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BRIEF REPORT

Contribution of Criterion A2 to PTSD Screening in the Presence of Potentially Traumatic Events

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Criterion A2 according to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association [APA], 1994) for posttraumatic stress disorder (PTSD) aims to assess the individual's subjective appraisal of an event, but it has been claimed that it might not be sufficiently specific for diagnostic purposes. We analyse the contribution of Criterion A2 and *DSM-IV* criteria to detect PTSD for the most distressing life events experienced by our subjects. Young adults ($N = 1{,}033$) reported their most distressing life events, together with PTSD criteria (Criteria A2, B, C, D, E, and F). Posttraumatic stress disorder prevalence and criterion specificity and agreement with probable diagnoses were estimated. Our results indicate 80.30% of the individuals experienced potentially traumatic events and met one or more PTSD criteria; 13.22% cases received a positive diagnosis of PTSD. Criterion A2 showed poor agreement with the final probable PTSD diagnosis (correlation with PTSD 0.13, specificity = 0.10); excluding it from PTSD diagnosis did not the change the estimated disorder prevalence significantly. Professionals should be aware that Criterion A2 is scarcely specific and provides little information to confirm a probable PTSD case.

The *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association [APA], 1994) Criterion A for posttraumatic stress disorder (PTSD) assesses the objective and subjective components of potential stressors. The objective component is captured in Criterion A1, which refers to direct or indirect exposure to an extreme traumatic stressor. The subjective component, captured in Criterion A2, is related to the individual's reaction to that event. Criterion A2 fulfilment requires that responses to the event "involve intense fear, helplessness, or horror" (Criterion A2; APA, 1994, p. 467) to qualify the experience as a traumatic event.

It has been argued that the subjective emotional reactions captured by the A2 criterion are unspecific (Bedard-Gilligan & Zoellner, 2008; Kubany, Ralston, & Hill, 2010) and that these emotions during the event add little to the predictive ability of PTSD (Bedard-Gilligan & Zoellner, 2008). Therefore, whether the events should be defined as traumatic according to Criterion A2 and even whether it should exist at all are issues that are currently under debate (e.g., Brewin et al., 2009; Friedman, Resick, Bryant, & Brewin, 2010; Breslau & Kessler, 2001).

The present study aims to test the relative contribution of each *DSM-IV* criterion to PTSD detection, once the individuals have appraised a certain incident as the most distressing event they have ever experienced. Following previous studies (e.g., Bedard-Gilligan & Zoellner, 2008; Karam et al., 2010; O'Donnell et al., 2010), the focus of this report is to test the hypothesis that Criterion A2 has low specificity to confirm a probable case of PTSD.

Method

Participants

Participants were 1,033 young adults (30.7% males) selected by using random cluster sampling at a large state university in the

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northeast of Spain. Participants' ages ranged from 18 to 30 years ($M = 21.71$, $SD = 2.63$). Eighty-three percent were Caucasian, 13% Hispanic, and 4% other ethnicities. Of the sample, 98% identified themselves as middle-class. The participation rate was 82%.

Measures

The Traumatic Life Events Questionnaire (TLEQ; Western Psychological Services, 2003) is a self-reported checklist of 22 potentially traumatic events, according to criteria for defining a trauma in the *DSM-IV*. The original authors have shown that TLEQ questionnaire has adequate content validity and good concordance between event endorsement between applications (Kubany et al., 2000b).

The Distressing Event Questionnaire (DEQ; Kubany, Leisen, Kaplan, & Kelly, 2000a) assesses *DSM-IV* PTSD criteria. It is composed of 17 items that explore symptomatology (Criteria B, C, and D), four items about their duration (Criterion E) and 11 items about functionality (Criterion F). The original version showed high internal consistency and test-retest indices, and good levels of diagnostic and convergent validity (Kubany et al., 2000a). In our sample, the DEQ had high internal consistency (.93 for the full questionnaire; .84 for Criterion B; .84 for Criterion C; .83 for Criterion D, and 0.93 for Criterion F) and good factor fit (RMSEA = 0.051, CFI = 0.94, TLI = .95).

Procedure

Criterion A2 was assessed for all positively rated TLEQ events by asking whether the event or its recollection provoked intense fear or helplessness. Then, participants reported which of the events identified was the most distressing to them and the DEQ was completed bearing in mind this event.

Statistical Analysis

The prevalence of each event was computed as the proportion of individuals endorsing TLEQ events. Additionally, we computed the probability that an event fulfilled each criterion. Posttraumatic stress disorder prevalence was estimated as the proportion of joint fulfilment of all six criteria.

To test criteria for their contribution to probable PTSD diagnosis, we computed six alternative estimations of PTSD prevalence by excluding each criterion as a diagnostic requirement (hereafter termed "criterion-corrected PTSD probable diagnoses"). We computed the prevalence of criterion-corrected PTSD, and tested whether excluding a criterion had led to a significant prevalence increase by using McNemar's test using exact binomial p values. We also estimated the overall associations between criterion and probable diagnosis by computing each criterion's specificity for PTSD detection and the phi correlation between the criterion and criterion-corrected PTSD diagnosis.

Results

The average number of distinct traumatic events was equal to 3.58 ($SD = 2.47$). Most subjects (80.30%) reported having experienced at least one potentially traumatic event (81.8% of males and 78.8% of females) that met at least one PTSD criterion. The percentage of individuals who met each criterion among those who had experienced at least one traumatic event was 80% ($SE = 1.34$) for Criterion A2; 73% ($SE = 1.16$) for B; 30% ($SE = 1.81$) for C; 57% ($SE = 1.73$) for D; 38% ($SE = 1.64$) for E; and 30% ($SE = 1.36$) for criterion F. The PTSD prevalence in the full sample was 13.22% ($SE = 1.24$).

Table 1 shows event prevalence, the proportion of individuals who considered it as being the most distressing, and the proportion of cases classified as positive PTSD and that endorsed each PTSD criterion. Criterion A2 was the most frequently endorsed criterion across all events (80.77%), and Criterion C was the least endorsed (30.04%). The cluster of events involving unwanted sexual contact (Items 15–18) had a probability of being appraised as the most distressing event over 30%. Sexual contact with adults during childhood (Item 15) was the experience most likely to be identified as most distressing (71%).

Table 2 provides information about the contribution of each criterion to final PTSD probable diagnosis among individuals reporting at least one distressing event. The table shows criterion-corrected PTSD prevalences and the increase in PTSD detection implied when they are excluded as a diagnostic requisite. The table also shows criterion specificity for positive PTSD, corrected phi correlation coefficient with diagnostic, and criterion specificity.

Criterion A2 was the criterion least associated with positive PTSD, as measured by phi correlation and specificity. Table 2 shows that the inclusion of Criterion A2 did not significantly change the prevalence estimation of PTSD: excluding Criterion A2 involved an increase in prevalence of just 0.80%. Similar results were found for Criteria B and D; however, these two yielded higher specificities and correlations with probable PTSD.

As shown in Table 2, avoidant/numbing (Criterion C), duration (Criterion E), and functional significance (Criterion F) had the greatest contributions to diagnosis, as indicated by their specificities and correlations with PTSD. Of all diagnostic factors, Criterion C was the most specific (0.81) and showed substantial correlation with the final diagnostic ($\phi = 0.50$). Criterion E was the one most correlated with the criterion-corrected diagnosis ($\phi = 0.53$), and showed adequate specificity (0.72). Criterion F was also quite specific (0.80) and related with corrected diagnostic ($\phi = 0.40$). The exclusion of Criterion C and E both contributed significantly to filter out cases from probable PTSD diagnosis, as indicated changes in PTSD prevalence.

Discussion

Analysis shows that as a result of being frequently endorsed, stressor Criterion A2 was highly nonspecific and had little

Table 1
Frequencies for Events, Cases Considering It Most Distressing, Positive PTSD, and Diagnostic Criteria Among Subjects Who Considered It Most Distressing

							Frequency fulfilling criterion											
	Freq		Freq most distressing		Frequency PTSD		A2: Fear		B: Intrusion		C: Avoidance		D: Hyper-arousal		E: Duration		F: Function	
Event	%	*SE*	%	*SE*	%	*SE*	%	*SE*	%	*SE*	%	*SE*	%	*SE*	%	*SE*	%	*SE*
Natural disaster	17	3	7	2	0	–	46	14	40	15	0		40	15	0	–	20	13
Motor vehicle accident	22	3	26	3	19	5	70	6	81	5	35	6	63	07	39	7	41	7
"Other" accident	20	3	9	2	12	8	72	11	82	9	29	11	76	10	24	10	24	10
Warfare or combat	0	3	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sudden death/loved one	64	2	56	2	11	2	55	3	67	3	26	3	52	3	35	3	27	3
Life-threat/loved one	37	2	22	2	24	7	78	5	74	7	50	8	71	7	53	8	37	8
Life-threatening illness	10	3	14	3	0	–	71	12	50	25	0	–	50	25	25	22	25	22
Robbery/weapon used	20	3	16	3	9	9	84	6	36	15	18	12	36	15	09	9	09	9
Assaulted	17	3	13	3	9	6	76	9	68	10	23	9	59	10	41	10	32	10
Witnessed assault	26	3	7	2	13	8	72	11	75	11	13	8	50	13	25	11	25	11
Threat of death/ harm	20	3	7	2	18	12	79	11	64	15	36	15	45	15	64	15	18	12
Child: Physically punished	5	3	36	7	22	10	78	10	94	5	5	12	78	10	39	11	28	11
Child: Saw family violence	12	3	31	4	25	7	79	7	72	7	42	8	67	8	56	8	42	8
Physically hurt by IP	5	3	0	–	13	4	–	–	80	5	34	5	57	6	41	6	29	5
Before 13:Sexual contact with ≥18	11	3	71	4	13	7	72	5	83	8	33	10	54	10	29	9	46	10
Before 13: Unwanted sex	6	3	43	6	20	10	65	9	10	10	47	13	93	6	80	10	47	13
Teen: Unwanted sex	5	3	35	6	17	11	79	9	75	13	42	14	58	14	42	14	42	14
Adult: Unwanted sex	4	3	42	8	17	11	67	12	83	11	17	11	25	13	25	13	33	14
Sexual harassment	12	3	15	3	8	7	72	11	1		23	12	62	13	31	13	31	13
Stalked	21	3	8	2	0	–	71	11	94	6	31	12	88	8	44	12	38	12
Miscarriage	1	3	0	–	8	4	–	–	64	8	23	7	51	8	33	8	24	7
Abortion	4	3	45	8	0	–	53	12	40	15	0	–	40	15	0	–	20	13

Note. $N = 1{,}033$.

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Table 2
Contribution of Criterion to Posttraumatic Stress Disorder (PTSD) Diagnosis in Subjects With At Least One Distressing Event

Criterion	Cases fulfilling the criterion $n = 847$		Criterion-corrected PTSD		Prevalence increase when excluding criterion[a]	Criterion-corrected phi correlation with PTSD[b]	Criterion specificity[c]	
	%	*SE*	%	*SE*			Value	*SE*
Stressor Fear (A2)	81	1.44	14	1.16	0.80	.13	.10	.01
Intrusive recollection (B)	73	1.63	14	1.14	0.40	.22	.32	.02
Avoidant/numbing (C)	30	1.67	16	1.22	2.80**	.50	.81	.02
Hyperarousal (D)	57	1.81	14	1.14	0.53	.31	.49	.02
Duration (E)	38	1.77	22	1.38	8.94**	.53	.72	.02
Functionality (F)	30	1.68	19	1.31	6.01**	.40	.80	.02

Note. $n = 847$. [a]PTSD prevalence increase after excluding the criterion compared to all-criteria PTSD. [b]All correlations significant ($p < .001$). [c]Minimum recommended value for specificity for screening purposes is 0.70.

**Significant ($p < .001$) increase with respect to all-criteria PTSD prevalence (13.22%). Nonmarked increases did not yield significance ($\alpha = .05$)

relevance for establishing a probable PTSD diagnostic. Avoidant/numbing (Criterion C) and hyperarousal (Criterion D) were the most specific symptoms related with probable PTSD diagnosis. These symptoms, along with duration and functional impairment criteria (E and F), were at the core of PTSD detection across a broad range of distressing events. Conversely, intrusive recollection (Criterion B) appeared to be a less definite indicator of the disorder in this population.

Criterion A2 performed poorly as a screening measure, which is in accordance with previous findings (Bedard-Gilligan & Zoellner, 2008; Breslau & Kessler, 2001). Prevalence estimates of PTSD in young adults remained virtually unaffected by the exclusion of Criterion A2. As has been previously suggested (O'Donnell et al., 2010), the emotional reactions assessed with Criterion A2 might be too broad for detecting PTSD. Gauging one's own feelings of intense fear, horror, or helplessness is not straightforward, as most individuals seem to find quantitative assessment of intense emotions very difficult (Kubany et al., 2010).

It is convenient to point out certain limitations of the study. First, results are not based on an in-depth interview, but on self-reported data on symptoms. Self-reported instruments, however, are more suitable for large-scale screening purposes and have been shown to be strongly associated with diagnosis. Second, some findings may be attributable to the specific sociodemographic characteristics of the population studied. Additionally, very few individuals reported experiences in warzones, a well-known stressor related with PTSD.

Based on our findings, once the individual reports a potentially traumatic event, avoidance, hyperarousal, and intrusive recollection criteria might suffice to characterise the disorder, whereas duration and functional impairment would provide the criteria for a significant posttraumatic response. The basic core symptoms, along with duration and functional impairment, would allow PTSD detection without further subjective emotional assessment of the stressor. In line with other authors (Breslau & Kessler, 2001; Brewin et al., 2000; O'Donnell et al., 2010), the present study suggests that Criterion A2 may be unnecessary for PTSD detection, especially when using self-reports, and lends support to the proposal by Brewin et al. (2009) to remove Criterion A2 from the forthcoming *DSM-5*.

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