Can Words be Worse than Stones? An Exploration of the Relationship between Negative Social Experiences and Social Anxiety

Michelle J. N. Teale Sapach, M.A., & R. Nicholas Carleton, Ph.D.
Anxiety and Illness Behaviours Laboratory, University of Regina, Saskatchewan

Introduction

- Social anxiety disorder is an enduring pattern of pronounced fear of scrutiny in situations involving social interaction, observation, or performance (APA, 2013).
- Negative social experiences (i.e., social traumas) have been implicated in etiological models of social anxiety disorder (e.g., Kimbrel, 2008).
- Peer victimization has been linked with adolescent social anxiety symptoms and the type of peer victimization (e.g., overt vs. covert) may differentially influence symptom presentations (Storch & Masia-Warner, 2004).
- Preliminary evidence suggests social trauma reaction severity may also influence social anxiety symptom presentations and may be a better predictor of social anxiety than frequency of social trauma (Levinson, Langer, & Rodebaugh, 2013).
- Researchers to date have yet to explore the relationship between social anxiety and non-antagonistic social traumas (i.e., accidentally humiliating or embarrassing situations) as compared to antagonistic social traumas (i.e., different types of peer victimization).
- A retrospective design was used to examine how experiences of different social trauma types (i.e., antagonistic vs. non-antagonistic) and social trauma responses all relate to different symptoms of social anxiety (i.e., interactional, observational, or performance) in early adulthood.
- The influence of betrayal on social trauma responses was explored alongside the temporal relationship between social traumas and social anxiety symptom onset.

Method

- North American participants (*n* = 271; ages 18-25; 64% women) self-reporting social anxiety completed questionnaires online measuring social anxiety symptoms and social trauma experiences.
- Self-report measures included:
  - Adverse Childhood Experiences-International Questionnaire (ACE-IQ; World Health Organization, 2014)
  - Retrospective Measure of Behavioral Inhibition (RMBI; Gladstone & Parker, 2005)
  - Liebowitz Social Anxiety Scale (LSAS; Liebowitz, 1987)
  - PTSD Checklist for DSM-5 in response to Criterion A traumas (PCL-5-CA) and in response to social traumas (PCL-5-ST; Weathers et al., 2013)
  - Retrospective Bullying Questionnaire (RBQ; Schäfer et al., 2004)
  - Non-Antagonistic Social Trauma Questionnaire (NAST; Investigator developed to parallel the RBQ, but in response to accidental, rather than perpetrated, humiliation or embarrassment)
- Regression and mediation analyses characterized the relationships between measures of social anxiety, social trauma frequency, and social trauma responses.
- Independent samples *t*-tests determined whether social trauma responses differed based on perceptions of betrayal.
- Retrospective recollections of the temporal relationship between social traumas and social anxiety onset were examined.

Results

- Several hierarchical multiple regressions were conducted, entering LSAS subscales of social interaction anxiety (Table 1), observation anxiety (Table 2), and public speaking anxiety (Table 3) as the dependent variables.
  - Step 1: SAD risk factors (i.e., RMBI, ACE-IQ, PCL-5-CA)
  - Step 2: Types of social trauma frequencies (i.e., overt peer victimization [OPV], covert peer victimization [CPV], cyberbullying [CB], non-antagonistic [NAST])
  - Step 3: Social trauma responses (PCL-5-ST)
- RMBI and PCL-5-ST scores were significant predictors in all final models (*p*s < .05). The PCL-5-ST in Step 3 accounted for additional variance in social anxiety symptoms (*p*s < .05). Only CPV frequency contributed unique variance in social interaction anxiety once PCL-5-ST scores were included.
- Mediation analyses were conducted by entering social trauma frequency indices as independent variables, types of social anxiety symptoms as the dependent variables, and PCL-5-ST scores as the mediating variable for each.
- All relationships between social trauma frequencies and social anxiety symptoms were partially or fully mediated by PCL-5-ST scores (Table 4).
- PCL-5-ST scores did not differ based on feelings of betrayal (*p*s > .05).
- Less than half of participants reported experiencing a social trauma (43%) and most of those who had experienced a social trauma did so after their social anxiety onset (55%).

Discussion

- Frequency of peer victimization did not uniquely relate to social anxiety while controlling for behavioural inhibition; as such, social traumas may be related to social anxiety, but behavioural inhibition may play a more central role in developing social anxiety.
- Only a minority of the sample reported experiencing a social trauma and most of those who experienced a social trauma did so after the onset of social anxiety symptoms.
- Behavioural inhibition may be causal for experiencing peer victimization or for interpreting negative social events as traumatic, therein contributing to social fears; accordingly, social traumas may be associated with the development of social anxiety disorder for some people, but more likely act as a symptom synergist.
- Covert peer victimization and non-antagonistic social traumas may play a more poignant role in maintaining social anxiety during adulthood than other types of social traumas, largely through trauma-like reactions they cause.
- Betrayal may not exacerbate responses to social traumas like betrayal tends to exacerbate trauma responses to Criterion A events (e.g., Tang & Freyd, 2012).
- Social anxiety treatment may benefit from inquiring about social traumas and targeting residual symptoms of such events (e.g., intrusive negative imagery) through techniques typically used in the treatment of posttraumatic stress disorder (e.g., prolonged exposure, imagery rescripting).
- Longitudinal research should explore the causal relationship between social traumas and social anxiety.

Table 1

Hierarchical Multiple Regression Predicting Social Interaction Anxiety

Final Model	*β*	*b*	*p*	LLCI	ULCI
RMBI	.43	1.10	.001	0.73	1.51
ACE-IQ	.05	0.42	.507	-0.89	1.68
PCL-5-CA	.01	0.01	.856	-0.11	0.12
OPV	-.07	-0.94	.314	-2.75	0.92
CPV	.17	2.29	.023	0.40	4.18
CB	-.02	-0.45	.759	-3.34	2.69
NAST	.06	1.19	.350	-1.56	3.43
PCL-5-ST	.25	0.21	.001	0.09	0.35

Note. Confidence intervals are 95% bias corrected and accelerated confidence intervals based on 1000 bootstrapped samples. LLCI = Lower Limit Confidence Interval; ULCI = Upper Limit Confidence Interval; RMBI = Retrospective Measure of Behavioural Inhibition; ACE-IQ = Adverse Childhood Experiences International Questionnaire; PCL-5-CA = PTSD Checklist for DSM-5, Criterion A Traumas; OPV = Overt Peer Victimization Frequency; CPV = Covert Peer Victimization Frequency; CB = Cyberbullying Frequency; NAST = Non-Antagonistic Social Trauma Frequency; PCL-5-ST = PTSD Checklist for DSM-5, Social Traumas.

Table 2

Hierarchical Multiple Regression Predicting Observation Anxiety

Final Model	*β*	*b*	*p*	LLCI	ULCI
RMBI	.34	0.32	.001	0.19	0.46
ACE-IQ	.05	0.15	.489	-0.26	0.55
PCL-5-CA	-.02	-0.01	.820	-0.06	0.05
OPV	-.06	-0.29	.437	-0.96	0.47
CPV	.11	0.51	.220	-0.32	1.44
CB	.10	0.75	.169	-0.31	1.85
NAST	.09	0.71	.193	-0.33	1.65
PCL-5-ST	.24	0.08	.008	0.02	0.13

Note. Confidence intervals are 95% bias corrected and accelerated confidence intervals based on 1000 bootstrapped samples. LLCI = Lower Limit Confidence Interval; ULCI = Upper Limit Confidence Interval; RMBI = Retrospective Measure of Behavioural Inhibition; ACE-IQ = Adverse Childhood Experiences International Questionnaire; PCL-5-CA = PTSD Checklist for DSM-5, Criterion A Traumas; OPV = Overt Peer Victimization Frequency; CPV = Covert Peer Victimization Frequency; CB = Cyberbullying Frequency; NAST = Non-Antagonistic Social Trauma Frequency; PCL-5-ST = PTSD Checklist for DSM-5, Social Traumas.

Table 3

Hierarchical Multiple Regression Predicting Public Speaking Anxiety

Final Model	*β*	*b*	*p*	LLCI	ULCI
RMBI	.43	0.55	.001	0.36	0.72
ACE-IQ	.07	0.28	.358	-0.40	0.94
PCL-5-CA	.13	0.06	.086	-0.01	0.11
OPV	-.03	-0.17	.737	-1.15	0.78
CPV	.04	0.27	.680	-0.77	1.32
CB	-.09	-0.88	.159	-2.18	0.41
NAST	.05	0.50	.424	-0.83	1.58
PCL-5-ST	.16	0.07	.032	0.01	0.13

Note. Confidence intervals are 95% bias corrected and accelerated confidence intervals based on 1000 bootstrapped samples. LLCI = Lower Limit Confidence Interval; ULCI = Upper Limit Confidence Interval; RMBI = Retrospective Measure of Behavioural Inhibition; ACE-IQ = Adverse Childhood Experiences International Questionnaire; PCL-5-CA = PTSD Checklist for DSM-5, Criterion A Traumas; OPV = Overt Peer Victimization Frequency; CPV = Covert Peer Victimization Frequency; CB = Cyberbullying Frequency; NAST = Non-Antagonistic Social Trauma Frequency; PCL-5-ST = PTSD Checklist for DSM-5, Social Traumas.

Table 4

Mediating Role of Social Trauma Response

Independent Variable	Indirect Effect, *b*	95% CI	K^2	95% CI	Dependent Variable
OPV	1.23++	0.54, 2.04	.09	0.04, 0.16	LSAS-SI
OPV	0.44++	0.19, 0.77	.09	0.04, 0.15	LSAS-O
OPV	0.48++	0.18, 0.85	.07	0.03, 0.13	LSAS-PS
CPV	1.45+	0.82, 2.33	.11	0.06, 0.17	LSAS-SI
CPV	0.54+	0.29, 0.86	.11	0.06, 0.18	LSAS-O
CPV	0.61+	0.29, 1.05	.09	0.04, 0.15	LSAS-PS
CB	1.83++	0.53, 3.55	.09	0.03, 0.17	LSAS-SI
CB	0.60+	0.18, 1.19	.08	0.02, 0.16	LSAS-O
CB	0.75++	0.23, 1.56	.07	0.02, 0.15	LSAS-PS
NAST	2.57+	1.30, 4.49	.12	0.06, 0.19	LSAS-SI
NAST	0.87+	0.39, 1.51	.11	0.05, 0.18	LSAS-O
NAST	1.01++	0.47, 1.90	.09	0.04, 0.16	LSAS-PS

Note. OPV = Overt Peer Victimization Frequency; CPV = Covert Peer Victimization Frequency; CB = Cyberbullying Frequency; NAST = Non-Antagonistic Social Trauma Frequency; LSAS-SI = Liebowitz Social Anxiety Scale, Social Interaction Anxiety; LSAS-O = Liebowitz Social Anxiety Scale, Observation Anxiety; LSAS-PS = Liebowitz Social Anxiety Scale, Public Speaking; ++full mediation; +partial mediation.

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