Mindful Treatment of Anxiety Disorders: Examining the Inter-Relationship between Mindfulness, Distress Tolerance, and Intolerance of Uncertainty

Marissa Zerff, M.A., Sophie Duranceau, M.A., & R. Nicholas Carleton, Ph.D.
Anxiety and Illness Behaviours Laboratory, University of Regina, Saskatchewan

Introduction

- Intolerance of uncertainty (IU) – a dispositional characteristic resulting from negative beliefs pertaining to uncertain future events (i.e., prospective) and behavioral reactions to uncertainty (i.e., inhibitory) – may be a lower-order transdiagnostic risk factor for most anxiety disorders.
  - Distress tolerance (DT) – the ability to withstand negative psychological experiences – is a higher-order transdiagnostic construct which has been related to IU, as well as the development and maintenance of anxiety symptoms.
- Theory and recent research has propositionally supported the benefits of teaching mindfulness in the treatment of anxiety disorders.
  - Specifically, research suggests that mindfulness facilitates increased DT; however, IU may account for an important part of the relationship between mindfulness and DT.
- No research to date has examined the relationship between mindfulness and IU and its broader association with DT.
  - The present study explored the inter-relationship between mindfulness, DT, and IU, with IU posited as a mediator.

Methods

- Participants included healthy community members (n = 164; 68% women; M_{age} = 35.09 years; SD = 10.28) who completed self-reported measures online as part of a larger study investigating IU and anxiety disorders.
- Measures
  - *Intolerance of Uncertainty Scale–Short Form* (IUS-12). A 12-item questionnaire assessing an individual's tendency to consider the possibility of a negative event occurring as unacceptable.
    - *Prospective* subscale (Prospective IU): A 7-item subscale assessing an individual's negative beliefs about uncertainty.
    - *Inhibitory* subscale (Inhibitory IU): A 5-item subscale assessing an individual's response in the face of uncertainty.
  - *Distress Tolerance Scale* (DTS). A 15-item scale assessing individual abilities to experience and withstand negative emotional states.
  - *Cognitive and Affective Mindfulness Scale-Revised* (CAMS-R). A 12-item unidimensional scale assessing four domains of mindfulness (i.e., attention, present-focus, awareness, non-judgment).
- Multiple regression analyses were performed to assess the mediating role of IU (i.e., prospective, inhibitory) in the relationship between mindfulness and DT.

Results

- Descriptive statistics were as follows: IUS-12 total score (M=30.71; SD=9.94) – Prospective (M=19.91; SD=5.89) and Inhibitory IU (M=10.80; SD=4.83), DTS total score (M=3.02; SD=0.9), and CAMS-R total score (M=32.7; SD=6.4).
- Mindfulness was indirectly associated with DT through prospective IU (b mediation = .08, CI = [.02, .16], R^2 = .13).
  - There was a significant positive relationship between CAMS-R total score and DTS total score (p < .001, standardized β = .08).
  - There was a significant inverse relationship between CAMS-R total score and prospective IU (p < .001, standardized β = -.35).
  - There was a significant inverse relationship between prospective IU and DTS total score (p = .002, standardized β = -.03).
- Mindfulness was indirectly associated with DT through inhibitory IU (b mediation = .20, CI = [.06, .33], R^2 =.27).
  - There was a significant positive relationship between CAMS-R total score and DTS total score (p < .001, standardized β = .08).
  - There was a significant inverse relationship between CAMS-R total score and inhibitory IU (p < .001, standardized β = -.50).
  - There was a significant inverse relationship between inhibitory IU and DTS total score (p < .001, standardized β = -.05).

Discussion

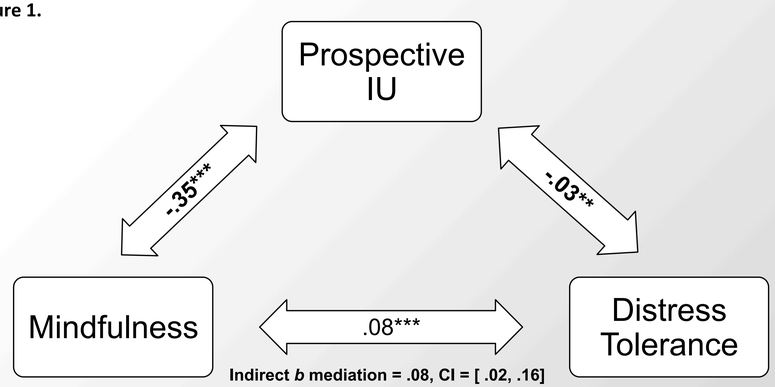
- In line with theory and previous research, IU mediated the relationship between mindfulness and DT. Prospective and inhibitory IU both accounted for the relationship between mindfulness and DT; however, inhibitory IU was a stronger mediator.
- The present-focused mindset associated with mindfulness may help reduce an individual's tendency to catastrophize about future outcomes, in turn decreasing negative cognitions about present distress and negative psychological experiences.
- Mindfulness may also help to facilitate the use of adaptive coping strategies (e.g., problem-solving, acceptance) as opposed to avoidance based strategies (e.g., panic, distraction) in the face of uncertainty.
  - The use of adaptive coping strategies may help increase an individual's perceived self-efficacy when confronted with negative psychological experiences.
  - Conversely, the use of avoidance based strategies likely decreases self-efficacy and reinforces discomfort in the face of distress.
- Future research should seek to extend the current study findings to diverse clinical samples (e.g., anxiety).
  - Mindfulness based techniques may help target both IU and DT as part of cognitive-behavioural therapy treatments for anxiety disorders.

Table 1. Correlations

Measures	1	2	3	4
1. Prospective IU	-			
2. Inhibitory IU	.72***	-		
3. DTS	-.41***	-.57***	-	
4. CAMS-R	-.38***	-.66***	.61***	-

Note: Prospective IU – Intolerance of Uncertainty Scale Short Form, Prospective IU subscale; Inhibitory IU – Intolerance of Uncertainty Scale Short Form – Inhibitory IU subscale; DTS – Distress Tolerance Scale; CAMS-R – Cognitive and Affective Mindfulness Scale-Revised. ***p < .001.

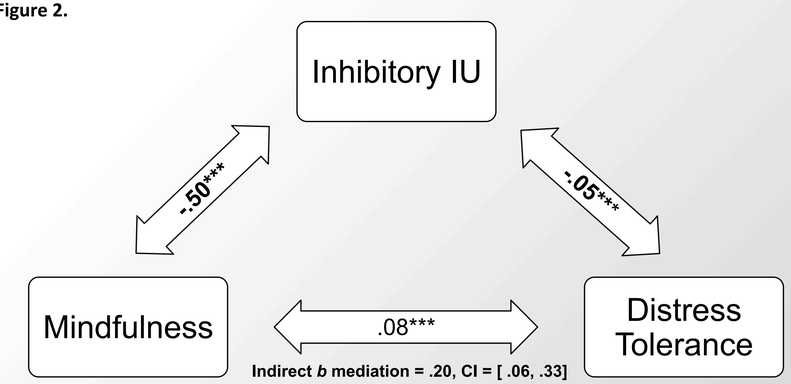
Figure 1.



Indirect b mediation = .08, CI = [.02, .16]

Note: Mediated regression model with the Intolerance of Uncertainty Short Form – Prospective subscale score as a mediating variable between the Cognitive and Affective Mindfulness Scale-Revised total score and the Distress Tolerance Scale total score. ***p < .001, **p < .05.

Figure 2.



Indirect b mediation = .20, CI = [.06, .33]

Note: Mediated regression model with the Intolerance of Uncertainty Short Form – Inhibitory subscale score as a mediating variable between the Cognitive and Affective Mindfulness Scale-Revised total score and the Distress Tolerance Scale total score. ***p < .001, **p < .05.

For more information about this project please contact the presenting author: sophduranceau@gmail.com

View and download this poster at: www.aibl.ca.
Or use the following QR code:

Connect with the AIBL via Facebook at www.facebook.com/AnxietyLab

Poster presented at the Anxiety and Depression Association of America Annual Conference, Miami, April 9-12, 2015