. The current study aimed to uncover and document the meanings of ideal mental health as reported in selected classical texts of Indian psychology, along with its lay conceptions among community-dwelling adults. For this, a cross-sectional, mixed-method exploratory study on 240 urban adults from North India (136 males;104 females; mean age = 38.17 years) was conducted using a semi-structured questionnaire, and their responses were thematically analyzed.

Furthermore, two classical Indian texts, Bhagavadgita and Patanjali's Yogasutras, were studied using content analysis. As per classical Indian thought, the ideal mental state primarily reflects steady wisdom and a peaceful and focused mind. Thematic analysis revealed six broad categories ranging from possessing positive behavioural and cognitive functioning to considering it as an unrealistic state. Overall, findings suggest a similarity between the traditional and contemporary understanding of ideal mental health with some differences.

Race and ethnicity moderate the associations between lifetime psilocybin use and crime arrests

Grant Jones, Taylor C. McGuire, B.S. [1], Franchesca Castro-Ramirez, M.A. [1], Maha Al-Suwaidi, B.A. [2], Patrick Mair, Ph.D. [1], Matthew K. Nock, Ph.D. [1]

Harvard University [1], University of California, Los Angeles [2]

Psilocybin use has been linked to lowered odds of crime-related outcomes across a host of observational studies. However, despite evidence supporting the link between psilocybin use and lowered odds of crime, no studies have investigated how race and ethnicity might impact these associations. Using a nationally-representative sample of 214,505 adults from the National Survey on Drug Use and Health (2015-2019), we investigated whether race and ethnicity moderate the associations between lifetime psilocybin use and three composite measures of crime arrests (property crime, assault, and miscellaneous crimes). Overall, race and ethnicity moderated the associations between lifetime psilocybin use and crime arrests for all three outcomes in question. Furthermore, for White participants, psilocybin use was linked to lowered odds of miscellaneous crimes (aOR: 0.78); however, for Non-Hispanic racial and ethnic minorities, psilocybin use was linked to lowered odds of property crime (aOR: 0.18) and miscellaneous crimes (aOR: 0.49) and was marginally associated with lowered odds of assault (aOR: 0.54 ; $p=0.065$). Future investigations should take an intersectional approach to studying the interrelationship of sociodemographic factors, psychedelic use, and crime and examine the structural factors (i.e. systemic racism) that may underlie our results.

Collective Healing in Nature

Luis Gallardo

World Happiness Foundation

During this session, I'll showcase how group therapy and healing can transform individual and group trauma. The presentation will be based on my work at No Barriers with people with disabilities and their communities, including caregivers.

Spiritual Emergence: Policy, Medical Ethics, and the Law

Mariam J. Saleh, Esq.

Emergence Benefactors

This presentation explores the intersection of emergence with ethics, policy, and law from an ontologically neutral perspective.

The range of phenomena commonly referred to as emergence have existed throughout history, but are increasing in frequency due to a rise in popularity and encouragement toward what are known as emergent practices: meditation; yoga; electronically-enhanced activities; use of psychedelics, etc.

While these practices are routinely advertised as lacking adverse effects, numerous sources describe a range of undesirable, destabilizing, and life-threatening experiences. These effects may mimic psychoses or other psychiatric disorders, resulting in improper treatment.

Due to a lack of understanding/incorporation of emergence into western culture, law, and the medical paradigm, difficult emergent experiences create great risk for involuntary commitment, forced medication, social rejection, impaired functioning, etc.

The emergence phenomenon therefore begs examination of its intersection with the fields of ethics, policy, and law. This session will discuss:

- Emergence history, psychiatric diagnostics/care, and medical ethics;
- Flaws in the current medical paradigm;
- Violation of rights of those experiencing emergence, including constitutional limits on involuntary commitment/forced drugging; and
- Potential resolutions for this multifaceted problem.

Emergent Phenomenology Research Consortium

Mariam J. Saleh, Esq., Daniel M. Ingram, MD, MSPH

Emergence Benefactors

This poster introduces the mission and work of the Emergent Phenomenology Research Consortium (EPRC).

The EPRC is a multidisciplinary, multinational alliance of researchers, clinicians, and patrons who share a vision of bringing scientific methods and clinical sensibilities to the rigorous, ethical, ontologically-agnostic study and incorporation of emergent phenomena.

While emergent practices (meditation, psychedelics, yoga, prayer, etc) are routinely advertised as having no adverse effects, numerous sources describe a range of effects, many of which are undesirable, destabilizing, and life-threatening. Phenomena may also mimic psychoses or other psychiatric disorders, resulting in improper treatment.

The current state of mainstream clinical knowledge of the diagnosis/management of emergent phenomena is poor at best and sometimes counterproductive when it exists at all. Leading textbooks of emergency medicine/psychiatry do not mention emergent phenomena at all. There are no diagnostic codes in The DSM-5, ICD-10/11, or similar guides in other cultures that reflect the wide range of challenging phenomena. Thus, there are no mainstream standards of care, no trials comparing management strategies, no standard diagnostic criteria/protocols, and no ways to track incidence, prevalence, and impact of emergent phenomena on patients, practitioners, healthcare systems, and societies.

Functional MRI brain mechanisms of focused attention meditation - current state and future scope

Saampras Ganesan, "Emillie Beyer; Bradford Moffat; Nicholas T Van Dam; Valentina Lorenzetti; Andrew Zalesky

Meditation trains the mind to focus attention towards an object or experience. Among different meditation techniques, focused attention meditation is considered foundational for more advanced practices. Presently, there is no unified neurocognitive model of focused attention meditation developed via quantitative synthesis of contemporary literature. Hence, we performed a quantitative systematic review and meta-analysis of all functional MRI studies examining focused attention meditation. Following PRISMA guidelines, 28 studies (721 participants) were included, and 10 studies (200 participants) were also amenable to an objective meta-analysis. We found that regions comprising three key functional brain networks i.e., Default-mode, Salience, and Executive Control, were consistently implicated in focused attention meditation. Furthermore, meditation expertise, mindfulness levels and attentional skills were found to significantly influence the magnitude, but not regional extent, of activity and functional coupling in these networks. Aggregating all evidence, we present a unified neurocognitive brain-network model of focused attention meditation. We also invite collaborations for the first large-scale international repository of meditation neuroimaging data, that would facilitate comprehensive analyses and robust conclusions regarding the brain mechanisms underpinning meditation.

Heart-centered, Interoceptive, Compassion-based Intervention: Past, Present, and Future

Eunmi Kim*, Zev Schuman-Olivier, Baekho Kim, Wynn Thein, Misan W.D. Kim (* Corresponding author)

Korea Advanced Institute of Science and Technology(KAIST).

In developing behavioral interventions, the National Institutes of Health (NIH) encourages the use of the NIH Stage Model, characterized as an iterative, recursive, multidirectional model. Heart-smile training (HST), formulated according to the NIH Stage Model, is an interoceptive compassion-based program. Practices include heart-centered, compassionate body scans, and sound and movement meditation. However, evidence on the efficacy of HST remains unclear. This proof-of-concept Stage 1 study adopted a qualitative approach to compare the effects between the three-day and eight-week HST programs. Feedback from three depressive participants was collected using nine qualitative questions from the HST program. Two participants were in the three-day HST, and one was in the eight-week HST. The two HST protocols had similar effects on the participants – several common, as well as different keywords, appeared in their feedback. After transcribing the feedback, the study conducted a qualitative analysis using NVivo. The results showed that both program protocols had the keywords of “training,” “heart,” “smile,” and “meditation.” Compared with those from the three-day HST, the participant from the eight-week HST used the keywords “sound,” “movement,” “permeation,” “laying,” “feeling,” “peaceful,” “warmth,” “people,” “experience,” “thankful,” and “love.” HST may be feasible for people with depression, to promote compassion, kindness, and love in their behavior towards themselves and others in their daily lives. This pilot study is limited as HST is a newly introduced behavioral program in the Republic of Korea. Further investigation using electrophysiological measures to assess the effects of HST in a pilot randomized controlled trial is needed.

Mind-Body Practices and Super Intelligent Systems' Competencies in Young Children: An EEG study

Pooja Sahni, Dr. Jyoti Kumar, Dr. Kimberly A. Schonert-Reichl

Indian Institute of Technology Delhi

Eastern mind body practices that are culturally rich are believed to act as enhancement tools for cognitive as well as social -emotional competencies. The present study design is based on the idea of transformation of typically developing cognitive capacities into 'super-intelligent systems' competencies encompassing 'whole brain (child) development'. A special cohort (n=112) of young children aged 5-7 years, that are a part of the SantSu(Perman) Evolutionary Scheme of Dayalbagh (n=59) and an age-matched cohort (n=53) of non-scheme children participated in the study. The aim was to study the impact of the scheme-related physical, mental and spiritual training on the cognitive, emotional, and social competencies of the cohort. A 64-channel electroencephalography (EEG) was used to record the neural responses while each child was administered age-adapted game based experimental tasks. In the talk, authors will present insights from the behavioral as well as neurophysiological data analysis from three different experimental tasks that were administered- i) flanker task- to examine cognitive functions, ii) empathy paradigm- to examine emotional competencies and iii) story-based game theory paradigms - to assess the social aspects. We will also highlight the distinctive innovative pedagogical elements of the evolutionary scheme and the proposed theory of change framework.

MBCT: An Examination of the (Event-Related) Potential for Modifying Attentional Bias in Anxiety

Resh Gupta, Autumn Kujawa, David M. Fresco, Hakmook Kang, David R. Vago

Mindfulness-based cognitive therapy (MBCT) can reduce anxiety and depression symptoms in adults with anxiety disorders, and changes in threat-related attentional bias may be a key mechanism driving the intervention's effects on anxiety symptoms. Event-related potentials (ERPs) can illuminate the physiological mechanism through which MBCT targets threat bias and reduces symptoms of anxiety. This preliminary study examined whether P1 ERP threat-related attentional bias markers in anxious adults change from pre- to post-MBCT delivered in-person or virtually (via Zoom) and investigated the relationship between P1 threat-related attentional bias markers and treatment response.

Taming the Wandering Mind: Where Buddhism and Polyvagal Theory Meet

Tamara Embrey

Lesley University

The ability to tame the wandering mind is at the heart of the insights emerging from the places where Buddhism and the Polyvagal Theory (Porges, 2001, 2011) meet. A polyvagal understanding of how our nervous system functions opens the door to developing skills that can strengthen our ability to regulate ourselves and others during times of challenge. The Buddha's meditation instructions, laid out in the Satipaṭṭhāna Sutta, the Establishment of Mindfulness Discourse offers a type of attentional training that allows us to become aware of our current neural state so that we can make intentional choices to tame our wandering mind. Research shows that this ability to govern our current neural state provides greater psychological and physiological flexibility and tolerance and is associated with benefits ranging from cardiopulmonary fitness and immune function to psychological health and improved executive functioning (Gerritsen & Band, 2018; Poli et al., 2021). While the polyvagal theory offers a neurobehavioral understanding of how and why our minds wander, Buddhism gives us the insights and practices to keep our minds from wandering on. This reduces suffering for ourselves, our communities, and the world.

Keywords: mindfulness, Buddhism, polyvagal theory, Satipaṭṭhāna Sutta, evolution

Effects of Brief Compassion Training on Physiological Stress Reactivity

Emily Helminen, Jillian Scheer

Syracuse University

Background: Excessive stress reactivity is associated with poor mental and physical health outcomes. Compassion-based interventions have demonstrated the ability buffer against physiological stress reactivity, but little is known about the effectiveness of brief, single-session compassion training.

Methods: This study recruited young adults ($n = 50$), who were cluster randomized to participate in one of two possible brief (40 min), group-based interventions: (1) compassion training, or (2) a cognitive reappraisal training control group. After the intervention, participants underwent the Trier Social Stress Test for Groups. State compassion for others, state self-compassion, systolic blood pressure (SBP), diastolic blood pressure (DBP), and heart rate were measured before and after the intervention. Physiological variables were also measured during the stress test. Linear mixed models were used to examine both immediate intervention effects and stress-buffering effects.

Results: Compared to the control group, the brief compassion intervention demonstrated pre- to post-intervention increases in state compassion for others and decreases in SBP, along with reduced DBP reactivity to the stress test.

Discussion: Brief compassion training for young adults may be an important avenue to target stress reactivity to reduce and/or prevent mental and physical health concerns.

The Impact of Mindfulness Meditation on Stress-Eating: A Longitudinal Neuroimaging Study

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Background: Frequently engaging in stress-related overeating behavior can lead to weight gain and a heightened BMI, which can in turn, increase the risk of metabolic and cardiovascular diseases. Mindfulness training could serve as an intervention strategy for stress-eating behaviors through its ability to regulate emotions, decrease sensitivity to stress, and increase body awareness. Mindfulness training could thereby effectively help individuals develop a healthier relationship with food.

Methods: To investigate whether mindfulness can serve as an intervention strategy for stress-eating behaviors, a longitudinal experiment was conducted. Participants were either placed into a food-related mindfulness condition or an active control condition. Behavioral and neuroimaging data were acquired prior-to and upon completing the mindfulness training.

Results: Participants in the mindfulness condition not only exhibited a decrease in stress and emotional eating tendencies, but also reported feeling more mindful in their daily life. These behavioral changes were reflected in changes on the neuronal level namely in brain regions that have been previously attributed to controlling feelings of hunger and satiety.

Discussion: This study was able to demonstrate that mindfulness training can effectively reduce stress-eating behaviors and could be considered to be applied therapeutically.

Mindfulness Training for Older Adults During the COVID-19 Pandemic: A Randomized Control Trial

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The COVID-19 pandemic drastically accelerated the need for studies examining the effectiveness of intervention programs aiming to bolster psychological health and well-being, particularly for at-risk groups, such as older adults (OAs). Mindfulness Training (MT) has been suggested as a well-suited program for this purpose. Yet, MT for OAs has been an understudied area of research. The present study examined the impact of a 4-week online MT course tailored for OAs during the early months of the COVID-19 pandemic. Fifty-three OAs were randomly assigned to one of two groups (Groups A and B) who received MT between two out of the three testing sessions (T1, T2, T3). Group A received MT during the 4-week interval between T1 and T2, while Group B received MT between T2 and T3. The testing sessions included measures of mindfulness, emotional well-being, psychological health, and cognitive performance. Statistical analyses examined the change over time (from T1 to T2 and T2 to T3) for the two groups using an intent-to-treat approach. The results suggest that MT may improve some, albeit not all, aspects of mindfulness and well-being, but no significant results were noted for measures of psychological health and cognitive performance. This study provides evidence for the benefits of a short-form online MT program when offered to OAs during challenging times.

Mindfulness Task Analysis: An Innovative Mindfulness Assessment Tool for Contextualizing MBIs

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Mindfulness task analysis (MTA) is a nuanced modification to traditional cognitive task analysis (CTA) methods that assess how mindfulness may affect cognitive performance, judgment, and critical decision-making. The MTA integrates the Critical Decision Method (CDM) and Knowledge Audit (KA) to capture, categorize, and represent elements of “mindfulness” during critical decision making.

The CDM uses in-depth structured interviewing techniques and probing questions to elicit a reflective thought process from seasoned professionals about their cognitive decision making and the context in which a critical decision was performed. The KA elicits aspects of cognitive performance that characterize expertise. By integrating mindfulness-relevant probes into these techniques, MTA explores how core elements of mindfulness influence thoughts, judgments, behaviors, and actions leading up to and following critical decisions.

The MTA tool is currently being pilot tested with safety leaders in U.S. railroad operations. Findings will be presented to show how emotional intelligence resonates during critical decision making, revealing opportunities for contextualizing mindfulness-based interventions (MBI) in organizational contexts. To our knowledge this is the first attempt to utilize well-developed CTA tools to inform the design and implementation of MBIs.

How do dispositional mindfulness and self-compassion alleviate loneliness?

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Background: Loneliness is detrimental to health. Previous studies have suggested that mindfulness and self-compassion could alleviate loneliness, but the mechanisms are largely unknown. The current cross-sectional study investigated whether rejection sensitivity played a mediating role in the associations between dispositional mindfulness and self-compassion with loneliness.

Methods: Two hundred and seventy-five Canadian adults were recruited from social media platforms and filled out questionnaires measuring dispositional mindfulness, self-compassion, rejection sensitivity, and loneliness.

Results: Both dispositional mindfulness and self-compassion were significantly and negatively associated with rejection sensitivity and loneliness. Rejection sensitivity had a significant and positive relationship with loneliness. Moreover, rejection sensitivity significantly mediated the associations between dispositional mindfulness and self-compassion with loneliness.

Discussion: The results suggest that rejection sensitivity can explain the relationship mindfulness and self-compassion have with loneliness. This study provides a new perspective for understanding how and why mindfulness and self-compassion could alleviate loneliness. It also suggests that the impact mindfulness and self-compassion training have on loneliness may be maximized by focusing on rejection sensitivity.

Spirit Medicine beyond Mind Medicine: Indigenous Ethics to guide Western Psychedelic Research

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It is well known that Indigenous traditional medicine gave origin to the Western scientific research on psychedelics. The current study and application of these medicines is transforming alternative approaches to mental health. However, a notable risk in this cultural development is the exclusion of the voices of the Indigenous traditions from which these medicines originate, and the participation of these communities in the benefits rising from this research, thus perpetuating practices of extraction, appropriation, commercialization, and commodification of the tangible and intangible heritage of Indigenous Peoples worldwide. Moreover, a lack of judicial frameworks to protect Indigenous traditional medicine at the local, national, regional, and international levels, has devastating effects on Indigenous Peoples. More worrisome is that the benefits of Western psychedelic research do not return to these communities of origin. Moved by this problematic context, I brought together an Indigenous group of practitioners, activists, scholars, lawyers, and human rights defenders to establish Indigenous-based guidelines and recommendations on the ethical use of the heritage of Indigenous traditional medicine to guide Western psychedelic research. These are our insights.

Mindfulness-Based Risk Reduction® (MBRR®): An Integrative Approach to Industrial Safety

Michael Coplen, Michael Carroll

TrueSafety Evaluation, LLC

Successfully managing workplace risk is one of the largest costs to global business at \$3 trillion dollars or more. Mindfulness as a safety discipline is increasingly being applied in training leaders and employees, in managing risk and preventing the very causes that put safety at risk.

While rigorous research on organizational outcomes from mindfulness training is lacking, numerous studies provide substantial evidence that mindfulness training can improve safety. For individuals, mindfulness training clearly improves cognitive function, emotional well-being, and overall health, which can lead to improved safety. For organizations, mindfulness training can improve communications, working memory and sustained attention, which can lead to a collective mindfulness and overall improvements in organizational safety.

MBRR® integrates mindfulness-based training, practices, principles, and values to systematically reduce the exposure, frequency, and severity of harm in organizations. This session will highlight the mechanisms, measures, and overarching theory of change for mindfulness-based safety, connecting facets of mindfulness to individual and organizational safety. Audience feedback to this model framework is encouraged. Presenters are also looking for collaborators for pilot testing, measuring, and validating core elements of the MBRRSM framework in industrial operations.

The COVID-19 and Racial Discrimination Syndemic: the Protective Role of Mindfulness Among BIPOC

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The COVID-19 and systemic racism syndemic have negatively impacted families across the globe and have highlighted disparities in the health and well-being in Black, Indigenous, and People of Color (BIPOC) across the United States. Preliminary research on racially diverse samples has found that dispositional mindfulness (DM) may be a protective factor against the deleterious mental health symptoms arising from COVID-19 related stress and exposure to racial discrimination. The current study aimed to identify the relative and synergistic impact of perceived racial discrimination (PRD) and COVID-19 stress exposure on anxiety and depression among BIPOC adults (n = 170) and to test whether DM was a protective factor in the relationship between stress exposure and these mental health outcomes. Hierarchical multiple regression analyses indicated that COVID-19 stress and PRD contribute to anxiety and depression symptomology in BIPOC adults, and they interact, such that heightened PRD enhances the impact of COVID-19 stress on anxiety, but not depression. DM was found to be a protective factor in the context of COVID-19 but not PRD on mental health outcomes. Taken together, although DM may be protective in certain contexts (such as COVID-19 stress), it may not provide a buffer against other socio-cultural stressors unique to BIPOC communities.