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Human or Natural Trauma: What's Worse?

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Introduction

Trauma is both common and widespread. Traumatic life experiences such as war, disaster, torture, and violence are known to cause severe psychological ramifications and mental disorders (Araya, Chotai, Komproe, & Jong, 2007). PTSD and dissociation are among the adverse effects of trauma. Dissociation is typically viewed as a disruption in the normally integrated self and has been found to be a defensive response to a traumatic event (Hulette, Kaehler, & Freyd, 2011).

The cause of dissociation has been studied nationally and internationally (Rassin & Rootselaar, 2006). Kira proposed that we might expect differences in the effects of natural and human trauma (Kira, Lewandowski, Templin, Ramaswamy, Ozkan, & Mohanesh, 2008). Kira, Fawzi, & Fawzi (2012) explain the stress sensitization hypothesis which suggests that repeated trauma exposure increases the likelihood of a pathological response, including dissociation. Betrayal Trauma Theory proposes that dissociation is most likely to occur when a trauma is perpetrated by someone with whom the victim has a close relationship (Hulette, Kaehler, & Freyd, 2011).

Some research has been conducted on the correlation of human-made trauma and dissociation in the Western World; however not much research has been conducted on natural and human trauma in the non-Western World in relation to dissociative symptoms (Wang, Li, Shi, Zhang, & Shen, 2010).

The purpose of this study is to compare and contrast the dissociation experienced by individuals involved in human-made trauma and natural disaster trauma among participants outside the Western world.



Methods

Participants

Archival data from international participants was used to explore differences in the effects of natural and human-induced trauma. A total of 232 participants were drawn from six samples. Natural trauma was experienced by two groups in Haiti (earthquake), and one in Japan (tsunami). Human trauma was experienced by samples in India (abandonment, rejection/ostracism), Southern Sudan (civil warfare), and the West Bank (war and terrorism).

Instruments

- **Demographic Questionnaire** assessing the impact of trauma included items about age, gender, and education.
- **Impact of Events Scale-Revised (IES-R)** assesses the types of distress persons have experienced due to traumatic events during their lifetime (Weiss & Marmar, 1997; Weiss, 2008).
- **Cumulative Trauma Scale (CTS)** measured kinds of traumatic experiences, including recurrence over the respondent's lifetime. It is a short form of a longer measure developed by Kira (2001).
- **Dissociative Experience Scale (DES)** screens for dissociative experiences due to trauma (Ruiz et al, 2008). Only the eight DES Taxon items were administered for this study.

Procedure

Participants from Haiti, Sudan, Japan, and the West Bank who had survived completed a series of surveys that included the demographic questionnaire; the 20-item Cumulative Trauma Scale (CTS); the Impact of Events Scale-Revised version (IES-R); and the 8-item Taxon version of the Dissociative Experiences Scale (DES-T) and a demographic questionnaire assessing age, gender, and years of education. The only exception to this procedure was that Japanese participants did not fill out the IES-R.

Results

CTSA Results

- Alpha = .80
- A significant effect was found on the CTS total score ($F_{(1, 143)} = 58.10; p < .001$) that indicated that participants reported different traumatic experiences when exposed to natural and human caused traumas.
- Eighteen of the twenty CTS items showed significant effects.
- Scores were higher as a result of human traumas for sixteen of these items.

Table 1

Means, Standard Deviations, and Group Differences on Cumulative Trauma Scale						
	Mean	SD	DF	F	P	Cohen's d
Human-Induced Traumas						
India	27.3	3.2				
Sudan	32.2	3.8				
West Bank	28.1	3.8				
Total	29.1	4.1				
Natural Traumas						
Haiti A	24.7	1.9				
Haiti B	25.6	1.9				
Japan	24.1	2.5				
Total	25.0	2.1	1, 143	58.1	<.001	1.26

IES-R Results

- Alpha = .88
- No significant effect was found on the IES-R total score ($F_{(1, 151)} = 0.42; NS$).
- IES-R items 4, 6, 8, 10, and 21 showed significant differences between groups.
- Human trauma participants reported higher levels of feeling irritable (item 4).
- Natural trauma participants rated higher levels on item 6 (I thought about it when I didn't mean to), item 8 (I stayed away from reminders about it), item 10 (I was jumpy and easily startled), and item 21 (I felt watchful and on guard).

Table 2

Means, Standard Deviations, and Group Differences on Impact of Events- Revised Scale						
	Mean	SD	DF	F	P	Cohen's d
Human-Induced Traumas						
India	36.4	19.9				
Sudan	33.8	17.1				
West Bank	49.4	12.2				
Total	36.4	19.9				
Natural Traumas						
Haiti A	27.1	22.3				
Haiti B	36.4	19.9				
Japan	38.4	17.0				
Total	38.4	17.0	1, 151	.42	NS	

DES-T Results

- Alpha = .91
- No differences were found related to the nature of trauma experienced for the sum of the DES-T items ($F_{(1, 163)} = 0.34; NS$).
- Human trauma participants endorsed higher levels on item 8 (Some people are told that they sometimes do not recognize friends or family members).
- Natural trauma participants scored higher on item 12 (Some people have the experience of feeling that other people, objects, and the world around them are not real) 13 (Some people have the experience of feeling that their body does not seem to belong to them), and 27 (Some people sometimes find that they hear voices inside their head that tell them to do things or comment on things that they are doing). Moderate effect sizes were found for these four items.

Table 3

Means, Standard Deviations, and Group Differences on Dissociative Experiences Scale						
	Mean	SD	DF	F	P	Cohen's d
Human-Induced Traumas						
India	114.8	117.5				
Sudan	132.7	106.3				
West Bank	142.8	112.1				
Total	63.9	122.7				
Natural Traumas						
Haiti A	114.8	117.5				
Haiti B	126.5	135.0				
Japan	157.0	141.2				
Total	25.6	1.9				
Total	12.7	11.0	1, 163	.34	NS	

Discussion

- Clear differences were reported among groups in terms of the kinds of trauma that participants reported.
- No differences in the overall impact of trauma were found on the IES-R, although counterbalancing differences in impact were found on five items.
- Total trauma as reported on the DES-T also did not differ between natural and human induced trauma, but item scores suggested a somewhat different pattern of dissociation symptoms.
- Clear differences were reported in the trauma experienced, but the impact of trauma in these groups seemed little related to whether the trauma was from natural or human causes.
- Cultural differences and differences in resources, support systems, and in reporting distress may have more influence on the distress that participants reported than whether human or naturally induced.
- These data raise the question of whether it will be necessary to make comparisons within a common cultural setting to further identify distinct symptomatic patterns related to whether there are differences in the degree of traumas that are human or naturally induced.



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