

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

Sanela Kalakovic, M.A. Allie Mann, M.A. Tabitha DiBacco, M.A. Amy Naugle, Ph.D. Louise Hayes, Ph.D.

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Symposium Overview

Chair: Amy Naugle, Ph.D.

- 1. Rebounding from Stress with Psychological Flexibility
 - ➤ Sanela Kalakovic, M.A.
- 2. Considerations for Using ACT with Sexual and Gender Minority Individuals
 - Allie Mann, M.A.
- 3. A Two-Session ACT Intervention with Healthcare Workers During the COVID-19 Pandemic
 - > Tabitha DiBacco, M.A.

Discussant: Louise Hayes, Ph.D.

Q&A Time



Rebounding from Stress with Psychological Flexibility

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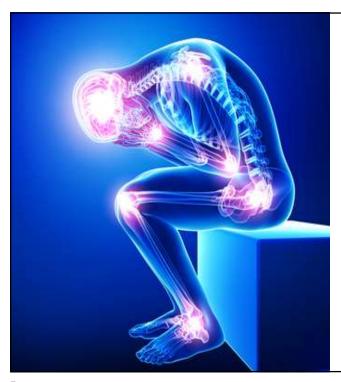


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Disclosures:

I have not received and will not receive any commercial support related to this presentation or the work presented in this presentation.





Early Intervention for Stress

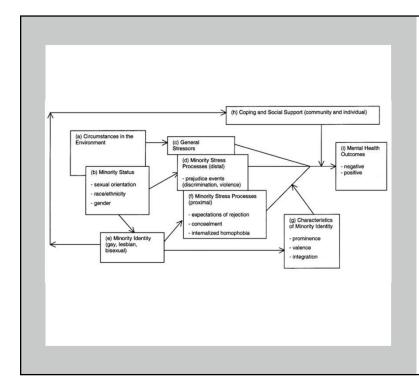
- Accumulation of stress over time has been linked to a number of chronic health effects^{1,2,3,4}
- Outreach to younger populations may help reduce risk of chronic health effects

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ACT for Adolescents

- Stress levels in adolescents have been shown to be higher than the population at large⁵
- ACT has shown significant promise when used with adolescents^{6,7}
- Few studies have examined effects of ACT on adolescent stress^{6,8}



Additional Considerations for Minorities

- Minority identity is not only a source of stress but also an important effect modifier in the stress process⁹
- Few ACT studies have been adapted for minority adolescents¹⁰

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Group Intervention

- •Benefits include efficiency, learning from others, and building connections
 - •Meaningful connections can reduce the stress-related increase in chronic health effects¹¹
- •Group ACT beneficial for chronic pain, substance abuse, and social phobias 12,13,14
 - Lacking research for stress-management



Present Study

- ■Examined effectiveness of ACT for stress-management with an underrepresented adolescent population
- ■Key components:
 - ■Culturally responsive
 - ■Use of popular culture references
 - Group intervention

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Participants Recruitment Sample Size and Sample Attrition Demographics Age range: 17 to Students from • 6 enrolled **Covert Secondary** 18 years old • 2 male students School • Female (n=4); withdrew during Inclusionary ACT male (n=2) criteria: • 12th grade • 4 completed Experienced 1 acute treatment students (n=6) negative life • 2 completed • Hispanic or Latinx event from TAQ optional booster ethnicity (n=6) sessions • Heterosexual orientation (n=6) • Catholic background (n=6) • Low SES (n=6)

Session	Goal
1. Individual meeting one	Brief assessment, informal interview, orientation
2. Introductions and group orientation	Orientation to ACT, group introductions, group rules
3. Contacting your cultural context, contacting your sense of self $$	Orientation to self-as-context
4. Contacting your cultural context, contacting your sense of self**	Review of self-as-context**
5. Contacting what matters, what is your why?	Orientation to values
6. Contacting what matters, engaging your why	Orientation to committed action
7. Contacting the present moment and doing your why	Orientation to present moment awareness
8. Contacting negative thoughts and doing your why	Orientation to cognitive defusion
9. Contacting negative feelings and doing your why	Orientation to acceptance
10. Full contact living	Review of sessions 3-9 and troubleshooting
11. Graduation	Maintenance planning
12. Individual meeting two	Brief assessment
13. Review of full contact living*	Booster session, review of sessions 3-9*
14. Individual meeting three*	Brief assessment*
* = optional session; ** = Start of COVID-19 lockdown	

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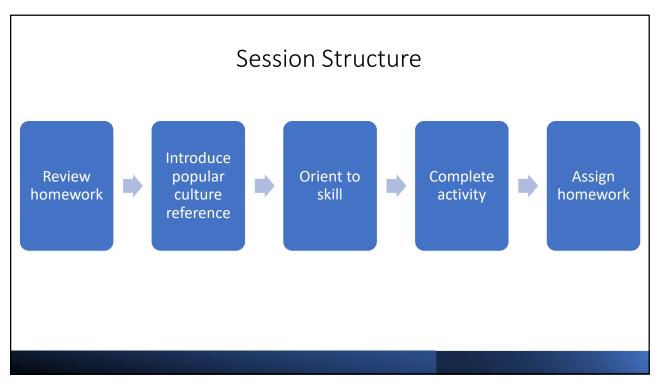
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Design Initial Repeated Mid-Treatment Pre-Post Measures Assessment Demographics • GQOL • SDQ AAQ-II • MSSSS • PSS • Weekly-Check • BADS-SF Multicultural • VLQ • VLQ Inventory AAQ-II • BADS-SF • GQOL • Weekly Check-In

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Analyses

- ■Pre-test/post-test measures analyzed by comparing participant scores to normative means
- ■Repeated measures analyzed using Tau-U calculations
 - Examined 1) contrast between baseline and intervention phase and
 - 2) trend across the entire time series
 - ■Examined changes in quality of life, psychological flexibility, and stress

Pre-Post Results: Exemplars

- AAQ-II has been shown to have a normative mean score of 20.72 (SD = 8.18) for students.
- P1 experienced a negative change of 18 points from pre-treatment, which is a very large change (2.20 SD).

- VLQ has been shown to have a normative mean score of 66.86 (SD = 13.99) for students.
- P5 experienced a positive change of 13 points, which was a large change (0.84 SD).

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Repeated Measures: Group Tau-U Results

GQOL Contrast Between Phases

 Tau-U
 Z-Score
 P-value

 0.40
 2.28
 <.05</td>

 ACT Skills Group Level Trend

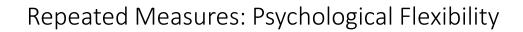
 Tau-U
 Z-Score
 P-value

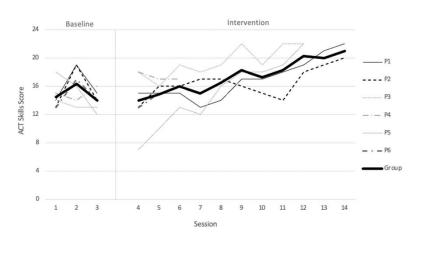
 0.49
 5.06
 <.001</td>

ACT Skills Contrast Between Phases

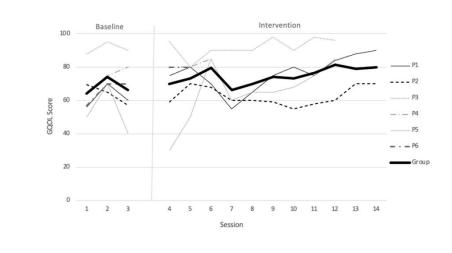
		The second second
Tau-U	Z-Score	P-value
0.47	2.66	<.01
GQOL	Group Level	Trand
		irena
Tau-U	Z-Score	P-value
Tau-U 0.41		90.

Stressors Contrast Between Phases							
Tau-U Z-Score P-value							
-0.25	-0.25 -2.01 <.05						
Stressor	Stressors Group Level Trend						
Tau-U Z-Score P-value							
-0.30 -3.04 <.001							

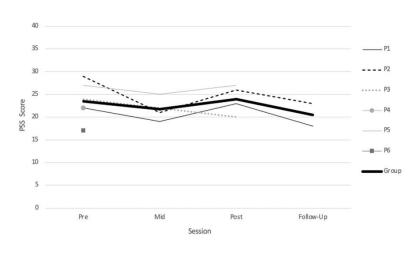




Repeated Measures: Quality of Life







Closing Thoughts

- 1. Promising ACT treatment for adolescents
- 2. Showed utility during real-world stressful circumstances (COVID-19)
- 3. Future research with adolescents is needed:
 - ➤ Use a larger sample size to increase power
 - ➤ Address methodological concerns by comparing ACT to control groups and other interventions
 - ➤ Identify characteristics that may impact treatment efficacy at the individual level





Considerations for Using ACT with Sexual and Gender Minority Individuals

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Disclosures:

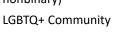
This research was partially funded by a grant from the Graduate College at Western Michigan University



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Definitions

Sexual minority (i.e. gay, lesbian, bisexual) Gender minority (i.e. transgender, nonbinary)







Sexual and Gender Minority Mental Health

- Sexual and gender minorities (SGM) are at increased risk for psychological disorders compared to the general population₁.
- Research suggests that this population is at increased risk for
 - Depression₂
 - Anxiety₃
 - Suicidality₄
 - Substance Abuse₅

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Sexual and Gender Minority Mental Health

The source of this mental health disparity is exposure to stigma related ${\rm stress}_{\rm 6,7,8}.$

Discrimination Homophobia Transphobia



Psychological Impact



Mental Health Disparity



Sexual and Gender Minority Mental Health







Advocacy Clinical



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Mental Healthcare for Sexual and Gender Minorities



- There is a lack of treatment studies specific to SGM mental health
- Historically, the majority of SGM mental health treatment research has been focused on prevention or treatment of HIV_{4.10}
- We need more treatment studies to validate existing evidence-based approaches in SGM

Mental Healthcare for Gender and Sexual Minorities

- Any application of existing interventions with SGM must be affirmative_{11.12}
- Do existing interventions need to be adapted to be effective in this population?



Integrate SGM specific information/ stressors



Mechanisms of stigma related stress

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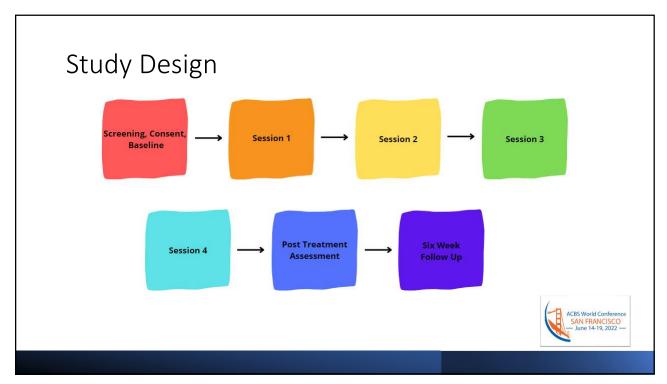
Acceptance and Commitment Therapy (ACT)

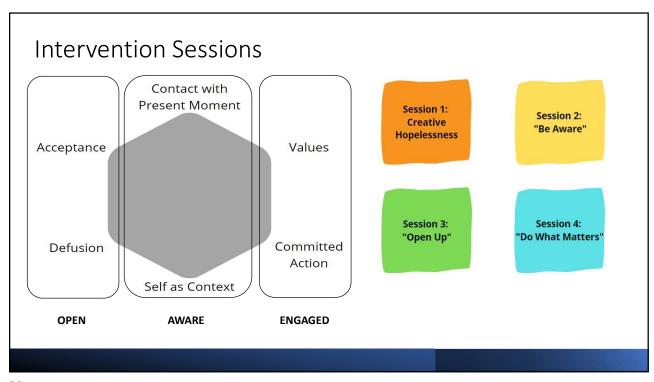
- ullet Third wave behavioral therapy approaches may be well suited to this context_{13,14}
- Factors targeted by ACT are important in the relationship between stigmarelated stress and negative mental health outcomes.
 - Emotion regulation₁₅
 - Mindfulness_{16.17}
 - Experiential avoidance₁₈
- Only two pilot studies applying ACT to SGM populations have been conducted, and both adapted the intervention
 - (Yadavaia & Hayes, 2012) 19
 - (Skinta et al., 2015) 20
- ACT is a relatively new therapy to be explored in use with SGM clients, and has not been explored unadapted

Present Study

- The present pilot study used an open clinical trial design to investigate the impact of a 4-session brief Acceptance and Commitment Therapy protocol. The study included one intervention group and no control group.
- Outcomes examined:
 - · Depression symptoms
 - · Anxiety symptoms
 - · Quality of Life
 - Emotion Dysregulation
 - Mindfulness
 - · Experiential Avoidance

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	Participants		
	Participant Demographics		
Inclusion Criteria	Demographic Gender	n	70
• Adults	Nonbinary, Genderqueer, or Genderfluid Man	7 6	50% 42.9%
Self-identify as SGMLocated in state of Michigan	Woman	5	35.7%
• Access to equipment for video	Transgender	2	14.3%
	Sexual Orientation		
appointments	Gay	7	50%
 Mild or higher depressive and 	Bisexual	5	35.7%
anxiety symptoms	Lesbian	2	14.3%
	Other	2	14.3%
	Heterosexual	1	7.1%
	Race		
	White	11	91.7%
	Asian	1	7.1%

Pre-Post Analyses: Paired Sample T-Test

		Pre		Post				
		M	SD	M	SD	df	t	p
•	Depression	21.54	5.30	15.15	4.00	12	5.60	<.001
0	Anxiety	17.54	6.02	13.08	3.82	12	3.07	.01
0	Quality of Life	62.31	13.63	71.84	15.91	12	-3.54	.004
0	Mindfulness	58.85	10.61	67.46	8.08	12	-2.85	.01
0	Emotion Dysregulation	99.92	17.29	83.54	17.82	12	3.22	.007
	Experiential Avoidance	54.85	10.28	50.00	12.38	12	1.90	.08

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Observations

- Topics discussed:
 - SGM specific
 - Concealment
 - Internalized homophobia
 - Discrimination/ stigma from family
 - Exploration of a queer identity
 - Non SGM specific
 - · Workplace stress
 - Job/ career change/ exploration
 - Depression
 - Anxiety

- Affirmative Context
 - Therapist match/ knowledge
 - Participant feedback
 - "nonjudgmental"
 - Desire for more time



Conclusions/ Future Directions:

- Acceptance and Commitment therapy may be effective for this population without adaptations
- While adaptations may not be needed, an affirming context is likely essential
- These findings should be confirmed in a larger sample, and a more diverse sample

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References



A Two-Session ACT Intervention with Healthcare Workers During the COVID-19 Pandemic

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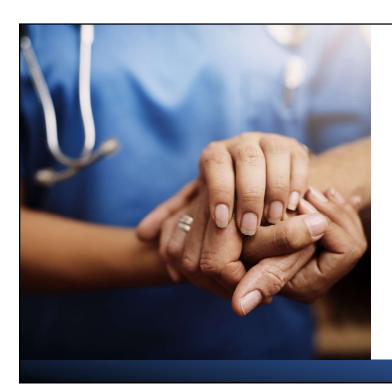
References



Disclosures

This research was partially funded by a grant from the Graduate College at Western Michigan University





A Nation in Crisis

- Preventative measures in March of 2020
- Adverse mental health experiences for healthcare workers^{1,2}
- Interventions for healthcare workers identified as a priority³

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ACT with Healthcare Workers Transdiagnostic treatment^{4,5,6} Group Interventions^{7,8,9} Asynchronous Individual Intervention¹⁰ Substance Use Depression

ACT During the COVID-19 Pandemic

Psychological Flexibility =
Reduced Risk for Suicide¹¹ and Distress¹²



Online Group intervention in Iran with 20 healthcare workers in an 8-session ACT intervention and 20 in a control group¹⁴





Six Online ACT Modules with 20 Adults in the ${\rm UK}^{13}$



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The Present Study

Evaluate a 2-session, individual ACT intervention with Michigan healthcare workers during COVID-19

Session 1

- Mindfulness
- Cognitive Defusion
- Practice

Session 2

- Values
- Committed Action
- Practice

Participants

Healthcare workers in Michigan

- > 18 years or older
- Video-capable device and internet access
- At least mild depressive or anxious symptoms

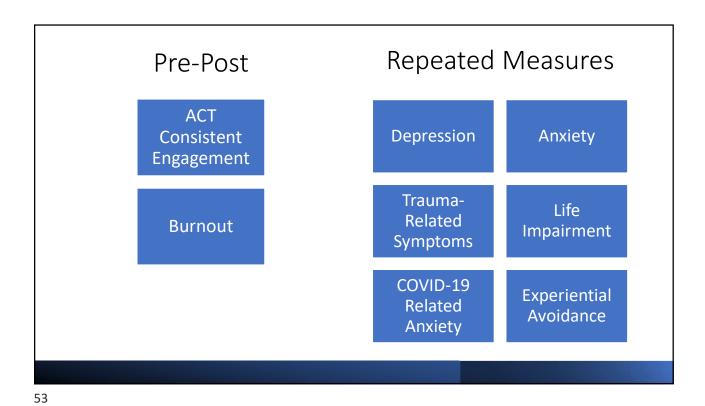
35 individuals consented

- ➤ 32 eligible participants
- ➤ 28 completed post-test
- 26 full completers
- > Attrition: 19%

Demographics (n = 28)

- Largely women (89%) and White (89%), mean age 44 years (SD = 11.91)
- ➤ 68% Bachelor's Degree or above
- Nurses (57%), Physician or PAC (14%), Nurse Practitioner (7%), Occupational Therapist (7%), or other (14%)

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Pre-Post Analyses: Outcome Variables

	Pre-Test		Post-	Test		
Variable	Mean	SD	Mean	SD	test score	p value
Depression	11.36	4.53	6.93	3.73	6.01	<.001*
Anxiety	8.54	4.13	5.93	4.90	4.04	<.001*
Trauma/Stress Related	26.14	14.12	13.96	12.93	8.17	<.001*
Burnout	64.25	13.92	56.82	16.90	3.49	.002*
Life Impairment**	12.12	6.81	7.96	6.59	-4.13	<.001*
COVID-19 Related Anxiety**	4.07	3.34	1.93	2.49	-3.86	<.001*

^{*}Statistically Significant Result

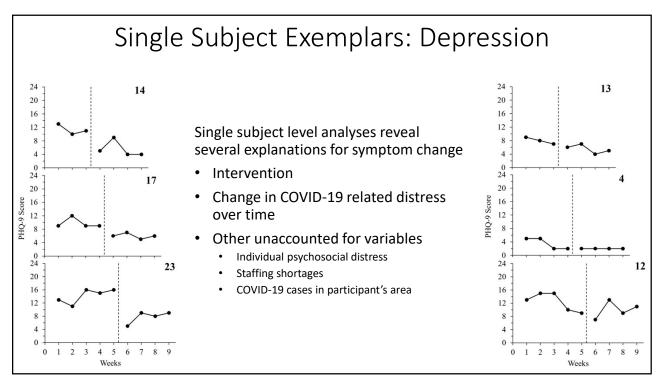
^{**}Wilcoxon Signed Rank Tests Used

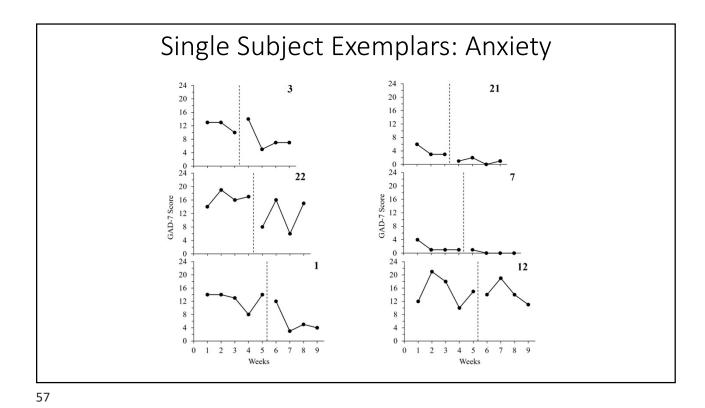
Pre-Post Analyses: Mechanisms

	Pre-Test		Post	-Test		
Variable	Mean	SD	Mean	SD	t score	p value
CompACT	73.18	16.66	83.89	16.56	-3.93	<.001*
Openness to Experience	26.00	9.97	32.29	9.11	-4.37	<.001*
Behavioral Awareness	11.89	4.27	14.36	5.43	-2.67	.013*
Valued Activation	35.29	6.61	37.25	5.46	-1.87	.072
Experiential Avoidance	48.50	10.88	46.39	11.57	1.65	.110

^{*}Statistically Significant Result

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Single Subject Exemplars: Trauma/Stress Related 60 60 PCL-5 Score PCL-5 Score 60 60 Weeks Weeks

Participant Reactions

Helpfulness: 5.00 / 6 Enjoyable: 4.96 / 6

- ➤ "Just knowing there are other intelligent individuals out there who know that we are human and need to be allowed time to process what we see and deal with is intensely reassuring."
- > "I think connecting healthcare workers to their values is a great idea for times of stress and challenge. My values are what prompted me to go into healthcare, and my values are what keep me in the field despite the difficulties."

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Closing Thoughts

- 1. Brief interventions can induce significant change
- 2. ACT may be a particularly beneficial intervention during times of crisis
- 3. Future research with healthcare workers is needed
 - Address the increase in adverse mental health experiences exacerbated by the pandemic
 - Compare ACT's effectiveness to other interventions
 - Explore individualized applications of ACT to assess individual differences in treatment outcomes

References

- Bidzan, M., Bidzan-Bluma, I., Szulman-Wardal, A., Stueck, M., & Bidzan, M. (2020). Does self-efficacy and emotional control protect hospital staff from COVID-19 anxiety and PTSD symptoms? Psychological functioning of hospital staff after the announcement of COVID-19 coronavirus pandemic. Frontiers in Psychology, 11, 1-9.
- 2. Labrague, L., & De los Santos, J. (2020). COVID-19 anxiety among front-line nurses: Predictive role of organizational support, personal resilience and social support. *Journal of Nursing Management, 28,* 1653-1661.
- 3. Holmes, E., O'Connor, R., Perry, V., Tracey, I., Wessely, S., Arseneault, L., Ballard, C., Christensen, H., Silver, R., Everall, I., Ford, R., John, A., Kabir, T., King, K., Madan, I., Michie, S., Przybylski, A., Shafran, R., Sweeney, A., Worthman, C. ... Bullmore, E. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. *Lancet Psychiatry*, 7, 547-560.
- 4. Gloster, A. T., Walder, N., Levin, M. E., Twohig, M. P., & Karekla, M. (2020). The empirical status of acceptance and commitment therapy: A review of meta-analyses. *Journal of Contextual Behavioral Science*, 18, 181-192.
- 5. Fiorillo, D., McLean, C., Pistorello, J., Hayes, S., & Follette, V. (2017). Evaluation of a web-based acceptance and commitment therapy program for women with trauma-related problems: a pilot study. *Journal of Contextual Behavioral Science*, 6(1), 104-113.
- 6. Zarling, A., Bannon, S., & Berta, M. (2019). Evaluation of acceptance and commitment therapy for domestic violence offenders. *Psychology of Violence*, *9*(3), 257-266.
- Waters, C., Frude, N., Flaxman, P., & Boyd, J. (2018). Acceptance and commitment therapy (ACT) for clinically distressed health care workers: Waitlist-controlled evaluation of an ACT workshop in a routine practice setting. British Journal of Clinical Psychology, 57, 82-98.

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References

- Gaupp, R., Walter, M., Bader, K., Benoy, C., & Lang, U. (2020). A two-day acceptance and commitment therapy (ACT) workshop
 increases presence and work functioning in healthcare workers. Frontiers in Psychiatry, 11, 1-7.
- 9. O'Brien, W., Singh, R., Horan, K., Moeller, M., Wasson, R., & Jex, S. (2019). Group-based acceptance and commitment therapy for nurses and nurse aides working in long-term care residential settings. *The Journal of Alternative and Complementary Medicine*, 25(7), 753-761.
- Barrett, K., & Stewart, I. (2020). A preliminary comparison of the efficacy of online acceptance and commitment therapy (ACT) and
 cognitive behavioural therapy (CBT) stress management interventions for social and healthcare workers. Health and Social Care in
 the Community, 29, 113-126.
- Crasta, D., Daks, J. & Rogge, R. (2020). Modeling suicide risk among parents during the COVID-19 pandemic: Psychological inflexibility exacerbates the impact of COVID-19 stressors on interpersonal risk factors for suicide. *Journal of Contextual Behavioral Science*, 18, 117-127.
- 12. Kroska, E., Roche, A., Adamowicz, J., & Stegall, M. (2020). Psychological flexibility in the context of COVID-19 adversity: Associations with distress. *Journal of Contextual Behavioral Science*, 18, 28-33.
- 13. Shepherd, K., Golijani-Moghaddam, N., & Dawson, D. (2022). ACTing towards better living during COVID-19: The effects of Acceptance and Commitment Therapy for individuals affected by COVID-19. *Journal of Contextual Behavioral Science, 23*, 98-108.
- Otared, N., Moharrampour, N., Vojoudi, B., & Jahanian Najafabadi, A. (2021). A group-based online Acceptance and Commitment Therapy treatment for depression, anxiety symptoms and quality of life in healthcare workers during COVID-19 Pandemic: A randomized controlled trial. *International Journal of Psychology & Psychological Therapy*, 21(3), 399-411.
- Gámez, W., Chmielewski, M., Kotov, R., Ruggero, C., Suzuki, N., & Watson, D. (2014). The brief experiential avoidance questionnaire: Development and initial validation. Psychological Assessment, 26(1), 35-45





Discussant: Louise Hayes, Ph.D.



