

WC2022 Symposium Details

Thursday, June 16 (all times PDT)

9. Basic & applied research examining psychological flexibility: Process-based, transdiagnostic & prosocial approaches: Hawai'i Chapter Sponsored

Symposium (10:30 AM - 12:00 PM)

Components: *Conceptual analysis, Literature review, Original data*

Categories: Processes of change, Clinical intervention development or outcomes, Experiential avoidance

Target Audience: *Intermediate*

Location: Yosemite A

Chair: Anastasia Keller-Collins, Ph.D., BCBA-D, LBA, CTRS, BAYADA

Discussant: Michael Levin, Ph.D., Utah State University

Kyra Katte, M.A., Western Michigan University

Samuel Spencer, M.A., University of Hawaii, Manoa

Kati Lear, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Meredith Tittler, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Fabián Olaz, Ph.D., National University of Córdoba

Discoveries from basic research inform applied research, and vice versa. It is only through the dynamic integration of both that we can hope to advance the field and work towards fostering prosocial change in our world (Hayes et al., 2021). This symposium includes five studies, united within a process-based, transdiagnostic framework (Hayes & Hofmann, 2018), and will highlight empirical findings from intervention outcome and analog studies. Presenters in the current symposium will present findings from longitudinal research that examined the efficacy of brief transdiagnostic interventions (e.g., ACT, FAP) in alleviating human suffering for both individuals and romantic couples facing the hardships of COVID-19. The influences of experiential avoidance on emotional expression in response to experimentally-manipulated video stimuli and in daily diaries will also be explored and related to psychological flexibility. The research questions are approached through experimental, longitudinal, and survey studies, including participants from at least four states and two countries. Impacts of these findings and areas for further study will be discussed.

- **Inflexible self-criticism as shame-avoidance in social anxiety: Results from a daily diary study**
Kati Lear, Portland Psychotherapy Clinic, Research, & Training Center
Sarah M. Smith, Portland Psychotherapy Clinic, Research, & Training Center
Ben Shahar, Portland Psychotherapy Clinic, Research, & Training Center
Jason B. Luoma, Portland Psychotherapy Clinic, Research, & Training Center

Self-critical post-event processing has been robustly associated with the maintenance of social anxiety disorder (SAD). Theories of SAD have asserted that shame is the core emotion in SAD and that self-criticism serves as an experientially avoidant function by reducing current feelings of shame and preventing future shame by reducing the likelihood the person will take future social risks (Lazarus & Shahar, 2018). This study extends a previously published daily-diary study (Lazarus & Shahar, 2018) which reported that inflexible self-criticism was associated with shame in socially anxious participants following social interactions. Data have been collected on 170 U.S. participants recruited from Amazon MTurk across 14 days. Participants completed a measure of social anxiety severity at baseline and evening assessments each day reporting on one stressful social interaction and subsequent self-criticism. This paper reports the results of pre-registered hypotheses (<https://osf.io/37vp9/>), for example, that between-subjects social anxiety severity will moderate the relation between within-subjects shame and self-criticism and that, specifically, higher social anxiety will be associated with increased self-criticism across levels of shame reported.

- **Experiential avoidance among high self-critics: the role of expressive suppression in response to positive-emotion eliciting stimuli**
Meredith V. Tittler, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center
M. Kati Lear, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center
Christina, Chwyl, B.A., Portland Psychotherapy Clinic, Research, & Training Center
Jason B. Luoma, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center, 3700 N. Williams St., Portland, OR 97227

Reduced expression of positive emotions has been proposed as one mechanism to explain the link between self-criticism and low social belonging (Luoma & Chwyl, 2020). In this study, we examine the way in which high self-critics (HSC) use expressive suppression (ES) as an emotion regulation strategy in response to two videos meant to elicit the pro-social emotions of compassion and inspiration. Participants (N = 303) were recruited from the community and came to the lab to watch two videos and complete related questionnaires. Results partially supported hypotheses showing that self-criticism predicted more negative emotions in response to both videos and also moderated the relationship between video condition and shame. Contrary to hypotheses, HSCs showed high levels of shame across both conditions, while low self-critics (LSCs) showed a variable response of higher shame in the compassion video and low shame in the inspiration condition. Mediation results indicated that the increase in negative emotions experienced by HSCs explained their increased use of ES suggesting their use of ES may serve the purpose of hiding socially incongruent emotions.

- Acceptance and commitment therapy for transdiagnostic mental health concerns: Examining experiential avoidance and engaged living as processes of change

Samuel D. Spencer, University of Hawai'i at Mānoa
Arleen Firoozan, University of Hawai'i at Mānoa
Monet Meyer, University of Hawai'i at Mānoa
Akihiko Masuda, University of Hawai'i at Mānoa

Acceptance and commitment therapy (ACT) is conceptualized as a process-based, transdiagnostic approach to treatment that seeks to increase values-based, adaptive functioning (i.e., engaged living [EL]) and attenuate psychopathological repertoires of experiential avoidance (EA). The present study utilized a multiple baseline design across participants to examine the process of change and outcome of a 10-week course of ACT focusing on EA and EL. Participants included a university-based sample of two women and one man (ages 18-27) with transdiagnostic mental health concerns associated with elevated EA. Variables of interest included daily self-monitored clinically relevant behavioral excesses and deficits; daily and weekly measures of EL and EA; and pre-, mid-, post-treatment, and 3-month follow-up measures of nomothetic outcome variables. Cross-lagged correlation analyses also examined whether changes in EL and EA (processes) preceded changes in clinically relevant target behaviors (outcomes). Data collection is currently ongoing— however, preliminary results indicate tentative support for the efficacy of the ACT intervention on measured variables. Results will be discussed in the context of process-based therapy and the use of intensive time series methodology.

- Helping Couples to Connect during the COVID-19 Crisis: An Intervention Based on the ACL (Awareness, Courage and Love) Model of FAP (Functional Analytical Psychotherapy)- A Replication Study

Fabián O. Olaz, University of Cordoba
María Roberta Bañuelos, University of Cordoba
Julia Molfino, University of Cordoba
Mavis Tsai, University of Washington

This study evaluated the effectiveness of a one-session online psychological intervention based on the Awareness, Courage, and Love (ACL) Model from Functional Analytic Psychotherapy (FAP) to promote closeness and intimacy between couples during the pandemic. The study is a replication study of the research carried out by Tsai et al (2020) of Participants: 17 dyads (couples) from Argentina, adults (18+ years old) who were in a situation of social distancing during the COVID-19 crisis, and who lived together with their partner (boyfriend/girlfriend, husband/wife, concubine) Method: couples were randomly assigned into either the intervention or control group for a single 2-hour online group session. The ACL intervention protocol was designed by Mavis Tsai to increase closeness between couples whereas control group members watched a movie. Previous to the first session both groups responded to two instruments that assessed the couple's relationship. Generalized Estimation Equations (GEE) were used to compare the change scores over time between the groups. Results: The results support the proposed hypothesis. As expected, the experimental group obtained a higher score in the VDs, and the differences with respect to the control group were maintained at one week of follow-up. We conclude that this preliminary findings support the efficacy and utility of short interventions focused on Interpersonal Processes to prevent stress and other risk factors in situations of social isolation

- Enhancing Young Relationships in Under an Hour: The Impact of the Fast Friends Procedure with New College Dating Couples

Kyra Katte, M.A., Western Michigan University
Amy Naugle, Ph.D., Western Michigan University
Geraldine Granados Todd, B.S., Western Michigan University

The present research investigated relationship enhancement following a brief self-disclosure task (i.e., the Fast Friends Procedure) and factors related to changes in relationship outcomes from pre- to post task. Thirty-three undergraduate couples dating for less than six months asked and answered questions that required increasingly higher levels of self-disclosure for 45 minutes via a virtual format. Relationship satisfaction, closeness, and emotional intimacy all increased from pre to post task with emotional intimacy demonstrating the largest effect. Improved relationship outcomes were associated with greater self-disclosure, lower trait and state experiential avoidance, and learning more about one's partner. Ideas for further enhancing relationship outcomes and suggestions for future research are discussed.

Educational Objectives:

1. Identify mechanisms of change in process-based therapy for individuals and couples.
2. Describe at least two methods to studying self-criticism in a laboratory setting.
3. Articulate how basic and applied research serve to alleviate human suffering.

12. New Directions and Strategies in ACT for Physical Health: Treating Chronic Conditions with Flexibility and Care

Symposium (10:30 AM - 12:00 PM)

Components: *Original data*

Categories: Health / behavioral medicine, Clinical intervention development or outcomes, Chronic health conditions

Target Audience: *Intermediate*

Location: Union Square 17 & 18

Chair: Carter Davis, M.S., Utah State University
Discussant: Lilian Dindo, Ph.D., Baylor College of Medicine
David Giard, California Northstate University
Matthew Herbert, Ph.D., VA San Diego Healthcare System
Marissa Donahue, M.A., Utah State University
Niloofer Afari, Ph.D., University of California San Diego

An estimated 60% of the US population lives with a chronic health condition (CDC, 2021), which also constitute the leading causes of disability and death (Raghupathi, 2018). Acceptance and Commitment Therapy (ACT), with its core intention of increasing vitality in the midst of painful emotional experience, is a viable emerging intervention for individuals living with long-term health conditions (Graham et al., 2016). For health challenges that are complex, diffuse across many life contexts, and stigmatizing, ACT offers skills for purposeful living. This symposium brings together experts in the area of ACT for health, who will present the latest research on innovative applications of this approach to diverse areas including chronic pain, chronic illness, weight management, and physical activity. An emphasis will be on flexible delivery of ACT for health in contexts where treatment is typically difficult to access, such as for active duty military personnel and via telehealth due to pandemic restrictions. The mechanisms through which ACT posits to work in promoting health-positive behaviors, and how to best measure these processes, will also be explored.

- Preliminary evaluation of an online acceptance and commitment therapy program for adults living with a chronic health condition
Marissa L. Donahue, M.A., Utah State University
Michael E. Levin, Ph.D., Utah State University

There is variation in symptom presentation and severity across chronic health conditions among adults. Influential factors can contribute to illness perception, self-efficacy, coping strategies and psychological flexibility, which may impact disease self-management (de Ridder, Geenen, Kuijjer, & van Middendorp, 2008). The ACT model allows for flexibility and easier implementation into medical settings due to the various delivery formats (e.g., web-based; Bricker et al., 2013), or brief formats (1-day workshops; Dindo, 2015). Therefore, the current study aimed to examine the feasibility of a web-based program as a transdiagnostic approach to improve quality of life for individuals living with a chronic health condition. In this pilot study, participants were enrolled in a self-guided, web-based program (ACT on Chronic Health) for 12-weeks. In this presentation, we will describe the impact of the ACT on Chronic Health program on quality of life, psychosocial symptoms, self-stigma, ACT processes and program satisfaction for adults living with a chronic health condition. Future directions and implications will be discussed.

- Secondary Analysis of an ACT for PA Intervention to Examine Impact on Mental Health and Quality of Life

David Giard, California Northstate University / The Chicago School of Professional Psychology
Jason Lillis, Ph.D., Brown Medical School / California Northstate University

Physical activity (PA) is a critical behavioral determinant of global health and weight management. A recent pilot study using a single brief group ACT intervention increased PA in participants who were overweight or obese. The current study examined whether psychological variables (anxiety and depression) and quality of life were concurrently affected by this intervention.

Methods: Participants (n=41) were 52.8 years old, primarily white (88%) and female (83%). Variables assessed were ACT processes, mental health, and quality of life variables at three months (post-treatment) and six months (follow-up).

Results: There was limited impact at three months. However, at the six-months, small to medium effect sizes were observed on the compACT (d=.18), anxiety measure (d=.22), depression measure (d=.27), and quality of life (d=.42). A posthoc analysis showed that treatment responders (those who had increased their exercise) showed small to medium effect sizes when compared to treatment non-responders.

Discussion: The ACT intervention had a modest impact on mental health and quality of life in general, and individuals who responded well to treatment showed greater gains.

- **What Really Changes? A Mixed-Methods Analysis of ACT for Chronic Pain**

Matthew S. Herbert, Ph.D., VA San Diego Healthcare System, San Diego, CA, USA; Center of Excellence for Stress and Mental Health, San Diego, CA, USA; University of California, S
Gage Chu, B.A., VA San Diego Healthcare System, San Diego, CA, USA; Center of Excellence for Stress and Mental Health, San Diego, CA, USA
Alexandra Higdon, Psy.D., VA San Diego Healthcare System, San Diego, CA, USA
Autumn Backhaus, PhD, VA San Diego Healthcare System, San Diego, CA, USA; University of California, San Diego, La Jolla, CA, USA
Niloofer Afari, PhD, VA San Diego Healthcare System, San Diego, CA, USA; Center of Excellence for Stress and Mental Health, San Diego, CA, USA; University of California, S

ACT for chronic pain seeks to increase psychological flexibility by modifying the context in which pain is experienced (via mindfulness and acceptance processes) and promoting values-based action (via behavior change processes). While the efficacy of ACT for chronic pain is well documented, treatment effects are variable and not every individual with chronic pain benefits. The purpose of this mixed-methods study was to examine qualitative and quantitative responses among 20 Veterans who completed an 8-week ACT for chronic pain protocol. At 1-month follow-up, Veterans completed a semi-structured interview inquiring about their relationship with pain and the extent to which values inform daily choices. These qualitative responses were compared and contrasted with quantitative measures of pain acceptance (Chronic Pain Acceptance Questionnaire) values-based action (Chronic Pain Values Inventory), and pain interference (Brief Pain Inventory). Most participants specified an increased ability in living and enjoying life despite pain; however, quantitative responses were often incongruent. Participant characteristics related to these mixed findings will be discussed along with suggestions for the continued progression of ACT for chronic pain.

- **Post-COVID-19 Telehealth Transition of an ACT-based Weight Management Intervention for Active-Duty Personnel**

Natalie M. Golaszewski, Ph.D., VA San Diego Healthcare System, San Diego, CA
Matthew S. Herbert, Ph.D., VA San Diego Healthcare System, San Diego, CA; Department of Psychiatry, University of California, San Diego, San Diego, CA; VA Center of Excellence f
Mara Tynan, BA, San Diego State University/University of California, San Diego Joint Doctoral Program in Clinical Psychology
Jennalee S. Wooldridge, PhD, VA San Diego Healthcare System, San Diego, CA; Department of Psychiatry, University of California, San Diego, San Diego, CA
Karla Materna, PhD, VA San Diego Healthcare System, San Diego, CA

The COVID-19 pandemic necessitated substantial modifications to an ongoing randomized controlled trial comparing the Navy's weight management program, ShipShape, to an ACT-enhanced version of ShipShape to facilitate groups virtually. Participants were 178 active-duty military personnel (149 in-person, 29 virtual) with overweight/obese BMI, or who had failed/ were at risk of failing the Navy's physical fitness assessment. Relative to those receiving in-person delivery, participants receiving the virtual intervention had higher in-session participation ratings ($p < .05$), with comparable high rates of credibility and expectancy prior to the intervention and satisfaction following the intervention. Participants also completed semi-structured interviews about useful aspects of the program. Word clouds of interview responses identified "mindfulness" as the key helpful concept and "toward" as the primary term associated with the ACT Matrix. In virtual participants, preliminary analyses supported greater improvement in weight and experiential avoidance after the ACT-enhanced intervention. This successful transition provides

support for the use of virtual weight management interventions to increase accessibility among a highly mobile population, such as active-duty personnel.

Educational Objectives:

1. Describe how ACT processes such as psychological flexibility interact with other key determinants of health in various patient populations, and how to best assess these factors (e.g., qualitative vs. quantitative).
2. Effectively adapt ACT interventions to diverse health targets by understanding their unique features and impacts on psychosocial functioning.
3. Explain how to utilize technological and self-help approaches to deliver precise ACT interventions and address chronic health concerns at large scale and among hard-to-reach populations.

13. Enter Interbehaviorism: Examining the Applied Utility of Interbehavioral Philosophy

Symposium (10:30 AM - 12:00 PM)

Components: *Conceptual analysis, Didactic presentation, Literature review*

Categories: Theory and philosophical foundations, Behavior analysis, Interbehaviorism

Target Audience: *Intermediate, Advanced*

Location: Union Square 19 & 20

Chair: Abbey Warren, Louisiana Contextual Science Research Group

Discussant: Evelyn Gould, Ph.D., BCBA-D, LABA, Keck School of Medicine at USC

Michael May, M.A., LPCC, Compassionate Behavioral Healthcare, LLC

Thomas Sease, B.S., Texas Christian University

Eva Lieberman, M.S., Western Michigan University

Heather Volchko, MEd, BCBA, Old Dominion University

The implications of the philosophical underpinnings of contextual behavioral science have, of late, increasingly become a point of interest for practitioners in the context of their applied work.

Considering this increasing interest, practitioners may benefit from continued opportunities to engage with these concepts that have robust applied utility. One such philosophy of behavioral science that has garnered a recent increase in attention is that of J.R. Kantor's Interbehaviorism (Kantor, 1924). Kantor's approach to analyzing behavior is naturalistic, and dismisses many assumptions that other approaches operate within. In this symposium, we will discuss key behavioral concepts from an interbehavioral lens, and examine how approaching these concepts differently could be beneficial in applied settings. The aim of the symposium is to demonstrate how Interbehaviorism can increase a practitioner's sensitivity to responding which occurs in their applied setting.

- **Orienting Toward the Entire Organism: Unit of Analysis From an Interbehavioral Perspective**

Thomas Sease, B.S., Texas Christian University

Brad Parfait, B.S., University of Louisiana at Lafayette

Michael C. May, M.A., LPCC, Louisiana Contextual Science Research Group, Compassionate Behavioral Healthcare, LLC

Emily Kennison Sandoz, Ph.D., University of Louisiana at Lafayette

As philosophical systems, Skinner's Radical Behaviorism and Kantor's Interbehaviorism both approach behavioral science as a natural science focused on the interactions between aspects of context and behavior. However, the two philosophies diverge decisively with respect to how they conceptualize their respective subject matter (i.e., behavior) in terms of its units. Perhaps Interbehaviorism's most distinctive feature is the integrated-field approach from which its subject matter is characterized. From an Interbehavioral perspective, the subject matter of behavioral science is interbehavior and the primary unit of analysis is the Interbehavioral Field, a.k.a., the Psychological Event (Kantor 1959). According to Kantor, the interbehavioral field is composed of five co-occurring, participatory factors: stimulus function, response function, history of interbehavior, setting factors (or immediate circumstances), and the medium by which the stimulus is contacted (Lichtenstein, 1984). This presentation will (1) review the Interbehavioral Field as the unit of analysis, and (2) propose implications for practitioners both within and outside of the therapeutic setting.

- **Does Causality Help or Hinder Our Clinical Agenda?: An Interbehavioral Perspective**

Michael C. May, M.A., LPCC, Louisiana Contextual Science Research Group, Compassionate Behavioral Healthcare, LLC

Janani Vaidya, M.S., BCBA, National Louis University, Louisiana Contextual Science Research Group
Thomas B. Sease, B.S., Texas Christian University
Clinton D. Fuller, M.S., BCBA, LABA, New England Center for OCD and Anxiety
Emily Kennison Sandoz, Ph.D., University of Louisiana at Lafayette

Historically, notions of causality have been central to the natural sciences' endeavor of explaining respective phenomena of interest. This agenda of identifying causal relations has continued in behavioral science and carried over into its applied domain. Despite Skinner's call to abandon mechanistic notions of causality as a means of explaining human behavior, the contingency relation promulgated within his philosophical system has continued to function as a linear causal construct. While the contingency relation has facilitated progress in the behavioral sciences, is this search for causality useful to the practitioner? The present paper enumerates the potential problems resulting from continued reliance on notions of causality within clinical contexts and offers a robust alternative drawn from the JR Kantor's Interbehaviorism (Kantor, 1924). Building upon Kantor's own criticisms of the validity of causal relations outside of tight experimental conditions, the paper will critically examine the utility of causal relations in clinical behavior analysis. Have contextual behavioral scientist-practitioners gone far enough in diminishing reliance on causal notions in our clinical interventions?

- **Conjunction Junction, What's a Function?: Function from an Interbehavioral Perspective**
Eva Lieberman, M.S., Western Michigan University, Louisiana Contextual Science Research Group
Janani Vaidya, M.S., BCBA, National Louis University, Louisiana Contextual Science Research Group
Michael C. May, M.A., LPCC, Louisiana Contextual Science Research Group, Compassionate Behavioral Healthcare, LLC
Emily Kennison Sandoz, Ph.D., University of Louisiana at Lafayette

Function is arguably one of the most important concepts involved in behavioral science. In everyday contexts, "function" refers to the natural or intended purpose of an event. Applied to behavior, then, the function of a behavior is its effects. This orientation is part of what distinguishes behavior analytic explanations of behavior from mentalist ones. While behaviorists may traditionally use function as an explanation of behavior, we offer an alternative perspective. Rather than explanatory, an interbehavioral approach would suggest that "function" serve as a descriptor of behavior, and a term that refers to the observable, bidirectional relationship between stimulus and response (Fryling & Hayes, 2011). Building upon the discussions of units of analysis and causality in the previous papers in this symposium, this paper will approach function in terms of functional relationships, inclusive of co-occurring response functions and stimulus functions. This presentation will also discuss how an interbehavioral perspective on function might be applied in intervention contexts.

- **The Past is Present: An Interbehavioral Approach to Learning History**
Heather Volchko, M.Ed., BCBA, Old Dominion University, Louisiana Contextual Science Research Group
Mary Abbott, MSW, LCSW, Mary Abbott Therapy Services
Michael C. May, M.A., LPCC, Louisiana Contextual Science Research Group, Compassionate Behavioral Healthcare, LLC
Eva Lieberman, M.S., Western Michigan University, Louisiana Contextual Science Research Group
Emily Kennison Sandoz, Ph.D., University of Louisiana at Lafayette

Learning history and the role it plays in our behavior has been conceptualized differently throughout the history and development of psychology. While cognitivist conceptualizations of learning history focus on the mediating role of structural constructs like memory, the traditional behavior analytic account has treated learning history in terms of past contingencies of reinforcement coming to bear on present behavior via changes in the biology of the organism (Skinner, 1974). Whether in the form of memory, or hypothetical biological changes to the organism, both treatments of psychological history appeal to hypothetical unobservable constructs to explain how events of the past come to influence behavior in the present. The current paper considers these dominant approaches in contrast to the treatment of learning history from an interbehavioral perspective - that is, as an aspect of the interbehavioral field. This paper will further explore how approaching history as part of the psychological present (Hayes, 1992) might inform intervention, with a particular emphasis on educational contexts.

Educational Objectives:

1. Identify the differences between the Interbehavioral Field Construct and the more "traditional" conceptualizations of contingencies.
2. Identify the potential drawbacks to causal constructs (including contingencies) in applied practice.
3. Identify the benefits of conceptualizing learning history as part of the current interaction in applied practice.

14. The Brief ABA/ACT Functional Analysis: Power, Play and Productivity

Symposium (10:30 AM - 12:00 PM)

Components: *Case presentation, Conceptual analysis, Literature review, Original data*

Categories: Behavior analysis, ACT, Productivity, Intimate Partner Violence, Microaggressions, Children

Target Audience: *Beginner, Intermediate, Advanced*

Location: Union Square 22

Discussant: Yukie Kurumiya, Ph.D., BCBA-D, The Chicago School of Professional Psychology
Enasha Anglade, M.S., LaughLoveLive Again
Azizull Dhadwal, M.S., Pepperdine University
Lindsay Olsen, MA, BCBA, University of Southern California
Carlee Smith, M.A., GoldStar Learning Options, Inc.
Larisa Sheperd, M.A., BCBA, Endicott College/ Firefly Autism

Functional analysis (FA) is the hallmark of behavior analysis. In applied behavior analysis, indirect, descriptive, and experimental procedures are used to develop and test hypotheses about maintaining variables that can be manipulated to produce desired clinical outcomes. However, clients with advanced verbal skills may engage in private interfering behaviors that forestall the effectiveness of direct contingency management. When direct contingency assessment efforts have been exhaustively applied and intervention has produced less than optimal results, it is plausible that private behavior is producing consequences that desensitize overt behavior to existing treatments. In such cases, it is useful to identify the class of private behavior that is involved, intervene precisely upon these indirect-acting contingencies, and then return to direct contingency management. In this symposium, we present data from four diverse studies with participants struggling with intimate partner violence, racialized microaggression, graduate school, and other behavioral support needs. Afterward, Dr. Yukie Yurumiya will discuss the results in relation to themes of ABA ACT FA, developing idiosyncratic ACT interventions, and contextual behavior science.

- Life's Not Fun...Yet ; Evaluating the brief ABA ACT FA with kids with varying support needs
Lindsay Olsen, M.A., BCBA, Creative Connections
Carlee Smith, M.A., BCBA, GoldStar Learning Options
Thomas G. Szabo, Ph.D., BCBA-D, LBA, Capella University
Larisa Sheperd, M.A., BCBA, Endicott University

Individuals with varying support needs who have strong verbal skills face unique challenges if they engage in private interfering behavior. ABA interventions often help but may stall out if they do not address indirect acting contingencies maintaining these private behaviors. Functional analysis is a precise tool to identify potential functions maintaining overt target behaviors. In ACT, the brief ACT FA is used to pinpoint covert behaviors and their maintaining variables. In this study, we utilize the brief ABA ACT FA with children who engage in interfering behaviors during necessary daily routines and apply a 10-step procedure for designing targeted, idiosyncratic ACT interventions. Results are discussed with regard to the broader theme of functional analysis in contextual behavior science.

- Shield and Sword
Azizull Kaur Dhadwal M.S., BCBA, Pepperdine University
Thomas G. Szabo, PhD., BCBA-D, LBA, Capella University

It's an especially uncomfortable event to be the recipient of a microaggression. When simmering in that discomfort, a recipient can have the choice to respond to the event, or ignore it, of which there is no correct answer. To uncover the base of these responses, this study will evaluate the effects of a brief functional analysis based in ACT to uncover a portion of the decision-making process involved in addressing a microaggression and empower different types of responses to vignettes of microaggressions. This study will also evaluate 1) the types of responses BIPOC individuals agree with when confronted with a microaggression and 2) evaluate if the brief ACT functional analysis and intervention influences self-reports of responses to vignettes of racism.

- Something Keeps Pulling Me Back: Helping Intimate Partner Violence Survivors Use Available Resources
Enasha Anglade, MS, BCBA, LaughLoveLive Again
Thomas G. Szabo, PhD., BCBA-D, LBA, Capella University
Jeridith Lord, MS, BCBA, Endicott University
Larisa Sheperd, M.A., BCBA, Endicott University
Stephanie Enea

Intimate partner violence occurs at high rates in nearly all societies, though in some regions, support networks are available for survivors ready to leave repeatedly violent relationships. Even when support options for leaving are available, of concern is the high rate of survivor returns to abusive situations. Many teams from a variety of disciplines have examined intimate partner violence dynamics but few have studied them from a behavior analytic lens. We analyzed the necessary and sufficient conditions needed to increase engagement with support networks and reduce returns to an abusive partner when alternatives were present. In cases where direct contingency management was insufficient to bring about workable changes, we used the Brief ACT Functional Analysis to identify potential private events that could be interfering with overt behavior change and a 10-step task analysis in the development of ACT exercises with participants. After sharing data from several participants, we will discuss emerging themes, future research, and limitations to the current analysis.

- **Brief ACT Functional Analysis for Graduate Students: Controlling for Sensitivity, Specificity, Discriminant, and Predictive Utility**

Thomas G. Szabo, Ph.D., BCBA-D, LBA,
Jennifer McComas, PhD, University of Minnesota
Yukie Kurumiya, PhD, Chicago School of Professional Psychology
Larisa Sheperd, MA, BCBA, Endicott University

An assessment is sensitive when it captures positive instances of a moderator accurately and specific if it accurately captures negative instances of a moderator. The former is associated with predictive validity and the latter with discriminant validity. In the current study, we evaluated these attributes of the Brief ACT FA with graduate students who were failing a class despite numerous interventions. Descriptive assessment was conducted, and the results were tested using a brief experimental ACT FA. In the Brief ACT FA, experimenters contrived verbal abolishing and establishing operations in an alternating treatment design. The Brief ACT FA was conducted using text messaging to rule out the possibility of inadvertently cuing participants to respond in characteristic ways based on the tone and cadence of the experimenter's voice. Also during the Brief ACT FA, both hypothesized and non-hypothesized ACT repertoires were evaluated for their respective levels of influence. In all three participants, hypothesized ACT variables were verified and non-hypothesized variables eliminated. The ACT intervention that followed, based exclusively on the variables identified in the FA, resulted in successful behavior changes. Results will be discussed regarding specificity, sensitivity, discriminant, and predictive validity of the Brief ACT FA and future studies will be suggested.

Educational Objectives:

1. Identify tools used to conduct indirect, descriptive, and experimental ACT FA.
2. Compare descriptive and experimental ACT FA procedures for their relative strengths, weaknesses, and applications.
3. Identify a way to test the hypothesis that a particular ACT repertoire is interfering with direct contingency management.

24. Testing the Efficacy of Magpies; An Integration of ACT and RFT skills based interventions for children

Symposium (1:15 PM - 2:45 PM)

Components: *Case presentation, Conceptual analysis, Literature review, Original data*

Categories: Clinical intervention development or outcomes, RFT / RGB / language, ACT, Children, Mental Health, Skills based interventions

Target Audience: *Beginner, Intermediate*

Location: Yosemite B

Chair: Lisa Coyne, Ph.D., Harvard Medical School/McLean & New England Center for OCD and Anxiety

Discussant: Louise McHugh, Ph.D., University College Dublin

Sarah Cassidy, Ph.D., Smithsfield Clinic

Elle Kirsten, Ph.D., Compassionate Behaviour Analysis/Smithsfield Clinic

There are now over 400 randomised control trials demonstrating the efficacy of Acceptance and Commitment Therapy (ACT). ACT is rigorously behavioural but is based on the comprehensive empirical analysis of human language and cognition, also known as Relational Frame Theory, RFT (Hayes, 2004). However, ACT for youth with specific emotional behavioural difficulties is still in the early days. In addition, whilst many basic scientists study RFT in the lab, many clinicians have struggled to understand to integrate RFT and ACT into clinical interventions and particularly those discussed in more mainstream psychology (e.g., low self-esteem, poor social skills, emotional

dysregulation and anxiety). This is partly related to the mentalistic language used in mainstream psychology but also to the lack of agreement relating to functional working definitions of same. The Magpies programme aims to functionally understand these difficulties and address them in systematic ways over four separate 8 week blocks of implementation. This symposium highlights the need to work closely with statutory services and to focus on what education and health services deem important to address.

- Testing the Feasibility and Efficacy of the Magpies Intervention Social Skills Module
Shannon Eidman, M.Ed., BCBA, Reach Children's Services/Smithsfield Clinic
Amy Russell, M.Sc., Smithsfield Clinic
Chloe Drumm, M.Sc., Smithsfield Clinic
Roberta Hines, D. Psych. BAT/ABA, BCBA-D, H-Dip Montessori, Smithsfield Clinic
Elle Kirsten, Ph.D., BCBA, LBA, Smithsfield Clinic/Compassionate Behavior Analysis
Sarah Cassidy, Ph.D., Smithsfield Clinic
Joeleen Lynch, M.Sc., BCBA, Reach Children's Services/Smithsfield Clinic
Julianne Bell, BCBA, Smithsfield Clinic
Charlene Moore, M.Sc., BCBA, Smithsfield Clinic/ The Western Health and Social Trust

Research suggests that children with poor social skills are often rejected by peers (Dodge, 1983; Masten et al., 2005), achieve worse academically (Welsh et al., 2001), and are at greater risk for delinquency and the development of mental health conditions such as anxiety and depression (Bellini, 2006; Cown, 1973; Parker & Asher, 1987; Tantum, 2000). Given these risks, there is a clear need for focused and effective therapeutic models that can easily be implemented in mainstream schools. Typically, behavioural approaches to supporting social skills have relied heavily on teaching explicit rules through behavioural skills training. Such approaches however often have little regard for context, and they have increasingly come under scrutiny among the neurodivergent community. The social skills module in Magpies aims to address these concerns, promoting a neuroaffirmative approach to self-awareness and relationship skills. The module includes 8 sessions, encompassing a set of child friendly experiential exercises designed for children aged 8-12. Preliminary data will be shared on active engagement, values-guided actions, and parent/child reports of psychological flexibility and social skills.

- Testing the Feasibility and Efficacy of the Anxiety Module of Magpies
Roberta Hines, D. Psych. BAT/ABA, BCBA-D H-Dip Montessori, Smithsfield Clinic
Julianne Bell, BCBA, Smithsfield Clinic
Chloe Drumm, M.Sc., Smithsfield Clinic
Amy Russell, M.Sc., Smithsfield Clinic
Elle Kirsten, M.Sc., BCBA, LBA, PhD, Smithsfield Clinic/Compassionate Behaviour Analysis
Sarah Cassidy, Ph.D., Smithsfield Clinic

Research estimates prevalence of clinically elevated child and adolescent anxiety are at a 20.5 % of the global population (Racine, 2021). In Ireland about 1 in 12 children aged 11 – 13 experience anxiety (8.1%) and 1 in 20 experience social phobia (5.1%) and generalized anxiety disorder (4.7%) (Cannon 2013). Symptoms of childhood anxiety can involve behaviours involving phobias, fearfulness, separation anxiety, self-consciousness, intense worrying and irrational thoughts (Rodgers 2015). When dealing with anxiety in children, many countries have moved towards natural environment settings such as schools to incorporate behavioural interventions in order to normalize seeking help and facilitate skills acquisitions (Scaini 2022). The anxiety module of Magpies aims to address skills acquisition through Acceptance and Commitment Therapy (ACT) an evidence-based approach for treating anxious children (Landy 2015). This module includes 8 sessions, encompassing a set of child friendly experiential exercises designed for children aged 8-12. Preliminary data will be shared on active engagement, values-guided actions, and parent and child reports of psychological flexibility and anxiety measures.

- Testing the Feasibility and Efficacy of the Self Esteem Module of Magpies
Charlene Moore, M.Sc., BCBA, Smithsfield Clinic/Western Health and Social Trust
Chloe Drumm, M.Sc., Smithsfield Clinic
Amy Russell, M.Sc., Smithsfield Clinic
Joeleen Lynch, M.Sc., BCBA, Smithsfield Clinic/Reach Children's Services
Sarah Cassidy, Ph.D., Smithsfield Clinic

Oliver & Bennett (2019) defined self-esteem as, evaluating or judging the self. Although self is not a technical term in operant Psychology, from an RFT perspective, we can draw a distinction between our own behaviour and the environment. Therefore, we can target behaviours for relating to and thinking of ourselves (McHugh et al., 2019). Self-evaluations begin when language skills develop, paving the way for associations made. Previous solutions for low self-esteem reached for high self-esteem, however research demonstrates this as ineffective. A meta-analysis completed by Orth et al (2018) investigating the

normative trajectory of self-esteem across the life span, found that levels of self-esteem were lowest in children. Additionally, the child's relationships, education, physical and mental health were impacted by low self-esteem. The self-esteem module in Magpies aims to address low self-esteem in a group of children aged between 8-12 years through an 8-week group programme using ACT and RFT based interventions. This research will evaluate the efficacy of targeting various ACT processes, including values, committed action, acceptance, and psychological flexibility.

- **Testing the Efficacy and Feasibility of the Emotional Regulation Module of the Magpies Programme**

Elle Kirsten, Ph.D., BCBA, LBA, Smithsfield Clinic/Compassionate Behaviour Analysis
Shannon Eidman, M.Ed., BCBA, Smithsfield Clinic/Reach Children's Services
Amy Russell, M.Sc., Smithsfield Clinic
Chloe Drumm, M.Sc., Smithsfield Clinic
Joeleen Lynch, M.Sc., BCBA, Reach Children's Services/Smithsfield Clinic

Research investigating ACT & RFT interventions for youth with specific emotional behavioural difficulties remains sparse. Adaptive emotional regulation skills promote children's psychological wellbeing and functioning whereas emotion dysregulation increases the risk for future psychopathologies (e.g., anxiety, depression, aggression). ACT offers a viable and flexible framework to teach emotion regulation skills; intervention may have meaningful protective and preventative effects by facilitating peer relations, educational outcomes, adult relationships, mental health, and more satisfying employment. The Magpies programme is a focused and systemic ACT-based transdiagnostic therapeutic intervention for children with a range of emotional behavioural difficulties or neurodevelopmental differences in mainstream school settings. The present data were collected during an 8-week block of the Magpies Emotional Regulation programme, and include four pre- and post-measures, including the SDQ, DERS, CAMM, and CPFQ. Data will be discussed.

Educational Objectives:

1. Describe common areas of struggle recognised in mainstream psychology (e.g., low self esteem, poor social skills, emotional dysregulation, anxiety) within school systems.
2. Explain why these areas of struggle can be functionally understood in behaviour analytic terms.
3. Describe how RFT and ACT can be integrated to inform evidence based interventions for neurotypical and neurodivergent children. Feasibility and efficacy issues will be discussed.

26. Psychometric Hexa-dancing: Innovations in the validation of self-report measures spanning core ACT processes

Symposium (1:15 PM - 2:45 PM)

Components: *Original data*

Categories: Methods/approaches for individual variation, Processes of change, Psychometrics, Psychological Flexibility Model (PFM)

Target Audience: Intermediate, Advanced

Location: Union Square 17 & 18

Discussant: Nicholas Borgogna, Ph.D., Texas Tech University

Samuel Spencer, M.A., University of Hawaii, Manoa

Jonathan Larson, M.S., Wichita State University

Josh DeLacerda, B.S., Louisiana Contextual Science Research Lab - LCSRG

Hana-May Eadeh, M.A., University of Iowa

John Donahue, Psy.D., The University of Baltimore

The recent ACBS Task Force Report (Hayes et al., 2021) has called for more research within CBS that seeks to better understand processes of change through: (a) validating measures of such processes across multiple dimensions; and (b) refining the measurement of these variables within diverse contexts. This symposium attempts to address that call by presenting research that refines and validates self-report measures of psychological flexibility model (PFM)-based processes. The first paper assessed the incremental validity of self-related measures within the PFM. The second paper explored the measurement invariance of the FFMQ, Engaged Living Scale, and AAQ-II within ethnically diverse adults. The third paper examined the psychometric properties of the novel State of Surrender (SoS) scale within a PFM framework. The fourth paper evaluated the construct validity of the PPF and CompACT with LGBTQ+ individuals. The final paper examined the discriminant and incremental validity of PFM-based measures across individuals exposed to traumatic events. Through a focus on

innovative psychometric research encompassing varying dimensions of the PFM, this symposium seeks to further refine measures of PFM processes.

- **Assessing the Incremental Validity of Self-Related Measures within the Psychological Flexibility Model**

Jonathan M. Larson, Wichita State University
Huan Quan, Wichita State University
Robert D. Zettle, Wichita State University

Because of their relatively recent development, psychometric properties of self-related measures within the psychological flexibility model have not been evaluated to the same degree as those assessing other processes. The collective and comparative incremental validity of four self-related measures [Self-as-Context Scale (SACS), Self Experiences Questionnaire, and self as context and content subscales of the Multidimensional Psychological Flexibility Inventory (MPFI)] in predicting satisfaction with life and psychological distress within a college student sample (N = 315) were evaluated in two separate hierarchical regression analyses. Collectively, the four self-related measures entered at step 3 significantly accounted for an increased proportion of variability in both predicted variables following demographic variables at step 1, and MPFI adjusted global flexibility and inflexibility composite scores as well as Personalized Psychological Flexibility Index scores at step 2. However, of the four self-related measures, SACS was the only one with significant beta weights within both regression models. The overall findings support the inclusion of self-related measures within the psychological flexibility model.

- **Psychometric evaluation and measurement invariance of contextual behavioral science (CBS)-informed measures with racially and ethnically diverse adults**

Samuel D. Spencer, University of Hawai'i at Mānoa
Joanne Qina'au, University of Hawai'i at Mānoa
Duckhyun Jo, University of Hawai'i at Mānoa
Fumiaki Hamagami, University of Hawai'i at Mānoa
Mapuana Antonio, University of Hawai'i at Mānoa
Akihiko Masuda, University of Hawai'i at Mānoa

The present study examined the measurement invariance of the Five Facet Mindfulness Questionnaire, Engaged Living Scale, and Acceptance and Action Questionnaire-II, commonly used CBS-informed self-report questionnaires, with ethnically diverse college adults in Hawai'i (N = 1,102). Based on theoretically consistent factor structures derived from a previous psychometric examination of these measures with the same sample, measurement invariance analyses were conducted among ethnic (Asian-American, White, and all others) and gender (male and female) groupings, respectively. Results indicated that for all three measures, measurement invariance analyses held constant across configural, metric, scalar, and strict levels of invariance for both ethnic and gender analyses, suggesting that the self-report questionnaires were measuring the purported constructs of interest in a psychometrically equivalent manner across diverse ethnic and gender groups. Factor mean comparisons among the groups revealed generally equivalent levels of constructs of interest across ethnic and gender groups, with a slight tendency for Asian-Americans to self-report greater levels of mental health concerns across variables when compared to Whites. Implications of these findings are discussed in the context of cross-cultural generalizability.

- **A Psychometric Evaluation of the State of Surrender (SoS) scale within the Hexaflex Framework**

Joshua DeLacerda, University of Louisiana at Lafayette
Thomas Sease, Texas Christian University
David R. Perkins, University of Louisiana at Lafayette
Caleb Jean, University of Louisiana at Lafayette
Emily K. Sandoz, University of Louisiana at Lafayette

From a behavioral perspective, Hayes (1984) unpacked spirituality, arguing that its components can be understood in terms of verbal behavior. In short, this account suggests that spiritual practices allow for practitioners to observe thinking patterns and their perspective therein without having to comply with the content of the thoughts. State of Surrender (SoS), the willingness to accept what is to come without resistance (Russ & Elliot, 2017), was first described by William James (1904) as a fundamental characteristic of the religion of healthy-minded individuals. This is to say, SoS may offer a functional approach to operationalizing spiritual experiences. The purpose of this paper was to evaluate the psychometrics properties of the 8-item SoS scale within the psychological (in)flexibility framework. Confirmatory factor analysis revealed the SoS scale achieved adequate model fit when examined as a single factor. In addition, SoS scores were positively related to psychological flexibility scores, demonstrating strong convergent validity. Together, these data suggest the SoS scale may tap aspects of psychological flexibility not captured by extant measures. Implications and future directions are discussed.

- Evidence of Validity for Two ACT Process Measures in LGBTQ+ Emerging Adults and Associations with Adverse and Well-Being Outcomes
Hana-May Eadeh, M.A., Department of Psychological and Brain Sciences, University of Iowa
Jenna L. Adamowicz, M.A., Department of Psychological and Brain Sciences, University of Iowa

LGBTQ+ individuals are at heightened risk for discrimination and stigma (Brooks, 1981; Meyer 2003, 2015), which often leads to increased rates of self-harm, suicidality, (Gnan et al., 2019; Zucker, 2019), and mood symptoms (King et al., 2008; Lewis et al., 2009). ACT processes are transdiagnostic and targeting these should help ameliorate suffering regardless of one's identities. Most work developing and evaluating ACT process measures are with cisgender/heterosexual populations, conflate sex with gender, or do not report sexuality. Confirmatory factor analysis are used to evaluate the structure of two ACT measures (PPFI (Kashdan et al., 2020) and CompACT (Francis et al., 2016)) in LGBTQ+ emerging adults (N=150, ages 18-29). Internal reliability and evidence for convergent/discriminant validity are also examined. Further, associations with both adverse (e.g., psychopathology, discrimination) and well-being outcomes are presented. Data collection is anticipated to be complete by March 2022 with analyses complete in advance of the convention. This work will inform targeted process-based interventions in an under-researched population, an important area of CBS research, per the strategic agenda (Hayes et al., 2021).

- The Distinctiveness of Psychological Flexibility Measures Apart from Affect and Distress in Relation to Posttraumatic Stress Symptomology
John J. Donahue, The University of Baltimore
Ugochinyere Onyeukwu, The University of Baltimore

The psychological flexibility model has been useful in understanding and treating posttraumatic distress following traumatic event exposure (see Wharton et al., 2019). In this research, the most commonly used self-report measure of psychological flexibility has been the Acceptance and Action Questionnaire-II (AAQ-II), however studies have demonstrated the AAQ-II's low discriminant validity with distress (Tyndall et al., 2019; Wolgast, 2014). Given that several self-report measures of psychological flexibility processes now exist, it is important to examine the degree to which these instruments are distinctive from affect/distress. The present study sought to examine the discriminant and incremental validity of multiple measures of psychological flexibility processes across three samples of participants endorsing prior exposure to potentially traumatic events (N=304, N=262, and N=116). In each sample, participants completed the Posttraumatic Stress Disorder Checklist-DSM-5, as well as various measures of distress, trait affect, and psychological flexibility (Brief Experiential Avoidance Questionnaire, Cognitive Fusion Questionnaire, Valued Living Questionnaire, Multidimensional Psychological Flexibility Inventory). Preliminary analyses reveal varying degrees of discriminant validity across measures in samples of participants exposed to potentially traumatic events.

Educational Objectives:

1. Describe and discuss the importance of accurately, reliably, and validly measuring constructs across the various dimensions of the PFM.
2. Explain the importance of considering interrelations among variables within the PFM and apply this knowledge to further one's clinical practice and/or research endeavors.
3. Demonstrate knowledge of the limitations of cross-cultural generalizability of PFM-related measures, and the importance of utilizing psychometric research to guide clinical use of these measures with diverse populations.

28. Designing Culture Brick by Brick: Prosocial and Ideology

Symposium (1:15 PM - 2:45 PM)

Components: *Case presentation, Conceptual analysis, Original data*

Categories: Social justice / equity / diversity, Prosocial, Cultural Design, DEIB

Target Audience: *Beginner, Intermediate, Advanced*

Location: Union Square 22

Chair: David Legaspi, M.S., Center for Applied Behavior Analysis

Discussant: Yukie Kurumiya, Ph.D., BCBA-D, The Chicago School of Professional Psychology

Hitoshi Ito, Corporate Planning Department

Gen Ogura, Ph.D., Startline CO., LTD.

Thomas Szabo, Ph.D., Touro University

Adryon KETCHAM, M.A., GOALS For Autism

A current theme in the field of cultural design is the use of ACT Prosocial to promote aims related to diversity, equity, inclusion, and belonging (DEIB). To date, few studies have investigated this topic empirically. An additional theme in cultural design is the role of ideology as it pertains to group solidarity and dissolution. In this symposium, we present three papers related to these two themes. Paper one is a conceptual analysis of ideology from the combined lenses of Skinner (1953) and RFT (Hayes et al., 2001). Paper two is an empirical evaluation of ACT Prosocial in graduate school classes to promote DEIB aims. Paper three is a data-based investigation of Prosocial related to DEIB aims in a large Asian organization. The symposium will end with a discussion of cultural design in contextual behavior science.

- Ideology: From Skinner to Culturo-Behavior Science by Way of RFT
Thomas Szabo, Ph.D., BCBA-D, LBA, Capella University

In his seminal works, BF Skinner left a trail of breadcrumbs concerning the way that ideological conditioning desensitizes behavior to direct contingencies of reinforcement. This can have either desirable or disastrous results, depending on the circumstances. Skinner suggested that respondent, operant, and verbal conditioning all participate in the types of control that cultural agencies exert during ideological conditioning. Nevertheless, Skinner left analysis of the precise ways that such verbal conditioning emerges for future generations. RFT extends Skinner's analysis by defining the behavior of valuing as verbal behavior that participates in a hierarchical network of verbal relations. In this talk, I contend that ideologies emerge as systems of values, a complex latticework of verbal relations that inhere within coherent verbal networks that are constructed over a lifetime, and which become increasingly inconspicuous as more relations get added. I trace the development of one such ideology and show how this results in a coherent sense of agentic self. Although ideological conditioning is valuable, situations in which it is over-extended abound. To this end, I discuss implications derived from an RFT analysis that pave the way to undermining unwanted ideological verbal relations. Lastly, I discuss implications for the emerging field of culturo-behavior science.

- Diversity, Equity, Inclusion, and Belonging in Higher Education through Prosocial Framework
Thomas Szabo Ph.D., BCBA-D, LBA, Capella University
Yukie Kurumiya, Ph.D., BCBA-D, The Chicago School of Professional Psychology
Adryon Ketcham, GOALS for Autism
David Legaspi, Center for Applied Behavior Analysis
Megan Mayo, Antioch University New England
Mariah Harnish, Florida Institute of Technology

There is increasing focus and intentionality on diversity, equity, inclusion, and belonging (DEIB) in higher education; how to go beyond teaching principles of DEIB, as well as embody DEIB within the education community and classrooms. We explored the use of the Prosocial framework to increase equitable verbal behavior within online synchronous study groups of a graduate-level course on behaviorism. Equity was measured by the total talking duration of each participant during a 30-minute sample of each study session. A multiple baseline design was used on 20 study groups who received either an OBM-based intervention of goal setting and feedback, prosocial training, a combination of both OBM and prosocial training, or feedback only. Moderate improvements in equity were shown for groups that received both OBM and Prosocial training. We discuss results and a post-hoc evaluation of verbal behavior missed by only examining talk duration to explore other positive impacts of Prosocial on equitable verbal behavior as well as potential avenues for further research.

- Increasing Workplace Bonds, Trust, and Practical Outcomes
Hitoshi Ito, Startline Co., Ltd.
Gen Ogura, Startline Co., Ltd.
Yukie Kurumiya, Ph.D., BCBA-D, The Chicago School of Professional Psychology

Within an organization, various groups (e.g., departments, divisions) often times operate independently to achieve company goals. However, without collaboration among the groups, the organization as a whole may not achieve its overall corporate mission. Mutual trust and integration of interests among groups are essential for cultivating collaboration. This talk presents the process and outcome of Prosocial work within a group of department managers at a company in Japan. Two indirect-process measures were assessed (pre and post) to evaluate the effects of Prosocial Training: MPFI-SF (Lin et al., 2020) to measure psychological flexibility and Prosocial Core Design Principles (CDPs; Atkins et al., 2019) scores to measure improvement in group perception on their level of equity, inclusion, and belonging. As an outcome measure, we tracked the number of tasks completed in developing a joint-budget proposal to the executive budget committee, using an established monitoring system and presented in a cumulative graph. Results will be presented, and future research and practical applications will be discussed.

Educational Objectives:

1. Compare ways that Skinner, RFT, and culturo-behavior science have examined the conditioning of ideological behavior.
2. Evaluate changes in equitable talk time, mands, tacts, and intraverbals in Prosocial- or OBM-trained graduate study groups.
3. Demonstrate how to evaluate the process of prosocial work within an organization and its effect on their teamwork, psychological flexibility, and work efficiency and outcome.

37. In Pursuit of Universal Wellbeing: Psychological Flexibility and Gender and Sexual Minoritized Individuals

Symposium (3:00 PM - 4:15 PM)

Components: *Conceptual analysis, Original data*

Categories: Social justice / equity / diversity, Gender and sexual minoritized individuals

Target Audience: *Beginner*

Location: Union Square 15 & 16

Chair: Jessica Criddle, B.S., Murray State University; Louisiana Contextual Science Research Group
Discussant: Yash Bhambhani, Ph.D., Montefiore Medical Center/Albert Einstein College of Medicine
Janani Vaidya, M.S., National Louis University; Louisiana Contextual Science Research Group
Lauren "LaGriff" Griffin, M.S., Adolescent Connectedness and Empowerment Lab, Louisiana Contextual Science Research Group
Anna Larson, B.A., Suffolk University
Rebecca Browne, M.S., Suffolk University

Gender and sexual minoritized individuals (GSMIs) face unique barriers to wellbeing and goal achievement in many domains. Despite the fact that psychological flexibility (PF) has been found to aid wellbeing and the pursuit of valued living during times of distress, few studies have examined PF in gender and sexual minoritized individuals (GSMIs) or developed practical recommendations to support GSMIs in various contexts. Our first two speakers will examine the differences in psychological inflexibility and cognitive fusion in gender minoritized individuals compared to majority cisgender and straight individuals and how inflexibility can add to the effect of lifetime experiences of discrimination and stigma consciousness on anxiety in GSMIs. Next, the negative impact of discrimination and the positive impact of valued living on mental health outcomes for GSMIs will be discussed. Finally, using the context of academia as an example, gender marginalization as a barrier to appetitive control and strategies for GMIs to access appetitives leading to valued living in aversive contexts will be illustrated.

- Stories we tell ourselves: Comparing psychological inflexibility and cognitive fusion across gender and sexual identities
LaGriff Griffin, M.S., Louisiana Contextual Science Research Group; Adolescent Connectedness and Empowerment Lab
Janani Vaidya, M.S., BCBA, National Louis University; Louisiana Contextual Science Research Group
Emily Sandoz, Ph.D., University of Louisiana at Lafayette; Louisiana Contextual Science Research Group
Sarah Schwartz, Ph.D., Adolescent Connectedness and Empowerment Lab

Psychological flexibility (PF) is an important factor in mental health (Hayes et al., 2006) and well-being (Bond et al., 2011). Because of psychological flexibility's utility in the face of adversity (Doorley et al., 2020), PF may be particularly useful for people with minoritized identities such as gender and sexual minoritized individuals (GSMIs). Despite a wealth of research describing psychological flexibility as a cornerstone of well-being (Bond et al., 2011; Grégoire et al., 2020; Hayes et al., 2006; Stenhoff et al., 2020), few studies have examined PF among GSMIs and how they might compare to gender and sexual majority populations. The current study examined the differences in psychological inflexibility and cognitive fusion among GSMIs and straight cisgender individuals. Results suggest that GSMIs, and gender minoritized individuals in particular, experience greater psychological inflexibility and cognitive fusion compared to majority cisgender and straight individuals. Limitations, as well as clinical, research, and theoretical implications for PF as they pertain to GSMIs will be discussed.

- Discrimination, Stigma Consciousness, and Psychological Inflexibility Contribute to Anxiety Among Gender and Sexual Minoritized Individuals

Anna Larson, Suffolk University
 Rebecca K. Browne, Suffolk University
 LaGriff Griffin, M.S., Suffolk University
 Sarah E. O. Schwartz, Suffolk University

Experiences of discrimination and stigmatization contribute to higher anxiety among gender and sexual minoritized individuals (GSMIs) (Russell & Fish, 2016). Psychological inflexibility, or a disposition toward controlling internal experiences, has been proposed as a key psychological process contributing to associations between discrimination and anxiety (Lloyd et al., 2019). Stigma consciousness, or concern about being stigmatized based on negative stereotypes, has been associated with anxiety among GSMIs (Wu et al., 2021) and may also factor into these relationships. The current study examined associations between lifetime experiences of discrimination, stigma consciousness, psychological inflexibility, and anxiety symptoms within a sample of 186 adult GSM participants. Hierarchical regression analyses revealed that discrimination was significantly associated with anxiety ($\beta = .17, p = .033$). When stigma consciousness was added to the model, discrimination was no longer significant while stigma consciousness emerged as significant ($\beta = .90, p = .005$). When psychological inflexibility was added to the model, it became the only factor significantly associated with anxiety ($\beta = 2.50, p = .001$). Limitations, future directions, and implications will be discussed.

- Valued Living in the Context of Discrimination Among Gender and Sexual Minoritized Individuals

Rebecca Browne, M.S., Suffolk University
 Anna Larson, Suffolk University
 Sarah Schwartz, Suffolk University

Gender and sexual minoritized individuals (GSMIs) report high rates of discrimination (Exten Rice et al., 2019) and poorer mental health outcomes when compared to cisgender/heterosexual individuals (Grant et al., 2014; McNeil et al., 2017). Theory suggests that valued living may act as a buffer against the experiences of discrimination and promote positive mental health outcomes (Wilson & Murrell, 2004). The present study examines relationships between the experience of discrimination, engagement in valued-living, and symptoms of anxiety, depression, and stress.

Participants were 186 GSMI adults. Multiple regression analyses revealed that lifetime discrimination was positively associated with symptoms of anxiety ($\beta = .27, p < .001$), depression ($\beta = .28, p < .001$), and stress ($\beta = .27, p < .001$), while valued living was negatively associated with symptoms of anxiety ($\beta = -.97, p = .039$), depression ($\beta = -4.11, p < .001$), and stress ($\beta = -1.71, p < .001$). Results revealed no significant interaction between the experience of discrimination and valued living on mental health outcomes. Implications for research and practice will be discussed.

- Survive and Thrive: Promoting Values-Consistent Repertoires of Gender Marginalized Individuals in Academia

Janani Vaidya, M.S., BCBA, National Louis University; Louisiana Contextual Science Research Group
 Emily K. Sandoz, Ph.D., University of Louisiana at Lafayette; Louisiana Contextual Science Research Group
 Brooke M. Smith, Ph.D., Western Michigan University
 Jade Campbell, Louisiana Contextual Science Research Group
 Karen Kate Kellum, Ph.D., University of Mississippi

ACT literature purports that the primary benefit of developing psychological flexibility is achieving valued living (Hayes et al., 2011a, 2011b; Kashdan & Rottenberg, 2010). This paper considers the challenge of values-consistent behavior for gender marginalized people in contexts in which aversives dominate. Academia, for example, is governed predominantly by aversive contingencies (Bedenlier & Zawacki-Richter, 2015; Sheridan et al., 2015), even more so for gender marginalized individuals (Gregory, 2001; Park, 2011). The paper will outline how gender marginalization is a barrier to appetitive control across various academic domains, and the repertoires that can be developed for the work of gender marginalized academics to come under appetitive control. Strategies for gender marginalized academics to source appetitives that will enable values-consistent academic repertoires will be discussed. This will conclude with recommendations for ongoing self-assessment that include an evaluation of (1) available appetitives and aversives in academia, (2) covarying contexts that are differentially privileging, (3) the influence of the broader context outside of academia on developing a values-consistent repertoire, and (4) repertoires in relation to others in contexts where one is relatively more empowered.

Educational Objectives:

1. Identify differences in psychological flexibility and cognitive fusion in GSMI and GS majority populations and their contributions to clinical concerns.

2. Describe the effects of discrimination, concern for stigma, and valued living on GSMI mental health outcomes.
3. Develop skills to access appetitives fostering valued living in aversive contexts.

38. The Drama of Trauma: Conceptualizing and Destigmatizing the Buzzword

Symposium (3:00 PM - 4:15 PM)

Components: *Conceptual analysis, Original data*

Categories: Clinical intervention development or outcomes, Trauma

Target Audience: *Beginner, Intermediate, Advanced*

Location: Union Square 17 & 18

Chair: Josh DeLacerda, B.S., Louisiana Contextual Science Research Lab - LCSRG

Discussant: Cordelia Kraus, LPC, CADC-I, Certified CRAFT clinician, Vital Space, LLC

Melissa Miller, M.S., Wichita State University

Heather Volchko, MEd, BCBA, Old Dominion University

Thomas Sease, B.S., Texas Christian University

Jenna Happe, RYT, Better Living Center for Behavioral Health

The public, particularly those that aim to foster behavior change (e.g., educators and clinicians), seem to be increasingly aware of the ways that painful historical contexts can impact receptivity to current contextual interventions. From Adverse Childhood Experiences (ACEs; Hughes et al., 2017) as a predictor of functioning in a range of domains to trauma-informed practices, the implications of this awareness are far-reaching. This symposium will examine trauma and related constructs from a CBS perspective. The first paper, a behavioral conceptualization of trauma, examines the conditions under which trauma is tacted. The next explores the relationship between ACEs and negative automatic thoughts, and discusses the potential manipulable processes that qualify the relationship between ACEs and their negative consequences. The third examines trauma as defined by recipients of Applied Behavior Analysis (ABA) therapy, conceptualizes the Trauma Informed Behavior Analysis (TIBA; Kolu, 2017) approach, and discusses its implications for practice and reform. The final paper employs data obtained from non-clinical participants to empirically validate a contextual behavioral treatment model for dissociative symptoms of trauma (Parfait et al., 2021).

- "If everything is trauma, is anything?": Examining the conditions under which the word is used
 Thomas B. Sease, Texas Christian University
 Jessica Criddle, Murray State University
 Dr. Emily K. Sandoz, University of Louisiana at Lafayette

As a society, we have promulgated acute cultural sensitivity surrounding the acknowledgement and acceptance of each other's personal traumas. In fact, the hashtag #traumatok had more than 614.7 million views at the time this abstract was written. This has supported a context wherein practices such as trauma-informed care, education, yoga, and even dentistry have become relevant topics of discussion. The word trauma is also used throughout the psychological literature as encompassing any adversity experienced before the age of 18 (i.e., Adverse Childhood Experiences). In clinical contexts, however, trauma is defined more narrowly, as the presence or absence of the Cluster A stressors listed in the DSM-V. The present paper will examine the conditions under which the word trauma is used and what is being tacted in these contexts. Moreover, this paper will attempt to provide a behavioral conceptualization of trauma with direct implications for researchers and practitioners alike.

- Psychological Inflexibility as a Moderator on the Relationship between Adverse Childhood Experiences and Negative Automatic Thoughts
 Melissa Miller, M.S., Wichita State University
 Thomas Sease, University of Louisiana at Lafayette
 David R. Perkins, Ph.D., University of Louisiana at Lafayette
 Emily K. Sandoz, Ph.D., University of Louisiana at Lafayette

With the widespread incidence of childhood abuse and neglect, it is imperative to understand manipulable processes qualifying the relationship between Adverse Childhood Experiences (ACEs; Hughes et al., 2017) and their negative consequences. Using a student-based sample, this study explored the relation between ACEs and negative automatic thoughts using psychological inflexibility as a moderator. There was a significant 2-way interaction between ACEs and psychological inflexibility when predicting negative automatic thoughts. When psychological inflexibility was high, ACEs were associated with more negative automatic thoughts. Conversely, the association between ACEs and negative automatic thoughts was non-significant at low levels of psychological inflexibility. Psychological inflexibility exacerbated the positive

association between adversity in childhood and negative automatic thoughts. This study adds to the literature's understanding of the relation between ACEs and negative automatic thoughts, while supporting the implementation of community-based interventions intended to foster psychological flexibility in the face of childhood adversity.

- **Aversives All Around Us: Approaching Trauma Informed Behavior Analysis From A Functional Contextual Perspective**

Heather Volchko, MEd, BCBA, Old Dominion University, Doctoral Student
LCSRG, Affiliate Researcher

Janani Vaidya, M.S., BCBA, National Louis University; Louisiana Contextual Science Research Group
Emily K. Sandoz, Ph.D., University of Louisiana

Historically, applied behavior analysis (ABA) has received criticism as both a discipline and practice. For example, recipients of ABA therapy as an early intervention have described their experience as traumatic and have noted undesirable therapeutic outcomes, such as learned helplessness, excessive use of aversive contingencies, and intensive conditioning (Sandoval-Norton & Shkedy, 2019; Bottema-Beutel & Pavlopoulou, 2021). Together, these unethical and inhumane practices have contributed to significant and long term psychological distress (Kupferstein, 2018; McGill & Robinson, 2020). As part of reforming ABA practices and the field as a whole, a recommended approach is Trauma Informed Behavior Analysis (TIBA; Kolu, 2017; Rajaraman et al., 2022). This talk will provide an overview of the philosophy of TIBA with a particular focus on the paradigm shift from a molecular to molar approach. The conceptualization of TIBA from a functional contextualist perspective and subsequent implications for practice will also be discussed.

- **An Initial Validation of Self-relating Patterns as Predictors of Dissociation**

Angela Coreil (Cathey), Ph.D., Better Living Center for Behavioral Health, Behavior-Behavior.org, & Louisiana Contextual Science Research Group

Jenna Happe, RYT, Better Living Center for Behavioral Health & Behavior-Behavior.org
Emily K. Sandoz, Ph.D., University of Louisiana

In clinical populations, dissociative symptoms are associated with poorer prognosis and treatment outcomes (Jans et al., 2008). Current treatments designed to address dissociative symptoms in the clinical context rely heavily on the reduction of fear and avoidance (Foa et al., 1989; Weiner & McKay, 2013). Dissociation is also typically viewed within panic (McNally, 2002) and trauma (Olatunji & Wolitzky-Taylor, 2009) as driven by anxiety sensitivity (Boswell et al., 2013), rather than as a variation in attention tied to flexible and consistent self-relating. The present study is an applied validation of a functional contextual behavior model of dissociative symptom etiology and maintenance (McEnteggart et al., 2016). Hierarchical regression analyses supported hypotheses that self-relating consistency and flexibility are, together, stronger predictors of dissociation frequency than anxiety sensitivity, panic symptoms, and trauma status independently. Though further research is needed, support for this model suggests that treatments oriented toward self-relating for dissociation may warrant further investigation.

Educational Objectives:

1. Identify the elements of a broader, behavioral conceptualization of trauma and the conditions under which trauma is tacted.
2. Create contingencies in their clinical practice to foster psych flex in the face of childhood adversity.
3. Develop behavior analytic plans from a TIBA lens to help develop repertoires under appetitive control.

40. Contextual behavioral approaches to understanding and intervening on issues of chronic health, cancer and suicide: CBS and Cancer SIG, Greek & Cypriot Chapter Sponsored

Symposium (3:00 PM - 4:15 PM)

Components: *Conceptual analysis, Original data*

Categories: Clinical intervention development or outcomes, Processes of change, Behavioral Health, Chronic illness, Chronic pain, suicide, cancer

Target Audience: Beginner, Intermediate, Advanced

Location: Union Square 22

Vasilis Vasiliou, Ph.D., Oxford University, NDORMS

Renen Taub, M.A., Bar-Ilan University, Sheba Medical Center

Sophie Fawson, King's College London and NIHR Maudsley Biomedical Research Centre

Marie-Eve Martel, Psy.D., Ph.D.(c), Université du Québec à Trois-Rivières

Sean Barnes, Ph.D., Rocky Mountain MIRECC

Contextual behavioral approaches to understanding well-being assume interdependence between physical, psychological, and social repertoires and take careful account of the layers of context that influence those repertoires and the relationships among them. This makes CBS approaches particularly appropriate for understanding and intervening on intersecting aspects of functioning. The first paper models relationships among flexibility processes, self-stigmatization, context-specific stigma, and pain outcomes in chronic pain patients. The second paper examines the efficacy of mindfulness-based stress reduction on the functioning of fibromyalgia patients. The third paper investigates associations between psychological flexibility processes and distress among breast cancer patients. The fourth paper examines trajectories of therapeutic change in disability and anxiety during self-administered interventions for chronic pain along with predictors thereof. The fifth paper explores pilot data from a newly developed survey of suicidal ideation behavior completed by a large sample of US veterans that emphasizes how such behaviors function with respect to the broader well-being repertoire.

- A Process-level Network Analysis of Psychological Flexibility in Individuals with Chronic Pain Experiencing Stigma

Vasilis S Vasilou, Ph.D., University of Oxford
Kelly McBarron, M.Sc., University College Cork
Gabriel Lins de Holanda Coelho, Ph.D., University College Cork
Lance McCracken, University of Uppsala

Psychological Flexibility (PF) processes account for positive outcomes in stigma, yet, attempts to highlight predictors and mediators, have led to inconsistencies as to which processes and treatment outcomes to target, limiting their usefulness. We run a cross-sectional study with Chronic Pain individuals (CP; N f215; female= 81%, married=54%, university degree=45.1%), to identify the strongest (therefore most central) nodes of a network that included the PF processes, as measured with CPAQ, CFQ, VQ, and MAAS, and their unique links with (a) internalized (self-stigmatization; SSC18), (b) context-specific stigma (enacted, discounting, lack of understanding; SSC18 & I*3); (c) and pain outcomes, including pain interference (BPI), and functional variables (SF-12, WSAS, PHQ). Acceptance, mindfulness, and values were the most central to the network nodes, presenting a stronger edge-weight link with enacted stigma, discounting at work, and depression, respectively. Also, discounting from medical professionals showed a strong link with a lack of understanding from family, and so did pain acceptance with daily functioning. The centrality of acceptance and mindfulness points to the potential utility of tailoring idiographic interventions within process-based interventions.

- Mechanisms of Change in Mindfulness-Based Stress Reduction for Fibromyalgia—A Randomized Controlled Trial

Renan Taub, MA, Bar-Ilan University, Sheba Medical Center
Ittai Glick, Ph.D., Sheba Medical Center
Nancy Agmon-Levin, Sheba Medical Center
Lee Frumer, M.A., Bar-Ilan University
Inbal Samuel-Magal, M.A., Bar-Ilan University
Danny Horesh, Ph.D., Bar-Ilan University; NYU

Introduction

Fibromyalgia (FM) is a chronic pain syndrome, often involves high levels of depression, stress and cognitive deficits. Mindfulness-Based Stress Reduction (MBSR) is a mind-body intervention, which has been documented as effective in a variety of medical populations, but not much is known about mechanisms of change in MBSR.

Methods

The study is a randomized-controlled trial. 85 FM Patients were randomly assigned to MBSR (n=41) or a waitlist-control group (WL;n=39). Participants assessed at pre-intervention , post-intervention and 6-month follow-up.

Result

Repeated measures ANOVAs indicated that MBSR was highly effective among FM patients, compared to WL. Significant GroupX Time interactions were found for FM symptoms, Depression, Quality of Life (QOL), and more. Process mediation analyses showed that the changes in Mindfulness, PIPS and PCS, accounted for the change in a central outcome measure, such as FM, Depression and QOL.

Conclusions

MBSR holds a great potential for FM patients. Our results indicate that the general mindfulness concepts may be translated into pain-related concepts, such as flexibility towards pain, and may be central targets/change mechanisms in MBSR.

- Acceptance and Commitment Therapy processes and distress in women with breast cancer

Sophie Fawson, King's College London and NIHR Maudsley Biomedical Research Centre
Zoe Moon, University College London
Rona Moss-Morris, King's College London
Lyndsay Hughes, King's College London

Background:

Distress is prevalent in women with breast cancer on hormone therapy. Although Acceptance and Commitment Therapy (ACT) has shown small effects for reducing distress in cancer, the key mechanistic processes associated with distress need to be identified, in order to develop and improve interventions.

Methods:

Women with stage I-III hormone receptor positive breast cancer and prescribed hormone therapy in the last 2 years completed an online questionnaire at baseline and 6 months. Two hundred and eighty-seven women answered questionnaires measuring depression, anxiety, distress, symptom burden and acceptance and commitment therapy processes.

Results:

The retention rate is 89% with n=254. Hierarchical regression analysis controlled for age, cancer stage and baseline distress. Experiential avoidance and cognitive fusion predicted higher anxiety at 6m ($B = 0.062$, $B = 0.097$; $R^2_{adj} = 50\%$), whereas only experiential avoidance predicted higher depression at 6m ($B = 0.069$, $R^2_{adj} = 52\%$).

Conclusions:

The findings provide support for the process-based ACT model for distress. Targeting inflexible processes such as experiential avoidance and cognitive fusion may reduce distress in women with breast cancer.

- **Examining Trajectories of Change in Self-Help ACT Interventions for Chronic Pain**

Marie-Eve Martel, Psy.D., Ph.D.(c), Université du Québec à Trois-Rivières
M. Gabrielle Pagé, Université de Montréal
Frédéric Dionne, Université du Québec à Trois-Rivières

In recent years, self-help ACT interventions have become increasingly popular. Although many studies support their effectiveness for different conditions, little is known about the trajectories of change for individuals using these interventions. This presentation will discuss data from a RCT comparing web-based and bibliotherapy ACT interventions for chronic pain to an active control group receiving education on pain. This study aims to 1) identify and describe various trajectories of change in disability and anxiety during self-administered interventions for pain, 2) identify characteristics and baseline predictors of trajectory membership, and 3) identify trajectory groups associated with greater/poorer outcomes. A total of 297 adults with chronic pain were randomized into one of three conditions. Questionnaires measuring pain disability and anxiety were completed at baseline, post-intervention and three- and six-month follow-ups, in addition to weekly diary items measuring these outcomes during the 9 week-intervention. Up to six different trajectories were identified that differentiated participants based on initial levels of disability/anxiety and rates of change over time. These trajectories of change will be described and implications will be discussed.

- **Bringing a Contextual Behavioral Lens to the Epidemiological Study of Suicidal Ideation and Behavior**

Sean Barnes, Ph.D., VA Rocky Mountain MIRECC for Veteran Suicide Prevention
Claire A. Hoffmire, Ph.D., VA Rocky Mountain MIRECC for Veteran Suicide Prevention
Ryan Holliday, Ph.D., VA Rocky Mountain MIRECC for Veteran Suicide Prevention
Nathaniel V. Mohatt, MFA, Ph.D., VA Rocky Mountain MIRECC for Veteran Suicide Prevention
Lauren M. Borges, Ph.D., VA Rocky Mountain MIRECC for Veteran Suicide Prevention
Alexandra L. Schneider, B.A., VA Rocky Mountain MIRECC for Veteran Suicide Prevention

Epidemiological suicide research is a powerful tool for informing public health interventions and resource allocation. However, large-scale surveys on suicidal ideation and behavior (SIB) have been limited by a narrow focus on the presence or absence of SIB with little consideration of context, functional impact, or potential reinforcers. Taking into account individual, interpersonal, and community-level factors, our team has developed a more nuanced national survey of United States Veterans' SIB. The ASCEND survey was pilot tested among 567 Veterans. Results will be presented highlighting the benefit of a detailed epidemiological assessment of SIB. For example, although the prevalence of suicidal ideation (SI) was similar to that reported in past research, assessment of the functional impact of SI revealed that over 70% of Veterans who endorsed past-year SI reported that the thoughts had limited impact on their functioning. Plans for gleanable actionable results from the full-scale national sample will be described. Finally, the limitations of the ASCEND survey for taking a contextual behavioral approach to suicide will be considered, as will directions for future research.

Educational Objectives:

1. Identify targeted processes of changes, stemming from the Psychological Flexibility model that can be utilized when developing programs to tackle the effects of stigma in individuals with chronic pain.
2. Describe the effectiveness of Mindfulness-Based Stress Reduction (MBSR) for Fibromyalgia patients in improving physical symptoms and psychological aspects (such as stress and depression).
3. Describe different trajectories of change over time in self-help ACT interventions for chronic pain.

41. Anxiety and depression in times of social isolation: The influence of psychological flexibility across the life span

Symposium (3:00 PM - 4:15 PM)

Components: *Original data*

Categories: Processes of change, Psychological Flexibility, Mental Health Outcomes, Young Adults, Adolescents

Target Audience: Beginner

Location: Virtual - The session will be streamed live to our virtual audience. The recordings (video, Powerpoint, and audio) will be captured, and will be uploaded to the conference website for On Demand viewing within 48 hours of presentation.

Chair: Paula Vagos, Ph.D., Universidade Portucalense Infante D. Henrique

Discussant: Nuno Ferreira, Ph.D., University of Nicosia

Samantha Coyle, Ph.D., Montclair State University

Joana Silva, Ph.D., Universidade Portucalense

Shannon Underwood, B.S., University at Albany, SUNY

This international symposium addresses how psychological flexibility helps individuals across the lifespan cope with unexpected, threatening, and large-scale events, such as the COVID-19 pandemic. The first study addresses how psychological flexibility lessened the impact of contextual consequences of the pandemic on mental health. The second study qualitatively investigated the impact of social isolation due to the pandemic on social anxiety symptoms, namely those that may be conceptualized as acceptance and commitment related variables. The third study investigated the role of psychological flexibility in mediating the association between health anxiety and quality of life. Taken together, these works support the ACT assumptions that being more accepting, present-minded, and oriented by value-actions promote better mental health outcomes, even when facing unprecedented, adverse circumstances.

- **Pandemic's effects on mental health of higher education students: a multi-level approach study across Portugal and the USA**
 Joana Silva, Ph.D., Instituto de Desenvolvimento Humano Portucalense, Universidade Portucalense Infante D. Henrique
 Ana Xavier, Ph.D., Instituto de Desenvolvimento Humano Portucalense, Universidade Portucalense Infante D. Henrique
 Carrie Masia, Ph.D., Montclair State University and Nathan Kline Institute for Psychiatric Research
 Jazmin Reyes-Portillo, Ph.D., Montclair State University
 Paula Vagos, Ph.D., Instituto de Desenvolvimento Humano Portucalense, Universidade Portucalense Infante D. Henrique

COVID-19 pandemic brought about multi-level consequences for young adults, namely at the academic (e.g. transitioning to online learning) and economic levels (e.g. lowered incomes). This work tested if psychological flexibility serves as a protective factor for mental health when facing these consequences, across countries. Participants were 708 young adults (36.9% Portuguese and 63.1% North American), attending Higher Education. They reported on the impact of the pandemic on their families' finances and on their academic success, as well as on their psychological flexibility (using the AAQ-II) and their mental health (using the BSI). Results showed that financial impact had a direct effect on mental health that was not mediated by psychological flexibility. Alternatively, academic impact had both a direct and an indirect effect, via psychological flexibility, on mental health. So, though mental health deteriorates in the face of diverse strains, psychological flexibility seems to be an asset particularly when those strains are more prone to an internal attribution.

- **A cross-cultural qualitative investigation of the impact of the COVID19 pandemic on social anxiety in adolescents and young adulthood**
 Samantha Coyle, Ph.D., Montclair State University

Paula Vagos, Ph.D., Instituto de Desenvolvimento Humano Portucalense, Universidade Portucalense
Infante D. Henrique
Ana Xavier, Ph.D., Instituto de Desenvolvimento Humano Portucalense, Universidade Portucalense
Infante D. Henrique
Carrie Masia, Ph.D., Montclair State University and Nathan Kline Institute
Helen-Maria Lekas, Ph.D., Nathan Kline Institute for Psychiatric Research

Social anxiety (SA) is characterized by fear of evaluation and distress in social situations. Given the social nature of SA, social isolation associated with the pandemic could provide short-term relief of symptoms and allow for the avoidance of feared stimuli, which could serve as maintaining factors for SA. The current study utilized semi-structured interviews with seven psychology undergraduate students in the United States and 10 adolescents with clinically significant social anxiety in Portugal. We explored the impact of the pandemic, namely in creating optimal conditions for experiential avoidance. Preliminary findings suggest that interaction restrictions imposed by the pandemic facilitated the use of safety behaviors to avoid feeling anxious, though acknowledging the impact of that behavior on the quality of social interactions. Moreover, these avoidance behaviors, which are inconsistent with commitment to one's values concerning social interactions, impacted participants' feelings about their abilities to interact effectively in social situations. These results reflect the role that components of psychological inflexibility may have in worsening social anxiety symptoms during the pandemic.

- Examining relations between health anxiety, psychological inflexibility, and quality of life amid the COVID-19 pandemic

Max Z. Roberts, M.A., University at Albany, State University of New York, Department of Psychology, Clinical Division
Shannon B. Underwood, B.S., University at Albany, State University of New York, Department of Psychology, Clinical Division
Eric D. Tiff, M.A., University at Albany, State University of New York, Department of Psychology, Clinical Division
Sara V. White, B.A., University at Albany, State University of New York, Department of Psychology, Clinical Division
John P. Forsyth, Ph.D., University at Albany, State University of New York, Department of Psychology, Clinical Division

Elevated health anxiety (HA) is a common experience amid the COVID-19 pandemic. Theory in ACT suggests HA would lead to lower quality of life (QoL) only if one responded to HA inflexibly. In this study, we sought to ascertain whether: (1) HA was greater among those more at risk for COVID-19 complications (i.e., older adults and those with pre-existing health conditions), (2) elevated HA was associated with lower quality of life (QoL), and (3) whether psychological inflexibility (PI) mediated the relation between HA and QoL. A non-clinical, community sample of adults (N=290; Mage=46.5; 80.7% female) were surveyed early during the pandemic with measures of quality of life (QOLI), psychological inflexibility (MPFI), health anxiety (SHAI), depression, anxiety, and stress (DASS-21), and asked about pre-existing conditions. Contrary to expectations, HA significantly decreased with age. Those with pre-existing conditions reported significantly more HA. After controlling for age, pre-existing conditions, depression, anxiety, and stress, HA still significantly predicted QoL. Yet, this relation between HA and QoL was cross-sectionally mediated by PI. Clinical implications will be discussed.

Educational Objectives:

1. Describe the role of psychological flexibility in lessening the impact of experiences related to the COVID-19 pandemic on mental health.
2. List the protective role that psychological flexibility holds for diverse mental health outcomes, namely general mental health, social anxiety, quality of life.
3. List the protective role that psychological flexibility holds for diverse samples, concerning country of origin, age, or previous mental health or health conditions.

Friday, June 17 (all times PDT)

49. All in the family: Mindfulness and flexibility in the context of parenting

Symposium (10:30 AM - 12:00 PM)

Components: *Case presentation, Didactic presentation, Literature review, Original data*

Categories: Processes of change, Clinical intervention development or outcomes, Parenting,

Psychological Flexibility, Mindfulness

Target Audience: Beginner, Intermediate

Location: Franciscan B

Chair: Haley Hedrick, M.S., M.A., George Fox University
Discussant: Christopher McCurry, Ph.D., Associates in Behavior and Child Development
Lindsay Antonsen, Oregon Health and Science University
Sean O'Dell, Ph.D., Geisinger
Adrienne Garro, Ph.D., Kean University
Anne Donnelly, Psy.D., Pace University

Raising children is challenging, yet rewarding though many parents might feel like in recent years the challenges are looming larger, overshadowing the more positive and rewarding aspects of parenting (Coyne et. al, 2020). Psychological flexibility and mindfulness are relevant to parenting, offering foundational, contextual support for psychological wellbeing in the whole family (Burke & Moore, 2015; Gouveia et. al, 2016). This symposium will include qualitative and quantitative research, literature review, and case presentations to highlight the roles of flexibility and mindfulness among parents and caregivers. Individual presentations will include clinical applications of mindfulness and psychological flexibility in the context of parenting support groups and parent education, a review of parenting flexibility measures, and the role of psychological flexibility in bioethical considerations around pediatric genome sequencing and parental disclosure.

- Flexible times call for flexible measures: A review of parental flexibility measures and ongoing validation of a new measure

Lindsay Antonsen, Oregon Health and Science University
Haley Hedrick, M.S., M.A., George Fox University
Stephanie Caldas, Ph.D., Children's Hospital of New Orleans
Danielle Moyer, Ph.D., Oregon Health and Science University

Psychological flexibility in the context of parenting is associated with positive outcomes among parents, which indirectly benefits youth (Brassell et al., 2016; Polusney et al., 2011). Among existing measures of parenting flexibility, there is both overlap and divergence with regard to item wording, aspects of psychological inflexibility being measured, and relevancy to different aspect of parenting. Evidence is limited regarding which measure is most appropriate for specific populations or child age groups. Furthermore, no research to date has explored parenting flexibility among parents of transgender and gender diverse (TGD) youth, an underserved and high risk population (Patrick, 2020) for which parental acceptance is a well-documented protective factor (Olson et al., 2016; Pariseau et al., 2019). This presentation will present preliminary results of a scoping review aimed at synthesizing the literature on development and validation of measures of psychological flexibility specifically in the context of parenting. Building on data presented previously (Antonsen et al., 2021), ongoing validation of a new measure of parenting inflexibility specially among caregivers of TGD youth will also be included. Implications for measurement selection will be discussed.

- Making PRoGRESS in interdisciplinary research: Controversy, bioethical dilemmas, and the role of psychological flexibility in coping with disclosure of actionable adult- and pediatric-onset genomic variants to minors and their parents

Sean O'Dell, Ph.D., Geisinger Commonwealth School of Medicine

Exome and genome sequencing can detect pathogenic/likely pathogenic variants in clinically actionable genes, including for adult-onset conditions such as Hereditary Breast and Ovarian Cancer Syndrome, Lynch syndrome, and HFE-Associated Hereditary Hemochromatosis. Despite the potential public health impact of this precision health information, controversy over feared psychosocial harms of this practice has delayed empirical research. The Pediatric Reporting of Genomic Results Study (PRoGRESS) is an interdisciplinary, longitudinal, mixed methods study which aims to determine ways to maximize the physical and psychosocial wellbeing of minors and their family using genetic information to guide care. This presentation will first describe both sides of the controversy regarding disclosure to minors and their parents for adult-onset conditions and bioethical dilemmas stemming from study design elements for psychosocial support and monitoring requested by the grant reviewers. Then, the role of parent and youth psychological flexibility will be discussed in the disclosure process. Finally, preliminary results on the relationship between baseline parent psychological flexibility and risk for psychosocial problems, rates of cascade testing, and risk management practices will be discussed.

- Mindful Moments in Parenting- The Piloting of an Online Support Group

Adrienne Garro, Ph.D., Kean University
Giuliana Stillo, M.A., Kean University
Debbie Chung, B.A., Kean University
Diana Hoffstein, B.A., Kean University

This paper will discuss the piloting of an online mindfulness parenting support group. "Parenting mindfulness" is a construct that refers to parents bringing present-moment awareness, including awareness of emotions, thoughts, perceptions and experiences about their child(ren) into their relationships with their children. Parenting mindfulness also involves non-judgmental acceptance of these emotions and experiences as well as the application of psychological flexibility (Duncan, Coatsworth, & Greenberg, 2009; Kabat-Zinn, 1997). Research indicates that parenting mindfulness is associated with a number of positive outcomes including reductions in parenting stress and depression symptoms, healthier parenting styles, and more positive parent-child interactions (Bögels, Hellemans, van Deursen, Römer, & van der Meulen, 2014; Lippold, Duncan, Coatsworth, Nix & Greenbert, 2015; Parent, McKee, Rough & Forehand, 2016). In addition, some research has found that increases in parenting mindfulness are linked to positive child outcomes, such as reductions in behavior problems and psychological symptoms and greater well-being (Moreira, Gouveia, & Canavarró, 2018). More recently, self-compassion has been highlighted as a valuable component and process within parenting mindfulness (Coyne et al., 2021). The current online parenting support program seeks to enhance these multiple aspects of mindful parenting. The non-clinical sample of participating parents includes mothers of children ages 1-12 years. The online program consists of six sessions which cover a range of topics including parenting stress, attachment, emotion awareness, acceptance of self and child, identifying and acting on values, and self-compassion. Content is presented through a combination of psychoeducation and experiential activities, including specific mindfulness practices and exercises from ACT. In addition to providing qualitative data regarding effectiveness, we will discuss the practical aspects of conducting an online mindfulness program (e.g., feasibility, logistical considerations, etc.). Future implications for research and practice will also be explored.

- Utilizing Acceptance and Commitment Therapy to improve psychological flexibility and mindfulness in parents: Case studies
Anne Donnelly, PsyD, Pace University

Presentation will include case studies illustrating the use of ACT to improve flexibility/mindfulness in parents.

1st case illustrates the use of ACT to facilitate values clarification, present moment awareness, psychological flexibility, and values driven behavioral choices in parenting children with significant psychological issues.

2nd case illustrates the use of a structured mindfulness training program and supported mindfulness practice (utilizing the KORU Mindfulness app) as well as ACT to increase present moment awareness, psychological flexibility and values driven behavioral choices in parenting.

Educational Objectives:

1. Discuss a variety of clinical applications using ACT and mindfulness to improve psychological flexibility in parents.
2. Discuss ongoing development and validation of measures of psychological flexibility specifically in the context of parenting transgender and gender diverse (TGD) youth.
3. Describe the role of parent and youth psychological flexibility regarding disclosure of pediatric genome sequencing findings and the controversy surrounding the bioethical dilemma.

53. Getting Our House In Order: An Internal Contextual Behavioral Science Critique

Symposium (10:30 AM - 12:00 PM)

Components: *Conceptual analysis, Didactic presentation, Literature review*

Categories: Social justice / equity / diversity, Methods/approaches for individual variation, Psychological Flexibility, Intersectionality, Privilege, Minority Stress, Cultural Humility, Mindfulness

Target Audience: *Beginner, Intermediate, Advanced*

Location: Union Square 15 & 16

Chair: MaKensy Sanders, M.A., University of Louisiana at Lafayette, Louisiana Contextual Science Research Lab

Discussant: Lisa Coyne, Ph.D., Harvard Medical School/McLean & New England Center for OCD and Anxiety

Michael May, M.A., LPCC, Compassionate Behavioral Healthcare, LLC

Emily Sandoz, Ph.D., University of Louisiana at Lafayette

Janani Vaidya, M.S., National Louis University; Louisiana Contextual Science Research Group

Lauren "LaGriff" Griffin, M.S., Adolescent Connectedness and Empowerment Lab, Louisiana Contextual Science Research Group

Contextual Behavioral Science (CBS) endeavors to develop a science that fully appreciates the ongoing interaction between behavior and context across dimensions (Hayes, et al., 2012). Have we, as contextual behavioral scientists, gone far enough in our development “a science more adequate to the challenge of the human condition”? When we evaluate contextual variables such as power, privilege, systemic oppression, all through an intersectional lens: does CBS pass muster of our own specified standards? The present symposium will conceptualize three core CBS constructs—vulnerability, psychological flexibility, and mindfulness— by employing the tenets of functional contextualism. The first paper will examine vulnerability through the lens of power and privilege and discuss its implications within the ACBS community. The next paper will employ a minority stress theory (Meyers, 2003) lens to test the applicability of psychological flexibility to gender and sexual minoritized individuals (GSMIs). The final paper will discuss the cultural appropriation of psycho-spiritual practices of mindfulness within CBS with the aim of shifting practices away from appropriation toward appreciation.

- **Functional Vulnerability: Understanding Intimacy Across Differentials of Power and Privilege**
Emily K. Sandoz, Ph.D., Louisiana Contextual Science Research Group
Janani Vaidya, M.S., BCBA, National Louis University, Louisiana Contextual Science Research Group
Karen Kate Kellum, Ph.D., University of Mississippi

Vulnerability is emphasized in several models of intimacy (e.g., Reis & Shaver, 1988), including from behavioral (Cordova & Scott, 2017) and contextual behavioral (Kanter et al., 2020; Kuczynski et al., 2020) perspectives. Colloquially defined as susceptibility to harm, vulnerability involves responses historically consecuted by social aversives (Cordova & Scott, 2017). Thus intimacy is fostered when socially risky behavior is met with reinforcement. Applied to intervention, some aim to train intimacy through skill-building emotional expression and responsiveness (Kanter et al., 2018). These “skills” function differently, however, when degrees of power and privilege differ among the people involved. For example, harmful dynamics that can emerge with vulnerability across ethnic groups have been explicitly described (e.g., white tears; Accapadi, 2007; see Menakem, 2021). We propose an expanded behavioral conceptualization of vulnerability that centers relative power and privilege through the lens of appetitive control, which is key in recent behavioral conceptualization of privilege and consent (LCSRG, 2021, in press). Specific interpersonal dynamics within the ACBS community will be examined critically through this lens, and recommendations offered.

- **How Flexible Are We Meant To Be? Examining The Experiences of Gender and Sexual Minoritized Individuals Using Minority Stress Theory**
LaGriff Griffin; M.S., Suffolk University; Adolescent Connectedness and Empowerment Lab; Louisiana Contextual Science Research Group
Janani Vaidya, M.S., BCBA, National Louis University; Louisiana Contextual Science Research Group
Emily K. Sandoz, Ph.D., University of Louisiana at Lafayette
Sarah Schwartz, Ph.D., Suffolk University

According to contextual behavioral scientists (Hayes, 2004), psychological flexibility (PF) is an approach to human psychological well-being that should be universally applicable independent of gender, sexuality, ethnicity, or other personal characteristics or identities (Hayes et al., 2012; Kashdan & Rottenberg, 2010; Leonidou et al., 2019; Lucas & Moore, 2019). However, the role of the contexts of power and privilege in which PF has been established (i.e., colonial white supremacy culture) and its related implications are rarely acknowledged. This entrenchment in privilege and majority culture raises critical philosophic doubt regarding the universality of PF application, especially when considering marginalized groups such as gender and sexual minoritized individuals (GSMIs). The construct of PF will be critiqued through a minority stress theory (Meyer, 2003) lens. Four core issues pertaining to PF’s applicability to GSMIs will be reviewed: (1) GSMI underrepresentation in research, (2) GSM status’ association with greater inflexibility, (3) divergence between workability and flexibility, and (4) intersectionality in context. Implications for the field of psychology will be discussed.

- **Post-colonial Repair and Reparation: Unraveling the Mindfulness Mess**
Janani Vaidya, M.S., BCBA, National Louis University; Louisiana Contextual Science Research Group
Michael C. May, M.A., LPCC, Louisiana Contextual Science Research Group, Compassionate Behavioral Healthcare, LLC
Amrinder (Bynda) S. Babbra, M.S., BCBA, Southern Illinois University
Manish Goyal, M.A., BCBA, Southern Illinois University

Mindfulness-based approaches continue to grow in popularity among the empirically-supported approaches to behavior change (Goldberg et al., 2021). Throughout the development and ongoing evolution of these approaches, questions have arisen as to the relationship between “mindfulness” (as

utilized in psychology) and mindfulness (Sati, Smṛti) as a component of psycho-spiritual practices that developed within Buddhist traditions in the Indian subcontinent (Anālayo, 2003). As so-called “western” behavior change approaches benefit from adopting “mindfulness” as a therapeutic approach to psychological wellbeing, we ask: what damage is caused by the appropriation of psycho-spiritual practice forms and concepts? Has the field, as a whole, done enough to mitigate or repair damaging aspects of this appropriation? What actions can contextual behavioral scientists take to address this ongoing issue? The authors will critically examine the ongoing conversation within the CBS community with an eye toward cultural appropriation and problematic secularization, and make practical suggestions for shifting practices within the field to emphasize cultural humility and appreciation.

Educational Objectives:

1. Describe the process for assessing their own relative power and privilege within the ACBS community in terms of relative appetitive control.
2. Identify relevant contextual variables influencing psychological flexibility for GSMIIs and other systematically oppressed groups within the scope of their research and practice.
3. Discriminate appropriative practices in their repertoire and employ techniques to enhance psychological flexibility in a culturally humble manner.

55. Flexible Applications: Using ACT with Healthcare Workers, Adolescents, and the LGBTQ+ Community

Symposium (10:30 AM - 12:00 PM)

Components: *Literature review, Original data*

Categories: Clinical intervention development or outcomes, Processes of change, ACT

Target Audience: *Intermediate, Advanced*

Location: Union Square 19 & 20

Chair: Amy Naugle, Ph.D., Western Michigan University

Discussant: Louise Hayes, Ph.D., Fellow of the APS College of Clinical Psychologists

Tabitha DiBacco, M.A., Western Michigan University

Sanela Kalakovic, M.A., Western Michigan University

Allie Mann, M.A., Western Michigan University

Acceptance and Commitment Therapy (ACT) has been shown to be effective with a variety of presenting concerns including depression, anxiety, chronic pain, aggression, and many others (Fiorillo et al., 2017; Gloster et al., 2020; Zarlino et al., 2019). The core goal of increasing psychological flexibility makes it an ideal treatment to consider for diverse applications. The present symposium will present data from three research studies examining three different applications of ACT. These include (1) a 14-session group intervention with high school students, (2) a four-session individual intervention with adults identifying as part of the LGBTQ+ community, and (3) a two-session individual intervention with healthcare workers during the COVID-19 pandemic. All three talks will present considerations in using ACT with the indicated populations, outcomes from the interventions, and future directions.

- Rebounding from Stress with Psychological Flexibility
Sanela Kalakovic, M.A., Western Michigan University
Scott Gaynor, Ph.D., Western Michigan University

Adolescence is a time of change and stress (Allen & Hiebert, 1991). The existing evidence supporting the use of Acceptance and Commitment Therapy for adolescents is promising but limited. Using a pre-test/post-test design with an embedded repeated measures design, six adolescents (100% Hispanic or Latinx) struggling to manage stress engaged in a 14-session Acceptance and Commitment Therapy group therapy protocol. The protocol was adapted to be culturally responsive to the individuals and incorporated popular culture references to improve content relatability and retention. Group-level statistically significant effects were found for quality of life, psychological flexibility, and amount of stress. At the individual level, most of the participants showed clinically significant changes with the Global Quality of Life (GQOL) scale, a novel ACT Weekly Check-In measure, and Avoidance and Action Questionnaire-II (AAQ-II). The study was completed during the COVID-19 pandemic, providing a real-world example of the usefulness of the protocol in managing stress. The potential utility of ACT for stress management with adolescents from diverse backgrounds and implications for future research and clinical work will be discussed.

- Considerations for Using ACT with Sexual and Gender Minority Individuals
Allie Mann, M.A., Western Michigan University

Amy Naugle, Ph.D., Western Michigan University
Eva Lieberman, M.S., Western Michigan University

Sexual and gender minority individuals (SGM) are at increased risk for psychological disorders compared to the general population. Despite this well-documented disparity in mental health outcomes, there is a lack of treatment studies examining SGM mental health. An accumulation of research has demonstrated that the source of this disparity is increased exposure of SGM individuals to stigma-related minority stress. It is necessary to examine psychological pathways that are impacted by stigma and the treatments that can reduce psychological distress in this population. Currently, we do not have the research evidence to answer the questions of if current evidence-based treatments are effective for SGM individuals or if it is necessary to develop population specific adapted therapies. There is a need for treatment studies that begin to answer these questions. Results from a pilot study examining the effectiveness of a 4-session unadapted ACT protocol will be discussed.

- A Two-Session ACT Intervention with Healthcare Workers During the COVID-19 Pandemic
Tabitha DiBacco, M.A., Western Michigan University
Amy Naugle, Ph.D., Western Michigan University
Sanela Kalakovic, M.A., Western Michigan University

The COVID-19 pandemic represents a prolonged, worldwide crisis for physical health and mental health. Research with healthcare workers has indicated increased anxiety related to COVID-19 and relatively high trauma-related symptoms (Bidzan et al., 2020; Labrague & De los Santos, 2020). Mental health interventions for healthcare workers have been identified as a research priority and Acceptance and Commitment Therapy (ACT) warrants exploration (Holmes et al., 2020). However, limited research has been published on intervention outcomes with healthcare workers during the COVID-19 pandemic. The present study used a modified multiple baseline design to examine the effectiveness of a two-session, ACT intervention with healthcare workers during the pandemic. Single subject and group analyses were used to assess change. Results indicated participants experienced decreased anxiety, depression, trauma-related symptoms, and burnout following the brief intervention. The utility of ACT during the COVID-19 pandemic and implications for future research and clinical work will be discussed.

Educational Objectives:

1. Describe the potential utility of ACT for stress management and for adolescents from diverse backgrounds, including how to adapt protocols to be culturally responsive and personalized to their interests.
2. Identify relevant considerations for using ACT with sexual and gender minority individuals.
3. Identify ACT processes that may be well suited for concerns clients are facing during COVID-19 Pandemic.

57. Telehealth and Digital ACT Interventions: Advances and Innovations for Transdiagnostic Behavioral Health Concerns

Symposium (10:30 AM - 12:00 PM)

Components: *Original data*

Categories: Mobile or digital technology, Health / behavioral medicine, Digital Health

Target Audience: *Beginner, Intermediate*

Location: Virtual - The session will be streamed live to our virtual audience. The recordings (video, Powerpoint, and audio) will be captured, and will be uploaded to the conference website for On Demand viewing within 48 hours of presentation.

Chair: Orla Moran, Ph.D., Dundalk Institute of Technology

Discussant: Louise McHugh, Ph.D., University College Dublin

Joseph Lavelle, M.Sc., UCD School of Psychology; UCD School of Public Health, Physiotherapy, and Sports Science

Darren Edwards, Ph.D., Swansea University

Digital health platforms offer increased availability and flexibility to individuals wishing to access therapeutic support who may not be able to access in-person therapy, such as those with chronic health conditions (Stoll et al., 2020). While only a small number of studies have examined the adaption of Acceptance and Commitment Therapy (ACT) for use in digital interventions, preliminary findings are promising (Nes et al., 2012; 2015). However further research is critical to understand how digital ACT interventions can best meet the needs of populations affected by more profound challenges, such those with chronic illness and clinically significant mental health concerns. In the first paper, Lavelle and colleagues present research on brief telehealth ACT intervention for stress in

patients diagnosed with IBD. In the second paper, Moran et al present findings on the effect of an ACT based digital behaviour change intervention for those with cardiac conditions. Finally, in paper three, Edwards & Kemp examine the feasibility of two ACT based interventions; a short digital psychoeducational course; and a computer game using the MRC framework guidelines.

- A Single Case Experimental Design to Evaluate a Digital ACT Intervention for Improving Self-Management Behaviors in Cardiac Patients

Orla Moran, Ph.D., Dundalk Institute of Technology
Oonagh Giggins, Ph.D., Dundalk Institute of Technology
Louise McHugh, Ph.D., University College Dublin
Evelyn Gould, Ph.D., Harvard Medical School
Suzanne Smith, Dundalk Institute of Technology
Shane Gavin, Dundalk Institute of Technology
Nisanth Sojan, Dundalk Institute of Technology
Gordon Boyle, Dundalk Institute of Technology
Julie Doyle, Ph.D., Dundalk Institute of Technology

To date, limited empirical research has been conducted examining the efficacy of Acceptance and Commitment Therapy (ACT) with cardiac patients and most ACT based empirical investigations to date also involve in-person therapy, which can be difficult to access for those dealing with the demands of chronic disease. This research examines the efficacy of a digital ACT intervention to improve self-management behaviors and psychological flexibility in cardiac patients. The intervention is delivered via a digital health app over 6 weeks with once weekly live video sessions and involves a randomized-multiple baseline Single Case Experimental Design (SCED) with nine cardiac patients (M=55.55yrs; SD=6.81yrs; 6 males). The Independent Variable for each participant will be pre- post intervention phase. Dependent variables will be daily self report measures of psychological flexibility, as well as objective measures of self-management. One-to-one qualitative interviews will also be used to further examine participants' experience using the intervention and what factors contributed to/imposed successful outcomes. Findings will be discussed in terms of how a digital ACT intervention can best meet the needs of cardiac patients.

- A Single Case Experimental Design (SCED) evaluating a two-session telehealth Acceptance and Commitment Therapy (ACT) intervention for stress in Inflammatory Bowel Disease (IBD)

Joseph Lavelle, M.Sc., University College Dublin
Darragh Storan, M.D., Beaumont Hospital
Varsha Eswara Murthy, Ph.D., University College Dublin
Noemi De Dominicis, Saint Vincent's University Hospital
Hugh Edward Mulcahy, M.D., FRCPI, University College Dublin & Saint Vincent's University Hospital
Louise McHugh, Ph.D., University College Dublin

Psychological intervention is now considered an integral component of Inflammatory Bowel Disease (IBD) management with this predicated on links between mental health concerns—such as mood disorders and chronic stress—, disease activity, and treatment response. However, significant barriers to access exist which necessitate the development of effective, economic, and accessible brief and remote interventions. The present study investigated a brief telehealth Acceptance and Commitment Therapy (ACT) intervention via randomized multiple-baseline design with temporal staggering of intervention onset and daily ecological momentary assessment of stress and indices of psychological flexibility. Participants (N=12 people with an IBD diagnosis) completed baselines lasting from 21 to 66 days before receiving a two-session ACT telehealth intervention which was supplemented by a workbook to support better living with chronic illness and a brief phone consultation. Approximately, half of participants experienced reduced stress and increased psychological flexibility with factors such as intervention adherence influencing intervention response. The present findings suggest that brief ACT interventions in this population may be effective, economic, and accessible.

- Novel acceptance and commitment therapy (ACT) digital health psychoeducational and computer game interventions with students who have depression, anxiety, and stress: A feasibility study and protocol discussion

Darren Edwards, Ph.D., Swansea University
Andrew Kemp, Swansea University, Ph.D

Recent studies have revealed a high prevalence of depression anxiety, and stress symptoms among university students. This study aimed to determine the feasibility of two interventions; (1) a short online ACT digital psychoeducational course; and (2) an ACT-based computer game using the MRC framework guidelines. This included exploring quantitatively, whether the intervention would improve wellbeing and psychological flexibility, whilst reducing depression, anxiety, and stress. 28 participants with moderate to high levels of depression, anxiety and stress completed the 'Bite of ACT' psychoeducational intervention

over a two-week period. The measures (for both interventions) used were the Warwick-Edinburgh Mental Well-being Scale (WEMWBS), the Depression, Anxiety and Stress Scale (DAS-21) to test for depression, anxiety and stress, and the Acceptance and Action Questionnaire II (AAQII). Pilot data (collected only for the psychoeducation intervention at present) showed overall DASS-21 scores significantly decreased, there was also a significant increase in WEMWBS. These pilot results are promising and in combination with the positive qualitative data we received it is now suggested that a full scale RCT should be conducted.

Educational Objectives:

1. Apply necessary adaptations to attendees' own digital ACT interventions for both clinical and research purposes.
2. Describe most recent developments and innovation in the application of ACT to transdiagnostic mental and physical health concerns.
3. Demonstrate understanding of the various types of research design used in testing digital ACT interventions and their advantages, including feasibility studies, and process-based designs such as Single Case Experimental Design.

63. Psychological Flexibility and Experiences of burnout, imposter syndrome and vicarious trauma in the workplace

Symposium (1:15 PM - 2:45 PM)

Components: *Conceptual analysis*

Categories: Behavior analysis, Clinical intervention development or outcomes, Psychological Flexibility and Experiences of burnout, imposter syndrome, vicarious trauma

Target Audience: Beginner, Intermediate, Advanced

Location: Franciscan B

Chair: Francisco Ruiz, Ph.D., Fundación Universitaria Konrad Lorenz

Discussant: Jill Stoddard, Ph.D., The Center for Stress and Anxiety Management

Andrea Criollo Gomez, M.A., Universidad de Valladolid- Konrad Lorenz

John Gonzalez, Mg., FUNDACIÓN UNIVERSITARIA KONRAD LORENZ

Andreas Larsson, Ph.D., Leg. Psykolog, Mittuniversitetet, Institutionen för Psykologi och Socialt Arbete

Zülal Çelik, M.D., Istanbul Medeniyet University Göztepe Prof Dr Süleyman Yalçın City Hospital

Meaningful work can involve a range of extraordinarily fulfilling experiences, leaving many seeking careers that are consistent with deeply held values. Without appropriate systemic resources, however, work that is meaningful can also create the context for particularly insidious kinds of suffering. Burnout, imposter syndrome, and even vicarious trauma are all more likely when people's work matters to them. This symposium will explore how work contexts can foster or mitigate work-related suffering. The first paper explores how defusion might mitigate the suffering involved in imposter syndrome. The second paper examines the impact of a brief ACT protocol on the well being of professionals suffering from burnout. The third paper explores how justice professionals in Colombia are impacted by their role in supporting reintegration of ex-combatants to civilian life.

- Psychological damage in justice and peace professionals for reintegration
John Gonzalez, M.A., Fundación Universitaria Konrad Lorenz
Karen T Lesmes, Fundación Universitaria Konrad Lorenz
Gilian M Bravo, Fundación Universitaria Konrad Lorenz

Colombia has several process of reinstatement to civilian life, where the professionals for reintegration, whose attend to the ex-combatants population, have to be face to traumatic narratives when they accompany the process to these persons to civilian life. For this reason, the aim of the research was to characterize the psychological damage in justice and peace professionals for reintegration, as a consequence of the attention to the ex-combatant population. A transversal descriptive exploratory study was carried out with 6 professionals for reintegration. The procedure was interview 6 professionals for reintegration and analyze functionally the psychological damage through the clinical formulation model of Muñoz-Martínez and Novoa-Gómez (2010), we applied The Vicarious Trauma (VTS) and The Professional Quality of Life V version, based on the clinical interviews the density and the foundation of each category were analyzed, through the Atlas.ti 7.5.4 program. The results showed the professional for reintegration have different consequences in their mental health.

- Effect of online ACT focused on repetitive negative thinking in professionals with burnout
Paola Andrea Bernal Gonzalez, Fundación Universitaria Konrad Lorenz

Andrea Bibiana Criollo Gómez, Universidad de Valladolid
Paula Odriozola Gonzalez, Universidad de Valladolid
Francisco Jose Ruiz Jimenez, Fundación Universitaria Konrad Lorenz

The current study aims to evaluate the effect of an online, 3-session ACT protocol on psychological flexibility and emotional symptomatology in professionals with burnout. We conducted a randomized multiple-baseline design across participants. Six participants between 20 and 50 years old were randomly assigned to three cohorts that differed in number of weeks of baseline collected, from two to four. The effect of the intervention was tested both with ecological momentary assessment (EMA) and weekly measures. Daily measurements were obtained through EMA with scales of burnout, repetitive negative thinking, psychological flexibility, and emotional symptoms. The weekly measures included standard and validated scales of burnout, repetitive negative thinking, emotional symptoms, and valued living. The intervention focused on identifying inflexible patterns of repetitive negative thinking and increasing flexibility in pivoting attention to valued actions both at work and in other life areas. Data analysis consisted of visual inspection and statistical analyses appropriate for single-case experimental designs. The results showed a decrease in burnout, emotional symptoms, and an increase in psychological flexibility processes.

- Defusion for impostor syndrome

Andreas Larsson, Ph.D., Leg. Psykolog, Mittuniversitetet, Institutionen för Psykologi och Socialt Arbete

Impostor phenomenon is a common complaint, especially in more qualified fields and especially in groups that are under represented in those fields. Impostor phenomenon is defined as experiencing that you are lacking in proficiency (i.e. being a fraud) despite examples of the opposite. One may be afraid to be "caught". In a series of studies we have explored the application of defusion exercises for Impostor phenomenon in various settings.

- Stay or Leave? Burnout, Depression, and Anxiety in Frontline and Non-Frontline Healthcare Workers During COVID-19

Züla Çelik, M.D., Istanbul Medeniyet University Göztepe Prof Dr Süleyman Yalçın City Hospital
Sevinç Ulusoy, M.D., Bakirkoy Research and Training Hospital for Psychiatry, Neurology and Neurosurgery

OBJECTIVE: We aim to examine the depression, anxiety and burnout levels and associated factors in frontline and non-frontline healthcare workers (HCWs) during COVID-19.
METHOD: 38 HCWs -not involved in the COVID-19 clinics-(non-frontline), and 38 HCWs working with COVID-19 (frontline) were included. Acceptance and Action Questionnaire-II (AAQ-II), Valuing Questionnaire(VQ), Depression-Anxiety-Stress Scale (DASS-21), Maslach Burnout Inventory(MBI) and Moral Injury Events Scale (MIES) were used.
RESULTS: Depression, anxiety and stress levels were within normal limits in both groups, and no difference was found between the groups. Emotional exhaustion (EE) were high, lack of personal accomplishment(PA) were moderate, and depersonalization (DP) were low in both groups.EE and DP were found to be higher in the frontline group. No significant difference was found in PA, VQ, AAQ-II and MIES.
CONCLUSION: High burnout despite normal depression and anxiety levels indicate that HCWs may experience burnout without noisy symptoms. It is noteworthy that the EE and DP are found to be higher in frontline HCWs during Covid-19.EE and DP can be the focus of psychotherapeutic interventions to maintain occupational functionality and improve quality of life in HCWs.

Educational Objectives:

1. Analyze the psychological damage in professional for reintegration.
2. Analyze the efficacy of an online ACT protocol on psychological flexibility in professionals with burnout.
3. Describe how impostor phenomenon be understood within and ACT Framework.

67. Toward Multisystemic Resilience in a Genocide-affected Country: What is the role of Contextual Behavioral Science?: Greek & Cypriot Chapter Sponsored

Symposium (1:15 PM - 2:45 PM)

Components: *Original data, Strategic planning*

Categories: Dissemination or global health strategies, Clinical intervention development or outcomes, PTSD, psychosocial distress, post-genocide resilience, public health

Target Audience: Beginner, Intermediate, Advanced

Location: Union Square 15 & 16

Discussant: Maria Karekla, Ph.D., University of Cyprus

Alexandros Lordos, Ph.D., University of Cyprus
Stefani Christoforou, M.Sc., University of Cyprus
Georgia Christou, M.Sc., M.A., University of Cyprus
Eleni Anastasiou, B.Sc., MBPsS, M.Sc., University of Cyprus
Kalia Nikolaou, M.Sc., University of Cyprus

Genocide is the intentional destruction of a whole people that is typically motivated by ethnoreligious hatred. When genocides occur, they have devastating consequences on the targeted population in terms of mental health, social cohesion, and livelihoods – with these challenges reinforcing each other and leading to chronic patterns of poverty, intergroup hostility, and psychosocial distress. Recovery of a community from genocide requires a coordinated, multilevel, and cross-sectoral response. In such settings, there is a potentially important role for contextual behavioural science in helping individuals and communities to move beyond their traumatic histories, achieve grounding in the present, reflect on their values, strengthen prosocial connections, and acquire the skills to effectively rebuild their lives. This symposium presents diverse perspectives in pursuing post-genocide resilience through contextual behavioural science, with a specific focus on Rwanda. To emphasize the versatility of a contextual behavioural approach multiple entry points are illustrated, including a public health lens, the role of community needs assessment, integrating socioemotional skills training, and developing novel clinical interventions to promote resilience and strengthen family cohesion.

- **Developing a Public Health Infrastructure for Multisystemic Recovery and Resilience in Rwanda**
Alexandros Lordos, Ph.D., Department of Psychology, University of Cyprus

In severely impacted post-genocide contexts, capacities to address mental health and social cohesion needs usually fall far short of what is required, leading to a significant treatment gap. Specific obstacles in developing a coherent and adequate response include lack of culturally sensitive and empirically grounded intervention protocols, lack of suitably trained human resources, excessive reliance on westernized one-to-one clinical approaches, mental health stigma, insufficient coordination between government departments, and insufficient attention to the social determinants of psychological distress. This presentation will discuss efforts to develop a cross-sectoral public health infrastructure for societal healing and community resilience in Rwanda, challenges that were encountered along the way, and lessons learnt. Based on our experience so far, key factors for the success of such a public health infrastructure include establishing a governance system that brings together diverse institutional stakeholders, blending culturally grounded and science-based elements in a participatory design of intervention protocols, and utilizing group-based and community-based approaches that are at the intersection of psychosocial recovery, prosocial civic development, and poverty alleviation.

- **Multilevel Community Screening as a basis for Needs Assessment and Systematic Treatment Selection**
Stefani Christoforou, MSc, Department of Psychology, University of Cyprus

Systematically allocating participants to interventions through systematic screening is a well-established principle in mental health, and contributes to resource efficiency and treatment efficacy. However, it is less clear how screening should be conducted in a community-wide setting, where systematic treatment selection goes beyond the conventional mental health field to include, for instance, social reconciliation activities and collaborative livelihood initiatives. To address these challenges in the context of Rwanda, we developed a two-stage multilevel screening process. At the first stage, data was collected at the level of community through interviews with local leaders and community health workers to identify problems in various domains, as well as endogenous resilience capacities, while generating referrals for in-depth assessment. At the second stage, referred individuals were assessed for mental health difficulties, family difficulties, community tensions, and livelihood challenges, for appropriate allocation to specific groups. A similar two-stage approach was used for the screening of adjudicated former genocide perpetrators. Such community-based adaptations of conventional screening processes can provide a more reliable empirical basis for systematic allocation to cross-sectoral interventions.

- **Adapting a Socioemotional Skills Training curriculum based on 3rd wave Cognitive Behavior Approaches, for use in a sub-Saharan African context**
Georgia Christou, MSc, M.A., Department of Psychology, University of Cyprus

This paper presents the development and cultural adaptation of an innovative and transdiagnostic socioemotional skills curriculum for use in the Rwandan context. The curriculum incorporated skills for emotional wellbeing (e.g., present moment awareness, cognitive defusion), which were largely inspired by a 3rd wave cognitive behavioral tradition, skills for collaboration (e.g. authenticity and self-expression, cultivating gratitude and kindness) which incorporated elements from social psychology, nonviolent

communication training, and prosocial development literature, and skills for self-management (e.g. planning and daily organization, decision making and problem solving) which were largely inspired by the executive functioning literature. Cultural adaptation of the training curriculum to the Rwandan context was done in collaboration with a team of local specialists, who advised on appropriate use of imagery, metaphors, and stories. Movement and dance activities were incorporated across several training modules. The socioemotional skills training curriculum is intended for use in schools, prisons, and hospitals, primarily with a view to addressing skills deficits that may have arisen due to genocide-associated deprivations, or that may be perpetuating patterns of post-genocide fragility.

- **Addressing Complex Genocide-Related Trauma in Rwanda: Resilience-Oriented Group Therapy**
Eleni Anastasiou, MSc, Department of Psychology, University of Cyprus

Resilience-Oriented Group Therapy is a strengths-based, trauma informed, and modular treatment, which was developed as part of efforts for recovery and resilience in the aftermath of the genocide against the Tutsi in Rwanda. A sample of 5020 participants was recruited to conduct a profile analysis to detect clinical clusters with regards to specific mental health symptoms. Results provided insights which informed the development of the intervention. Specifically, the intervention is a multi-phase group-based treatment which combines elements of process and narrative to build up agency, responsibility, identity, and motivation for change, with psychoeducation related to clinical distress and acquisition of resilience-enhancing socioemotional competencies. Distinct variants of Resilience-Oriented Group Therapy were developed, to reflect the predominant clinical presentation of group participants, specifically for, emotion regulation, behavioral self-management, and identity development. The final stage involves reflections on how to apply acquired skills to support community development and transformation. The intervention has been pilot-tested in Bugesera district and is currently undergoing clinical trials in the formal mental health sector.

- **Addressing Inter-generational Legacies of the Rwandan Genocide: Multifamily Healing Spaces**
Kalia Nikolaou, MSc, Department of Psychology, University of Cyprus

Several studies have demonstrated that legacies of genocide can persist across generations. These include processes such as intergenerational transmission of trauma, but also intergenerational transmission of intergroup hostility, social polarization, and emotional reactivity. Qualitative and ethnographic studies in Rwanda have revealed that genocide-associated trauma or hostility can be transmitted to the next generation through parental rumination, withdrawal, avoidance, blocked communications, and use of narratives that trigger anger or hostility. Despite such findings, most interventions still prioritize addressing mental health challenges as an individual, rather than family-systemic, phenomenon. Against this backdrop we developed a protocol for Multifamily Healing Spaces that can serve to strengthen family cohesion and personality growth, while also contributing to wider processes of community development and reconciliation. Multifamily Healing Spaces will be used with families of survivors, where, typically, parents are finding it difficult to relate to their children due to personal exposure to the genocide, but also families of perpetrators, where parents who are former prisoners are finding it difficult to be accepted by their families and communities.

Educational Objectives:

1. Discuss how genocide exposure can lead to chronic and mutually reinforcing cycles of mental distress, disrupted social cohesion, and poverty.
2. Discuss some of the challenges related to the design and implementation of scalable public health infrastructures for post-genocide societal healing, recovery, and resilience.
3. Compare the utility of different behaviorally informed interventions to address specific challenges of genocide-affected populations.

68. Processes of Change in Relation to the use of Psychedelics and MDMA for Therapeutic and Healing Purposes

Symposium (1:15 PM - 2:45 PM)

Components: *Conceptual analysis, Didactic presentation, Literature review, Original data*

Categories: Processes of change, Clinical intervention development or outcomes, Psychedelics

Target Audience: *Beginner, Intermediate*

Location: Union Square 17 & 18

Chair: Jason Luoma, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Discussant: Henry Whitfield, M.Sc., Regents University School of Psychology and Psychotherapy, Maastricht University Department of Neuropsychology and Psychopharmacology

Brian Pilecki, Ph.D., Portland Psychotherapy

Gabby Agin-Liebes, Ph.D., University of California, San Francisco

Anne Wagner, Ph.D., Remedy + Remedy Institute
Jordan Sloshower, M.D., M.Sc., Yale University Department of Psychiatry

This symposium is a unique opportunity to hear from several leaders in the realm of psychedelic and MDMA-assisted therapy who have been part of the few controlled clinical trials that have been conducted to date. The papers discuss data and theory related to diverse contexts of study, from retreat contexts with Ayahuasca and Psilocybin, to controlled clinical trials utilizing psilocybin and MDMA. Researchers have noted that the study of processes of change has been neglected in a psychedelic assisted therapy literature that has instead tended to focus on obtaining evidence of efficacy. However, this has started to change and several researchers in this symposium are beginning to address these gaps. As such, the cross-cutting theme across all talks is the exploration of possible processes of change, with an emphasis on cognitive-behavioral processes. In addition, these papers include review some of the first data on psychological flexibility processes in psychedelic retreat and therapy contexts.

- **The Impact of Group-Administered Psilocybin on Psychological Flexibility and Outcomes**
Brian Pilecki, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center
Jason Luoma, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center
Christina Chwyl, Drexel University
Kati Lear, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Psychological flexibility has been proposed as a core process of change in response to the therapeutic use of psychedelics, but to date empirical outcomes have only documented changes on the Acceptance and Action Questionnaire (AAQ), a very general and controversial measure of psychological flexibility. This pilot study measured outcomes from psilocybin administered in a retreat setting across a range of measures assessing various aspects of psychological flexibility. Nine participants attended a 7-day psilocybin retreat and completed measures at baseline, 2-, and 6-week follow-up. Results showed that participants demonstrated significant improvements in cognitive defusion (Cognitive Fusion Questionnaire), valued living (Valuing Questionnaire), and Self-Compassion (Self-Compassion Scale). Results showed a trend towards increased psychological flexibility (AAQ), but no changes in belief in oneness (Belief in Oneness Scale), a feature of mystical experiences with prior evidence as a process of change in psilocybin-assisted psychotherapy. Outcome measures demonstrated increases in social safeness (Social Safeness and Pleasure Scale) but not in burnout (Oldenburg Burnout Inventory). Limitations will be discussed including limited sample size and potentially high degree of baseline psychological flexibility.

- **Prospective examination of the therapeutic role of psychological flexibility and cognitive reappraisal in the ceremonial use of ayahuasca.**
Gabrielle Agin-Liebes, Ph.D., University of California, San Francisco
Richard Zeifman, Ryerson University
Jason Luoma, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center
Eric L. Garland, University of Utah
W. Keith Campbell, University of Georgia
Brandon Weiss, University of Georgia

Evidence suggests that psychedelic-assisted therapy carries transdiagnostic efficacy, particularly in the treatment of mental health conditions characterized by low mood and the use of avoidance coping strategies. This prospective study addressed methodological gaps in the literature and examined the ability of ayahuasca to stimulate acute states of reappraisal and long-term changes in psychological flexibility and mood. Participants (N = 261) were recruited from three ayahuasca retreat centers in Central/South America. Expectancy, demand characteristics, and invalid responding were controlled for with several scales. Participants reported significant improvements in mood and psychological flexibility at the 3-month follow-up. Acute experiences of reappraisal during the ceremony exerted the strongest moderating effects on increases in positive mood and psychological flexibility. Increases in psychological flexibility statistically mediated the effects of acute psychological factors, including reappraisal, on changes in positive mood. These results highlight the role of acute psychological processes, (e.g., reappraisal) and post-acute increases in psychological flexibility as putative mechanisms underlying positive outcomes associated with psychedelics. These results also provide support for the integration of third-wave therapy approaches with psychedelic-assisted interventions.

- **Proposed Pathways of Action for Couple Therapy with MDMA**
Anne C. Wagner, Remedy, Toronto, Canada

MDMA's first identified potential as a therapeutic catalyst was for couple therapy. With the completion of the first pilot trial of MDMA-assisted psychotherapy with couples for PTSD (Monson et al., 2020; Wagner et al., 2019), and as the possibility of conducting MDMA-assisted psychotherapy trials expands due to new regulatory frameworks, we have an opportunity to explore and investigate how and why MDMA-assisted couples therapy works. This talk will explore the neurobiological and neurochemical effects of MDMA in a relational context, the emotional, behavioural, cognitive and somatic effects within a dyadic frame, and how empathy, communication, perception of social connection/support, non-avoidance, openness, attachment/safety, bonding/social intimacy and relationship satisfaction, are all impacted by MDMA, and can be harnessed to facilitate systems-level and interpersonal healing and growth. A model to support MDMA-assisted couple therapy will be discussed.

- Study Protocol and Proposed Processes of Change in a Pilot Study of MDMA-Assisted Therapy and Social Anxiety Disorder

Jason Luoma, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center
Kati Lear, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center
Brian Pilecki, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center
Sarah Smith, Portland Psychotherapy Clinic, Research, & Training Center

This paper describes the theoretical rationale, design, and protocol of the Social Anxiety MDMA-Assisted Therapy Investigation Trial (SAMATI; clinicaltrials.gov/NCT05138068). The SAMATI Trial is a phase two, open-label, waitlist control randomized clinical trial examining MDMA-Assisted-Therapy (MDMA-T) for Social Anxiety Disorder across 20 participants that is informed by contextual behavioral science. This paper reviews relevant theoretical background information for MDMA-AT as relevant to social anxiety disorder and measurement methods advanced in the trial that could be utilized in future studies, including behavioral measures, physiological measurement, and intensive longitudinal methods to assess potential processes of change. The theoretical review will describe several theoretically-derived psychological and physiological change processes including memory reconsolidation, alterations on the parasympathetic nervous system, acceptance of shame and embarrassment, self-concealment, perceptions of belonging, changes in social signaling, and effects on the therapeutic relationship (as cited in Luoma et al., 2021; Luoma & Lear, 2021).

- Psilocybin-assisted therapy of major depressive disorder using Acceptance and Commitment Therapy as a therapeutic frame

Jordan Sloshower, M.D., Department of Psychiatry, Yale School of Medicine

Psychedelic-assisted therapy is based on the premise that psychedelic substances can act as catalysts or adjuncts to psychotherapeutic processes. Recent clinical trials involving psychedelic-assisted therapy have generally employed a similar structure consisting of preparation, support during dosing sessions, and subsequent "integration." However, the content of these sessions and the frame through which therapists engage participants and understand the clinical process has, thus far, been inconsistent. In designing a therapy protocol for a small clinical trial of psilocybin therapy for major depressive disorder, our group sought to delineate a manualized, evidence-based model that intentionally synergizes with the phenomenology of the psilocybin experience. Having identified considerable concordance in proposed mechanisms of change between Acceptance and Commitment Therapy (ACT) and psilocybin therapy, we employed ACT as an overarching psychotherapeutic framework. In this presentation, Dr Sloshower will describe the rationale for selecting ACT, areas of potential synergism between ACT and psilocybin-therapy, and the basic structure of the treatment model. Relevant results from the clinical trial pertaining to psychological flexibility will also be shared.

Educational Objectives:

1. List 3 act processes that may be affected by psychedelic assisted therapy.
2. Describe how ACT can be used to guide psychedelic integration and preparation.
3. Discuss how MDMA may affect psychological flexibility.

70. CBS research in the context of Covid-19: Part 1

Symposium (1:15 PM - 2:45 PM)

Components: *Didactic presentation, Original data*

Categories: Health / behavioral medicine, Mindfulness and Psychological Flexibility, Healthcare Workers, Burnout, Depression, Anxiety, Moral Injury, Values, Meaning in Life, Psychological Trauma Symptoms

Target Audience: *Beginner, Intermediate, Advanced*

Location: Union Square 22

Chung Xiann Lim, B.S., Bowling Green State University

Nikolett Eisenbeck, Dr., University of Seville
Sevinç Ulusoy, M.D., Bakirkoy Research and Training Hospital for Psychiatry, Neurology and
Neurosurgery
Emily Mueller, M.A., Bowling Green State University
Tahereh Seghatoleslam, Ph.D., University of Malaya

The first case of COVID-19 was discovered in December 2019, and quickly spread to pandemic status, impacting people in every country in the world, often horrifically. With disease often came social isolation, financial insecurity, psychological distress, and a lack of meaning. Fortunately, not far behind were the efforts of contextual behavioral scientists to identify ways of adding to this large-scale contextual event to mitigate its impacts on these domains were not far behind. This symposium is the first of two focusing on CBS approaches to understanding and addressing the impacts of COVID-19. This symposium focuses on psychological distress, burnout, and trauma symptoms in the context of the pandemic. The first paper explores the roles of Psychological Flexibility and Inflexibility in predicting traumatic stress. The second paper examines the depression, anxiety and burnout levels and associated factors in frontline and non-frontline healthcare workers. The third paper evaluates differences between moral injury, emotional distress and values according to burnout levels among healthcare workers. The fourth paper investigates the relationship between intolerance of uncertainty on depressive symptoms and moderators thereof. The fifth paper evaluates the effectiveness of Acceptance Commitment Therapy & Mindfulness in decreasing psychological trauma symptoms among Muslim Women Refugees during lockdown in Malaysia.

- Multidimensional Psychological Flexibility Inventory accounted for unique variance in COVID-19 traumatic stress

(Sam) Chung Xiann Lim, B.S., Bowling Green State University
Emily Mueller, M.A., Bowling Green State University
Mytien Le, B.S., Bowling Green State University
Maria Kalantzis, B.S., Bowling Green State University
William O'Brien, Ph.D., Bowling Green State University

Davico et al (2021) showed the COVID-19 pandemic can cause traumatic stress. The present study investigated the roles of Psychological Flexibility (PF) and Psychological Inflexibility (PI) in predicting traumatic stress (TS, measured by Impact of Event Scale with COVID-19 context modifications). Responses from 658 US-based Mturk workers were collected in August-October 2021. A three-step hierarchical regression was conducted with TS as the dependent variable. Age, Gender, COVID-19 history, and current self-isolation were entered in step one. Perceived Vulnerability to Disease and Intolerance of Uncertainty were entered in step two as they were associated with COVID-related anxiety symptoms (Mallett et al., 2021). 12 subscales that made up PI and PF were entered in step three to allow examinations on the facet level. First two steps explained 59.6% of the variance. Step three introduced another 14.2% and the overall model accounted for 73.8% of the variance ($R^2 = 73.8, p = <.00$). Four PI facets and two PF facets were significantly linked to TS. Intervention targeting the facets at play can more effectively decrease COVID-19 psychological distress.

- Psychological coping among people with psychological disorders during COVID-19: a global case-control study

Nikolett Eisenbeck, University of Seville
David F. Carreno, University of Almería
Joshua A. Hicks, Texas A&M University

The COVID-19 pandemic disproportionately affected vulnerable groups and people with mental disorders appear to be no exception. However, it is imperative to assess not only their weaknesses but their strengths and their adaptive strategies to understand how to mitigate the harmful consequences of the prolonged crisis. A total of 1732 adults from 25 countries participated in the study: 866 respondents with mental health diagnoses (depression or anxiety) and undiagnosed individuals matched according to country, age, and gender. Various coping strategies, mental and physical health, and markers of psychopathology were measured. The results indicated numerous differences between groups with and without psychological diagnoses, such as mental and physical health, levels of positive emotions, meaning in life, and differential use of various psychological strategies (e.g., active coping, denial, substance use, use of emotional support, behavioral disengagement, venting, self-blame, and meaning-focused coping). The findings call for specific interventions focusing on adaptive strategies, such as preventing avoidance-focused coping and facilitating coping centered on personal values and meaning in life.

- How Moral injury and Values-based actions affect burnout among healthcare workers during COVID-19 pandemic?

Sevinç Ulusoy, M.D., Bakirkoy Research and Training Hospital for Psychiatry, Neurology and Neurosurgery; Psychiatry
Zülal Çelik, Istanbul Medeniyet University Göztepe Prof Dr Süleyman Yalçın City Hospital; Psychiatry

BACKGROUND: We aimed to evaluate differences between moral injury, emotional distress and values according to burnout levels among healthcare workers (HCWs).

METHOD: 124 frontline HCWs were reached during COVID-19. Maslach Burnout Inventory (MBI), Depression Anxiety Stress Scale-21(DASS-21), Valuing Questionnaire (VQ) and Moral Injury Event Scale(MIES) were used. Each burnout subscale (emotional exhaustion-EE, depersonalization-DP and lack of personal accomplishment-PA) was divided into three groups as low, moderate, and high levels and compared.

RESULTS: MIES, VQ-Obstruction and DASS-21 were lower and VQ-Progress were higher in DP low level group. In contrary, no significant differences were found between variables for moderate and high levels of lack of PA. ANOVA results indicated EE had significant effects on the MIES, VQ-Obstruction, VQ-Progress, DASS-21. There was a significant difference in MIES scores for the three levels of EE.

DISCUSSION: Our results revealed the relationship between moral injury, decreased values-based behavior and burnout. Considering that burnout affects not only the well-being of HCWs but also patient outcomes, it is important to develop valued-based interventions include moral injury for HCWs during the pandemic.

- Psychological flexibility, intolerance of uncertainty, and depressive symptoms during the COVID-19 pandemic

Emily Mueller, M.A., Bowling Green University
Chung Xiann Lim, B.S., Bowling Green State University
William H. O'Brien, Ph.D., Bowling Green State University
Piraorn Suvanbenjakule, B.A., Chulalongkorn University
Mytien Le, B.S., Bowling Green University

The COVID-19 pandemic has contributed to a challenging psychological landscape. With rapidly changing regulations and evolving knowledge about the novel coronavirus, the pandemic has fostered a sense of uncertainty. Previous studies have shown that intolerance of uncertainty (IU) was positively correlated with psychological distress and depressive symptoms (O'Brien et al., 2021; Reizer et al., 2021; Huang et al., 2019). The impact of IU on depressive symptoms during the pandemic, as well as potential moderators, were explored in this project. We examined the moderating role of psychological flexibility (PF) on the relationship between IU and depressive symptoms (PHQ-9) in the context of the COVID-19 pandemic. A total of 658 vaccinated U.S. MTurk workers completed measures of IU, PF, and the PHQ-9 between August 28th and October 18th of 2021. Linear regressions yielded a significant positive relationship between IU and the PHQ-9. Moderation models suggested that PF overall, self-as-context, and defusion significantly ($ps < .001$) moderated the relationship between IU and the PHQ-9, such that the relationship was stronger among persons with higher levels of PF.

- The Trauma Recovery Symptoms among Muslim Women Refugees during Covid- 19 Lockdown in Malaysia

Tahereh B Seghatoleslam Ph.D., University of Malaya

The aim of the present study was to evaluate the effectiveness of Acceptance Commitment Therapy & Mindfulness and decrease the psychological trauma symptoms among Muslim Women Refugees during covid-19 lockdown in Malaysia.

Method: This Interventional study has been carried out on 34 women (Mean age = 39, Sd = 6.6) who suffered from psychological trauma symptoms in last two years. Subjects were randomly selected and divided into two groups. The instruments were: 1) a questionnaire that contained personal, and family information. 2) The TFACT Questionnaire, Participants received 12 sessions of online TFACT intervention and psychological consultations (twice per week) and increase psychological flexibility

Results: It measured the effect of online treatment through a pre-test and two post-tests. It showed that there were a significant decrease of traumatic recovery symptoms and increasing psychological flexibility.

Conclusion: The results suggested that the increasing psychological flexibility and exposer-based interventions provided the special benefits for women who suffered from psychological trauma symptoms. They provide a new framework to manage their life, family, and children, definitely much more before.

Educational Objectives:

1. Describe the role of perceived vulnerability to COVID, intolerance of uncertainty, psychological flexibility and inflexibility in explaining the variance in self-reported psychological distress.

2. Describe adaptive and flexible coping strategies among people with mental health diagnoses during COVID-19.
3. Describe the moderating effect of psychological flexibility on the relationship between intolerance of uncertainty and depressive symptoms.

74. Acceptance and Commitment Therapy for Addressing Health Disparities

Symposium (3:00 PM - 4:15 PM)

Components: *Original data*

Categories: Social justice / equity / diversity, Clinical intervention development or outcomes, ACT, HIV, Smoking Cessation, Stigma, Substance use

Target Audience: *Beginner, Intermediate, Advanced*

Location: Imperial B

Chair: Jonathan Bricker, Ph.D., Fred Hutchinson Cancer Research Center

Discussant: Kenneth Fung, M.D., University of Toronto

Margarita Santiago-Torres, Ph.D., Fred Hutchinson Cancer Center

Jason Luoma, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Maile Karris, M.D., UC San Diego

There are marked health disparities in marginalized populations, including those with racial/ethnic minority backgrounds and people living with HIV. Social factors including discrimination, racism, and self-stigma are major barriers to their access to care. Despite the need for treatment and these barriers, the field of behavioral research has historically lacked the inclusion of marginalized populations, which reduces generalizability of study findings. The aim of this symposium is to present data of the use of Acceptance and Commitment Therapy (ACT) to help racial/ethnic minority groups quit smoking and addressing self-stigma in people living with HIV. First, Dr. Bricker will present results on the efficacy of an ACT-based application for smoking cessation among Black adults. Second, Dr. Santiago-Torres will present results on the efficacy of an ACT-based website for smoking cessation among Hispanic/Latinx adults. Third, Dr. Luoma will present results on ACT for addressing self-stigma related to HIV. Fourth, Dr. Karris will discuss whether ACT requires tailoring to fit stigmatized populations living with HIV. Dr. Fung will discuss the implications of these studies and will moderate questions.

- Efficacy and Utilization of an Acceptance and Commitment Therapy-based Smartphone Application for Smoking Cessation among Black Adults: Analysis of the iCanQuit Randomized Trial

Jonathan Bricker, Ph.D., Fred Hutchinson Cancer Research Center

Kristin E. Mull, M.S., Fred Hutchinson Cancer Research Center

Brianna M. Sullivan, M.S., Fred Hutchinson Cancer Research Center

Diana Kwon, M.S., Fred Hutchinson Cancer Research Center

Nicole Nollen, Ph.D., University of Kansas

Michael Zvolensky, Ph.D., University of Houston

Margarita Santiago-Torres, Ph.D., Fred Hutchinson Cancer Research Center

Black adult smokers are less likely to seek treatment and to succeed in quitting compared with other racial groups. The lack of efficacious and engaging trials for smoking cessation further contributes to this disparity. In a secondary analysis, we explored the efficacy of an Acceptance and Commitment Therapy (ACT)-based smartphone application (iCanQuit) vs. a US Clinical Practice Guidelines (USCPG)-based smartphone application (QuitGuide) for smoking cessation among Black adults. A total of 554 Black smokers were randomized to either receive iCanQuit (n=274) or QuitGuide (n=280). Retention rate was 89% at 12-months and did not differ by arm. Complete-case 30-day point-prevalence abstinence was 28% for iCanQuit vs. 20% for QuitGuide participants at 12-months (OR=1.60 95% CI: 1.03, 2.46). The iCanQuit application was more engaging than QuitGuide. Increased acceptance of cues to smoke mediated the effect of treatment on cessation. iCanQuit application was more efficacious and engaging for smoking cessation among Black adults than the USCPG-based QuitGuide application. To determine whether iCanQuit may alleviate cessation-related disparities among black adults, adaptation and testing of the iCanQuit application is warranted.

- Web-Delivered Acceptance and Commitment Therapy for Smoking Cessation: Is it Engaging and Effective for U.S. Hispanic/Latinx Adult Smokers?

Margarita Santiago-Torres, Ph.D., Fred Hutchinson Cancer Research Center

Diana Kwon, M.S., Fred Hutchinson Cancer Research Center

Kristin E Mull, M.S., Fred Hutchinson Cancer Research Center
Brianna Sullivan, M.S., Fred Hutchinson Cancer Research Center
Jonathan Bricker, PhD, Fred Hutchinson Cancer Research Center

Hispanic/Latinx adults face major barriers to receiving and utilizing cessation treatments compared with other racial/ethnic groups. The lack of efficacious and accessible smoking cessation treatments for this population further contributes to this disparity. In a secondary analysis, we explored the efficacy of an Acceptance and Commitment Therapy (ACT)-based website (WebQuit.org) versus a US Clinical Practice Guidelines (USCPG)-based website (Smokefree.gov) for smoking cessation among Hispanic/Latinx adults. A total of 222 Hispanic/Latinx smokers were randomized to receive WebQuit (n=101) or Smokefree (n=121) for 12-months. Retention rate was 88% at 12-months. WebQuit participants had nearly double the odds of smoking cessation compared to Smokefree participants at 12-months (40% vs. 25%; OR=1.93 95% CI: 1.04, 3.59). Although WebQuit participants engaged more with the website than Smokefree participants through multiple indicators of treatment engagement, mediation analyses did not show evidence that differences in quit rates were mediated by level of engagement. In a nationwide sample with high participant engagement, this study provides evidence that an Acceptance and Commitment Therapy-based digital interventions may be efficacious for helping Hispanic/Latinx adults quit smoking.

- Psychological flexibility processes in a stigma coping intervention based on Acceptance and Commitment Therapy for people with HIV who inject drugs: An RCT in St. Petersburg, Russia
Jason Luoma, Ph.D., Portland Psychotherapy Clinic
Sarah L. Rossi, Boston University
Yuliia Sereda, Independent Research Consultant
Nikolai Pavlov
Olga Toussova

People with HIV who inject drugs experience intersecting forms of stigma that increase suffering and impede health care seeking. This RCT evaluated an ACT-based stigma intervention with 100 adults with HIV and past 30 days injection drug use in Russia. Participants were randomized to either a six-hour, 3-session group intervention based on ACT or usual care. At 1 month, HIV and substance use stigma changes did not differ between groups. At six months, participants in the intervention group were more likely to initiate anti-retroviral therapy (20% vs. 3%) and to engage in substance use care (23% vs. 7%) than controls. Intervention participants also had less frequent injections in the previous 30 days at six months. There were no significant between-group differences on change in substance-use related psychological flexibility or stigma avoidance at any time point. Change on a measure of stigma-related values disengagement was higher in the active treatment arm compared to controls at one month, but not at six months. Additional contextual information will be reported in an attempt to understand these results.

- Does Acceptance and Commitment Therapy Require Tailoring to Fit Stigmatized Populations such as Older People with HIV?
Kathryn Wehrmeyer, Medical College of Georgia, Augusta University
Jessica Montoya, University of California San Diego
Edward Seefried, University of California San Diego
Velma Justice-Royster, University of California San Diego
David J Moore, University of California San Diego

Older People With HIV (OPWH) experience high rates of chronic pain due to the intersectionality of HIV and psychosocial factors (trauma, stigma, ageism, isolation, and substance use). Acceptance and commitment therapy (ACT) promotes acceptance of internal experiences (negative thoughts and painful sensations), identification of personal values and goals, and encourages actions that bring life meaning. This approach may improve the pain experience while addressing intersecting disparities of health. To determine acceptability of ACT inductive thematic analysis was applied to focus group transcripts from 6 OPWH (2 male, 4 female, ≥ 50 years) whom completed ACT for pain. Major themes include: positive experience with group therapy, interaction of pain and psychosocial factors, improvement of coping strategies, and minimal need for adaptation. Overall, minimal alterations are necessary to address the needs of OPWH due to the broad applicability of ACT. Alteration of ACT's content schedule could better orient groups with goals of ACT and including examples attuned to the needs of OPWH (emphasis on relationships, emotions and stigma) during training may enhance contextualization of ACT for OPWH.

Educational Objectives:

1. Describe social factors, such as discrimination, racism, and self-stigma that are major barriers to access to care in marginalized populations.

2. Demonstrate an appreciation for the use of Acceptance and Commitment Therapy to help reduce health disparities in marginalized populations.
3. Demonstrate skills in the interpretation of research findings and drawing of appropriate conclusions.

76. Processes of Change in Novel ACT-Based Eating Disorder Interventions

Symposium (3:00 PM - 4:15 PM)

Components: *Conceptual analysis, Didactic presentation, Literature review, Original data*

Categories: Processes of change, Mobile or digital technology, Eating disorders

Target Audience: *Beginner, Intermediate, Advanced*

Location: Franciscan C & D

Chair: Rhonda Merwin, Ph.D., Duke University, School of Medicine, Dept. of Psychiatry and Behavioral Sciences

Ashley Moskovich, Ph.D., Duke University, School of Medicine, Dept. of Psychiatry and Behavioral Sciences

Carly Onnink, B.S., SUWS of the Carolinas

Catherine Kakoulakis, B.Sc., University of Cyprus

Georgia Polyviou, B.S., University of Cyprus

Eating disorders are serious problems that decrease the quality and longevity of individuals lives. This symposium will (1) review the current state of evidence on ACT for eating disorders (EDs), in light of recent developments in process-based CBT and the Contextual Behavioral Science Research Task Force Report, and (2) present original data on processes of change in EDs in the context of novel, ACT-based digitized and mHealth interventions. The first paper will frame the discussion with a systematic review of ACT with EDs methods and outcomes. The second paper will present data on increased body-image flexibility (BIF) as a process of change in a digital, gamified intervention for EDs. A third paper will present data on explorations of lab measurement of BIF. A fourth paper will present on the role of psychological flexibility in body image distortions in virtual reality. A final paper will present data on psychological flexibility as a mediator in a virtual reality values-augmented exposure intervention on body-image concerns among young females at-risk for developing an ED.

- A Systematic Review of the Current Evidence on ACT for Eating Disorders

Carly Onnink, B.S., SUWS of the Carolinas

Yvonne Konstantinidou, BS, University of Cyprus

Ashley Moskovich, PhD, Duke University School of Medicine

Maria Karekla, Ph.D., University of Cyprus

Rhonda M. Merwin, Ph.D., Duke University School of Medicine

ACT is increasing used to treat eating disorders (EDs). However, there is only one literature review on ACT for EDs published in 2013. Since that time, several more studies have emerged. We present a systematic review of the evidence of ACT for EDs through January of 2022. We searched PsychInfo and PubMed and included treatment studies using 3 or more ACT processes with adolescents or adults with anorexia or bulimia nervosa, binge eating and purging disorder. We excluded studies focused on obesity and weight loss and studies targeting body image (in the absence of ED symptoms). We also excluded prevention studies. Taking the perspective that knowledge is cumulative and iterative, we included all intervention study methods, including case reports, case series, open trials, multiple baseline designs, and randomized controlled trials. We report on methodological rigor, outcomes and need for future research, and consider the findings in light of recent developments in the field.

- Body Image Flexibility as a Process of Change in Digital, Gamified Eating Disorder Intervention

Rhonda M. Merwin. PhD, Duke University School of Medicine

Patrisia Nikolaou, PhD,

Ashley Moskovich, PhD, Duke University School of Medicine

Michael Babyak, PhD,

Maria Karekla, PhD, University of Cyprus

Body image flexibility (BIF) refers to the ability to have difficult body-related thoughts/feelings without unnecessary attempts to avoid/escape these experiences and without these experiences limiting one's life. A growing body of evidence suggests that BIF might be considered a process of change in EDs, and/or offer protection against ED development, however, data are limited. The current study examined changes in BIF in a digital, gamified early intervention for EDs. Adolescents and young adults at risk for an ED were randomized to either the ACT intervention or a waitlist control. We examined the interaction between

change in BIF and group as a predictor of Weight Concerns Scale (WCS) scores at end-of-treatment, and Eating Disorder Examination Questionnaire (EDE-Q) scores at 1-month follow-up. Increased BIF was associated with lower WCS scores at end-of-treatment, an association concentrated almost entirely in the ACT condition. Increased BIF also predicted lower EDE-Q scores at follow-up. This study suggests BIF as a potential process of change and directions for future research.

- Explorations in Behavioral Measurement of Body Image Flexibility

Ashley A. Moskovich, PhD, Duke University, School of Medicine

Rhonda M. Merwin, Ph.D., Duke University, School of Medicine

The assessment of psychological flexibility is often limited to self-report measures. This is a major limitation in ACT research, which would benefit from behavioral measures of mid-level terms. It is also limiting, as funders (such as NIMH) increasingly require rigorous measurement of engagement of target mechanisms of change. The current paper reports on explorations in behavioral measurement of body-image flexibility (BIF). Specifically, we examine whether behavioral responses to body and weight-related stimuli correspond with self-report assessment of BIF using the Body-Image Acceptance and Action Questionnaire (BI-AAQ). Seventy-six women completed a hypervigilance-avoidance attention task with body weight and neutral words. The correlation between differences in reaction time to body weight versus neutral words and the BI-AAQ was $.21, p=.067$. We will discuss how the findings inform current understanding of BIF, and future directions in behavioral assessments of psychological flexibility.

- Body image perception distortions for own vs. other vs. inanimate objects estimation among individuals at low and high-risk for an Eating Disorder and the role of psychological flexibility

Yvoni Konstantinidou, B.S., University of Cyprus

Georgia Polyviou, BS, University of Cyprus

Maria Karekla, PhD, University of Cyprus

Dissatisfaction with body image is a very common concern, mainly among females across different age groups especially in Western cultures. Body image dissatisfaction is hypothesized to result in distorted body perceptions, but there is lack of studies examining discrepancies between own body image and ideal body image, normative perceptions of human body sizes (e.g., the ability to correctly perceive human bodies in terms of normality) and general proportion estimation (e.g., of inanimate objects). Preliminary work proposes that psychological inflexibility is related to disordered eating-related cognition and may affect body image perception. This study investigates distorted body image perception of individuals deemed to be either at low ($N=80$) or high-risk ($N=46$) for developing an eating disorder and the role of psychological flexibility in body perception. Participants were university student females aged 18-25 years old. Virtual reality is utilized as a means to create one's avatar to their likeness and is used as one means of assessing body image distortion.

- Psychological Flexibility as a Mediator of Body Image Concerns: A Virtual Reality Values Augmented Exposure Early-Intervention for Females at High-risk for Eating Disorders

Catherine Kakoulakis, BS, University of Cyprus

Georgia Polyviou, BS, University of Cyprus

Maria Karekla, PhD, University of Cyprus

Body image dissatisfaction is a common experience which can contribute to the development of eating pathology when the individual's psychological functioning does not involve psychological flexibility. Body image concerns exist on a continuum therefore the development of eating disorders can be prevented when targeting those issues on an early point of this continuum, by concentrating on individuals at high-risk for developing an eating disorder. This study investigated whether psychological flexibility serves as a mediator between a multi-user virtual reality intervention based on Acceptance and Commitment Therapy -and specifically, on values clarification and exposure therapy- and body image concerns, in a sample ($N=46$; Age range: 18-25years old) of young women at-risk for eating disorder development. It examined whether improvements in perceived body image acceptance following the intervention were mediated by changes in psychological flexibility. Findings can help design effective interventions based on user-friendly virtual reality technology, both for preventing eating disorders and promoting the acceptance of body image through the cultivation of psychological flexibility.

Educational Objectives:

1. Describe the evidence for ACT for eating disorders, including body-image flexibility as a process of change, and in relation to the needs identified in the CBS Research Task Force Report.
2. Identify behavioral measurement strategies for body-image flexibility.
3. Describe the relationship between psychological flexibility and body perception in a virtual reality paradigm.

79. Intervention with children, adolescents and parents: increasing precision by incorporating advances in RFT: Italy Chapter Sponsored

Symposium (3:00 PM - 4:15 PM)

Components: *Case presentation, Didactic presentation, Original data*

Categories: Clinical intervention development or outcomes, RFT / RGB / language, Children, Adolescents

Target Audience: *Intermediate*

Location: Union Square 15 & 16

Chair: Francisco Ruiz, Ph.D., Fundación Universitaria Konrad Lorenz

Discussant: Giovambattista Presti, M.D., Ph.D., University of Enna Kore

Ángel Alonso, M.A., MICPSY

Francesca Pergolizzi, Ph.D., IESCUM

Adrián Barbero Rubio, Ph.D., National University of Distance Education

Bárbara Gil-Luciano, Ph.D., Nebrija University

Acceptance and Commitment Therapy is emerging as a promising intervention in psychological problems of childhood and adolescence. This is due to its solid philosophical and theoretical foundations, the support of growing empirical evidence, and its versatility to be applied in several contexts. ACT is supported by research linked to Relational Frame Theory (RFT). This knowledge base has made it possible to establish precise therapeutic strategies to strengthen repertoires of psychological flexibility in children and adolescents or, in other words, more effective and inclusive ways of responding to their thoughts and emotions.

This symposium aims to show, through various clinical cases, how ACT model is put into practice in its two main focuses of action: (1) work with parents, in specifically, with their emotional barriers, with the aim of making it easier for them to adhere to more useful parenting strategies and linked to what they want to instill or strengthen in their children; and (2) work with children and adolescents, training their psychological flexibility through multiple exercises and the use of metaphors.

- Flexing the hexaflex: Functional analysis, ACT metaphors and experiential exercises tailored for kids.

Francesca Pergolizzi, Ph.D., IESCUM, Parma, Italy
Giovambattista Presti, University of Enna Kore, Italy
Francesco dell'Orco, IESCUM, Parma, Italy
Anna Prevedini, IESCUM, Parma, Italy
Paolo Moderato, IESCUM, Parma, Italy

Acceptance and Commitment Therapy (ACT) was originally developed mainly for and with verbally competent adults. However, there is nothing in the clinical model or in Relational Frame Theory (RFT), the underlying theory of language and cognition, that suggests that it could not also be effective with verbally competent children and/or younger adults. ACT therapy with kids does not depart from the traditional hexaflex based protocols. However, some tweaks to the typical metaphors and experiential exercises are necessary. To create clinically meaningful context of changes it is necessary to (re)create overarching verbal environments familiar to children. This paper will explore how ACT can be applied to help children develop psychological flexibility and get unstuck from the (functionally) same language traps that catch adults. The tweaks used in the clinical examples that will be illustrated and discussed are inspired by verbal contexts popular to kids which can also be purposefully built from scratch as vehicles for the use of metaphors and experiential exercises that may promote change. Acceptance commitment therapy holds utility for any child, with or without a disability, and can serve as the spinal bone for self management, social skill building, and perspective taking. Clinical cases will be discussed and reviewed to examine how experiential avoidance arises in children during the course of language development, with the same effects as in adults. We will pinpoint case conceptualization, parental involvement, or teacher involvement. An RFT based explanation of psychopathological processes and of clinical intervention will be offered to help clinicians develop their own tools and tailor ACT therapy to characteristics of their own clients, to enhance generalization through encouraging more naturalistic exposure exercises outside of session

- ACT-RFT Intervention in a Case of Child Jealousy and Rumination
Adrián Barbero, Ph.D., National University of Distance Education (UNED)
Ángel Alonso, M.A., Madrid Institute of Contextual Psychology (MICPSY)

Acceptance and Commitment Therapy (ACT) is emerging as a very promising intervention for psychological problems in childhood. This paper presents a pioneering analysis of the relational cues operating in ACT-based clinical processes when working with children that facilitate the transformation of

functions that fosters the inclusion of aversive private events and, therefore, psychological flexibility. It also provides key elements for the prevention of ruminative patterns in early intervention. For this purpose, an ACT intervention in a case of a 9-year-old boy (J) is analyzed. J shows numerous disruptive behaviors in the family context, especially in situations involving his younger brother, aged 5. These range from aggressive behaviors to constant complaints that interfere with daily activities. In addition, J shows a pattern of limiting rumination when he feels attacked, both in the family dynamics and in the school context. After three assessment sessions, the intervention sessions (six in total), were centered on two key aspects: (1) working with the parents' emotional barriers (their fears, anger, etc) and their ability to manage conflict more effectively (providing them guidelines), and (2) working with J in order to increase his psychological flexibility through different experiential exercises and metaphors, allowing him to react in more adaptive ways both in family dynamics and with his peers. A single case, AB design with follow-up measures, was used. Results show a significant improvement in the intervention objectives: the frequency of aggressions and arguments decreased evidently in the weekly records. The therapeutic work highlights the importance of parallel intervention with J and his parents with a common goal: to increase family interactions controlled by values rather than by the mere reduction of short-term discomfort.

- **Applying ACT in a Case of Aggression and Defiant Behavior: Intervention Focused on the Parents' Big Ones**

Karen Rodríguez-Mariategui, M.A, Madrid Institute of Contextual Psychology (MICPSY)
Ángel Alonso, M.A,

When intervening with children, it is essential to analyze - and alter, if necessary - the parents' pattern of inflexibility when it is impacting on their children's problems. Although the evidence of applying ACT in parents is growing, addressing their "Big Ones" (that is, their most problematic self-beliefs) as a central axis can clarify and enhance such intervention (Gil-Luciano et al., 2019; Ruiz et al., 2016, 2018; Luciano, 2017).

The case of a five-year-old girl is presented. Her parents came concerned because their daughter constantly defies them and acts in an aggressive way with other children. They also report other problems, such as night terrors, eating problems and anxiety episodes.

The main objective was to help parents discriminating their main fears or Big Ones, and learning to respond in a flexible way, in order to promote more flexible behavior in their daughter. At the same time, an intervention was conducted with the child through a MET (multiple exemplar training) focused on strengthening a pattern of hierarchical responding to her problematic private events.

A total of 10 sessions were conducted. The behavior of the parents and the daughter were recorded and analyzed in session (examples of inflexible vs. flexible repertoire) in an initial, an intermediate and a final session. In addition, measures of psychological flexibility (AAQ-II) and parent's values (VQ- version for parents) were taken.

The results show an increase in flexible behaviors and a decrease in inflexible behaviors throughout the sessions, both in the parents and in the child. Scores on the rest of the measures also decreased substantially.

- **An Intervention Focused on the "Big Ones" in the Case of an Adolescent With Depressive Symptomatology, Self-Harming Behaviors and Isolation**

Sandra Alonso, M.D., Cantabria Health System, Spain
Nuria Fuentes, M.A, CSMIJ Manresa, Spain
Marta Paullada Sevilla M.A, Private Practice
Bárbara Gil-Luciano, Ph.D., Nebrija University

One of the most recent advances in research in the contextual model shows the importance of addressing the most problematic beliefs or ideas of self, the so-called "Big Ones" (Gil-Luciano et al., 2019; Ruiz et al., 2016, 2018; Luciano, 2017), due to their impact in triggering multiple inflexible reactions that cause multiple limitations in the patient's life. While there has been an increase in the number of studies about the efficacy of ACT with youth population, the analysis and intervention focused on the Big Ones is somewhat recent and novel.

A brief five-session intervention with a 16-year-old adolescent with low mood, isolation behaviors, and a history of self-harm is presented. The intervention was aimed at facilitating (1) the patient's discrimination of his inflexible behavioral pattern, with special emphasis on his relational history and his "Big Ones"; (2) an inclusive response to his own problematic emotions and thoughts; and (3) the clarification and agreement on relevant and valuable goals in his life.

A total of 10 sessions were conducted. Pre-post assessment measures were taken: AFG-Y-8 (as a measure of psychological inflexibility), PTQ-C (rumination) and a questionnaire created ex profeso to register problem behaviors (self-injury, OH consumption, time isolated in his room, etc.). In addition, the patient's behavior (examples of inflexible vs. flexible repertoire) was registered and analyzed in an initial, an intermediate and a final session.

The results show an increase in flexible behaviors and a decrease in inflexible behaviors during the sessions, as well as a reduction in scores of psychological inflexibility and rumination.

Educational Objectives:

1. Explain the main RFT based ACT strategies to work with children, adolescents and parents: building a pattern of hierarchical responding to one's own behavior.
2. Analyze how to address the Big Ones, or problematic core beliefs, in the intervention with parents and adolescents, in order to achieve greater precision and effectiveness in clinical work.
3. Analyze inflexible and flexible behaviors in parent and adolescent sessions as a measure of clinical improvement.

Saturday, June 18 (all times PDT)

86. Open Science and Reproducibility in Contextual Behavioral Science

Symposium (10:15 AM - 11:45 AM)

Components: *Conceptual analysis, Literature review, Original data*

Categories: Methods/approaches for individual variation, Theory and philosophical foundations, Open Science, Reproducibility

Target Audience: *Beginner, Intermediate*

Location: Grand Ballroom

Chair: Jason Luoma, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Discussant: Michael Levin, Ph.D., Utah State University

Kati Lear, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Clarissa Ong, Ph.D., Boston University

Eric Lee, Ph.D., Southern Illinois University

In recent years, large scale and well-conducted efforts at replicating scientific findings have repeatedly failed to replicate what were once thought to be scientific truths. These difficulties have shocked many behavioral scientists and scientists in general as these problems with replication have been shown to generalize to other fields. It appears that science is riddled with false positive "findings," making it difficult to tell the signal from the noise. The main solution proposed to this difficulty has been open science -- a movement that focuses on making science more accessible and that includes a number of practices aimed at increasing the accuracy of and replicability of scientific findings. This symposium aims to assess how widely recommendations for addressing these issues have been adopted inside the CBS literature and identify problems with replicability in different areas of research. We will also discuss how open science and reproducibility practices might be adopted by CBS researchers and how the open science movement fits with CBS in a conceptual, social, and philosophical manner.

- Auditing the Journal of Contextual Behavioral Science for Open Science and Reproducibility Practices

Kati Lear, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Meredith Tittler, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Joel Fishbein, University of Colorado, Boulder

Joanna Arch, Ph.D., University of Colorado Boulder

Jason Luoma, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Open science refers to research values and practices that aim to increase openness, transparency, and reproducibility in scientific research (Cruwell et al., 2018). The Journal of Contextual and Behavior Science (JCBS) has recently updated submission requirements to advance the use of open science practices in CBS research. This study aims to provide a reference point for measuring future progress toward a culture of open science in CBS by characterizing the frequency of open science practices included in papers published in JCBS in the year preceding the adoption of the editorial board's open science recommendations. To accomplish this aim, we are auditing empirical articles published in complete issues of JCBS from July 2020 - July 2021 (N = 98) by adapting coding methodology from previous research auditing open science and replicability practices (e.g., pre-registration, data sharing, conflict of interest disclosure; project pre-registration: <https://osf.io/ev5mu/>) in clinical psychology journals (Nutu et al., 2019; Reardon et al., 2019). Data are currently being extracted and coded. Results are forthcoming and will inform targeted efforts to advance open science in CBS research.

- Acceptance and Commitment Therapy Mediation and Processes: Problems and How to Address Them

Jason Luoma, Ph.D., Portland Psychotherapy Clinic, Research, & Training Center

Joann Arch, Ph.D., University of Colorado Boulder

Joel Fishbein, M.A., University of Colorado Boulder
Lauren Finkelstein, University of Colorado Boulder

The assessment of mediation via theory-driven processes in Acceptance and Commitment Therapy has been hindered by multiple challenges, including: 1) challenges in defining ACT processes; 2) obstacles to developing and rigorously validating measures of ACT processes; 3) the wide use of psychometrically weaker ACT process measures and the more limited use of stronger measures; 4) the inconsistency of evidence that ACT processes are sensitive or specific to ACT or mediate ACT outcomes specifically; 5) problems with replicability, statistical power, and transparency. Drawing on the existing ACT literature, this paper characterizes and provides evidence for each of these challenges. It then offers detailed recommendations for how to address each challenge in ongoing and future work, with an emphasis on principles based in the open science movement. Given ACT's core focus on theorized processes, improving the measurement and evaluation of these processes would significantly advance the field's understanding of ACT.

- **What Contextual Behavioral Science and Open Science Have in Common**
Clarissa Ong, Ph.D., Center for Anxiety and Related Disorders at Boston University

This paper discusses the philosophical and practical convergence of contextual behavioral science (CBS) and open science, outlining an argument for why the science of philosophy, theory, and values underlying CBS prescribe greater transparency and methodological accountability, which can be achieved by open science practices. Specifically, the paper will describe the philosophical and theoretical underpinnings of CBS as they relate to scientific research and infer recommended "best practices" based on these assumptions, showing how these recommendations overlap with those promulgated by the open science movement. For example, a key feature of CBS is that it is theory-driven and empirically verified rather than cobbled together ad hoc. Open science practices, including preregistration, similarly demand this level of forethought with respect to study planning. In addition, this paper will identify open science practices that may be especially relevant to CBS researchers, like code and data sharing to improve accessibility and equitable research practices. This paper aims to show that open science can provide a framework to help CBS researchers more closely hew to their scientific values.

- **Testing the Open Science Waters: Dipping Your Toe or Taking the Plunge**
Eric B. Lee, Ph.D., Southern Illinois University

Have you heard about open science, thought it was interesting, and wondered, "how do I even do that?" This talk is for you! Whether you want to dip your toe in the water and try a simple step or two for your next study or take the plunge and completely reorganize your research program, we will present ideas that can help take your research to the next level. Topics will include 1) an introduction to the Open Science Framework; 2) a preregistration tutorial, including strategies and troubleshooting; 3) how to submit preprints; and 4) how to share your methods and data ethically and responsibly. I am an early career researcher who has been learning and slowly implementing open science practices in my own work over time. The presentation will be an accessible primer to the world of open science using specific examples from my own research lab. Freely available resources will be showcased that can be picked up and used by anyone, budding researchers and veterans alike.

Educational Objectives:

1. Outline 3 major open science practices.
2. Describe 3 solutions recommended that CBS researchers can take from here to improve on current practices.
3. List 3 major critiques of the current CBS literature.

91. Delivering technology-supported ACT for health behavior promotion: Strategies, implications, and future directions

Symposium (10:15 AM - 11:45 AM)

Components: *Didactic presentation, Original data*

Categories: Mobile or digital technology, Health / behavioral medicine, ACT, Health behavior promotion, eHealth, Web-based programs, Primary care, College students

Target Audience: Beginner, Intermediate

Location: Franciscan B

Chair: Marissa Donahue, M.A., Utah State University

Discussant: Rhonda Merwin, Ph.D., Duke University, School of Medicine, Dept. of Psychiatry and Behavioral Sciences

Jessica Criddle, B.S., Murray State University; Louisiana Contextual Science Research Group

Carter Davis, M.S., Utah State University
Rachael Skews, Ph.D., Headspace Health
Guadalupe San Miguel, B.S., Utah State University

Technology-based interventions provide an opportunity for tailored treatment, increased reach of health care services, and improved medication adherence, among other potential targets. Technology-specific components typically involve text messaging, web-based content or a combination of interactive content (CDC, 2020). Through its six core processes, Acceptance and Commitment Therapy (ACT) is a valuable approach to help individuals improve maintenance of long-term health behavior change (Zhang et al., 2018). Health behavior change has greater efficacy if applied to the individual's real-life context, which tailored tech-based treatments can offer. In this symposium, the presenters will discuss the latest research on innovative, technology-supported applications of ACT to diverse health-related contexts including chronic depression in primary care, migraines, parents of children who are prescribed hearing aids, and health behavior promotion among college students. Rationale and strategies for delivering tailored, technology-based ACT interventions to various health populations will be explored, as will future directions regarding key variables to target in health management research.

- A Personalized Values Intervention to Increase Health Behaviors in College Students
Jessica M. Criddle, Murray State University
Mike Bordieri, Ph.D., Murray State University

College students face significant health risks including problematic substance use, poor nutrition, low sleep quality, and low rates of exercise. Commonly used informational interventions typically do not result in long-term behavior change, yet recent research shows that individualized intervention approaches enjoy some evidence of efficacy, in line with an ideographic motivational approach used in CBS values interventions. In this study, participants were randomly assigned to receive a brief informational or a values online intervention. The informational intervention includes actionable health information while the values intervention included a health-focused values construction exercise. Participants then received texts for 10 days containing health recommendations or ideographic motivational statements. Self-report measures of physical activity, dietary quality, sleep quality, alcohol, use and nicotine consumption were administered pre and post intervention. Study hypotheses and methodology were pre-registered on OSF and data collection is ongoing. Analyses will examine if those in the valuing condition had greater increases in personally important health behaviors and if valuing mediates this relationship. Results of this study could inform the development of personalized CBS interventions for health.

- Storytelling-based ACT as an adjunctive treatment for individuals taking antidepressants: A randomized controlled trial
Carter H. Davis, M.S., Utah State University
Michael P. Twohig, Ph.D., Utah State University
Michael E. Levin, Ph.D., Utah State University

Antidepressants are the most prescribed class of psychiatric drug in the United States, with over 13% of Americans taking at least one antidepressant in a given month (Centers for Disease Control and Prevention, 2020). Despite their popularity, many people taking antidepressants still experience remission, and the potential long-term physiological effects of these medications are being questioned (e.g., Piek et al., 2010; Rasjeswaran et al., 2018). Convenient nondrug adjunctive treatments for depression are therefore needed, especially in contexts where access to behavioral interventions is severely limited. We conducted a randomized trial comparing antidepressants alone to an adjunctive, online ACT program called LifeStories with 93 primary care medical patients. LifeStories teaches ACT coping skills for depression in a personal and compelling narrative format (Davis et al., 2021). In this presentation, we will describe the impact of LifeStories on clinical outcomes, quality of life, and key ACT processes. We will also present rationale and strategies for delivering ACT in scalable and creative ways as an adjunctive to the psychotropic treatment of depression.

- Development of a mindfulness and ACT-based App for chronic health
Janis Martman, Happify
Callie Thompson, Headspace Health
Rachael Skews, Ph.D., Headspace Health
Clare Kennedy Purvis, Psy.D., Mindcure
Alicia Clausel, MPH, Found

Research suggests chronic pain treatments that include mindfulness and Acceptance and Commitment Theory (ACT) are highly effective. Headspace developed an engaging and desirable technology and human

delivered intervention for chronic pain with mindfulness and behaviour change at the core. The app included two evidence-based intervention components: (1) mindfulness meditation for stress and lifestyle management, and (2) cognitive behavioral training based on ACT.

The program components included in the intervention intended to reduce the frequency of migraine episodes and the day-to-day impact of migraine symptoms by helping members to (1) manage lifestyle factors that impact their migraine, (2) reduce their stress levels, (3) increase their connection with values, and (4) take committed action

Participants in the intervention condition showed a greater reduction in the number of migraine days per month from pre-intervention to the follow up period (weeks 9-12) compared to the control group. They also had clinically meaningful improvements in headache-related disability and quality of life compared to the control group.

- Moderators and predictive variables involved in the processes of change for an eHealth program
Guadalupe G. San Miguel, B.S., Utah State University
Karen Muñoz, Ed.D., Utah State University
Tyson S. Barrett, Ph.D., Utah State University
Michael P. Twohig, Ph.D., Utah State University

Consistent hearing-aid use is essential for developing spoken language of children who are hard of hearing. A recent randomized controlled trial of an eHealth education program for hearing aid management found the intervention increased knowledge, perceptions, confidence, and device monitoring. The purpose of this study was to investigate potential variables of change in intervention outcomes. Participants were parents of children who use hearing aids and were birth to 42 months of age. Parents (N=378) were randomized to the intervention or treatment-as-usual group. Results revealed that high psychological inflexibility, low parent activation, and low hours of hearing aid use moderated device monitoring frequency and knowledge; parents who received the intervention improved over time compared to the TAU group. Additionally, psychological inflexibility and parent activation were found as variables that predicted various treatment outcomes. Findings suggest the need to address parent psychological inflexibility related to hearing loss management for their child, parents' role in their child's hearing aid management, and reported hours of hearing aid use as part of hearing aid service delivery.

Educational Objectives:

1. Effectively adapt ACT interventions to diverse health targets by understanding their unique features and impacts on psychosocial functioning.
2. Describe how ACT processes such as values interact with health behaviors among various adult populations.
3. Define strategies for delivering ACT in scalable ways for health-related patient populations through web-based programs or mobile apps.

96. Acceptance and Commitment Therapy for Weight Loss

Symposium (10:15 AM - 11:45 AM)

Components: *Original data*

Categories: Clinical intervention development or outcomes, Health / behavioral medicine, ACT, Standard Behavioral Therapy, Obesity, Weight loss

Target Audience: *Beginner, Intermediate, Advanced*

Location: Union Square 17 & 18

Discussant: Jennifer Daubenmier, Ph.D., San Francisco State University
Jonathan Bricker, Ph.D., Fred Hutchinson Cancer Research Center
Jason Lillis, Ph.D., Brown Medical School/ California Northstate University
Niloofar Afari, Ph.D., University of California San Diego
Rachel Radin, Ph.D., University of California, San Francisco

More than 2 in 3 adults in the US are overweight or obese. Obesity greatly contributes to the development of chronic disease. Standard behavioral therapies (SBT) for weight loss can be effective but leaves ample room for improvement. An innovative and promising approach for weight loss is Acceptance and Commitment Therapy (ACT). Unlike SBT, ACT for weight loss addresses disinhibition by focusing on increasing willingness to experience physical cravings that cue eating. The aim of this symposium is to present ACT-based interventions for weight loss. First, Dr. Bricker will present the WeLNES weight loss trial testing an ACT against an SBT-based telephone coaching intervention. Second, Dr. Lillis will present the Healthy for Life trial, an ACT-based weight loss maintenance program for individuals who lose weight in an initial online program. Third, Dr. Afari will present on an ACT-enhanced weight management for active-duty personnel. Fourth, Dr. Radin will present on the

impact of digital meditation on behavioral and physiological health among overweight adults. Dr. Daubenmier will discuss the implications of these studies and will moderate questions.

- The design and conduct of the WeLNES randomized controlled trial of a telephone-delivered Acceptance and Commitment Therapy intervention for weight loss

Jonathan B Bricker, Ph.D., Fred Hutchinson Cancer Research Center
Margarita Santiago-Torres, Ph.D., Fred Hutchinson Cancer Research Center
Kristin E. Mull, M.S., Fred Hutchinson Cancer Research Center
Brianna M. Sullivan, M.S., Fred Hutchinson Cancer Research Center
Anne McTiernan, M.D., Fred Hutchinson Cancer Research Center
Evan M. Forman, Ph.D., Drexel University

Telephone coaching for weight loss has potential for great reach and population level impact, but trials to date have had limited efficacy. Acceptance and Commitment Therapy (ACT) may improve the efficacy of weight loss programs. The WeLNES trial is a 5-year NIH funded R01 testing the efficacy of ACT versus Standard Behavioral Therapy (SBT) telephone coaching for weight loss delivered over a 24-month period. A total of 398 overweight or obese adults are being randomized to ACT or SBT. All participants are receiving a Bluetooth-enabled scale to self-monitor weight, and a Fitbit watch to track diet and physical activity. The primary outcome is $\geq 10\%$ weight loss at 12-months. Secondary outcomes include changes, from baseline to 6, 12, and 24-months in weight, diet, and physical activity. Trajectories of weight change and change in hypothesized mediators and moderators of treatment effect will be explored. To date, 126 overweight/obese adults (31% male, 36% racial minority group, 11% Hispanic) have been randomized. Preliminary retention rates at 6 months are currently 91%. If successful, this intervention can be cost-effectively scaled to have a high public health impact.

- Protocol for the Healthy for Life Study: An RCT testing a low-intensity ACT intervention for weight loss maintenance

Jason Lillis, Ph.D., Brown University Medical School

This protocol paper will detail the methods and procedures of an investigator-initiated clinical trial R01 to compare the efficacy of an ACT intervention and a self-regulation (SR) intervention on weight loss maintenance over a 30-month period. All participants first complete a well-validated online weight loss intervention (months 1-3 of the study). Participants who lose ≥ 4 kilograms of initial weight are then randomly assigned to receive ACT or SR, with both conditions consisting of four face-to-face, group-based intervention meetings (10 hours total) and weekly email contact for 6 months. The ACT intervention uses values and acceptance processes to help align weight loss goals with personal values and foster internal motivation to continue with weight control efforts. Assessments are at baseline, post-weight loss/pre-randomization, and then 6, 12, 18, 24, and 30-month follow-up (months from randomization). Preliminary results will also be presented and discussed.

- Characteristics of Active-Duty Service Members and Associations with Body Composition in a Pragmatic Randomized Controlled Trial of Weight Management

Jessica L. Morse, Ph.D., VA San Diego Healthcare System, San Diego, CA
Cara Dochat, M.S., San Diego State University/University of California, San Diego Joint Doctoral Program in Clinical Psychology
Jennalee S. Wooldridge, Ph.D., VA San Diego Healthcare System, San Diego, CA
Matthew S. Herbert, Ph.D., VA San Diego Healthcare System, San Diego, CA
Niloofer Afari, Ph.D., VA San Diego Healthcare System, San Diego, CA

Overweight/obesity in active-duty personnel impacts the wellbeing of service members and jeopardizes military readiness. ShipShape (SS), the U.S. Navy's weight management program, is designed to address weight; however, SS alone may not fully address psychological barriers to behavior change. Acceptance and Commitment Therapy (ACT) shows promise in improving weight management and disordered eating that contributes to overweight/obesity. In this presentation, we describe the design and intervention content of a pragmatic cohort-randomized controlled trial incorporating principles of ACT into SS (ACT+SS) to promote mindful awareness of present moment experiences, improve psychological flexibility, decrease experiential avoidance, and support commitment to behavior change.

Overweight/obese active-duty personnel (N = 178; 61% female; 60% White; Mage=29.7 [± 7] years; MBMI=33.1 [± 3.9] kg/m²) were randomized to 8-week ACT+SS or SS-only groups at a naval medical center. Initial analyses indicated increased body composition metrics including weight, body fat %, waist circumference, and BMI were significantly associated with higher levels of weight-related stigma, emotional eating, and weight-loss confidence, providing support for an ACT-based intervention to address weight and body composition in active-duty personnel.

- Impact of digital meditation on behavioral and physiological health outcomes among adults with overweight: A randomized, controlled trial

Rachel M. Radin, Ph.D., Department of Psychiatry and Behavioral Sciences, University of California, San Francisco

Elissa S. Epel, Ph.D., Department of Psychiatry and Behavioral Sciences, University of California, San Francisco, San Francisco, CA, USA

Ashley E. Mason, PhD, Department of Psychiatry and Behavioral Sciences, University of California, San Francisco

Julie Vaccaro, Department of Psychiatry and Behavioral Sciences, University of California, San Francisco, San Francisco, CA, USA

Elena Fromer, Department of Psychiatry and Behavioral Sciences, University of California, San Francisco, San Francisco, CA, USA

Mindfulness meditation may improve well-being, however, effects on food cravings and metabolic health are not well known. We tested effects of digital meditation, alone or in combination with a healthy eating program, on perceived stress, cravings, and adiposity. We randomized 161 participants with overweight and moderate stress to digital meditation ('MED,' n=38), digital meditation + healthy eating ('MED+HE,' n=40), active control ('HE,' n=41), or waitlist control ('WL,' n=42). Those randomized to MED or MED+HE (vs. HE or WL) showed decreases in perceived stress ($p < .001$, $\eta^2 = .10$) and sagittal diameter ($p = .03$, $\eta^2 = .04$), with no differences in cravings or BMI. Those high in binge eating who received MED or MED+HE showed decreases in sagittal diameter ($p = .03$). Those with greater adherence to MED or MED+HE had greater reductions in stress, cravings, and adiposity. A brief digital mindfulness-based program is a low-cost method for reducing perceptions of stress and improving abdominal fat distribution patterns among adults with overweight and moderate stress. Future work should seek to clarify mechanisms by which such interventions contribute to improvements in health.

Educational Objectives:

1. Describe how to use Acceptance and Commitment Therapy to address weight loss.
2. Explain the design and conduct of ACT-based intervention trials for weight loss.
3. Demonstrate skills in the interpretation of research designs and drawing of appropriate conclusions.

104. The Compassionate-Mind Approach to Working with Hoarding Disorder

Symposium (1:15 PM - 2:45 PM)

Components: *Case presentation, Conceptual analysis, Literature review, Original data*

Categories: Clinical intervention development or outcomes, Processes of change, Hoarding Disorder

Target Audience: *Intermediate, Advanced*

Location: Imperial B

Chair: Leo Yoke, A.A., San Francisco Center for Compassion-Focused Therapies

Discussant: Laura Silberstein-Tirch, Psy.D., Center for Compassion Focused Therapy

Troy DuFrene, M.A., BCBA, San Francisco Center for Compassion-Focused Therapies

Rea Berg, B.A., University of Denver

Chia-Ying Chou, Ph.D., San Francisco Center for Compassion-Focused Therapies

Compassion-Focused Therapy (CFT) and Compassionate Mind Training (CMT) have been applied to work with a wide range of clinical and nonclinical populations. This symposium will present research findings and clinical observations connected to three studies about these approaches. First, a series of studies examines the effectiveness of CFT at reducing hoarding-symptom severity and psychological factors associated with hoarding. Second, two studies examine the effects of CMT on well-being and communication improvements among family and friends of people experiencing hoarding difficulties, with the first study using ecological momentary assessment (EMA), behavioral skills training, single-case experimental design. And third, a qualitative study investigates professional well-being and challenges encountered by professional organizers in their work with individuals suffering with hoarding issues and proposes a CMT protocol tailored for them. All three studies propose advantages a CFT/CMT approach has over traditional cognitive-behavioral (CBT) approaches to intervening on hoarding challenges.

- A Compassion-Focused Therapy Approach for Hoarding Disorder

Chia-Ying Chou, Ph.D., San Francisco Center for Compassion-Focused Therapy

Troy DuFrene, M.A., BCBA, California School of Professional Psychology - San Francisco

Hoarding disorder (HD) was recognized as a psychiatric disorder in 2013, with literature suggesting the need to improve its current standard approach of treatment based on Cognitive Behavioral Therapy (CBT). To address potential limitations in the current treatment, group-based Compassion-Focused Therapy (CFT) was examined and found to yield significant symptom reduction as a second-wave treatment following CBT. Stemming from this, the current study investigated CFT as a standalone treatment for HD. This study, conducted in a HD-specializing private practice, examined the effects of group CFT and CBT. Both treatments involve 20 two-hour online group sessions led by licensed therapists specializing in HD. All participants went through a pre- and a post-treatment assessment on their symptoms and psychological processes associated with HD. This presentation will show findings from both treatment arms. Specific results will include treatment feasibility and satisfaction, treatment effects on HD symptom severity, emotion regulation and distress tolerance, and self-attitudes such as self-criticism and shame. Implications of these data, and the unique design of this private practice-based research study will be discussed.

- **Compassion Skills Training in the Collateral Care of Hoarding Disorder: Two Pilot Studies**
Troy DuFrene, M.A., BCBA, California School of Professional Psychology - San Francisco
Chia-Ying Chou, Ph.D., San Francisco Center for Compassion-Focused Therapies
Eduard Morales, Ph.D., California School of Professional Psychology - San Francisco

A small number of early-phase studies have demonstrated the promise of compassion-based interventions, such as Compassion-Focused Therapy (CFT), for treating Hoarding Disorder (HD), with mechanisms of action thought to be the reduction of shame and self-criticism and the increase of positive social-affiliation behaviors in the individual experiencing HD. These studies examine a parallel question: Can providing Compassionate Mind Training (CMT) in a non-psychotherapeutic, skills-training mode to friends and family of people experiencing HD reduce their negative verbal behavior toward HD sufferers and facilitate richer, more supportive environments for those experiencing HD? The first study is a multiple-baseline across subjects design that tests a two-hour CMT intervention to reduce frequency of negative verbal behavior, using ecological momentary assessment (EMA) for data collection and behavioral skills training (BST) in the intervention. The second is a group trial that compares a one-day, eight-hour CMT training to a cleaning and organizing control to assess reductions in distress and improvements in relationship quality.

- **Developing A Compassionate Mind Training Program for Professional Organizers Working with People with Hoarding Challenges**
Rea Berg, University of Denver
Chia-Ying Chou, Ph.D., San Francisco Center for Compassion-Focused Therapies
Troy DuFrene, M.A., BCBA, California School of Professional Psychology - San Francisco

The purpose of this study is to investigate the challenges and needs among professional organizers working with people who hoard. Given the chronic and complex nature of hoarding behaviors, and the nature of professional organizing service, which includes close involvement, and is usually long-term, it is highly likely that professional organizers may experience symptoms of burnout, such as a sense of failure and self-doubt, feeling helpless or defeated, losing motivation and fatigue (Roy, 2018). It is therefore of great importance to explore the psychological and professional challenges faced by professional organizers working with individuals with HD. Moreover, it is also important to develop tools that are tailored for this group of professional organizers to help them develop resilience and improve self-efficacy. With these goals, the aims of the current study are twofold: 1) Investigating challenges and needs among professional organizers working with people who hoard. 2) Developing a Compassion Mind Training (CMT) program tailored for professional organizers with the focus on building resilience and self-efficacy.

Educational Objectives:

1. Explain the principles involved in using Compassion-Focused Therapy to treat Hoarding Disorder.
2. Demonstrate Compassionate Mind Training techniques for fostering well-being and communication skills among family and friends of people experiencing hoarding challenges.
3. Describe opportunities for collateral care in Hoarding Disorder cases provided by both professional and dedicated Compassionate Mind trainers operating a behavioral consultants rather than psychotherapists.

110. The ACT Trained Physical Therapist: Application and Tools for Altering Pain Care: Physiotherapy SIG Sponsored

Symposium (1:15 PM - 2:45 PM)

Components: *Didactic presentation*

Categories: Clinical intervention development or outcomes, Supervision and training, Physical Therapy

Target Audience: Intermediate

Location: Union Square 17 & 18

Joe Tatta, PT, DPT, Integrative Pain Science Institute
Corrine Cooley, PT, DPT, Stanford
Heather Poupore-King, Ph.D., Stanford
Dokyoung Sophia You, Ph.D., Stanford

Cumulative evidence suggests Acceptance commitment therapy (ACT) works for diverse populations with various struggles in life. Research efforts have been ongoing to discover its applications. This symposium will explain research findings on how ACT works for patients with chronic pain and novice physical therapists. First, two authors have developed Backs-in-Action (BIA), a multidisciplinary ACCT program for chronic pain. We will share the BIA program outcomes, which we have collected using a learning healthcare system. Second, an author will review findings of the application of ACT for patients with chronic pain and opioid use disorder (OUD), which are the two highly comorbid, significant public health issues. An author will provide a practical tool to assess OUD. Finally, an author will share research findings on how ACT training benefits novice practitioners. Healthcare providers' burnout, compassion fatigue, and stress are important issues and critical at this time of extended COVID-19 pandemic. An author has developed an ACT training for novice doctoral-level physical therapists and assessed outcomes including psychological flexibility, professional quality of life, acceptability, and use of skills.

- Effectiveness of a multidisciplinary rehabilitation program in real-world patients with chronic back pain: A pilot cohort data analysis
Dokyoung Sophia You, Ph.D., Stanford
Corrine Cooley, PT, DPT, Stanford
Heather Poupore-King, Stanford

Randomized clinical trials (RCT) suggest a multidisciplinary approach to pain rehabilitation is superior to other active treatments in improving pain intensity, function, disability, and pain interference for patients with chronic pain, with small effect size ($d_s = 0.20-0.36$) but its effectiveness remains unknown in real-world practice.

OBJECTIVE:

The current study examined the effectiveness of a multidisciplinary program to a cognitive and behavioral therapy (pain-CBT) in real-world patients with chronic back pain.

METHODS:

Twenty-eight patients ($M_{age} = 57.6$, 82.1% Female) completed a multidisciplinary program that included pain psychology and physical therapy. Eighteen patients ($M_{age} = 58.9$, 77.8% Female) completed a CBT-alone program. Using a learning healthcare system, the Pain Catastrophizing Scale, 0-10 Numerical Pain Rating Scale, and Patient-Reported Outcomes Measurement Information System® measures were administered before and after the programs.

RESULTS:

We found significant improvement in mobility and pain behavior only after a multidisciplinary program ($p < 0.207$).

CONCLUSIONS:

The effect of a multidisciplinary rehabilitation program observed in RCT would be generalizable to real-world practice.

- A brief screening tool for opioid use disorder: EMPOWER Study Expert Consensus Protocol
Dokyoung Sophia You, Ph.D., Stanford

Growing concerns about the safety of long-term opioid therapy and its uncertain efficacy for non-cancer pain have led to relatively rapid opioid deprescribing in chronic pain patients who have been taking opioid for years. To date, empirically supported processes for safe and effective opioid tapering are lacking. Opioid tapering programs have shown high rates of dropouts and increases in patient distress and suicidal ideation. Therefore, safe strategies for opioid deprescribing that are more likely to succeed are urgently needed. In response to this demand, the EMPOWER study has been launched to examine the effectiveness of behavioral medicine strategies within the context of patient-centered opioid tapering in outpatient settings (<https://empower.stanford.edu/>). The EMPOWER protocol requires an efficient process for ensuring that collaborative opioid tapering would be offered to the most appropriate patients while identifying patients who should be offered alternate treatment pathways. As a first step, clinicians need a screening tool to identify patients with Opioid Use Disorder (OUD) and to assess for OUD severity. Because such a tool is not available, the study team composed of eight chronic pain and/or addiction experts has extended a validated screening instrument to develop a brief and novel consensus screening tool to identify OUD and assess for OUD severity for treatment stratification. Our screening tool has the

potential to assist busy outpatient clinicians to assess OUD among patients receiving long-term opioid therapy for chronic pain.

- The ACT Trained Physical Therapist: Psychologically Flexible, Resilient, and Armed with Evidence-Based Tools
Joe Tatta, DPT, Integrative Pain Science Institute

ABSTRACT

Background and Purpose

Burnout, compassion fatigue, and stress are common concerns for novice physical therapists. To date, there is a paucity of research on interventions that address these psychological factors. The aim of this pilot study was to determine the extent to which licensed Doctor of Physical Therapy (DPT) novice practitioners benefit from a training in Acceptance and Commitment Therapy (ACT). Variables of interest included burnout, wellbeing, and psychological flexibility. The secondary aim was to determine how the intervention might alter participants' clinical practice, perspectives on work, and on life, overall.

Methods

In this mixed-methods study, licensed DPTs ($n = 35$) with less than 2-years of experience completed an 8-week, 20-hour online ACT for pain training course with synchronous and asynchronous components. Pre and post-test measures included the Comprehensive assessment of Acceptance and Commitment Therapy processes (CompACT), the Mindful Healthcare Scale (MHS) to measure changes in psychological flexibility, and the Professional Quality of Life Scale (ProQOL) to measure the positive and negative effects of helping others. An open-ended post-course survey was used to elaborate and confirm findings for the secondary aim.

Results

All post-test measures improved significantly, ($p < .05$) except for the valued action domain of the CompACT. DPTs demonstrated a behavioral awareness that was more open and engaged, along with decreased compassion fatigue, secondary traumatic stress, and burnout after the training. Qualitative results expanded the findings to reveal 1 overall theme and 3 sub-themes for each open-ended question. The most robust theme, A Shift in my Role as a PT, crossed all 3 questions. As participants used the course tools, they experienced less pressure to "fix" the patient, which caused less stress, anxiety, and more resilience overall.

Discussion

This study is the first to explore the influence of an ACT training course on the quality of clinical practice, acceptability, and life in general for novice DPTs. The course appeared to be protective against burnout while promoting overall well-being, resiliency, and quality of life.

Educational Objectives:

1. Describe 3 benefits of an ACT training for novice doctoral physical therapists.
2. Describe patient outcomes of a multidisciplinary ACT program for patients with chronic pain.
3. Identify opioid use disorder in a patient with chronic low back pain.

111. Across samples & situations: Psychological flexibility in daily life, during COVID-19, & in the virtual context

Symposium (1:15 PM - 2:45 PM)

Components: *Original data*

Categories: Clinical intervention development or outcomes, Mobile or digital technology, COVID-19, Event Sampling Methodology, Virtual Coach, Smartphone Application, Stress, Well-Being, Mood, Mental Health, Physical Health, Challenging Events, Challenging Environments, Psychological Flexibility

Target Audience: Beginner, Intermediate, Advanced

Location: Union Square 19 & 20

Chair: Dominik Stöbi, Dr., University Psychiatric Clinics (UPK)

Discussant: Andrew Gloster, Ph.D., Universität Basel

Jeanette Villanueva, Ph.D., University Psychiatric Clinics (UPK), Basel & Psychiatric Center Wetzikon, Clenia Private Clinics, Zürich

Eveline Frey, M.Sc., University of Basel

Victoria J. Block, Ph.D., Clinic Sonnenhalde, Riehen, Switzerland

The effectiveness of clinical interventions is judged by changes in daily life (American Psychiatric Association, 2013). However, as challenges occur dynamically in daily life, there is a need to better understand how interventions impact the time between therapy sessions, considering differing contexts (Myin-Germeys et al., 2018). Especially since COVID-19, the demand for effective clinical

interventions and psychotherapy has risen, and smartphone applications may not only consider the context of daily life but may also be valuable in accompanying therapy. In this symposium three papers will present how psychological flexibility can potentially improve the effectiveness of clinical interventions. The first paper examines psychological flexibility during context-specific challenges in the daily life of outpatients using Event Sampling Methodology (ESM). The second paper compares mental health outcomes in nurses from Hong Kong and Switzerland during the second wave of COVID-19. The third paper examines a therapy-adjunct virtual coach that helps inpatients transfer learned content (e.g., psychological flexibility) to daily life. Through the focus on differing samples and contexts, this symposium aims to advance the effectiveness of clinical interventions.

- Mood, upsetting events, and the role of psychological flexibility in the daily life of outpatients
Jeanette Villanueva, Ph.D., University Psychiatric Clinics (UPK), Basel & Psychiatric Center Wetzikon, Clenia Private Clinics, Zürich
Andrea H. Meyer, Ph.D., Department of Psychology, University of Basel
Victoria J. Block, Ph.D., Clinic Sonnenhalde, Riehen, Switzerland
Charles Benoy, Ph.D., Rehabilitation Clinic, Neuro-Psychiatric Hospital Center, Ettelbrück, Luxemburg
Sandra Brogli, MSc, University Psychiatric Clinics (UPK), Basel, Switzerland
Maria Karekla, Ph.D., Department of Psychology, University of Cyprus
Marc Walter, Dr., University Psychiatric Clinics (UPK), Basel, Switzerland
Elisa Haller, Ph.D., Department of Psychology, University of Basel
Undine E. Lang, Dr. med., University Psychiatric Clinics (UPK), Basel, Switzerland

Patients suffering from psychological disorders report decreased quality of life and low mood. The relationship of these symptoms to daily challenging events or environments, and in the context of active coping mechanisms is poorly understood. However, as the efficacy of clinical interventions also highly depends on the time between therapy sessions there is an urgent need to better understand how interventions play out in the time between therapy sessions. We thus investigated 80 outpatients at the beginning of treatment, using event sampling methodology (ESM). Patients' mood, occurrence of upsetting events, current environment, and psychological flexibility were sampled six times per day during a one-week intensive longitudinal examination. Participants reported worse mood the more upsetting events were experienced. Further, participants reported better mood when in private environments (e.g., with friends), and worse mood when at the hospital, compared to being at home. Higher levels of psychological flexibility, however, were associated with better mood, irrespective of occurrence of upsetting events or current environment. This study contributes new insights into the daily life of transdiagnostic outpatients at the beginning of their treatment. Results suggest that mood is positively associated with psychological flexibility, not despite, but especially during the dynamic and context-specific challenges of daily life. Psychological flexibility may thus potentially act as a buffer.

- Mental health of frontline nurses combating COVID-19 & the role of psychological flexibility as a predictive factor for mental health & burnout: A cross-cultural study between Switzerland Hong Kong
Eveline Frey, MSc, University of Basel, Division of Clinical Psychology and Intervention Science, Basel, Switzerland
Yuen Yu Chong, Chinese University of Hong Kong, Division of Medicine, The Nethersole School of Nursing, Hong Kong, China
Wai Tong Chien, Chinese University of Hong Kong, Division of Medicine, The Nethersole School of Nursing, Hong Kong, China
Andrew T. Gloster, Ph.D., University of Basel, Division of Clinical Psychology and Intervention Science, Basel, Switzerland

Background: Nurses are exposed to a high-stress work environment with fast-changing, often unpredictable, and potentially traumatic situations. They are therefore at high risk to suffer from burnout and other mental health related symptoms. Since the outbreak of COVID-19, job-demands for nurses has increased even more: staff shortages, prolonged work hours, lack of sufficient protective equipment, and high exposure to COVID-19 infected patients. Identifying country-specific differences between mental health outcomes of nurses can help target and tailor health promoting initiatives to specific cultures. We tested how nurses from HK and Switzerland differ in mental health outcomes during the second wave of COVID-19. Additionally, this study tested the predictive influence of psychological flexibility—a fundamental, trainable set of intra- and interpersonal processes that help an individual to manage stressors and strengthen alternative adaptive behaviors—on mental health and well-being.

Method: A representative sample of 452 nurses in CH and HK aged ≥ 18 years answered questions about their mental health and well-being. Statistical tests and models tested whether country specific differences were present within mental health outcomes and the predictive role of psychological flexibility on mental health.

Results: Nurses from both countries suffered from poor mental health outcomes and country-specific differences could be identified for several health outcomes. Psychological flexibility is predictive for depression, anxiety and professional accomplishment of burnout for nurses in both countries, predictive for stress, insomnia and emotional exhaustion of burnout for Swiss nurses and predictive for depersonalization of burnout for HK nurses.

Conclusion: Efficient health initiatives are needed to provide support for worn out nurses: Targeting Psychological flexibility, a salient and widespread set of trainable skills, can help to improve mental health outcomes and reduce burnout.

- Using the time between sessions – feasibility of a therapy-adjunct smartphone application aimed at training psychological flexibility
Victoria J. Block, Ph.D., Clinic Sonnenhalde, Riehen, Switzerland
Julia Rümmelein, Sanatorium Kilchberg, Zürich, Switzerland
Elisa Haller, Ph.D., Clinical Psychology and Intervention Science, Faculty of Psychology, University of Basel, Basel, Switzerland
Andrew T. Gloster, Ph.D., Clinical Psychology and Intervention Science, Faculty of Psychology, University of Basel, Basel, Switzerland

As an effect of the Covid-19 pandemic, demand for psychotherapy has risen dramatically. One method to treat patients more effectively is the use of therapy-adjunct smartphone applications but research about this method is lacking. We developed a "Virtual Coach" application based on Acceptance and Commitment Therapy with the aim of helping patients practice psychological flexibility skills learned in therapy in between session. Feasibility of the "Virtual Coach" is being tested on N = 40 in-patients from three different clinics in Basel-Stadt, Switzerland. Patients receive a study smartphone for one week at the beginning and at the end of their in-patient treatment. Outcomes include measures of well-being, symptoms, and psychological flexibility and a measure of app usage and satisfaction will be tested as a moderator of outcomes. We expect patients who are more satisfied with the application and use it more regularly to show a greater change in well-being, symptomatology, and psychological flexibility measures at post compared to patients who did not use the application much or were not satisfied with the app.

Educational Objectives:

1. Describe what role psychological flexibility plays regarding context-specific challenges in the daily life of outpatients.
2. Describe how health outcomes in nurses from Hong Kong and Switzerland during the second wave of COVID-19 compare to each other.
3. Describe how a therapy-adjunct virtual coach may help inpatients transfer learned content (e.g., psychological flexibility) to daily life.

116. Exploring the Future of Contextual Behavior Science: Idionomic Assessment and Process Based Intervention

Symposium (3:00 PM - 4:15 PM)

Components: *Conceptual analysis, Didactic presentation, Original data*

Categories: Methods/approaches for individual variation, Idionomic, Process Based Therapy

Target Audience: *Intermediate, Advanced*

Location: Imperial B

Chair: Clarissa Ong, Ph.D., Boston University
Brandon Sanford, Ph.D., Medical University of South Carolina
Steven Hayes, Ph.D., University of Nevada, Reno
Stuart Law, M.A., UNR/iCelerate
Joseph Ciarrochi, Ph.D., Australian Catholic University

The list of empirical problems in the traditional psychiatric nosology is daunting including poor specificity and overwhelming comorbidity. A traditional alternative to syndromal classification has been functional analysis. In a PBT approach, the focus of intervention is no longer the signs and symptoms of psychiatric disorders but on the biopsychosocial processes of change that lead to clinically relevant outcomes. Such processes are defined as theoretically coherent, dynamic, progressive, contextually-bound, and modifiable evidence-based sequences of biopsychosocial events in the client and their interaction with their environment that can be changed in order to obtain desired outcomes. Detection of such processes and their interrelationships is in essence a form of functional analysis. This approach requires new methodological strategies including psychometric validation approaches designed for longitudinal assessment, statistical approaches that can conceptualize functional processes as

idiographic networks of interacting elements, and assessment tools to determine functionally relevant skills necessary for intervention.

- The Idionomic Future of Contextual Behavioral Science
Steven C. Hayes, Ph.D., University of Nevada, Reno

Most of the concepts, methods, and analytic tools used in the behavioral sciences are normative and are based on group comparisons. That is true of measures (psychometrics), intervention outcomes (randomized controlled trials), and analyses (comparisons of central tendencies in groups as measured against metrics of between subject variability such as standard deviations). As the field has moved towards processes of change, however, it has become more and more evident that these concepts, methods, and tools cannot and do not apply to the analysis of processes of change. In this talk we will briefly review the assumptions that are violated by traditional normative concepts, methods, and analytic tools. We will present an overview of what we are calling an "idionomic" alternative, and explain why idionomic concepts, methods, and tools need to be a central part of the future of behavioral science if it purports to apply to the life trajectories of individuals.

- Developing an Item Pool to Assess Processes of Change in Psychological Interventions: The Process-Based Assessment Tool (PBAT)
Joseph Ciarrochi, Ph.D., Australian Catholic University
Steven C. Hayes, Ph.D., University of Nevada, Reno
Baljinder Sahdra, Ph.D., Australian Catholic University
Stefan. G. Hofmann, Ph.D., Philipps-University Marburg; Boston University

Process-based therapy (PBT) focuses on treatment elements that target biopsychosocial processes of relevance to individual treatment goals. This focus requires new, more integrative and idionomic models that identify key processes of change, using high temporal density measurement applied at the level of the person. Standard measurement validation approaches are inadequate to this challenge. The present study develops and provides a preliminary validation of a process-based assessment tool (PBAT) -- an item pool meant for intensive longitudinal clinical assessment. Developed using the Extended-Evolutionary Meta-Model of PBT and evaluated using a machine-learning algorithm appropriate for the evaluation of individual items, we administered the PBAT online to a sample of 598 participants (290 male; 302 female; 6 unidentified. Mage = 32.6). Analyses revealed that the PBAT distinguishes between positive and negative processes, links in theoretically coherent ways to need satisfaction and thwarting, and links to clinically relevant outcomes of sadness, anger, anxiety, stress, lack of social support, vitality, and health. The PBAT provides a beginning step towards developing a process-based tool that allows clinicians and researchers to select individual items or sets of items for individual-focused idionomic research and practice.

- Toward Empirical Process-Based Case Conceptualization: An Idionomic Network Examination of the Process-Based Assessment Tool
Brandon T. Sanford, Ph.D., Medical University of South Carolina
Joseph Ciarrochi, Ph.D., Australian Catholic University
Stefan G. Hofmann, Ph.D., Philipps University of Marburg; Boston University
Fredrick Chin, M.S., University of Nevada, Reno
Kathleen M. Gates, Ph.D., University of North Carolina – Chapel Hill

Syndromal classification has failed to produce a progressive science of psychosocial intervention for mental and behavioral health issues. An idiographic application of processes of change could provide a viable functional analytic alternative to syndromal approaches if it could be linked to an idionomic approach, modeling idiographic effects first, and retaining nomothetic findings if they improve idiographic fit. The present study examined this possibility by using the Process-Based Assessment Tool (PBAT), a new assessment tool linked to the Extended Evolutionary Meta-Model (EEMM) of Process-Based Therapy. The PBAT and items assessing common clinical outcomes were assessed repeatedly in 50 individuals in an experience sampling format over a month's period yielding at least 60 measurement occasions per person. These data were then analyzed in an idionomic fashion using Group Iterative Multiple Model Estimation (GIMME). Analyses showed that the PBAT related to common clinical outcomes for virtually all participants in the individual complex networks identified by GIMME. Data showed that relationships had to be studied using an idionomic approach because participants' responses violated the ergodic assumptions underlying classical normative statistics. No overall group patterns were found and while subgroup relations did emerge, process to outcome relationships were dominantly idiographic. Idiographic networks were interpretable, however, using the broadened psychological flexibility approach of the EEMM. Idionomic network analysis of processes of change may provide a replicable form of empirical functional analysis.

- Replacing 'Destination: Normal'

Stuart Law, M.A., BCBA, University of Nevada, Reno

Behavior analysts have historically given weight to the level of the individual both in their applied practices and their empirical methods. Though the field has derived knowledge from group-level analyses, idiographic methods and technologies have always been predominantly championed. Time-series analyses, which were safeguarded and canonized in the shadows of psychological science may soon be getting their day in the sun. At the same time, paternalistic notions regarding treatment directions for children and individuals with disabilities have continued to undergo scrutiny at a cultural level. With the rise of discussions regarding assent-based treatment, values-oriented curricula and evaluations of dignified risk-taking, the need to understand verbally-complex controlling variables is rising—along with the capabilities of relational curriculum and assessment. This session will preview a new learning system called 'GenArete', discuss some of its philosophical underpinnings, evaluate ongoing single-subject outcomes, and provide ideas for how to set the occasion for goals outside of broad normative comparisons.

Educational Objectives:

1. Describe the importance of an idiographic approach from a conceptual and statistical standpoint.
2. Utilize idiographic network outputs to develop a case conceptualization.
3. Describe the history of Applied Behavior Analysis with respect to a focus on the individual and use the 'GenArete' tool to assess assent based care.

119. Recent advances in message framing and rule-governed behavior in accordance with relational frame theory

Symposium (3:00 PM - 4:15 PM)

Components: *Literature review, Original data*

Categories: RFT / RGB / language, Methods/approaches for individual variation, Global Health Strategies, Valued living, Procrastination, Pliance

Target Audience: Intermediate

Location: Yosemite A

Discussant: Louise McHugh, Ph.D., University College Dublin

Alison Stapleton, B.A., University College Dublin

Gráinne Carthy, M.Phil, Technological University Dublin

Madison Gamble-Morrissey, M.S., University College Dublin

The present symposium comprises four papers on the topics of message framing and rule-governed behavior (RGB) in accordance with relational frame theory. Describing a recent systematic review, Paper 1 will highlight definitional problems and measurement issues associated with RGB that are hindering both the advancement of research and discussions of RGB within the CBS community. Paper 2 synergizes contextual behavioral science and behavioral economics' gain-loss framing to develop effective behavior change tools, providing a step-by-step guide for the implementation of powerful, idionomic message framing techniques. Incorporating considerations outlined in Paper 1, Paper 3 details findings from a recent experiment examining the functional distinction between plys (rules controlled by arbitrary speaker-mediated consequences) and tracks (rules controlled by natural consequences). Paper 4 describes a qualitative analysis of unhelpful self-rules, presenting practical recommendations for designing values-based interventions that both reduce academic procrastination while also increasing engagement in context. Together these papers will detail means of promoting multi-level, multi-dimensional, process-based, prosocial, and practical message framing and RGB work, emphasizing transdisciplinary innovation and collaboration.

- A systematic review of types of rule-governed behavior in accordance with relational frame theory: Inconsistencies and innovations

Alison Stapleton, B.A., University College Dublin

Deirdre Farrell, University College Dublin

Conor McCloskey, B.A., University College Dublin

Elisa Tomezzoli, University College Dublin

Prof. Louise McHugh, Ph.D., University College Dublin

The conceptual and experimental analysis of rule-governed behavior (RGB) has been significantly hindered by both definitional and methodological problems. Although relational frame theory (RFT) has facilitated many advancements with regard to RGB, most present-day RFT-based operationalizations of RGB and its associated terms remain limited, imprecise, and often problematic. The present systematic review of

pliance, tracking, and augmenting involved searches of PsycINFO, PsycArticles, Proquest Social Science Premium Collection, PubMed, Web of Science, and Scopus databases, yielding 37 manuscripts that met the eligibility criteria and were included in the review. Based on these synthesized data, this presentation will highlight inconsistencies in how we define and operationalize types of RGB. Strengths, limitations, and opportunities for advancement and refinement within the RGB literature will be signposted, providing attendees with a comprehensive overview of viable innovative avenues for conceptualizing and measuring RGB moving forward.

- Advancing how messages are framed for public health and well being: A synergetic CBS approach

Madison Gamble, University College Dublin
Prof. Louise McHugh, Ph.D., University College Dublin
Nigel Vahey, Ph.D., Technological University Dublin (TU Dublin)

Message Framing has gained a lot of attention in cognitive fields however contextual behavioral approaches have been underutilized. The implementation of ACT principles and relational frame theory to how messages are framed can help address important perennial and societal challenges such as vaccine hesitancy, decarbonization, and other focus points mentioned in the 2030 United Nations Department of Economic and Social Affairs Agenda for Sustainable Development plan. Drawing on recent innovations in contextual behavioral science (Hayes et al., 2020) and behavioral economics' gain-loss framing (Kahneman & Tversky, 2013), this presentation describes important conceptual and methodological considerations for increasing the effectiveness of public health messages and behavior change techniques underlying message framing. Similarities, differences, and the integration of these theories will be discussed, providing a step-by-step guide for the development of powerful message framing techniques tailored at the idionomic level to the individual.

- Outstanding issues in rule-governed behavior: Clarifying the roles of depressive symptomatology and the ply/ track distinction on contingency sensitivity

Conor McCloskey, BSc, University College Dublin
Alison Stapleton, B.A., University College Dublin
Sadhbh Collins, University College Dublin
Parisa Haghshenas Diarjani, University College Dublin
Sarah Kenny, University College Dublin

Rule-governed behavior is an aspect of relational frame theory that has been the subject of growing scrutiny in recent years. The functional distinction between pliance (rule-following under the control of social consequences) and tracking (rule-following under the control of natural consequences) has been questioned, as many studies which observed a distinction have failed to offer direct social consequences for rule-following itself. Furthermore, there is poor clarity over whether depressive symptomatology is a variable in the functional distinction of plys and tracks, with some research indicating that individuals with low depressive symptomatology do not behave differently when responding to plys or tracks. The present study uses a contingency switching match-to-sample task to test the distinction between plys and tracks, while also accounting for depressive symptomatology and generalized pliance and offering verbal consequences for rule-deviations. It is hypothesised that there will be a distinction between plys and tracks on insensitivity in the general population but not for individuals with low depressive symptomatology. Preliminary findings will be discussed.

- Is there more to academic procrastination than psychological avoidance? Incorporating problematic positive reinforcement into the CBS analysis

Gráinne Carthy, Technological University Dublin (TU Dublin)
Nigel Vahey, PhD, Technological University Dublin (TU Dublin)

Broadly speaking, academic procrastination is the unhelpful tendency to delay beginning and/or completion of academic tasks (Senécal et al., 2003). From a CBS perspective, this tendency to procrastinate is commonly conceptualised in terms of psychological avoidance and the behavioural rigidity that it entails (Dionne et al., 2016). In other words, people engaging in procrastination have become in some sense, insensitive to the unhelpful consequences of delaying their engagement with academic tasks. Twelve Irish undergraduate students were interviewed online about their experiences of online learning and academic procrastination during the COVID-19 pandemic. These conversations often revolved around unhelpful self-rules, related to the idea that one should not engage with academic tasks until one feels mostly positively about those tasks; and in such cases there was a corresponding lack of values-based rules to counteract distracting self-rules. This presentation will provide a qualitative analysis further characterising these self-rules and the contexts in which they typically arise for undergraduate students. This analysis placed particular emphasis upon the functional distinction between distracting self-rules that are formulated in terms of negative reinforcement (away moves), versus positive reinforcement (towards

moves) behaviours. This distinction highlighted multiple practical recommendations for designing values-based interventions that both reduce academic procrastination while also increasing undergraduate student engagement in context.

Educational Objectives:

1. Detail definitional problems and conceptual issues associated with message framing and rule-governed behavior in accordance with relational frame theory.
2. Describe recent advances in empirical work aiming to understand remediate rigid rule-governed behavior.
3. Discuss viable avenues for future explorations of message framing and rule-governed behavior both inside and outside research laboratories with particular reference to means of measurement.

122. CBS approaches to understanding and supporting individuals struggling with substance use and disordered eating: Applying ACT to Addictions SIG Sponsored

Symposium (3:00 PM - 4:15 PM)

Components: *Conceptual analysis, Original data*

Categories: Clinical intervention development or outcomes, Health / behavioral medicine, CBS approaches to understanding and supporting individuals struggling with substance use and disordered eating

Target Audience: *Beginner, Intermediate, Advanced*

Location: Union Square 17 & 18

Chair: Angela Stotts, Ph.D., McGovern Medical School at UT Health Science Center-Houston
Nancy Haug, Ph.D., Palo Alto University
Maria Kalantzis, B.S., Bowling Green State University

The kinds of suffering characterized as psychological inflexibility takes a number of forms that reflect the historical and immediate contexts from which that suffering emerges. These contexts include those at the individual level (e.g., personal and interpersonal experiences that shape coping, facilitate or prevent functional access to resources, or foster internalized stigma) and those that represent societal norms (e.g., systemic oppression associated with ethnicity and gender). At times, this suffering disrupts appropriate resourcing of the most basic human needs. This symposium examines some of the contexts that contribute to disruptions of eating and accessing care. The first paper examines responses to physical and cognitive distress tasks to explore emotional reactivity and distress tolerance in females at low vs. high risk for disordered eating. The second paper explores the impact of a brief intervention integrating motivational interviewing and ACT on NICU mothers using illicit substances. The third paper brings a contextualized stress approach to the understanding of disordered and emotional eating in WOC, examining interacting effects of perceived discrimination, social support, internalization of thinness, and ethnic identity on eating outcomes. The fourth paper investigates feasibility of a mindfulness group for patients enrolled in a hospital-based outpatient addiction medicine program.

- ACT and MI to Facilitate Treatment Initiation and Reproductive Planning among NICU mothers using Illicit Substances

Angela Stotts, Ph.D., McGovern Medical School at UT Health Science Center-Houston

Yoly Villarreal, Ph.D., McGovern Medical School at UT Health Science Center-Houston

Mackenzie Spellman, M.A., McGovern Medical School at UT Health Science Center-Houston

Thomas Northrup, Ph.D., McGovern Medical School at UT Health Science Center-Houston

The study tested a brief motivational interviewing plus acceptance and commitment therapy (MIACT) intervention to facilitate treatment and contraception among NICU mothers using substances. Mothers (N = 64) with an infant admitted to a NICU and positive for illicit substances at delivery/during pregnancy were enrolled. A randomized controlled design assigned participants to MIACT or conventional care (CC), with assessments at 2 and 4 weeks and follow-ups at 2 and 6 months. Bayesian generalized linear modeling was used to evaluate outcomes. Results indicated that during treatment the MIACT group demonstrated an 84% probability of benefit relative to CC with regard to facilitating treatment initiation, with a 74% probability of benefit at the 6 month follow-up (RR = 1.5). MIACT was also associated with an increased probability of attending a postpartum obstetrics visit (RR = 1.4), and receiving contraception during treatment and at follow-up, with posterior probabilities close to 99% and relative risks ranging from 1.5 – 5.1. Brief interventions can assist postpartum mothers who use substances with treatment and contraception to reduce future substance-exposed pregnancies.

- A Stress-Process Framework of Perceived Discrimination Predicting Eating Pathology in an Ethnically Diverse Sample

Maria Kalantzis, Bowling Green State University

Disordered eating (DE) and emotional eating (EE) are shaped by a myriad of contextualized psychological stressors. Historically, research has focused on white females, directing less attention on contextualized stress that women of color (WOC) disproportionately experience (e.g., perceived discrimination) and how they affect eating outcomes. Per the stress-process model, the relation between stress exposures and outcomes are contextualized by race, mediated by social resources (i.e., social support), and moderated by personal resources (i.e., internalization of thinness, ethnic identity). Cross-sectional measurements were collected from WOC (N=307) on perceived discrimination, DE and EE, social support, internalization of thinness, and ethnic identity. Interaction effects were probed at a $p=.01$ level. A conditional effect was revealed such that among people with higher internalization of thinness (+1 SD above the mean), a stronger relation between perceived discrimination and EE was observed ($B=1.57$, $p<.001$). Among people with a higher level of ethnic identity, a weaker relation between perceived discrimination and DE was observed ($B=.034$, $p=.0005$). These findings suggest that personal resources may mitigate the effects of contextualized stress on eating outcomes.

- Pilot Study of Acceptance and Mindfulness-based Group Therapy in an Addiction Medicine Clinic

Nancy A. Haug, Ph.D., Palo Alto University

Jennifer Stewart, M.S., Palo Alto University

Emily Kaiser, Psy.D., Center for Motivation and Change, NY

Robin Brody, Psy.D., Weill Cornell Medicine

Talia Kori, Psy.D., University of Colorado Boulder

There is a critical need to identify behavioral treatments for substance use disorders that are effective in real-world clinical settings. The current pilot study evaluated pretest-posttest outcomes of a mindfulness group for patients enrolled in an outpatient addiction medicine program for alcohol, substance use, or behavioral addictions. Participants (N = 43; Mean age = 41.8, SD = 17.57; 65% White; 42% full-time employed; 74% bachelor's degree) attended a 12-week, 90-minute group therapy intervention based on Mindfulness-based Relapse Prevention and Acceptance and Commitment Therapy. Results indicated a significant increase in mindfulness skills, $t(25) = -3.28$, $p < .003$, as measured by the Mindful Attention Awareness Scale (MAAS), and psychological flexibility, $t(24) = -2.54$, $p < .018$, on the Acceptance and Action Questionnaire for Substance Abuse (AAQ-SA). The group had a high retention rate, with 74% of participants attending half or more sessions. Findings demonstrate the feasibility of implementing acceptance and mindfulness-based interventions within a hospital-based psychiatry setting. This group intervention has potential for application in real-world addiction treatment programs in combination with pharmacological or psychosocial interventions.

Educational Objectives:

1. Describe the role of distress intolerance as a characteristic of individuals at risk for eating disorder (ED) development.
2. Describe an ACT plus MI intervention to prevent substance-exposed pregnancies among mothers who use substances.
3. Identify practical considerations in the implementation of mindfulness interventions for patients enrolled in an outpatient addiction medicine clinic.

131. Beyond a single time-point: Advances in longitudinal psychometric research of CBS-focused self-report measures

Symposium (9:00 AM - 10:30 AM)

Components: *Original data*

Categories: Methods/approaches for individual variation, Processes of change, Psychometrics, Longitudinal measurement invariance

Target Audience: Intermediate, Advanced

Location: Franciscan B

Chair: Samuel Spencer, M.A., University of Hawaii, Manoa

Discussant: Maria Karekla, Ph.D., University of Cyprus

Nicholas Borgogna, Ph.D., Texas Tech University

Ti Hsu, M.S., University of Iowa

Benjamin Pierce, Ph.D., Behavioral Statistics in Context (BSiC)

Russell Marks, Ph.D., Warren Alpert Medical School at Brown University, Department of Psychiatry and Human Behavior

The recent ACBS Task Force Report (Hayes et al., 2021) has called for more research within CBS that (a) emphasizes longitudinal measurement of key process and outcome variables, and (b) seeks to understand psychopathology and optimal health across multiple dimensions. This symposium attempts to address that call by presenting research that longitudinally examines the psychometric properties of self-report questionnaires measuring CBS-related constructs across various dimensions. The first paper attempted to test the longitudinal measurement invariance (LMI) of the Brief Experiential Avoidance Questionnaire using a community sample. The second paper examined the dimensionality, reliability, LMI, and construct validity of the CompACT and proposes a short form of the measure: the CompACT-15. The third paper examined the predictive utility of longitudinal response profiles on AAQ-II items in clinical and university samples. The final paper examined the extent to which completers of a mindfulness- and acceptance-based partial hospitalization program exhibited “response shifts” in self-reported FFMQ scores between baseline and discharge. Through a focus on longitudinal psychometric research, this symposium seeks to promote high density temporal measurement strategies.

- A Discussion of Measurement Problems as They Relate to the Brief Experiential Avoidance Questionnaire (BEAQ)

Nicholas C. Borgogna, Ph.D., Texas Tech University
Ryon C. McDermott, Ph.D., University of South Alabama

We sought to provide a CFA validation of the BEAQ. Consistent with calls from the ACBS Task Force Report, we also aimed to test longitudinal measurement invariance of the BEAQ. An archival sample was used for this study (N=177). A portion of the participants were surveyed again 6-months after baseline (N=853) and 12-months after baseline (N=559). Initially, a unidimensional structure was tested; however, this model evidenced unsatisfactory fit. A two-dimensional factor, as suggested by Cao et al (2021) was also tested; however, this model also evidenced poor fit. A bifactor model with item 6 removed, as suggested by Schaeuffele et al. (2021), was then tested. This model failed to converge. A correlated factors model based off the original MEAQ model, with item 6 removed, evidenced the best fit. Despite this improvement, multiple other fit indices were still unsatisfactory (e.g., TLI<0.90). An initial configural time invariance model for the correlated factors model was attempted, but the latent variable covariance matrix was not positive definite. Ultimately, we recommend that a new measure of experiential avoidance is constructed.

- Confirmatory Measurement Modeling and Longitudinal Invariance of the CompACT-15: A Short-Form Assessment of Psychological Flexibility

Ti Hsu, Department of Psychological and Brain Sciences, University of Iowa
Lesa Hoffman, Department of Psychological and Quantitative Foundations, University of Iowa
Emily B. K. Thomas, Department of Psychological and Brain Sciences, University of Iowa

The Comprehensive Assessment of Acceptance and Commitment Therapy Processes (CompACT; Francis et al., 2016) is a recently developed measure of psychological flexibility with several advantages over similar measures. Unfortunately, previous psychometric evaluations of the CompACT are limited in their use of exploratory factor analysis to assess dimensionality, coefficient alpha to assess reliability, and attention to measurement equivalence in assessing change over time. The current study examined the dimensionality, factor-specific reliability, longitudinal measurement invariance, and construct validity of the CompACT items using confirmatory factor analysis (CFA) and item factor analysis (IFA) in a longitudinal sample of adults (N = 523). Converging evidence from CFA and IFA models support reducing the 23-item CompACT to a 15-item short form with a more stable factor structure, acceptable reliability over large ranges of the three latent factors, and measurement equivalence of items in assessing latent change over time. It also demonstrated construct validity when examined with theoretically related constructs. The CompACT-15 appears to be a psychometrically sound instrument with strong potential to contribute to research and intervention efforts.

- A Longitudinal, Data-Driven Investigation of the Predictive Utility of Heterogeneity in Item Responses to the Acceptance and Action Questionnaire-II

Benjamin Pierce, Ph.D., Behavioral Statistics in Context (BSiC), Canada
Clarissa W. Ong, Ph.D., Center for Anxiety and Related Disorders (CARD), Boston University
Michael E. Levin, Ph.D., Department of Psychology, Utah State University
Jacqueline Pistorello, Ph.D., University of Nevada, Reno, Counseling Services
John Seeley, Ph.D., Special Education and Clinical Sciences Program & Prevention Science Program, University of Oregon

The Acceptance and Action Questionnaire (AAQ-II) is extensively used to assess changes in psychological (in)flexibility in the context of contextual cognitive-behavioral and other therapies. There exists strong evidence for the internal consistency AAQ-II items and scale-level associations with functional and symptomatic outcomes over time. However, less attention has been given to longitudinal heterogeneity in item-level responses to the AAQ-II - in particular, whether such heterogeneity is predictive of changes in outcome measures or can be considered noise. This study investigates (1) the presence of distinct profiles of responding to the AAQ-II items with mixture modeling strategies, (2) longitudinal transitions among response profiles, and (3) the extent to which response profiles and transitions among profiles predict longitudinal change in functional and symptomatic outcomes in partial hospital (n = 3089) and student (n = 243) samples. This work hopes to move beyond traditional psychometric evaluations of internal consistency and/or measurement invariance, and towards applying psychometric tools to consider cases where heterogeneity in item response profiles over time can yield meaningful information about idiographic client outcomes.

- Longitudinal Measurement Invariance of the 24-Item Short Form of the Five Facet Mindfulness Questionnaire

Holly Levin-Aspenson, Ph.D., Warren Alpert Medical School at Brown University, Department of Psychiatry and Human Behavior

Russell M. Marks, Ph.D., Warren Alpert Medical School at Brown University, Department of Psychiatry and Human Behavior

Kristy Dalrymple, Ph.D., Warren Alpert Medical School at Brown University, Department of Psychiatry and Human Behavior

Mark Zimmerman, M.D., Warren Alpert Medical School at Brown University, Department of Psychiatry and Human Behavior

Violations of longitudinal measurement invariance (LMI) suggest "response shifts" in individuals' understanding and appraisal of items over time and result in misinterpretation of observed changes in outcome measures. These concerns are crucial to the validity of outcome measures and are particularly relevant in examining the effectiveness of mindfulness and other process-based interventions. In the current report from the Rhode Island Methods to Improve Diagnostic Assessment and Services (MIDAS) project, we examine the LMI of the FFMQ-SF from intake to discharge in a large, diagnostically heterogeneous sample of psychiatric patients (n=2,438) participating in our Acceptance and Commitment Therapy-based partial hospitalization program. The original five-factor structure required correlated error terms for items with similar wording (Nonjudging and Describe scales) to achieve acceptable fit. Following these modifications, we found evidence of configural and weak invariance for all scales. We found evidence for strong invariance for Nonjudging, Nonreactivity, Describe, and Observing but not for Acting with Awareness. Results highlight the challenges of measuring constructs involving overt metacognitive processes via self-report. Implications for scale development and clinical practice are discussed.

Educational Objectives:

1. Describe and discuss the importance of accurately, reliably, and validly measuring CBS-related constructs.
2. Explain the significance of longitudinal research examining psychometric properties of CBS-related measures and how this relates to utilizing these measures on a repeated basis in clinical practice and research.
3. Demonstrate knowledge of the advantages and limitations of the use of self-report measures of CBS-related constructs on a repeated basis over time, in relation to contrasting state- versus trait-based measurement.

Sunday, June 19 (all times PDT)

136. CBS research in the context of Covid-19: Part 2

Symposium (9:00 AM - 10:30 AM)

Components: *Original data*

Categories: Health / behavioral medicine, Processes of change, COVID-19, Psychological Flexibility, Mindfulness, Resilience, Social Isolation, Values, Meaning in Life, PPE, Compassion, Fatigue, Health, Pandemic, Trauma, Posttraumatic Growth

Target Audience: *Beginner, Intermediate, Advanced*

Location: Union Square 17 & 18

Chair: Anne Roche, Ph.D., Mayo Clinic Rochester
Alexander Twohy, M.A., Western Michigan University
Nikolett Eisenbeck, Dr., University of Seville

Mytien Le, B.S., Bowling Green State University
Thea Comeau, Ph.D., Concordia University of Edmonton

The first case of COVID-19 was discovered in December 2019, and quickly spread to pandemic status, impacting people in every country in the world, often horrifically. With disease often came social isolation, financial insecurity, psychological distress, and a lack of meaning. Fortunately, not far behind were the efforts of contextual behavioral scientists to identify ways of adding to this large-scale contextual event to mitigate its impacts on these domains were not far behind. This symposium is the first of two focusing on CBS approaches to understanding and addressing the impacts of COVID-19. This symposium focuses on mental and physical well-being, resilience, and engagement in meaningful and effective behavior in the context of the pandemic. The first paper explores the associations between psychological processes and mental health symptoms and resilience. The second paper investigates the role of psychological flexibility in predicting the relationship between social isolation or connectedness and mental health. The third paper examines how certain personal characteristics and coping strategies used during the beginning of the pandemic could affect several health outcomes one to two years later. The fourth paper considers the interacting roles of compassion and psychological flexibility in predicting the utilization of personal protective equipment. The fifth paper investigates how the threats of COVID contagion and financial loss differentially relate to values clarity vs. values enactment.

- Reducing risk and promoting resilience during the COVID-19 pandemic: An exploration of psychological processes

Anne I Roche, Ph.D., Mayo Clinic
Emily BK Thomas, Ph.D., University of Iowa

The impact of the COVID-19 pandemic on mental health is well-documented. Important in the context of widespread hardship are transdiagnostic interventions targeting modifiable processes. The current studies explored the associations between psychological processes and mental health symptoms and resilience during the pandemic. Study 1 examined the associations between components of psychological flexibility (openness to experience, behavioral awareness, valued action) and general and peritraumatic distress in a sample recruited from Amazon's MTurk (N = 485) in Spring 2020. Regression analyses indicated that lower openness and awareness were associated with greater general and peritraumatic distress (p s < .05), while accounting for relevant variables. Study 2 examined the associations between mindfulness, compassion, and prosocialness and resilience in a sample of undergraduates during the COVID-19 pandemic (N = 848). Regression analyses indicated that mindfulness, specifically the ability to describe internal experiences, act with awareness, and take a nonreactive stance, were associated with greater resilience (p s < .05), while accounting for relevant variables. Process-based intervention efforts targeting psychological flexibility and mindfulness may be important in the context of the pandemic.

- Psychological inflexibility moderates social isolation and mental health outcome relationship during COVID-19

Brooke Smith, Ph.D., Western Michigan University
Alexander Twohy, M.A., Western Michigan University
Gregory Smith, Ph.D., The Chicago School of Professional Psychology

Previous research has shown social isolation can contribute to psychological distress. The impact of social isolation on mental health functioning during the COVID-19 crisis, as well as potential mechanisms to buffer this impact, have yet to be investigated. The current study explored the moderating role of psychological flexibility and related constructs on relationships between social isolation and mental health outcomes during the COVID-19 pandemic. Cross-sectional data from 278 participants, the majority residing in the United States, were collected during a 3-week period from mid-April to early May 2020 via online survey. A series of hierarchical linear regression analyses indicated statistically significant relationships between social isolation and psychological distress (depression, anxiety, and stress), well-being, and valued living. Psychological inflexibility, intolerance of uncertainty, and emotional suppression significantly moderated these relationships. Greater psychological flexibility and acceptance of difficult experiences appeared to buffer the effects of increased social isolation, while amplifying the benefits of social connectedness. Implications for promoting mental health and buffering against the harmful effects of social isolation during the COVID-19 pandemic and beyond are discussed.

- Longitudinal effects of the pandemic: the importance of meaning-centered coping and psychological flexibility

Nikolett Eisenbeck, University of Seville
David F. Carreno, University of Almería

Joshua A. Hicks, Texas A&M University

The COVID-19 pandemic has taken its toll not only on our physical but our psychological health. One of the key questions in this aspect is to understand how to alleviate this collective suffering. The present study aims to evaluate how certain personal characteristics and coping strategies used during the beginning of the pandemic (Spring-Summer 2020) could affect several health outcomes 1/1.5 years later. We employed a longitudinal design, using an international sample (first-time point: N = 12,243). At both time points, we measured markers of psychopathology, mental and physical health, positive emotions, meaning in life, and a number of coping strategies. Additionally, at the first time point, psychological flexibility was assessed, while at the second time point, we evaluated posttraumatic stress. Among others, the results indicated the importance of psychological flexibility and meaning-centered coping in maintaining mental health during the time of the crisis. The findings call for interventions that focus on psychological flexibility, acceptance, and meaning-centered coping mechanisms, such as positive reframing, maintaining hope, existential courage, life appreciation, engagement in meaningful activities, and prosociality.

- Can compassion moderate the relationship between Pandemic Fatigue and PPE Usage?
Mytien T. Le, Bowling Green State University

With no end in sight and the world reaching its second anniversary with COVID-19, the general population is expected to maintain vigilance and monitor daily pandemic news. The expectation for chronic alertness may lead to pandemic fatigue. As such, personal protective equipment (PPE) usage may decrease. In this study, pandemic fatigue (PF), compassion, and compliance with personal protective equipment (PPE) regulations were measured to further examine the potential role of compassion as a moderator between PF and utilizing PPE. Age, gender, race, education, and pre-existing medical conditions served as covariates. MTurk was utilized to collect 658 responses in August–October 2021. A moderation regression analysis was conducted using PROCESS – SPSS. The overall model was significant ($R^2 = 0.17$, $p < 0.00$). Both PF ($B = .53$, $p < 0.01$) and compassion ($B = .48$, $p < 0.03$) significantly predicted PPE use. The interaction term of PF and compassion was significant ($F = 3.81$, $p = 0.05$). Education status ($p < 0.00$) and pre-existing medical conditions ($p < 0.01$) were significant covariates. Results suggested that participants who used PPE were more likely to experience PF, possibly due to more exposure to pandemic-related news.

- Values Clarity, Action, and Posttraumatic Growth Arising from the COVID-19 Pandemic
Thea Comeau, Ph.D., Concordia University of Edmonton
Zdravko Marjanovic, Concordia University of Edmonton
Tarleen Dhanoa, Concordia University of Edmonton

Values are chosen and verbally constructed decisions about priorities that guide human behaviour. Real life circumstances can change the values individuals choose to prioritize. In the case of posttraumatic growth, values can change in positive ways as a result of traumatic experiences. This study explored how COVID contagion threat and financial threat arising from living in the pandemic impacted chosen values via values clarity and values enactment. Two samples were selected, one college age and one selected through the general public using the MTurk platform. Data was also collected at two time points: Fall 2020 and Spring 2021. Participants completed several surveys, including the Contagion Threat Scale (adapted from Marjanovic et al., 2013), Financial Threat Scale (Marjanovic et al., 2013), Posttraumatic Growth Inventory (Tedeschi et al., 2017), and the Valued Living Questionnaire (Wilson et al., 2010). Results suggest that both contagion and financial threat may be strongly correlated with values importance, but may not demonstrate the same relationship with values consistency. Potential reasons for this difference, and clinical implications, will be explored.

Educational Objectives:

1. Describe the role that psychological flexibility may play in promoting mental health in the context of the COVID-19 pandemic.
2. Describe the importance of psychological flexibility in health outcomes during the COVID-19 crisis.
3. Discuss potential interventions for how to address social isolation during a pandemic.

140. The Differential Impact of Elements of Acceptance and Mindfulness on Mental and Physical Health

Symposium (9:00 AM - 10:30 AM)

Components: *Didactic presentation*

Categories: Clinical intervention development or outcomes, Theory and philosophical foundations, Chronic Pain, Acceptance and Mindfulness

Target Audience: Beginner, Intermediate

Location: Virtual - The session will be streamed live to our virtual audience. The recordings (video, Powerpoint, and audio) will be captured, and will be uploaded to the conference website for On Demand viewing within 48 hours of presentation.

Chair: Ashley Eddy, M.S., Pacific University

Discussant: Melissa Pielech, Ph.D., Brown University

Josh Kaplan, Ph.D., Oregon Health and Science University

Alicia Vasquez, M.S., Pacific University

Akeesha Simmons, M.A., Pacific University, School of Graduate Psychology

Nicole McCullough, EdS, Pacific University

As a result of the global COVID-19 pandemic, rates of mental and physical health concerns and chronic pain have reached historically high levels (Usher, Durkin, Bhullar, 2020; Wright et al., 2020). Elements of dispositional mindfulness and acceptance have been shown to help buffer the negative impact of stress on health (Mesmer Magnus et al., 2017). In this symposium we present findings from cross-sectional studies exploring the protective impact of mindfulness and acceptance in four distinct populations (police officers, older adults, chronic pain patients, and a large US census-matched sample) and examine the influence of third variable interactions on factors of health and pain. The results across each study suggest dispositional mindfulness and acceptance can mitigate the impact of stress on negative health outcomes in unique ways. Findings suggest that contemplative and third-wave approaches may serve as protective factors against the psychological and physical implications of stress which may, in turn, be valuable mechanisms for coping during these unprecedented times.

- Mindful Nonreactivity Moderates the Relationship between Chronic Stress and Pain Interference in Law Enforcement Officers

Nicole McCullough, EdS, Pacific University

Ashley Eddy, M.S., Pacific University

Dana Dharmakaya Colgan, Ph.D., Oregon Health and Science University

Michael Christopher, Ph.D., Pacific University

Law enforcement officers (LEOs) experience high levels of chronic stress and pain, and therefore are a unique population to study potential mitigating impacts of cognitive and affective reactivity on stress-pain relationships (Ramstrand et. al., 2012). This knowledge can promote officer wellness, enhance organization performance, and improve policing at a community level. The aim of the current study was to examine the moderating role of mindful nonreactivity on the relationship between chronic stress and pain interference in LEOs ($n = 60$). Regression analyses were used to evaluate whether chronic stress predicted pain interference, and to compute an estimate of the interaction effect of chronic stress and mindful nonreactivity on pain interference. Results indicated that mindful nonreactivity mitigates the harmful effects of stress on pain interference ($F(3,55) = 5.29, p = .003, R^2 = .47$). Among individuals with low levels of mindful nonreactivity, chronic stress significantly predicted pain interference; however, for individuals with greater levels of mindful nonreactivity, chronic stress did not predict pain interference. Clinical and research implications will be discussed.

- The Role of Interoceptive Awareness on Sleep Disturbance and Pain Interference in a Chronic Pain Population

Akeesha Simmons, M.A., Pacific University

Alicia Vasquez, M.S., Pacific University

Lauren Siegel, M.S., Pacific University

Dana Dharmakaya Colgan, Ph.D., Oregon Health and Science University

Sleep disturbance may contribute to the development and maintenance of chronic pain (Anderson et al., 2018). Interoceptive awareness refers to how one attends to, appraises, and responds to bodily sensations (Craig, 2002) and may be an underlying mechanism in this relationship (Wei & Van Someren, 2020). In a cross-sectional study, online surveys (PROMIS 29; Multidimensional Assessment of Interoceptive Awareness-2) were administered to 301 individuals with chronic pain. The primary aim was to evaluate a mediational pathway through which sleep disturbance predicts increased pain interference via interoceptive awareness. Results indicated interoceptive awareness partially explained the relationship between sleep disturbance and pain interference (95% bootstrap CI = 0.04 to 0.38). Increased sleep disturbance was related to decreased interoceptive awareness ($b = -1.35, SE = 0.49, p < .01$), which in turn was related to increased pain interference, ($b = -0.14, SE = .03, p < .01$). Future longitudinal research should assess the role of Interoceptive awareness and sleep quality in chronic pain populations.

- **Relative Impact of Mindfulness, Self-compassion, and Psychological Flexibility on Positive and Negative Aspects of Psychological Health**

Ashley Eddy, M.S., Pacific University
 Alicia Vasquez, M.S., Pacific University
 Jenna Flowers, M.S., Pacific University

Third-wave behavioral approaches emphasize function over form and utilize techniques to target processes of experiential avoidance and cognitive fusion, allowing individuals to focus on living in accordance with their values (Hayes, 2016). Several third-wave underlying factors common to these strategies may account for decreasing symptomology while improving mental health outcomes (Woodruff et al., 2014). The current study aimed to evaluate the relative contribution of three third-wave components (mindfulness, psychological flexibility, and self-compassion) in predicting positive and negative mental health outcomes (depression, anxiety, stress, negative affect (NA), resilience, satisfaction with life (SWL), and positive affect (PA) in a U.S. census-matched sample (n = 584). A series of hierarchical linear regressions indicated self-compassion was the strongest predictor of resilience, PA, and SWL (all p's < .05), whereas mindfulness was the strongest predictor of depression, anxiety, stress, and NA (all p's < .05). Findings suggest different elements of third-wave interventions may uniquely contribute to factors of mental health and provide continued support for acceptance-based approaches.

- **The Synergistic Impact of Acceptance and Self-efficacy on Health Perception among Older Adults**

Josh Kaplan, Ph.D., Oregon Health and Science University
 Jenna Flowers, M.S., Pacific University
 Michael Christopher PhD, Pacific University

Health perception is the subjective rating and knowledge of health status (Tederko et al., 2017; Wilson & Cleary, 1995) and predicts mortality (Castillo-Andres, 2016) and quality of life (Schmidt, 2012). Dispositional mindfulness predicts improved physical functioning (Brooks et al., 2011) and general perceptions of health (Roberts & Danoff-Burg, 2010). Relatedly, mindfulness training improves self-efficacy (Taylor et al., 2020), and mindfulness and self-efficacy predict psychological health (Pan et al., 2019). Self-efficacy mediates relationships between mindfulness and emotional regulation (Luberto et al., 2014) and anxiety (Fallah, 2016). However, no known study has examined self-efficacy as a mediator of the relationship between mindful acceptance and health perceptions. In a cross-sectional sample of older adults (n = 134), results indicate that self-efficacy fully mediated the relationship between mindful acceptance and health perceptions. Mindful acceptance predicted self-efficacy (b = .18, SE = .06, p = .002), which predicted health perceptions (b = .83, SE = .33, p = .012). The relationship between mindful acceptance and health perceptions was nonsignificant in the full model (p = .11), indicating a full mediation. Bias-corrected bootstrap mediation analysis did not contain zero [95% CI; .026, .39], providing evidence for mediation.

Educational Objectives:

1. Describe the role of contemplative practices in the relationship between chronic pain and health.
2. Compare chronic pain-related consequences among various populations including law enforcement officers, older adults, and general chronic pain population.
3. Explain the distinction between moderation and mediation analyses in cross-sectional health data across populations.

148. From the lab to the world: Behavior analysis

Symposium (10:45 AM - 12:15 PM)

Components: *Conceptual analysis, Original data*

Categories: Behavior analysis, Clinical intervention development or outcomes, Exposure therapy, resurgence, translational research, Functional Analytic Psychotherapy (FAP), Embodied Cognition

Target Audience: Beginner, Intermediate

Location: Union Square 17 & 18

Chair: Lucie Romano, M.S., BCBA, Western Michigan University
 Miranda Yannon, B.A., Bowling Green State University
 Neal Falletta-Cowden, M.A., BCBA, University of Nevada, Reno
 Adrián Barbero Rubio, Ph.D., National University of Distance Education

Behavior analysis explicitly aims to foster conceptual and empirical analyses with clear and immediate practical implications. In contextual behavioral science, this includes linking basic behavioral principles to therapeutic processes and examining how natural contingencies shape sensitivity to and support of

aspects of wellness or suffering. This symposium offers four papers that bring conceptual, basic, analog, and descriptive data to bear on socially and clinically significant issues. The first paper explores how differing rates of alternative reinforcement impact suppression and resurgence of avoidance behavior. The second paper examines the impact of the first rule of FAP, watching for variability in clinically relevant behaviors, on intimacy in an analog study. The third paper investigates how naive and untrained raters discriminated physical indicators of psychological flexibility. The fourth paper describes a conceptual model of ACT-based prevention, based on how early learning experiences might foster psychological flexibility.

- **Rate of Positive Alternative Reinforcement Affects Resurgence of Negatively Reinforced Target Behavior**

Lucie Romano, M.S., BCBA, Western Michigan University
Gregory Smith, Ph.D., BCBA-D, University of Dayton
Brooke Smith, Ph.D., LP, Western Michigan University

Resurgence is a useful model for conceptualizing the mechanisms of operant suppression and relapse during exposure therapy. Previous resurgence studies have manipulated rates of alternative reinforcement, but most have involved positive reinforcement. As a model of exposure therapy, it is important to study resurgence using negatively reinforced target and positively reinforced alternative behaviors. The current study investigated the effects of differing rates of alternative reinforcement on suppression and resurgence of escape/avoidance behavior in typically developing humans. In phase 1, three groups could escape/avoid a loud noise by clicking an object on a computer screen (target response). In phase 2, groups received points on either a rich, lean, or extinction schedule for clicking another object (alternative response). In phase 3, all groups underwent extinction for both responses. Results showed marked resurgence of the target response in the Rich condition and minimal resurgence in Lean and Control during phase 3. Implications for translating these findings to the treatment of anxiety and related disorders will be discussed.

- **The effects of watching for clinically relevant behavior on intimacy building behaviors in a FAP analog study**

Miranda Yannon, B.A., Bowling Green State University
Daniel W.M. Maitland, Ph.D., Bowling Green State University

Functional Analytic Psychotherapy (FAP) guides therapist behavior through five process based principles. In their seminal 1991 FAP text, Kohlenberg and Tsai stated, "Although we provide five principles, only the first one is really needed." The first principle of FAP instructs therapists to watch for instances of clinically relevant behaviors (CRBs), the problematic behaviors the client engages in, or improvements in those behaviors. A therapist watching for these behaviors may lead to the therapist effectively responding to these CRBs, consistent with other FAP Rules (Maitland & Gaynor, 2012). Despite this bold hypothesis being over 30 years old, it has yet to be empirically evaluated. The current, ongoing, study uses a modified version of the "Fast Friends" experimental procedure (Aron et al., 1997), previously used as a FAP analog (Haworth et al., 2015) to examine how experimental manipulation of the first rule of FAP can impact therapeutic intimacy, an indicator of effectively engaging in FAP consistent behaviors. Results can be generalized to clarify what components of FAP are necessary and sufficient for successful therapy training and implementation.

- **Embodied ACT: What the Body Reveals about Lay Knowledge of Psychological Flexibility**

Neal Falletta-Cowden, M.A., BCBA, University of Nevada, Reno
Patrick Smith, University of Nevada, Reno
Steven C. Hayes, University of Nevada, Reno
Sandra Georgescu, Contextual CBT Center
Seyed Ali Kolahdouzan, Isfahan University of Medical Sciences

Embodied knowledge of psychological flexibility processes was tested by examining the ability of raters to score whole body pictures based on the degree to which they were open, aware, and engaged. Naïve and untrained raters ($n = 16$) could do so with excellent reliability. Because scores on these three ratings also showed excellent internal reliability, a Psychological Flexibility Embodiment Scale (PFES) was created from the three ratings and applied to 82 persons from the general population in Reno, Chicago, and Tehran, Iran. They were asked to show with their body, their mental posture at their best and worst when dealing with a difficult psychological matter. PFES scores varied significantly under these instructions and did so in all three locations (although significantly less so in Iran), suggesting that the general population already has a degree of embodied knowledge of psychological flexibility. The implications of these findings for assessment and intervention are explored.

- Prevention of psychological disorders: a ACT-based prevention model
Adrián Barbero Rubio, Ph.D., National University of Distance Education (UNED) and Madrid Institute of Contextual Psychology (MICPSY)

The Acceptance and Commitment Therapy (ACT) model is emerging as a really promising way of preventing psychological problems. This paper presents a ACT-based prevention model in which the impact of early interactions on the genesis of patterns of psychological inflexibility is analyzed. This pioneering analysis will highlight the existing relational keys in early parent-child interactions, which will facilitate the transformation of functions towards the inclusion of aversive and/or desirable private events and, therefore, towards psychological flexibility. This model begins to be contrasted through the analysis of numerous interactions in natural contexts that lead to problems. It is expected that its application can be useful in both family and educational contexts to prevent problematic patterns.

Educational Objectives:

1. Describe the phenomenon of resurgence and conditions that affect magnitude of resurgence in a human operant preparation.
2. Identify the potential utility of conducting research into nonverbal communication for both applied purposes and basic research.
3. Describe how implementing the first rule of Functional Analytic Psychotherapy (FAP) can influence relationship building behaviors.

150. CBS interventions for supporting caregivers and family members

Symposium (10:45 AM - 12:15 PM)

Components: *Case presentation, Original data*

Categories: Clinical intervention development or outcomes, Health / behavioral medicine, Complicated Grief, Caregivers, Couples, Chronic illness

Target Audience: *Beginner, Intermediate, Advanced*

Location: Union Square 22

Chair: Sanela Kalakovic, M.A., Western Michigan University

Emma Delemere, M.Sc., BCBA, Maynooth University

The interpersonal context can have a tremendous impact on a person's capacity to cope meaningfully and effectively with significant life events and illnesses. In this way, CBS approaches to fostering such coping might be optimized by directly addressing the skills of supportive loved ones. This symposium explores CBS interventions that specifically target the interpersonal context. The first paper offers a case study that reviews the successful treatment of complicated grief using Complicated Grief Treatment + Cognitive Processing Therapy in a husband wife each receiving simultaneous individual therapy. The second paper investigates the impact of a caregiver co-designed six week online self-paced ACT intervention on the psychological flexibility, parental burden and mental wellbeing of parents of children with cancer.

- Effects of a group-based ACT for patients with chronic heart failure: A quasi-experimental pilot study

Xuelin Zhang, MA, School of Nursing, The Hongkong Polytechnic University

Yim Wah Mak, School of Nursing, The Hongkong Polytechnic University

Grace WK Ho, School of Nursing, The Hongkong Polytechnic University

Background : Chronic heart failure (CHF) requires strictly complying self-care regimen, which imposes extraordinary psychological challenges for patients and their family caregivers. Preliminary evidence implies that Acceptance and Commitment Therapy (ACT) can be helpful for patients and family caregivers to promote CHF self-care behavior by cultivating psychological flexibility and perspective-taking.

Method : This is uncontrolled quasi-experimental with pre-test and post-test design, assessed the acceptability, and potential efficacy of a group-based dyad-orientated ACT in improving CHF self-care behavior, and other health outcomes for patients with CHF and their family caregivers.

Results : 7 dyads were recruited and received a 4-week face-to-face training program using group-based dyad-oriented ACT. Findings revealed improvements in CHF self-care behavior with large effect size($d=1.013$), anxiety and depressive symptoms($d=0.431-0.542$) and psychological flexibility($d=0.324-0.655$) for dyads with small-to-moderate effect sizes after the intervention immediately.

Conclusion: The findings indicate the acceptability of the program and potential efficacy on CHF self-care behavior, anxiety and depressive symptoms, and psychological flexibility. A randomized controlled trial for dyads of patients and caregivers utilizing group-based dyad-orientated ACT training program is warranted.

- Evidence Based Practice: A Case Study Examination of Complicated Grief Treatment with a Couple

Sanela Kalakovic, M.A., Western Michigan University
Kyra Katte, M.A., Western Michigan University
Brooke M. Smith, Ph.D., Western Michigan University
Scott T. Gaynor, Ph.D., Western Michigan University

This evidence-based behavioral practice case study displays the successful treatment of complicated grief in a husband wife each receiving simultaneous individual therapy. Complicated grief involves intense and prolonged yearning, constant sorrow, frequent intense thoughts of the deceased, and difficulty accepting the death. Complicated Grief Treatment (CGT) is a manualized evidence-based intervention for complicated grief. However, to our knowledge, CGT has not been examined with a couple receiving simultaneous treatment. As such, practitioners have little information about how to proceed with cases where multiple members of the same family are experiencing complicated grief. Additionally, CGT does not directly target maladaptive rumination and counterfactual thinking. Instead, CGT expects this verbal behavior to decrease as clients' progress through the imaginal and in vivo exercises. However, we found it necessary to teach strategies from Cognitive Processing Therapy (CPT) to explicitly challenge maladaptive thoughts and maximize treatment efficacy. We will describe the unique adjustments made to deliver services as well as what this case suggests about the effects of CGT+CPT on complicated grief, depression, and overall relationship satisfaction.

- Connected Health, Co-Design and Paediatric Cancer: Using ACT to Support Parent Psychological Flexibility

Emma Delemere, M.Sc., BCBA, Maynooth University
Rebecca Maguire, CPsychol, Maynooth University

While research suggests the utility of Acceptance and Commitment Therapy (ACT) to support caregivers with illness, limited research has considered its use for parents of children with cancer. This research examines the impact of a caregiver co-designed six week online self-paced ACT intervention on the psychological flexibility, parental burden and mental wellbeing of parents of children with cancer. The intervention, delivered using an online platform accessible by mobile application and browser, consists of short experiential exercises, metaphors and self-practice activities targeting aspects of the Hexaflex in turn. A pre-post design was employed to examine intervention effects. As online supports are purported to meet the challenges of families who experience burden, accessing traditional supports, analysis of attrition and acceptance will allow for a sensitivity analysis to determine if more vulnerable groups successfully accessed the service. Results explore the role of self-as-context, cognitive diffusion, committed action and acceptance on outcomes.

Educational Objectives:

1. Describe the impact of self-as-context, cognitive diffusion, committed action and acceptance on wellbeing and burden for parents of children with cancer.
2. Describe the evidence-based behavioral practice framework.
3. Design connected health tools to support intervention delivery.

On Demand

The sessions below in orange will be available On Demand to our virtual audience from June 7 – September 15, 2022.

ACT and CBS in Correctional and Forensic Settings: Forensic and Corrections SIG

Symposium

Components: *Original data*

Categories: Clinical intervention development or outcomes, Supervision and training, Corrections, Criminal Justice, Forensics, Criminal Behavior

Target Audience: *Beginner, Intermediate, Advanced*

Chair: Amie Zarling, Ph.D., Iowa State University

Discussant: Levin Schwartz, MSW, Franklin County Sheriff's Office

Roxann Scheffert, M.A., Iowa State University

Kassandra Sauder, M.A., Centre for Addiction and Mental Health

A small but growing community of researchers and practitioners are using ACT and other CBS-informed approaches in correctional and forensic settings. Justice-involved individuals are often high risk for repeat criminal behavior, mental health problems, significant relationship distress, low social support, and substance abuse. The presenters in this symposium will introduce cutting edge research on the implementation of ACT to address the challenges experienced by this population. Data will be presented from various correctional populations and settings, including men convicted of domestic assault, hard-to-serve forensic inpatient populations, and individuals just released from incarceration. We will also outline how ACT fits well with evidence-based principles of effective correctional interventions, such as risk-needs-responsivity and core correctional practices. Finally, data will be presented on how ACT can facilitate training correctional staff and assist in helping them navigate this difficult role of both law enforcer and facilitator of positive behavior change. We will identify future work needed to promote the fidelity and sustainability of ACT-based programs in correctional settings.

- A Randomized Clinical Trial of Acceptance and Commitment Therapy and the Duluth Model for Men Court-Mandated to a Domestic Violence Program
Amie Zarling, Iowa State University
Dan Russell, Iowa State University

This is the first randomized controlled trial to compare Acceptance and Commitment Therapy (ACT) with the Duluth Model curriculum, which took place in community-based corrections for men convicted of domestic violence. The Duluth Model curriculum is an educational approach grounded in feminist theory that focuses on changing attitudes toward women and unlearning power and control motivations. This study included 338 men who were court-mandated to complete a domestic violence program after being convicted of assault against a female partner. Outcomes included criminal justice data (domestic violence charges, other violent charges, and non-violent charges) incurred during the one year following program drop-out or completion, and victim reports of intimate partner violence (IPV; aggression, controlling behaviors, and stalking/harassment). In intent-to-treat comparisons to Duluth, ACT participants did not show a difference in domestic assault charges at one year post-treatment, but acquired significantly fewer violent charges and non-violent charges compared to Duluth participants. Data from victims indicated that victims of ACT participants reported significantly fewer IPV behaviors than victims of Duluth participants at one year post-treatment.

- Training Correctional Staff in ACT
Roxann Scheffert, Iowa State University
Amie Zarling, Iowa State University

In this presentation, we describe how a research-practitioner collaboration has led to statewide implementation of ACT-based programs within Iowa's correctional system. We outline how ACT fits well with principles of effective correctional interventions, such as risk-needs-responsivity and core correctional practices. We contend that ACT is also well-suited to address the challenges inherent in correctional practice, such as establishing an effective working alliance with clients and navigating dual roles of control and support. The barriers to implementation, such as staff buy-in, correctional policies, and training are explored. Data on training correctional staff are presented.

- Public Safety Through Treatment: A new Direction for County Corrections

Levin Schwartz, Franklin County Sheriff's Office

The political context in the United States continues to lean toward the over incarceration of people struggling with addiction and mental health; usually sending them to facilities ill-equipped to intervene effectively, keeping people stuck in disenfranchised positions upon release. Beginning in 2013, the Franklin County Sheriff's Office (MA, USA) began using contextual behavioral principles to transform a correctional environment into a locked treatment facility. At the time, the assessment data indicated that 86% of individuals were high risk for recidivism. The proportion of clients who self-report heroin/opioids as their primary problem steadily rose from 30% (2014) to 52% (2021). Most clients had severe childhood trauma, and about 85% met diagnostic criteria for co-occurring disorders. The data was clear: it was not enough to offer a program to a cadre of individuals, FCSO needed to transform the entire system to all residents in the facility - while maintaining individual's agency to opt-out. This presentation will outline the major findings of a recidivism study (2011-2018), which followed all sentenced clients who left FCSO for three years in the state of MA. The findings suggest that contextual behavioral science as implemented in FCSO helped to reduce reincarceration in a jail or prison, conviction of a new crime, and/or a violation of conditions of probation from 53% to 35% over three years; with a one year recidivism rate dropping from 23.7% to 14.2%.

- Experience ACT: A Forensic Inpatient Experiential Group
Kassandra Sauder, Centre for Addiction and Mental Health

Presentation Abstract: The Experience ACT group was developed for the Centre for Addiction and Mental Health's (CAMH) Forensic Division inpatient units. This group's primary treatment target and goal is to foster ACT-informed therapeutic skills for hard-to-serve patients using only the experiential components of ACT. The modules are designed and delivered in a highly accessible, experiential and pragmatic format to support the rehabilitation and recovery of inpatients who have significant cognitive, developmental, and/or social limitations. The group has been successful in not only providing an increase in validated therapeutic programming for the target population, it has also improved overall DUNDRUM-3 scores in participants. Annual individual DUNDRUM-3 scores improved up to 25% in one participant since and overall attendance in any on-unit program has increased by 45.16% as of November 2021. Initial results of the group show promise for use of only the experiential components of ACT to support rehabilitation and recovery for hard-to-serve forensic inpatient populations.

Educational Objectives:

1. Describe current uses of ACT and CBS in correctional and forensic settings.
2. Identify how ACT fits with evidence-based principles of effective correctional interventions.
3. Demonstrate awareness of future research needed related to ACT/CBS in corrections and with justice-involved clients.

Innovations in Technology-supported ACT Interventions and Research: ACTing with Technology SIG Sponsored

Symposium

Components: *Original data*

Categories: Mobile or digital technology, Clinical intervention development or outcomes, Technology-supported ACT

Target Audience: Beginner, Intermediate

Discussant: Roger Vilardaga, Ph.D., Duke University
Korena Klimczak, B.S., Utah State University
Francesca Brandolin, M.A., University of Jyväskylä
Shaun Mehew, CBT, ieso
Pinelopi Konstantinou, B.Sc., M.Sc., University of Cyprus
Simone Gorinelli, M.A., University of Jyväskylä

Modern advances in technology offer unique mediums and tools regarding both the delivery of ACT, as well as research methods used to study ACT. Telehealth-delivered workshops, artificial intelligence-supported therapy, virtual reality interventions, self-guided web-based programs, and wearables as a research tool offering biophysiological data are just a few examples of technology that have facilitated new opportunities in our field. As a result, these interventions and tools allow us to better increase the accessibility of ACT, enhance the effectiveness of ACT, and develop a multi-dimensional understanding of ACT processes. The current symposium will showcase research examining or utilizing the previously listed technology-supported ACT interventions and research tools, with a diverse range of target

populations and clinical issues including international students, individuals with type-II diabetes, social anxiety, general wellbeing, and physical pain.

- Examining the effectiveness and acceptability of a group-based ACT intervention when delivered face-to-face or online

Francesca Brandolin, M.A., University of Jyväskylä
Päivi Lappalainen, Ph.D., University of Jyväskylä
Simone Gorinelli, M.A., University of Jyväskylä
Joonas Muotka, University of Jyväskylä
Raimo Lappalainen, Ph.D., University of Jyväskylä

Studies have shown that international students are at increased risk of experiencing poor mental health. In this study, we compared a low-threshold acceptance and commitment therapy (ACT) group workshop delivered in two different formats. International students (n=101) participated in five group meetings face to face (n=53) or online using the videoconferencing application zoom (n=48), as the workshop was transferred online after the outbreak of the COVID-19 pandemic. Symptom and process measures indicated close to equivalent, positive changes in both groups (e.g., PSS-10, face-to-face; $dw=0.94$, online $dw=0.54$; AFQ-Y, face-to-face, $dw=0.84$, online $dw=0.55$), with a slightly larger effect in the face-to-face group. This study suggests that a brief ACT-based group workshop is well received and effective in enhancing the psychological well-being of international students whether delivered face-to-face or online. The design and results of this study will be discussed.

- AI-powered ACT for the treatment of psychological difficulties and behavioural change in individuals with type-II diabetes

Ana Catarino, Ph.D., ieso Digital Health
Ann Hayes, Ph.D., ieso Digital Health
Shaun Mehew, CBT Dip, ieso Digital Health
Andy Blackwell, Ph.D., ieso Digital Health

A total of 101 adult patients with type-II diabetes and co-morbid anxiety and depression disorders (mixed) that met the inclusion criteria for UK IAPT were recruited into a pre-post treatment comparison design. They undertook an online course of live ACT sessions tailored for individuals with type-II diabetes via a messaging platform, with a BABCP qualified CBT therapist. Therapists and the clinical supervision team were provided with AI assisted feedback throughout sessions, including predictive recovery curves. Patients received sessions that targeted specific functional needs related to their presenting conditions, with personalised treatment targets. Results showed a statistically significant improvement on all measures, including the Patient Health Questionnaire (PHQ-9; $p<.001$), the General Anxiety Disorder (GAD-7; $p<.001$), the Patient Activation Measure (PAM; $p<.001$), the Diabetes Distress Scale (DDS; $p<.001$), and the Assessment of Quality of Life (AQoL; $p=.002$). Additionally, participants showed significantly greater outcomes as compared to statistically modelled control groups taken compared with patients treated within the service outside of the study. Specific clinical adaptations that were made to achieve such promising results will be discussed.

- Virtual reality ACT intervention for social and public speaking anxiety of university students

Simone Gorinelli, M.A., University of Jyväskylä
Ana Gallego, Ph.D., University of Jyväskylä
Päivi Lappalainen, Ph.D., University of Jyväskylä
Raimo Lappalainen, Ph.D., University of Jyväskylä

University students often experience substantial stress when performing in front of other people. Given that stress is a risk factor for general well-being, process-based interventions could be useful for university students. Virtual Reality (VR) technology offers new and flexible ways to provide psychological training. The aim of this study was therefore to examine the effectiveness of a VR intervention based on Acceptance and Commitment Therapy (ACT) and Relational Frame Theory (RFT) principles for social and public speaking anxiety. University students (n = 76) were randomized in intervention (VRACT) or waiting list control group (WLC) and encouraged to follow the VR environment, which combined different types of RFT-based exercises, and apply their skills while immersed in a social VR exposure context. Outcome measures included self-reported social anxiety, well-being, and process measures. After attending three intervention meetings, we observed both a significant decrease in social and communication anxiety (SIAS, $db = -0.55$; PRCA-24, $db = -0.61$) and a significant improvement in process measures (CompACT, $db = 0.61$). We will present the design and results of the study.

- Testing the User Experience and Engagement of a Single Session Web-based ACT Program

Korena S. Klimczak, B.S., Utah State University
Michael E. Levin, Ph.D., Utah State University

Web-based self-guided ACT programs are an effective intervention for improving mental health outcomes across a broad range of presenting problems (Thompson et al., 2021). While there is a plethora of research to support changes in outcomes on account of web-based ACT, less is known about how users engage with, experience, and behave in response to these programs (Vilardaga et al., 2018). The present study aims to shed light on these issues by taking a user centered design approach to a single-session ACT program called ACT Guide Lite. A mixed-methods design will be used, in which participants (n = 12) will use ACT Guide Lite while following think-aloud procedures. Questionnaires and post-test interviews will also be implemented. Thematic analysis will be used to identify themes found across user testing and interview transcriptions as well as qualitative feedback, to better understand what internal experiences users have while using web-based ACT, what takeaways users leave a web-based ACT program with, and whether users follow up with behaviors consistent with the aims of the program.

- An experimental comparison of acceptance vs. avoidance in managing acute pain

Pinelopi Konstantinou, B.Sc., M.Sc., University of Cyprus

Andria Trigeorgi, M.A., University of Cyprus

Chryssis Georgiou, Ph.D., University of Cyprus

Andrew T. Gloster, Ph.D., University of Basel

Georgia Panayiotou, Ph.D., University of Cyprus

Maria Karekla, Ph.D., University of Cyprus

Recently, the ACBS Task Force on the Strategies and Tactics of Contextual Behavioral Science Research defined high quality CBS research as: multilevel, process-based, multidimensional, prosocial, pragmatic and highlighted the importance of basic experimental work. Consistent with these guidelines, we compared acceptance vs. avoidance techniques in a pain-induction experiment (Cold Pressor Task) using physiological (assessed multimodally using stationary and wearable devices), behavioral and verbal measures. Participants were 88 students (M age=21.33; SD=3.87). Participants were randomly assigned to four conditions: (a) Acceptance followed by avoidance instructions; (b) Avoidance followed by acceptance instructions; (c) No instructions followed by acceptance, and (d) No instructions followed by avoidance. Results showed that those receiving acceptance instructions reported lower pain-tolerance than controls at post-experimental phase one, and lower negative affect than both groups at all phases. Acceptance instruction conditions showed lower HR and higher heart rate variability (HRV) than avoidance at post-experimental phase two, and lower skin conductance level (SCL) when assessed via the stationary device. Implications include assessment and detection of mechanisms using different modalities of how individuals manage pain.

Educational Objectives:

1. Discuss various technology-based interventions, including their clinical efficacy and unique contribution to the ACT literature.
2. Explain research methods afforded by and used with ACT technology.
3. Integrate these innovations with broader movements in contextual behavioral science, such the increased synthesis of multiple levels of analysis and focus on pragmatic approaches.

Multifaceted approaches to investigating psychological flexibility: research across contexts

Symposium

Components: *Literature review, Original data*

Categories: Methods/approaches for individual variation, Processes of change, Psychological Flexibility and Inflexibility Research

Target Audience: Beginner, Intermediate, Advanced

Chair: Eric Morris, Ph.D., La Trobe University

Discussant: Lauren Lawson, Ph.D., La Trobe University

Andrew Gioia, SMCP, La Trobe University

Lisa Mastin-Purcell, La Trobe University

Conor McCloskey, B.Sc., University College Dublin

Alison Stapleton, B.A., University College Dublin

Staci Martin, Ph.D., National Cancer Institute

Psychological flexibility (PF) involves the capacity to be in conscious contact with the present moment and persist with or change behaviour based on whether it aligns with one's personal values (Hayes et al., 2006). Contemporary research in PF should reflect the multidimensional and contextual nature of the construct (e.g., Cherry, Hoeven et al. 2021); using measures of flexibility and inflexibility, and considering variables across levels of analysis (Hayes, Merwin et al. 2021). This symposium will

present four studies examining multidimensional approaches to the measurement of PF and how this contributes to the understanding of key processes influencing sleep quality, obsessive-compulsive symptoms, the experience of pain, and values clarity. We discuss considerations in the measurement of PF, methodologies, and tackling the challenge of ergodicity (individual change differing from group-level average change over time) for the development of understanding the psychological flexibility of individuals in context.

- Psychological Flexibility and Emotion Regulation in the Context of Obsessive-Compulsive Behaviours

Andrew Gioia, La Trobe University
Eric Morris, La Trobe University

Psychological flexibility (PF) and emotion regulation (ER) have gained increasing attention for their relationship with obsessive-compulsive (OC) symptoms, however inconsistent inclusion of cognitive constructs, and unidimensional measurement of PF has limited understanding of the relationships. The present study aimed to address these limitations by examining the relationship PF and ER have with OC symptoms whilst including obsessive beliefs, multidimensional measurement of all constructs, and controlling for the effects of depressive symptoms. A community sample of 198 individuals from Australia and New Zealand completed a battery of questionnaires assessing OC symptom dimensions, PF processes and ER. Results suggested Self as Content and Impulse Control had a unique relationship with the Unacceptable Thoughts symptom dimension, and Cognitive Fusion with the Responsibility for Harm dimension. The hypothesis that experiential avoidance would predict unique variance in OC symptom severity was not supported. It is asserted the heterogeneity of OC symptoms requires dimensional analysis for increased understanding and treatment efficacy. The importance of the inclusion of obsessive beliefs and multidimensional measurement of transdiagnostic constructs in future OCD research is discussed.

- Measuring Clarity of Values and Establishing Clearer Group-to-Individual Generalizability in Psychometric Questionnaires

Conor McCloskey, University College Dublin
Alison Stapleton, University College Dublin

The psychological flexibility model is a six-facet model of wellbeing that accounts for the ability to be open and aware in the present and to engage in actions that are consistent with personal values. One facet of this model is values, which refer to personal qualities that individuals hold in order to guide their goal-oriented behavior. Previous measures based on this model have measured values-directed action but not values clarity, which is the extent to which individuals can articulate and understand their own values. The Values Clarity Questionnaire is a new 8-item questionnaire that measures values clarity. Preliminary findings from this questionnaire will be discussed, along with the issue of ergodicity in questionnaire development.

- Fused to Thoughts and Trying to Sleep. What's the Link Between Psychological Inflexibility Processes, Pre-Sleep Arousal and Sleep Quality?

Lisa Mastin-Purcell, Swinburne University of Technology
Amanda Richdale, La Trobe University
Lauren Lawson, La Trobe University
Eric Morris, La Trobe University

Poor sleep can have debilitating effects on physical and mental health. While psychological inflexibility has been linked to a broad range of psychological problems, the link between psychological inflexibility and sleep is not well understood. This study aimed to identify the relationships between different psychological inflexibility processes and sleep quality, and the mediating role of pre-sleep arousal and anxiety. Two path analysis models were tested in a large general population sample (N = 704) with a cross-sectional design. Results showed cognitive fusion, lack of present moment awareness and experiential avoidance, via pre-sleep cognitive and somatic arousal, differentially related to sleep quality and together explained 49% of the variance (Model 1). Cognitive fusion via pre-sleep cognitive arousal had the largest effect. These findings highlight the role of psychological inflexibility, particularly cognitive fusion, in disrupting the de-arousal process needed for healthy sleep and provide preliminary evidence for ACT in treating poor sleep quality.

- Heart-rate Variability in People with Chronic Pain: A Physiological Proxy for Psychological Flexibility?

Taryn Allen, Ph.D., Pediatric Oncology Branch, National Cancer Institute
Kari Struempfl, PhD, Clinical Research Directorate, Frederick National Laboratory for Cancer Research

Mary Anne Tamula, MA, Clinical Research Directorate, Frederick National Laboratory for Cancer Research
Brigitte Widemann, MD, Pediatric Oncology Branch, National Cancer Institute, Bethesda, MD
Staci Martin, PhD, Pediatric Oncology Branch, National Cancer Institute, Bethesda, MD

Given the substantial body of work supporting ACT for individuals with chronic pain, recent research has considered whether physiological parameters relate to key processes such as psychological flexibility (PF). Specifically, heart rate variability (HRV) – or the variation in time between consecutive heartbeats – is often lower in people with chronic pain and may be a marker of PF. This study examined HRV before and after an 8-week ACT intervention among 62 people with chronic pain. In addition to pain questionnaires assessing severity, interference, inflexibility, and acceptance, participants underwent a 5-minute resting electrocardiogram (ECG) at baseline and post-intervention as part of a larger randomized controlled trial (ACT vs waitlist).

Results indicated that HRV improved following the intervention ($p < .05$). Pre-intervention, HRV was significantly associated inflexibility, though changes in HRV were unrelated to changes in pain inflexibility ($p < .05$). Further, pain intensity predicted changes in HRV ($p < .05$), but pain inflexibility did not. While ACT seems to beneficially impact HRV, more research is needed to understand relationships between this physiological marker of PF and more standard measures.

Educational Objectives:

1. Explain why psychological flexibility should be investigated considering multiple levels of analysis.
2. Describe various ways that psychological flexibility and inflexibility can be measured multidimensionally.
3. Compare how psychological flexibility is operationalised in studies across populations.