Psychological inflexibility as a transdiagnostic process across DSM-5 anxiety and obsessive-compulsive and related disorders: Replication and extension

ACBS VIRTUAL World Conference 24-27 June 2021

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As psychological inflexibility increases, odds of endorsing additional lifetime obsessive-compulsive and anxiety disorder diagnoses increase, even after accounting for anxiety severity.

Background

- Psychological inflexibility (PI; Hayes et al., 2012) is a transdiagnostic process thought to account for diagnostic comorbidities across seemingly distinct disorders.
- As an example, PI is greater among those with comorbid hoarding and obsessive-compulsive disorder compared with either disorder alone (de la Cruz et al., 2013).
- PI is also greater among individuals with both depressive and anxiety disorders compared with either alone, even after controlling for symptomatic distress (Levin et al., 2014).
- The present study aimed to replicate and extend this work by conceptualizing PI as a process underlying all DSM-5 anxiety and OC disorders, to specify how PI varies by number of lifetime diagnoses after controlling for anxiety severity.
- In other words, we aimed to test whether PI accounts for one's number of lifetime anxiety and OC diagnoses and comorbidities after controlling for anxious distress.

Methods

- Community participants (N = 335; 80.9% female; M_{age} = 47.14) completed online survey measures of PI (AAQ-II; Bond et al., 2011) and anxiety severity (DASS-21; Lovibond & Lovibond, 1995), and were asked to self-endorse any lifetime anxiety and OC disorder diagnoses from a checklist of all DSM-5 anxiety and OC disorders, as part of a larger survey study of coping during the COVID-19 pandemic.
- The disorders endorsed, and their frequencies, are presented below:

Disorder	Frequency Endorsed	% of N = 335
Generalized Anxiety Disorder	107	31.9%
Obsessive-Compulsive Disorder	47	14%
Social Anxiety Disorder	28	8.3%
Panic Disorder	23	6.8%
Excoriation	11	3.3%
Specific Phobia	6	1.8%
Body Dysmorphic Disorder	6	1.8%
Trichotillomania	6	1.8%
Agoraphobia	3	.9%
Hoarding Disorder	3	.9%
Separation Anxiety	2	.6%
Selective Mutism	0	0%

- Diagnoses were either 'checked' or not, and each coded 1 or 0, respectively. The number of endorsed diagnoses yielded a summed score which ranged from 0-5 lifetime diagnoses. Due to sparse data among those endorsing four and five diagnoses, these categories were collapsed on three. Final categories included those who endorsed 0, 1, 2, or 3+ lifetime OC and anxiety disorders, and sample sizes for each category are listed below:

Number of Lifetime Diagnoses Endorsed	n
0	195
1	81
2	34
3+	25

- Ordinal logistic regression was conducted in R version 4.0.2, first with anxiety predicting number of diagnoses, then adding PI in step two.
- Assumption of proportional odds (parallel lines) was tested with the "*brant*" package in R (Schlegel & Steenbergen, 2020), and was satisfied for anxiety alone (p = .84), PI alone (p = .22), and anxiety and PI modeled together (p = .45), indicating the odds of moving from 0-1, 1-2, and 2-3 diagnoses were proportional for each IV alone and when modeled together.
- Variance inflation factors < 10 indicated multicollinearity between PI and anxiety severity was not a major concern.

Results

- Ordinal logistic regression was used to predict number of lifetime anxiety and OC-disorder diagnoses from anxiety severity and psychological inflexibility.
- Anxiety severity alone significantly predicted number of diagnoses, such that for every one unit increase on the DASS-21 anxiety scale, odds of endorsing an additional lifetime diagnosis increased by 14.6% (e^b = 1.14, 95%C.I. [1.11, 1.19], Wald χ^2 = 57.51, p < .001, Cox Snell pseudo R^2 = .16).
- Adding psychological inflexibility in a second step added a significant proportion of variance accounted for in diagnostic comorbidities (Δ-2LL = 47.47, p < .001, Cox Snell pseudo R^2 = .27).
- After accounting for anxiety severity, psychological inflexibility significantly predicted number of diagnoses, such that for every one unit increase on the AAQ-II, odds of endorsing an additional lifetime diagnosis increased by 12.6% (e^b = 1.12, 95%C.I. [1.09, 1.17], Wald χ^2 = 51.96, p < .001).

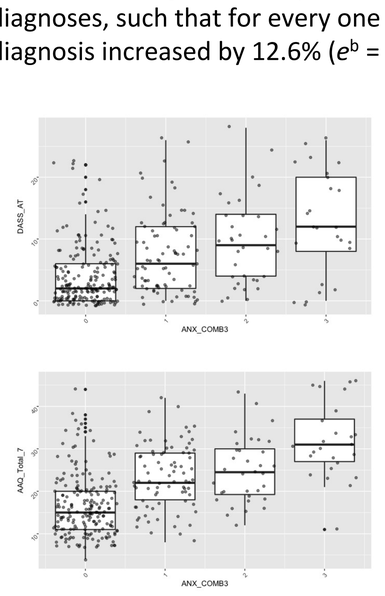
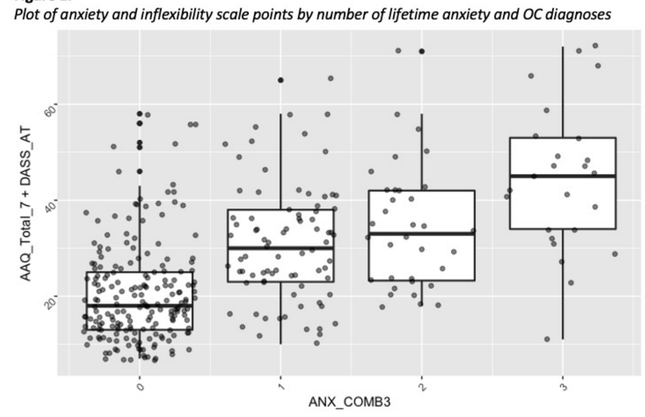


Figure 1.
Plot of anxiety and inflexibility scale points by number of lifetime anxiety and OC diagnoses



Note. DASS_AT = anxiety severity measured by the DASS-21; AAQ_Total_7 = psychological inflexibility measured by the AAQ-II.

Discussion

- Increases in anxiety severity are associated with increased odds of endorsing an additional lifetime anxiety disorder, and psychological inflexibility accounts for a significant proportion of variance in one's number of lifetime OC and anxiety disorders after accounting for anxiety severity.
- As psychological inflexibility goes up, odds of endorsing an additional lifetime OC or anxiety disorder increase incrementally even after accounting for anxious symptomatic distress.
- These findings conform with prior research (de la Cruz et al., 2013; Levin et al., 2014) and add to the conceptualization of PI as a robust, transdiagnostic process related to diagnostic comorbidities among OC and anxiety disorders beyond one's level of symptomatic distress.
- The way in which one relates to their internal experiences may be a better predictor of multiple anxiety-related disorders than how much anxiety someone experiences.
- The study must be considered in light of its limitations. First, the dependent variable was a self-report of lifetime history of diagnoses and is not as definitive as structured interviews, as has been used in previous studies (e.g., Levin et al., 2014). However, 41% of our sample endorsed a lifetime anxiety disorder, which is comparable to, albeit slightly higher than, lifetime prevalence rates reported in prior research (Kessler et al., 2012). Second, we used a state measure of anxiety severity and asked about lifetime diagnostic history. Despite this limitation, our findings nonetheless showed expected, incremental associations between this state measure and lifetime diagnostic history. Third, our study was cross-sectional precluding causal inferences.

Key References

- De la Cruz, L. F., Landau, D., Iervolino, A. C., Santo, S., Pertusa, A., Singh, S., & Mataix-Cols, D. (2013). Experiential avoidance and emotion regulation difficulties in hoarding disorder. *Journal of Anxiety Disorders, 27,* 204-209.
- Hayes, S.C, Strosahl, K.D., & Wilson, K.G. (2012). *Acceptance and commitment therapy: The process and practice of mindful change* (2nd edition). New York, NY: The Guilford Press.
- Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H. U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *Int. Journal of Methods in Psychiatric Research, 21*(3). 169-184.
- Levin, M. E., MacLane, C., Daflos, S., Seeley, J., Hayes, S. C., Biglan, A., & Pistorello, J. (2014). Examining psychological inflexibility as a transdiagnostic process across psychological disorders. *Journal of Contextual Behavioral Science, 3*(3), 155-163.