Behavioral Measurement of Intolerance of Uncertainty in OCD, Generalized Anxiety Disorder, and Other Anxiety Disorders

Ryan J. Jacoby, Heather Clark, Allie Hodges, Allison Campbell, Onysym Silivra, Laura Fabricant, & Jonathan Abramowitz

University of North Carolina at Chapel Hill

Introduction

• Intolerance of uncertainty (IU) is a cognitive bias in OCD and anxiety disorders such as generalized anxiety disorder (GAD).
• Current research on IU relies on two self-report measures: the Intolerance of Uncertainty Scale and the Perfectionism/Certainty subscale of the Obsessive Beliefs Questionnaire-44.
• There is need to develop other measures of IU, such as behavioral measures, and to examine whether IU is unique to OCD and GAD, or is a transdiagnostic characteristic of anxiety disorders.
• This study evaluated a probabilistic inference task (the Beads Task) in which individuals high in IU are expected to request more pieces of information (i.e., more beads) before feeling certain enough to make a decision about which of two jars a series of beads have come from (Ladouceur et al., 1997).

Method

Participants

• 69 patients with anxiety disorders as determined by the MINI
• 73% female, 70% Caucasian, M age = 28.11 years (SD = 12.97)

Self-Report Measures

• Intolerance of Uncertainty Scale-12 (IUS-12) - 2 subscales: (1) Prospective IU, (2) Inhibitory IU
• Dimensional Obsessive-Compulsive Scale (DOCS) - 4 dimensions: (1) Germs / Contamination, (2) Responsibility for Harm, Injury, or Bad Luck, (3) Unacceptable Thoughts, and (4) Symmetry, Completeness, and Need for Things to be “Just right”
• Obsessive Beliefs Questionnaire (OBQ-44) - 3 subscales: (1) Responsibility / Threat Estimation (RT), (2) Perfectionism / Certainty (PC), and (3) Importance / Control of Thoughts (ICT)
• Penn State Worry Questionnaire (PSWQ)
• Depression Anxiety and Stress Scale (DASS)

Beads Task: 3 levels of difficulty/uncertainty: (1) low uncertainty (85.15), (2) intermediate uncertainty (60.40), and (3) high uncertainty (44.28:28). Draws to Decision (DTD); max = 30 beads.

Results

Regression Analyses Predicting DTD

• The DASS (Step 1) accounted for <1% of the variance in DTD on the intermediate version of the Beads Task (r² = ns).
• In the first regression, addition of IU measures (Step 2), collectively explained an additional 10% of the variance (r² = .02). OBQ-PC but not IUS-12 subscales accounted for significant unique variance.
• In the second regression, when the symptom measures (DOCS subscales and PSWQ) were added (Step 2), they collectively accounted for an additional 4% of the variance, which was not significant.

ANOVA Analyses Predicting DTD

• A 3 (task difficulty) x 4 (diagnostic group) repeated measures ANOVA revealed a main effect of task difficulty level on the number of beads requested, such that participants requested more beads the more uncertain the task, F(2, 172) = 98.91, p < .001.
• However, there was no main effect of diagnostic group on DTD, F(3, 86) = .62, p = .53.

Discussion

• Beads Task performance can be predicted by a self-report measure of perfectionism and IU, but is better explained by general distress than by symptoms specific to OCD or GAD or by anxiety disorder diagnosis.
• Research should further investigate whether the Beads Task measures IU or perfectionism, and whether an idiographic version would improve clinical utility.
• The lack of diagnostic differences on Beads Task performance supports IU as a transdiagnostic measure.
• Behavioral measures of IU could be evaluated as mediators of treatment outcome studies in order to better understand the mechanisms of anxiety disorder symptom change.