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Symptom Comparison across Multiple Solicitation Methods Among Burundians with Traumatic Event Histories

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Abstract

The diagnosis of Posttraumatic Stress Disorder (PTSD) is increasingly applied in diverse cultural settings. Debate continues over the degree to which the symptoms of PTSD are biologically based and therefore relatively universal or are culturally constructed. This study aimed to describe traumatic stress reactions in a Burundian sample and to investigate the influences of solicitation method and psychoeducation (as a process of acculturation) on symptoms reported. Open-ended questions and standardized measures were employed. The sample had experienced profound violence.Standardized measures showed that distress was mostly manifested in symptoms of somatization, anxiety, and depression, and less so in specific PTSD symptoms.Content analysis of open-ended questions revealed frequent material complaints, followed in turn by concerns about depression, PTSD, and anxiety. Prior exposure to Western ideas about trauma was predictive of more severe PTSD symptoms when controlling for number of events experienced. The implications of the findings are discussed in terms of how methodological and cultural factors may influence posttraumatic reactions in non-Western settings.

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As the constructs of trauma and PTSD are increasingly common referents of humanitarian interventions, some argue that the exportation of Western models of PTSD presupposes the construct's applicability in non-Western settings (Kagee & Del Soto, 2003; Summerfield, 2004). Scholars continue to debate the cross-cultural and transhistorical applicability of PTSD as a valid diagnostic construct (Shepard, 1999; Herbert & Sageman, 2004). These calls for caution demand a more considered examination of how solicitation methods and cultural factors may shape posttraumatic symptom presentation.

Africa, with a paucity of development and more than its share of war and disaster, has witnessed a recent increase in traumatic stress research (Marsella, Friedman, Gerrity, & Scurfield, 1996; Dyregrov, Gupta, Gjestad, & Mukanoheli, 2000; Fox & Tang, 2000; McCall & Resick, 2003). Raymond (2000) reported a 99% PTSD prevalence rate among Internally Displaced Persons in Sierra Leone. This study used the Impact of Events Scale (IES; Horowitz, Wilner, &Alvarez, 1979), a measure subsequently abandoned by other researchers after determining accurate translation to be unfeasible (Terheggen, Stroebe, & Kleber, 2001). Thus, extraordinary conclusions are sometimes the result of methodological pitfalls (poor translation, the use of unvalidated measures, narrow symptom assessment) and social influences (power differential, social desirability, overvaluation of Western culture; Summerfield, 1999). However, other studies have opted for less structured interview techniques in order to capture more fully the breadth of possible symptoms (Paardekooper, de Jong, & Hermanns, 1999; Baron, 2002).

The present study had three specific aims: 1) to describe the event history and the symptoms of a Burundian sample of trauma survivors; 2) to contrast two different solicitation methods (open-

ended questions and standardized measure) in the assessment of psychological symptoms; and 3) to conduct an exploratory analysis on the association between prior contact with Western trauma models and the nature and severity of symptoms reported.

Methods

Participants

This rural Burundian sample of 78 participants (36% female) reported a mean age of 37.7 years (13.6). Individuals known to have had suffered during the civil war which has taken over 200,000 lives (AFSC, 2001) and thought to be in current distress were invited to participate in the program by community elders. Invitees had been chosen based on a general knowledge of their traumatic histories and not on specific symptom presentation. Participants received reimbursement for transportation expenses and consented to their participation.

Measures

All instruments were translated into Kirundi by native Burundians who were fluent in both Kirundi and English. Other natives then backtranslated the instruments and discussed refinements in a dynamic process with the first author. The interview was conducted in the following order, so as to avoid influencing responses to open-ended questions by prior exposure to the symptom inventories.

Event history. Each participant's history was collected using the Harvard Trauma Questionnaire - Part I (HTQ-I; Mollica et al., 1992), a 19-item checklist that specifies whether various traumatic events were directly experienced, witnessed, or heard about. Mollica et al. report an excellent inter-rater, internal, and test-retest reliability.

*Open-ended questions on symptoms of distress. O*pen-ended questions were used to assess symptoms associated with a self-identified "most distressful" traumatic event. The central question

was, "What are the main problems that affect you as the result of those events?" (Wilk & Bolton, 2002; Kagee, 2004). Additional questions assessed remembered thoughts and feelings during the experience and in what ways other people perceived the participant as different relative to before the experience.

Quantitative symptom reports. The Hopkins Symptom Checklist-25 (HSCL-25; Hesbacher, Rickels, & Morris, 1980), which uses a 4-point Likert scale (1 = not at all to 4 = extremely), was used to assess anxiety (10 items) and depression (15 items). The somatic subscale (12 items) of the HSCL-58 (Derogatis et al., 1974) was added in order to better capture possible somatic complaints. Matched to diagnoses based on clinical interview, the HSCL-25 has been shown to have excellent sensitivity and specificity (Mollica et al., 1987), and internal reliability across multiple languages (Kleijn, Hovens, & Rodenburg, 2001).

The Harvard Trauma Questionnaire (Part IV) (HTQ - IV; Mollica et al., 1992) uses a 4-point Likert scale (1 = not at all to 4 = extremely) to assess severity of traumatic stress symptoms. The HTQ – Part IV is a checklist of PTSD symptoms with very good sensitivity, specificity, inter-rater reliability, test-retest reliability, and internal consistency across multiple languages (Mollica et al. Kleijn et al., 2001). The measure includes an additional 14 items that may reflect more culturally varied traumatic stress reactions. The measures were checked for content and semantic equivalence by the three-person Burundian advisory team (Flaherty, Garviria, Pathak, & Mitchell, 1988).

Western Trauma Discourse Exposure (WTDE). This measure was designed for the present study to assess contact with trauma psychoeducation. Participants specified the frequency of or magnitude of exposure to (a) workshops, (b) radio programs, and (c) written materials. To provide content validity based on expert opinions, a three-person Burundian team of interpreters and

workshop leaders were asked to rate the WTDE construct components as proxies of exposure to Western trauma models. Only the three most highly ranked items were selected for inclusion.

Procedures

Interviews conducted in Kirundi by two Burundian interviewers were audio taped and then translated into English the same day. Most participants were not fully literate, so items were often administered verbally. The Likert scale was demonstrated visually by showing pictures of glasses containing varying degrees of water (see Terheggen et al., 2001).

Method of analysis

Descriptive statistics were calculated. Open-ended questions were coded over a process of two reviews. Items were first categorized as to whether or not they represented a symptom of PTSD. In a second pass all remaining responses were sorted into other categories. Responses that had already been coded as PTSD were not recoded into these additional categories, thereby effectively reducing the responses that could have been considered for other symptom categories. The non-PTSD symptom categories were derived by a first coder through a dynamic process as themes were established. A second coder was then trained in the coding system and randomly assigned 25% of the data for coding. Inter-rater reliability was 87.8%. Multiple regression was used to explore the relationship between symptom report and WTDE.

Results

Event history and symptom reports

Trauma history. Based on the HTQ – I, events experienced had a mean of 9.6 (1.9) and ranged from 5 – 15. Events experienced, witnessed, or heard about had a mean of 16 (3.0) and ranged from 9 – 19.

Symptom report. Mollica et al. (1987) established a cutoff of 1.75 on the HSCL-25 indicative of "substantial distress" in a southeastern Asian sample. In the present sample, 39.7% exceeded this cutoff on the depression subscale and 61.5% on the anxiety subscale. Mean scores on the anxiety and depression subscale (HSCL-25) were 1.66 (.50) (Cronbach's α = .88) and 2.07 (.69) (Cronbach's α = .90), respectively. The mean somatization subscale (HSCL-58) score was 2.03 (.59). The sample's mean score on the HTQ–Part IV was 1.83 (.47) (range from 1.0 – 2.8) (Cronbach's α =.85); when including Mollica et al.' s additional 14 items intended to capture more culturally variable traumatic stress reactions, *M*=1.76 (.49), range 1.0 – 2.9, (Cronbach's α = .93). Mollica et al. (1992) determined a cut-off of 2.5 for the HTQ–Part IV in a southeastern Asian sample as indicative of being symptomatic for PTSD. Only 11.5% (9.0% with the additional 14 items) of the sample exceeded the cut-off.

Response to open-ended questions. Material complaints were reported by 85.9% of the sample. Frequencies of other symptoms types included depression (41.1%), PTSD (39.8%), anxiety (34.6%), somatic/medical (25.7%), and anger (11.5%).

WTDE. The percent of participants who reported exposure to trauma education through workshops, radio and written material was 12.8%, 77.6% and 29.1%, respectively. The mean number of workshop days was .27 (SD = .98) (range 0 – 6).The number of trauma-related radio programs heard was 2.4 (SD = 1.5) (range 0 – 4). The number of times reading trauma-related written material was .78 (SD = 1.3) (range 0 – 4). Workshop days (B = .28, p < .01), and trauma-related reading (B = .23, p < .05), but not trauma-related radio exposure, significantly predicted PTSD symptoms when controlling for event history.

Discussion

Event history and symptom levels

The sample reported histories that included rape and the murder of family members. In many cases, the worst of the events took place ten to twelve years prior to the investigation. Quantitative data indicated low PTSD symptom frequency but evidenced frequent clinical levels of anxiety, depression, and particularly somatization. Despite significant histories of multiple traumas, the participants reported relatively low levels of PTSD symptoms. Possible explanations for this finding include lack of validity of the measures, a gradual abatement of symptoms over the years, and participant underreporting. Another possible explanation for the low frequency of PTSD symptoms is that they do not accurately capture the stress reactions of these individuals. In the quantitative data, many more participants exceeded Mollica et al.'s (1987) cutoff for substantial distress on the HSCL than they did on the HTQ. Mean scores of 1.66 (.50) (HSCL-25 anxiety subscale), 2.07 (.69) (HSCL-25 depression subscale) can be contrasted with the Tang and Fox (2001) study of Senegalese refugees with comparable traumatic histories who reported scores of 1.75 and 1.92, respectively. Mean score of2.03 (.59) (HSCL-58 somatization subscale) can be contrasted with an outpatient clinical norm of 1.89 (Derogatis et al., 1974). Thus, much of sample exhibited substantial distress in anxiety, depression, and somatization. Perhaps a trauma history in this sample is more associated with diverse elevated clinical symptoms rather than predominately PTSD symptoms.

Symptom report across solicitation method

In contrast to the quantitative report, a content analysis of open-ended questions suggested a predominance of material complaints followed by depressive symptoms, and then comparable frequencies of anxiety and PTSD symptoms. Somatic complaints and other categories (anger,

thoughts of revenge, evil thoughts) were also prevalent. These findings are similar to those of Kagee (2004) who, in using open-ended questions with South African torture survivors, reported that PTSD symptoms were outnumbered by somatic and economic concerns. Baron (2002) also found substantial differences in symptom report between a semi-structured interview and a standardized measure.

The strength of open-ended questions lies in the allowance of a broader assessment; their weakness stems from their failure to assess symptoms not readily referenced by the participant. The degree to which participants articulated their distress in terms of material complaints would not have been evident had only standardized symptom measures been used. Similarly, somatic symptoms were substantially reported on the measure but were infrequently referenced in response to the open-ended questions. Further investigation will be necessary to understand whether these discrepancies are the result of unvalidated measures, promptings by checklists to recall symptoms not considered, or the product of a setting in which local knowledge is denigrated and response to suggestion is reinforced (Summerfield, 1999).

Exposure to Western trauma discourse

That participation in workshops was predictive of PTSD symptoms when controlling for the number of events experienced raises the possibility that psychoeducational efforts may be iatrogenically associated with an *increase* in PTSD symptoms. Alternatively, psychoeducation may have served to normalize otherwise unspeakable symptoms. However, the cross-sectional nature of the study does not permit causal conclusions. It may be that individuals experiencing PTSD symptoms sought out media content and workshops that described their symptoms. However, that WTDE and event history were only weakly correlated ($r = .19$, $p > .05$) renders such an explanation less likely. Future research is needed to identify causal relationships.

Study strengths and limitations

As noted, the most important limitation of the study concerns its cross-sectional nature which tempers the conclusions that can be drawn about causality. The study possesses notable strengths, including native involvement for careful translation and back translation of measures, study procedure design, and interview facilitation. The sample was markedly provincial with minimal exposure to Western culture. The use of multiple solicitation methods provided a more complex picture of traumatic stress reactions.

Conclusion

The present results suggests that posttraumatic symptoms among an indigenous African population are not confined to a discrete PTSD construct, are substantially material in nature, and serve to remind us that solicitation method can substantially determine response. Additional research on the relationship between WTDE and symptoms in such settings is recommended. These results speak to the importance of appropriate caution in estimating vulnerability constructed in the image of PTSD in non-Western settings.

The possibility remains that Western trauma models capture a traumatic stress response that is not yet fully articulated by indigenous groups. On the other hand, the degree to which PTSD is "universal" may be at least partially driven by the method in which it is solicited and the degree to which the cultural ideas inherent in contemporary Western trauma discourse are present. Further research is critical to identify methodological and cultural factors that may impact the presentation of posttraumatic sequelae in non-Western settings.

References

American Friends Service Committee (AFSC). (2001, August). *Burundi Update.* Philadelphia: Author.

Baron, N. (2002). The Mental Health of Refugees and Internally displaced people. In Green, B., Friedman, M., DeJong, J. Solomon, S., Fairbank, J. & Keane, T. (Eds.) *Trauma in War and Peace: Prevention, practice, and policy.* New York: Kluwer Academic/ Plunum Publisher.

Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science*, *19,* 1-14.

Dyregrov, A., Gupta, L., Gjestad, R., & Mukanoheli, E. (2000). Trauma exposure and psychological reactions to genocide among Rwandan children. *Journal of Traumatic Stress, 13,* 3-21.

Flaherty, J. A., Gaviria, F. M., Pathak, D., & Mitchell, T. (1988). Developing instruments for cross-cultural psychiatric research. *Journal of Nervous & Mental Disease. 1,* 257-263.

Fox, S. & Tang, S. (2000). The Sierra Leonean refugee experience: traumatic events and psychiatric sequelae. *Journal of Nervous and Mental Disease, 188,* 490-495.

Herbert, J. D. & Sageman, M. (2004). "First Do No Harm:" Emerging guidelines for the treatment of Posttraumatic Reactions. In Rosen, G. M. (Ed.) *Posttraumatic Stress Disorder: Issues and Controversy (pp. 213-232).* Sussex, England: Wiley & Sons.

Hesbacher, P. T., Rickels, K., Morris, R. J. (1980). Psychiatric illness in family practice. *Journal of Clinical Psychiatry, 1980, 41,* 6-10.

Horowitz, M. J., Wilner, N., & Alvarez, W. (1979). Impact of event scale: a measure of subjective distress. *Psychosomatic Medicine, 41*, 209-218.

Kagee, A., & Garcia Del Soto, Arancha (2003). Internal displacement and trauma: The need for a broader paradigm. In C. Brun & N. M. Birkeland (Eds.) *Researching Internal Displacement:*

State of the Art. Conference proceedings. Acta Geographica, Series A, No. 6, NTNU, Trondheim, 229-243.

Kagee, A. (2004). Do South African former detainees experience post-traumatic stress? Circumventing the demand characteristics of psychological assessment. *Transcultural Psychiatry, 41,* 323-346.

Kleijn, W. C., Hovens, J. E., & Rodenburg, J. J. (2001). Posttraumatic stress symptoms in refugees: Assessments with the Harvard Trauma Questionnaire and the Hopkins Symptom Checklist-25 in different languages. *Psychological Reports, 88,* 527-532.

Marsella, A. J., Friedman, M. J., Gerrity, E. T., & Scurfield, R. M. (1996). Ethnocultural aspects of PTSD: Some closing thoughts. In Marsella, A. J., Friedman, M. J., Gerrity, E. T., & Scurfield, R. M. (Eds). *Ethnocultural aspects of posttraumatic stress disorder: Issues, research, and clinical applications.* Washington, D.C.: American Psychological Association.

McCall, G. & Resick, P. (2003). A pilot study of PTSD symptoms among Kalahari Bushmen. *Journal of Traumatic Stress, 16,* 445-450.

Mollica, R. F., Wyshal, G., de Marneffe, D., Khuon, K., & Lavelle, J. (1987). Indochinese versions of the Hopkins Symptom Checklist-25: A screening instrument for the psychiatric care of refugees. *American Journal of Psychiatry, 144,* 497-500.

Mollica, R. F., Caspi-Yavin, Y., Bollini, P., Truong, T., Tor, S., & Lavelle, J. (1992). The Harvard Trauma Questionnaire: Validating a cross-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. *Journal of Nervous and Mental Disease, 180,* 111-116.

Paardekooper, B., de Jong, J.T.V.M., Hermanns, J.M.A. (1999). The psychological impact of war and the refugee situation on South Sudanese children in refugee camps in Northern Uganda: An exploratory study. *Journal of Child Psychology and Psychiatry, 40,* 529-536.

Raymond, N. (2000). The trauma of war in Sierra Leone. *The Lancet, 355,* 2067-2068.

Shephard, B. (1999). "Pitiless Psychology": The role of prevention in British military psychiatry in the Second World War. *History of Psychiatry, 10,* 491-510.

Summerfield, D. (1999). A critique of seven assumptions behind psychological trauma programmes in war-affected areas. *Social Science and Medicine, 48,* 1149-1462.

Summerfield, D. (2004). Cross-cultural perspectives on the medicalization of human suffering. In Rosen, G. M. (Ed.) *Posttraumatic Stress Disorder: Issues and Controversy (pp. 233-245).* Sussex, England: Wiley & Sons.

Terheggen, M., Stroebe, M.., & Kleber R. (2001). Western conceptualization and Eastern Experience: A Cross-cultural study of traumatic stress reactions among Tibetan refugees in India. *Journal of Traumatic Stress, 14,* 391-403.

Wilk, C. M. & Bolton, P. (2002) Local perceptions of the mental health effects of the Uganda AIDS epidemic. *Journal of Nervous and Mental Disease, 190,* 394-7.

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