


## Social anxiety disorder and PTSD

### The impact of social events perceived as traumatic


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## Background

- Social anxiety disorder
  - > Persistent disabling distress and avoidance associated with social situations
- Often present since early childhood
- Onset may also follow exposure to even a single significantly negative social stressor




## Background

- Recent evidence supports the notion that relatively common social events, such as public humiliation and teasing, may contribute to pathological levels of social anxiety
  - Erwin, Heimberg, Marx, & Franklin, 2006; Scott & Stradling, 1994
- Such events may precipitate or exacerbate symptoms of social anxiety disorder




## Background

- Non-life-threatening events perceived as traumatic (e.g., chronic illness, marital discord, or unemployment) have been shown to produce more event-specific posttraumatic symptoms than life-threatening events perceived as traumatic (e.g., disaster or motor vehicle accident)
  - Mol et al., 2005
- Despite the traumatic nature, these events rarely meet DSM Criterion A1 thresholds



## Background

- Individuals with social anxiety disorder often report event-specific hallmark symptoms of posttraumatic stress disorder (PTSD) following significant negative social events
  - > Intrusive memories & images
  - > Avoidance
  - > Hyperarousal
    - Erwin et al., 2006
- The symptoms appear stable across time
  - Hackmann, Clark, & McManus, 2000



## Background

- In one of the relatively few studies of PTSD symptoms and Social Anxiety Disorder, more than 1/3 of the 45 participants met criteria for a PTSD-like symptom pattern related to a stressful social event
- Of the 29 people who reported experiencing a socially stressful event *and* a Criterion A1 event, 14% met PTSD Criteria B to F for their worst social event, but not for their worst Criterion A1 event
  - Erwin et al., 2006



## Purpose

1. Further assess the endorsement rates of negative social events perceived as being traumatic
2. Compare symptoms of social anxiety and posttraumatic stress among persons reporting traumatic social events relative to persons reporting Criterion A1 events
3. Evaluate the interrelationships between social anxiety and posttraumatic stress symptoms, and common constructs including fear of negative evaluation, anxiety sensitivity, and depression



## Participants

- Participants included 601 community volunteers from across Canada
  - > 156 men, 18-54 years ( $M_{age} = 26.1$ ;  $SD = 9.8$ )
  - > 445 women, 18-55 years ( $M_{age} = 25.7$   $SD = 9.8$ )
- All participants completed a web-administered questionnaire battery as part of a larger study on fear and anxiety
- Participants self-selected for a study on fear and anxiety as well as endorsing a traumatic life event



## Measures

- Traumatic Life Events Questionnaire
  - TLEQ; Carleton, Brundin, Asmundson, & Taylor, unpublished measure
- PTSD Checklist – Civilian Version
  - PCL-C; Weathers, Litz, Huska, & Keane, 1994
- Social Interaction Phobia Scale
  - SIPS; Carleton et al., 2009
- Anxiety Sensitivity Index-3
  - ASI-3; Taylor et al., 2007
- Brief Fear of Negative Evaluation scale, version 2
  - BFNE-II; Carleton et al., 2006; 2007
- Center for Epidemiologic Studies Depression Scale
  - CES-D; Radloff, 1977



## Measures

- Traumatic Life Events Questionnaire
  - TLEQ; Carleton, Brundin, Asmundson, & Taylor, unpublished measure
- Example items
  - > Have you ever experienced
    - A natural disaster
    - Sexual assault
    - Being publically humiliated (worse than others)



## Measures

- PTSD Checklist – Civilian Version; PCL-C
  - > Four factorially distinct components
    - 1) Re-experiencing
      - "Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?"
    - 2) Avoidance
      - "Avoiding thinking about or talking about a stressful experience from the past or avoiding having feelings related to it?"
    - 3) Numbing
      - "Feeling distant or cut off from other people?"
    - 4) Hyperarousal
      - "Being "superalert" or watchful or on guard?"



## Measures

- Social Interaction Phobia Scale (SIPS)
  - Three factorially distinct components; however, the total score was used
    - 1) Social Interaction Anxiety
      - "I have difficulty talking with other people."
    - 2) Fear of Overt Evaluation
      - "I get nervous that people are staring at me as I walk down the street."
    - 3) Fear of Attracting Attention
      - "I worry I might do something to attract the attention of others."



## Measures

- Anxiety Sensitivity Index-3 (ASI-3)
  - Three factorially distinct components
    - 1) Fear of somatic sensations; 'somatic'
      - "It scares me when my heart beats rapidly."
    - 2) Fear of cognitive dyscontrol; 'cognitive'
      - "When I cannot keep my mind on a task, I worry that I may be going crazy."
    - 3) Fear of socially observable anxiety reactions; 'social'
      - "It is important to me not to appear nervous."



## Measures

- Brief Fear of Negative Evaluation-II (BFNE-II)
  - Unitary Factor Structure
    - "I am concerned about other people's opinions of me."
- Center for Epidemiologic Studies-Depression Scale (CES-D)
  - Unitary
    - "I felt depressed"



## Analyses

- Group divisions based on trauma type category
- Analysis of variance (ANOVA) comparing dependent variables
- Regressions evaluating contributions of the independent variables to either PCL-C total scores or SIPS total scores within each trauma type category



## Results

- Social Worst Event ( $n=112$ )
  - A negative social event was the worst event they had experienced ( $n=13$ ; No Criterion A1)
- Other Worst Event ( $n=214$ )
  - Experienced a negative social event, indicated a Criterion A1 event was worse
- No Social Event ( $n=275$ )
  - No negative social event, but had experienced a Criterion A1 event



## Results: Traumatic Life Events

	Social Worst Event ( $n=112$ )	Other Worst Event ( $n=214$ )	No Social Event ( $n=275$ )
Natural disaster (e.g., tornado, flood)	19%	31%	17%
Motor vehicle accident	59%	82%	72%
Other serious accident (e.g., industrial, farm)	7%	18%	10%
Fire	22%	40%	20%
Seeing someone being seriously injured or killed	21%	50%	25%
Sexual assault	14%	38%	18%
Physical assault	45%	64%	37%
Military combat or peacekeeping in a war zone	0%	1%	1%
Civilian (i.e., non-military) living in a war zone	1%	2%	1%
Terrorist attack	3%	3%	2%
Torture	4%	9%	1%
Unexpected death of loved one	31%	68%	48%
Armed robbery	2%	8%	3%
Serious illness (e.g., cancer, AIDS)	42%	57%	41%
Social	100%	100%	0%



## Results: Symptom Reporting

	Social Worst Event (n=112)	Other Worst Event (n=214)	No Social Event (n=275)	F	eta <sup>2</sup>
PCL-C Reexperiencing	9.31 <sup>a</sup> (4.86)	10.93 <sup>b</sup> (5.40)	8.53 <sup>a</sup> (4.42)	13.84***	.047
PCL-C Avoidance	4.22 <sup>b</sup> (2.30)	4.72 <sup>b</sup> (2.59)	3.47 <sup>a</sup> (2.05)	17.91***	.058
PCL-C Numbing	9.63 <sup>b</sup> (5.30)	9.73 <sup>b</sup> (5.20)	7.65 <sup>a</sup> (4.07)	14.53***	.045
PCL-C Hyperarousal	10.22 <sup>b</sup> (5.56)	11.03 <sup>b</sup> (5.99)	8.07 <sup>a</sup> (4.51)	20.39***	.063
PCL-C Total	33.39 <sup>b</sup> (16.11)	36.40 <sup>b</sup> (17.01)	27.71 <sup>a</sup> (13.32)	20.36***	.063
ASI-3 Somatic	5.08 <sup>b</sup> (5.38)	5.61 <sup>b</sup> (5.29)	4.29 <sup>a</sup> (4.72)	4.19*	.014
ASI-3 Cognitive	4.54 <sup>b</sup> (5.29)	4.87 <sup>b</sup> (5.21)	3.25 <sup>a</sup> (4.42)	7.44***	.024
ASI-3 Social	9.26 <sup>b</sup> (5.97)	8.75 <sup>ab</sup> (5.67)	7.74 <sup>a</sup> (5.25)	3.69*	.012
ASI-3 Total	18.88 <sup>b</sup> (14.21)	19.23 <sup>b</sup> (13.79)	15.28 <sup>a</sup> (11.89)	6.61**	.021
BFNE-II Total	26.18 <sup>b</sup> (14.08)	23.83 <sup>ab</sup> (14.37)	20.96 <sup>a</sup> (13.68)	6.22**	.020
SIPS Total	18.69 <sup>b</sup> (14.22)	16.58 <sup>ab</sup> (14.23)	14.20 <sup>a</sup> (11.69)	5.12**	.017
CES-D Total	19.57 <sup>b</sup> (13.09)	21.67 <sup>b</sup> (13.39)	16.00 <sup>a</sup> (10.88)	13.40***	.043

## Results: Linear Relationships

Social Worst Event											
Dependent Variable: PCL-C						Dependent Variable: SIPS					
	$\beta$	t	part r	$\Delta R^2$	$\Delta F$		$\beta$	t	part r	$\Delta R^2$	$\Delta F$
CES-D	.62	7.06**	.44	.55	132.07**	CES-D	.13	1.24	.08	.33	54.43**
BFNE-II	-.01	-.14	-.01			BFNE-II	.23	2.75**	.17		
ASI-Somatic	.09	1.10	.07			ASI-Somatic	.08	1.01	.06		
ASI-Cognitive	-.08	-.83	-.05	.05	2.32*	ASI-Cognitive	-.04	-.40	-.02	.27	14.57**
ASI-Social	.05	.50	.03			ASI-Social	.35	3.55**	.22		
SIPS Total	.20	2.01**	.13			PCL-C Total	.19	2.01**	.12		

## Results: Linear Relationships

Other Worst Event											
Dependent Variable: PCL-C						Dependent Variable: SIPS					
	$\beta$	t	part r	$\Delta R^2$	$\Delta F$		$\beta$	t	part r	$\Delta R^2$	$\Delta F$
CES-D	.41	5.97**	.31	.32	99.66**	CES-D	.08	1.25	.06	.30	91.89**
BFNE-II	-.24	-2.99**	-.16			BFNE-II	.31	4.58**	.20		
ASI-Somatic	.23	3.24**	.17			ASI-Somatic	-.07	-1.07	-.05		
ASI-Cognitive	.04	.58	.03	.12	21.56**	ASI-Cognitive	.18	2.73**	.12	.29	29.43**
ASI-Social	.07	.84	.04			ASI-Social	.28	4.09**	.18		
SIPS Total	.25	3.14**	.16			PCL-C Total	.18	3.14**	.14		

## Results: Linear Relationships

No Social Event											
Dependent Variable: PCL-C						Dependent Variable: SIPS					
	$\beta$	t	part r	$\Delta R^2$	$\Delta F$		$\beta$	t	part r	$\Delta R^2$	$\Delta F$
CES-D	.48	7.54**	.38	.28	106.31**	CES-D	.19	3.48**	.14	.25	89.88**
BFNE-II	-.06	-.83	-.04			BFNE-II	.36	6.52**	.26		
ASI-Somatic	.11	1.69	.09			ASI-Somatic	.02	.42	.02		
ASI-Cognitive	.06	.87	.04	.03	1.96	ASI-Cognitive	.11	1.95*	.08	.32	39.84**
ASI-Social	.10	1.22	.06			ASI-Social	.28	4.60**	.18		
SIPS Total	-.10	-1.26	-.06			PCL-C Total	-.06	-1.26	-.05		

## Results: Groups

	Social Worst Event	Other Worst Event	No Social Event
PTSD and SAD	9% (10)	11% (23)	1% (4)
PTSD only	6% (7)	12% (25)	7% (20)
SAD only	14% (16)	7% (15)	9% (25)
Neither	71% (79)	71% (151)	82% (226)
Total	100% (112)	100% (214)	100% (275)

Notes: PTSD – Posttraumatic stress disorder (in the Social Worst Event group a negative social event was allowed to meet Criterion A); SAD – Social anxiety disorder

## Discussion

1. Assess the endorsement rates of negative social events perceived as traumatic
  - > Approximately 1 in 2 people endorse a negative social event as being traumatic
  - > Approximately 1 in 6 report the social event as being the most distressing event

## Discussion

2. Compare symptoms of persons reporting traumatic social events relative to persons reporting Criterion A1 events
  - > Persons reporting a traumatic social event reported higher symptom levels
  - > Persons reporting a traumatic social event was the worst event endorsed the highest levels of social anxiety and fear of negative evaluation



## Discussion

3. Evaluate the interrelationships between social anxiety and posttraumatic stress symptoms, and common constructs including fear of negative evaluation, anxiety sensitivity, and depression



## Discussion

- When the socially traumatic event was worst
  - > Social anxiety was predicted by depression, fear of negative evaluation, anxiety sensitivity, and posttraumatic stress symptoms
  - > Posttraumatic stress symptoms were predicted by depression and social anxiety symptoms, but the variance accounted for was much smaller



## Discussion

- If there was a socially traumatic event, but a Criterion A1 event was worst
  - > Posttraumatic stress and social anxiety symptoms were highly correlated, even after controlling for the influence of depression
  - > Naturally higher levels of anxiety may have made them particularly prone to interpret a variety of experiences as traumatic



## Discussion

- If a Criterion A1 event was worst and there was no socially traumatic event
  - > Social anxiety symptoms were associated with variables commonly associated with social anxiety disorder (i.e., depression, fear of negative evaluation, anxiety sensitivity)
  - > The traumatic experience and social anxiety symptoms were not particularly inter-related



## Summary

- The relationship between symptoms of PTSD and social anxiety may be mitigated by the experience of a social event perceived to be traumatic
- Fear of negative evaluation and socially observable symptoms of anxiety may not have made people more likely to consider a negative social event traumatic; but, the negative social event appears to have made them more socially anxious



## Implications

- It may be important for clinicians to be particularly mindful that social events, though not typically considered traumatic, can have a significant negative impact on mental health
- Clients may find processing past social events perceived as traumatic to be a particularly effective means of symptom reduction



## Limitations & Future Research

- Cross-sectional data
- Self-report for symptoms and categories
- Details of the traumatic events were not assessed
- Potentially important vulnerability factors, such as family history of depression, trait anxiety, and personality indicators were not assessed
- Longitudinal studies appear warranted



Thank you  
Questions?

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