Panic Disorder and Generalized Anxiety Disorder Comorbidity: Assessing Symptom Severity according to Anxiety Sensitivity and Intolerance of Uncertainty

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Introduction

- Panic Disorder (PD) is characterized by severe, recurring, unexpected panic attacks. It may also include significant behavioural changes as well as ongoing worry about the implications or concern about having other attacks.
- Generalized Anxiety Disorder (GAD) is characterized by excessive, uncontrollable and often irrational worry about everyday things that is disproportionate to the actual source of worry.
- PD and GAD are relatively common among anxiety disorder samples, with prevalence rates of 25% and 22%, respectively (Brown & Schulberg, 1997).
- PD and GAD have been found to have consistently high comorbidity rates with other anxiety disorders (e.g., posttraumatic stress; Welkowitz et al., 2004) and have rates of mutual comorbidity ranging from 21-42% (Roy-Byrne & Katon, 1999).
- PD has been closely associated with anxiety sensitivity (AS) and GAD has been closely associated with intolerance of uncertainty (IU); the current study sought to explore the overlap between the two disorders as described by AS and IU.

Method

Participants

- The current investigation included individuals from an undergraduate sample who reported symptoms meeting diagnostic criteria for PD and GAD using the Panic Disorder Symptoms Scale (Shear et al., 1997) and the Generalized Anxiety Scale (Spitzer et al., 2006).
  - 69 men, ages 17-34 (M = 20.62; SD = 3.25)
  - 238 women ages 18-45 (M = 20.21; SD = 3.32)

Measures

- All participants completed measures of AS, IU, depression, and worry:
  - Anxiety Sensitivity Index-III (Taylor et al., 2007)
  - Intolerance of Uncertainty Scale (Carleton et al., 2007)
  - Centre for Epidemiological Studies Depression Scale (CESD; Radloff, 1977)
  - Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990)

Procedure

- Participants were divided into four groups reporting clinically significant symptoms as follows (Table 1):
  - 1) PD but not GAD (*n*=31)
  - 2) GAD but not PD (*n*=58)
  - 3) PD and GAD (*n*=45)
  - 4) those reporting no symptoms (*n*=173)

Results

- Descriptive statistics are presented in Table 1.
- There were no statistically significant differences between men and women on any of the demographic measures (all *ps*>.10)
- Men and women did not report significantly different scores for any of the dependent variables (all *ps*>.10) except the PSWQ ($p<.01$, $r^2=.05$).
- Results of ANOVA results indicated significant between group differences on all measures (Table 2). The comorbid and GAD groups were significantly higher constructs than the PD and the asymptomatic groups (see Table 1).
  - Participants in the PD group reported PD symptoms, but did not report any GAD symptoms.
  - Participants in the GAD group reported ongoing worry and distress, with GAD symptoms, but no PD symptoms.
  - Participants with both PD and GAD scored significantly higher on measures of AS, IU, depression, and worry.
- Results from the correlation analysis demonstrated inter-relationships consistent with precedent research (Table 3).

Discussion

- Previous studies have reported PD and GAD to have high comorbidity rates with other anxiety disorders. Moreover, PD and GAD have been found to have high rates of mutual comorbidity.
- Results of this investigation showed an increase in PD and GAD symptom severity in individuals with comorbid PD and GAD. Accordingly, the underlying constructs of AS and IU may be particularly critical diatheses for more diffuse anxiety responses as seen in GAD.
- The results of this study have important clinical implications given that the presence of comorbid GAD in patients with PD has been shown to interfere with the maintenance of treatment gains. Specifically, high levels of worry may limit the attentional and emotional resources needed to practice and apply learned strategies (Steketee et al., 1999)
- Future research should address potential obstacles to treatment depending on whether PD or GAD is the primary disorder when comorbid. Furthermore, the results of this investigation suggest that the development of a treatment adapted to PD-GAD comorbidity may be warranted.

Table 1: Descriptive Statistics all measures: *M* (*SD*)

	ASI-III Som (*n* = 307)	ASI-III Cog (*n* = 307)	ASI-III Soc (*n* =307)	ASI-III Tot al (*n* =307)	IUS Pro (*n* =307)	IUS Inh (*n* = 307)	IUS Total (*n* =307)	CESD Total (*n* = 284)	PSWQ Total (*n* = 287)
PD	4.03[a] (3.64)	3.13[a] (2.91)	7.45[a] (4.15)	14.61[a] (8.29)	18.26[a] (4.97)	9.42[a] (3.56)	27.68[a] (7.41)	13.63[a] (9.73)	41.58[a] (7.09)
GAD	5.41[b] (5.00)	3.95[b] (3.72)	8.62[b] (4.71)	17.98[b] (11.36)	19.21[b] (5.32)	11.00[b] (4.10)	30.21[b] (8.89)	20.95[b] (9.03)	47.31[b] (8.99)
PAD & GAD	6.58[b] (5.17)	5.60[b] (5.26)	10.89[b] (5.35)	23.07[b] (13.02)	19.98[b] (6.47)	13.13[b] (5.45)	33.11[b] (11.26)	24.00[b] (11.64)	50.80[b] (8.82)
Neither	3.06[a] (3.92)	2.01[a] (3.01)	6.36[a] (4.03)	11.43[a] (8.33)	16.12[a] (4.76)	8.97[a] (3.46)	25.09[a] (7.46)	10.77[a] (8.08)	37.82[a] (8.36)

Means in rows with different superscript letters are significantly different ($p<.01$)

ASI-III Som - Somatic Sensations; ASI-III Cog - Fear of Cognitive Dyscontrol; ASI-III Soc - Fear of Socially Observable Symptoms
IUS Pro - Prospective Anxiety; IUS Inh - Inhibitory Anxiety

Table 2: ANOVA Summary Table

Measures	*df*	*F*	*p*	eta²
ASI-III Som	3, 303	10.06	< .01	.09
ASI-III Cog	3, 303	13.94	< .01	.12
ASI-III Soc	3, 303	14.10	< .01	.12
ASI-III Total	3, 303	19.71	< .01	.16
IUS Pro	3, 303	9.87	< .01	.09
IUS Inh	3, 303	14.94	< .01	.13
IUS Total	3, 303	13.52	< .01	.12
CESD Total	3, 280	34.04	< .01	.27
PSWQ Total	3, 283	36.42	< .01	.28

Table 3: Correlations with Related Measures

	ASI III Som	ASI-III Cog	ASI-III Soc	ASI-III Total	IUS Pro	IUS Inh	IUS Total	CESD Total
ASI-III Cog	.58							
ASI-III Soc	.47	.48						
ASI-III Total	.84	.81	.81					
IUS Pro	.47	.43	.54	.59				
IUS Inh	.54	.55	.54	.66	.71			
IUS Total	.54	.52	.59	.67	.94	.91		
CESD Total	.36	.50	.33	.48	.42	.50	.49	
PSWQ Total	.46	.43	.48	.56	.47	.55	.54	.43

All correlations are significant at the .01 level (2-tailed)

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