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Posttraumatic Growth, Resilience, and Posttraumatic Stress Disorder (PTSD) Among Refugees

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Abstract

The study examined posttraumatic growth, resilience and PTSD among a random sample of 426 (mean age: 35 years; 51.6% females) Congolese refugees resident at Nakivale camp, using a cross-sectional survey. Interviews were conducted using the Posttraumatic Growth Inventory, Connor-Davidson Resilience Scale, and Posttraumatic Diagnostic Survey. Prevalence of PTSD was 61.7%, with 58.6% female reporting PTSD. Female gender, low education level, and trauma load were significant predictors of PTSD. The regression model accounted for 12.2 percent of the variance in PTSD. Resilience, posttraumatic growth, number of displacements and trauma load were significant predictors accounting for 6.1 percent of the variance in PTSD symptom severity. There were no significant differences in the resilience and posttraumatic growth of refugees with and without PTSD. The high prevalence of PTSD is partly explained by risk factors including trauma load. Our findings also point to the protective role of resilience and posttraumatic growth among refugees.

Keywords: Posttraumatic Growth, Resilience, PTSD, Refugees;

1. Introduction

Previous studies among Sudanese, Somali and Rwandan refugees living in Ugandan refugee resettlement camps close to their countries of origin reported PTSD prevalence rates ranging from 32-50.5 percent (Karunakara et al., 2004; Kolassa et al., 2010; Neuner et al., 2004; Onyut et al., 2009; Onyut et al., 2004; Peltzer, 1999). These studies further demonstrated that personal risk factors for developing PTSD among refugees included age, female gender, low levels of education and trauma load among others. These studies focused mainly on the negative pathway that occurred to the refugees subsequent to trauma exposure (Yehuda & Flory, 2007).

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However, the realization in the trauma field that not everyone exposed to potentially traumatic events developed psychopathology initiated a paradigm shift to focus on the different positive as well as negative pathways in the aftermath of trauma.

The role of risk and protective factors in differentiating between trauma survivors with and without PTSD has been explored in some theoretical articles (Bonanno, 2004; McNally, 2003). Research among refugees who do not end up with PTSD is nonexistent or still in its early stages in Africa.

Indeed positive adaptations can occur after some time period has elapsed following the initial exposure to traumatic events. These positive adaptations include resilience, posttraumatic growth, resistance and recovery (Bonanno, Westphal, & Mancini, 2011; O'Leary & Ickovics, 1995; Yehuda & Flory, 2007). Positive adoptions therefore may reduce the likelihood of developing trauma-related disorders among refugees.

Posttraumatic growth refers to the positive changes that trauma survivors experience in the posttrauma adaptation period (Tedeschi & Calhoun, 2004). The experience of higher growth is related to lowered levels of psychological problems and PTSD symptom severity (Frazier, Conlon, & Glaser, 2001; Frazier et al., 2009; McMillen, Smith, & Fisher, 1997; Park, Cohen, & Murch, 1996). Posttraumatic growth is related to better adjustments and positive state of mind in the aftermath of trauma (Park & Fenster, 2004). Few studies have attempted to examine posttraumatic growth among refugees (for example Powell, Rosner, Butollo, Tedeschi, & Calhoun, 2003).

Resilience is the absence of psychopathology in the aftermath of exposure to potentially traumatic events (Agaibi & Wilson, 2005; Klasen et al., 2010). In the view of developmental psychologists, resilience is a coping strategy that helps trauma survivors recover from the aftereffects of stressors (Leipold & Greve, 2009). Refugee resilience to mental health problems therefore reflects the ability to deal effectively with trauma exposure and posttrauma adaptation (Watters, 2001). Resilience is therefore associated with fewer PTSD symptoms (Connor, Davidson & Lee, 2003; Haddadi & Besharat, 2010).

Resilience and posttraumatic growth as protective factors are assumed to decrease the likelihood of PTSD among refugees. In the present study, we explored the protective role of these factors in relation to PTSD.

2. Methods

2.1. Participants

A random sample of 426 (220 females and 206 males) Congolese refugees selected from 22 villages in Nakivale resettlement camp participated in the study. The majority of the refugees had either no formal education or primary level education (73.7%), with an average age of 35.11 years (SD = 12.64), last displaced in 2008 (54.7%) and displaced 2.17 time (SD = 1.74) to date.

2.2. Measures

The Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996) assessed growth-related changes experienced by traumatized individuals. Item responses are rated on a six-point Likert scale (from 0 = I did not experience this change as a result of the traumatic event, to 5 = I experienced this change to a very great degree as a result of the traumatic event). The 21-item scale yields a total score with a potential range of 0-105 with a higher score indicating greater experience of posttraumatic growth.

The 25-item Connor-Davidson Resilience Scale (CD-RISC) measured resilience (Connor & Davidson, 2003). Respondents rate the items on a five-point scale from 0 (*not true at all*) to 4 (*true nearly all the time*). The total scale score range from 0–100, with higher scores reflecting greater resilience.

The PDS developed by Foa (1995) assessed PTSD among refugees. The PDS assesses all six (A-F) criteria for PTSD according to the DSM-IV. In addition, a cutoff score of 16 and above on the PDS symptom severity score was used to distinguish between refugees with and without PTSD (Ertl et al., 2010).

The reliabilities for the PDS, PTGI and CD-RISC in the current study were .82, .89 and .88 respectively.

2.3. Procedure

Mbarara University of Science and Technology Institutional Review Committee approved the study procedure and protocol. Eleven interviewers who were trained for seven weeks conducted the interviews. The interviewers translated the questionnaire from English to Kiswahili followed by back translation by independent bilingual translators who were blind to the original version of the questionnaire. The research team checked the equivalence of the translated questionnaire before its final adoption and pilot test of the instrument and procedure of data collection.

The interviewers explained the purpose of the study to the randomly selected respondents before obtaining informed consent. The interviewers asked the respondents questions and accurately recorded the responses using the structured questionnaire. The interviews lasted for about two hours for each respondent.

3. Results

Prevalence of PTSD was 61.7% (N = 263), with 58.6% female reporting more PTSD compared to 41.4% male (χ^2 = 13.15; *df* = 1; *p* = .000). Female gender, low education level, and trauma load were associated with an increases risk of PTSD among the refugees. The Wald Chi-Square statistics showed that trauma load (OR = 1.231) was the greatest significantly factor that contributed to PTSD diagnosis in the model (χ^2 (10; N = 426) = 40.093; *p* = .000). The regression model accounted for 12.2 percent of the variance in PTSD (see Table 1).

Table 1. Logistic regression analysis for variables that contribute to PTSD

Variable	Wald	OR	*p*
Sex (Male)	10.232	.460	.001
Age	1.391	1.011	.230
Level of education	10.575		.014
Primary	6.000	.519	.014
Secondary	6.926	.444	.008
Tertiary	5.030	.170	.025
Number of displacements	.524	1.051	.469
Family members	.114	1.014	.735
Trauma load	11.672	1.232	.001
Resilience	.040	1.002	.841
Posttraumatic growth	.000	1.000	.994
Constant	.013	.934	.909

Note. OR, odds ratio; Nagelkerke R Square = .122

PTSD symptom severity was positively correlated with trauma load (*r* = .179; *p* < .01) and number of displacements (*r* = .143; *p* < .01). PTSD symptom severity was negatively associated with posttraumatic growth (*r* = -.110; *p* <.05). Resilience, posttraumatic growth, number of displacements and trauma load were significant predictors of the severity of posttraumatic symptoms ($F_{6,419}$ = 5.595; *p* = .000). The strongest contributing factor of PTSD severity in the model was posttraumatic growth (*t* = -3.501; *p* = .001) with a beta weight of -.245. The predictors accounted for 6.1 percent of the variance in PTSD symptom severity (see Table 2).

There was no significant difference between refugees without PTSD (M = 51.87; SD = 15.04) and refugees with PTSD (M = 51.48; SD = 17.81) in terms of resilience (*t* (424) = .23; *p* = .820). There was no significant difference between refugees with no PTSD (M = 64.96; SD = 16.89) and refugees with PTSD (M = 65.02; SD = 19.02) in the experience of posttraumatic growth (*t* (424) = -.05; *p* = .963).

Table 2. Linear regression analysis for variables that contribute to PTSD symptom severity

Variable	*r*	B	SE(B)	β	*t*	*p*
Constant		22.329	2.730		8.180	.000
Resilience	-.017	.098	.046	.147	2.131	.034
Posttraumatic growth	-.110*	-.150	.043	-.245	-3.501	.001
Age	.034	.035	.042	.039	.827	.409
Number of displacements	.143**	.961	.315	.150	3.051	.002
Family members	-.017	-.021	.196	-.005	-.109	.913
Trauma load	.179**	.881	.284	.149	8.180	.002

Note: *r*, Pearson correlation; ** $p < .01$; *$p < .05$; Adjusted R Square = .061

4. Discussion

There was a high prevalence of PTSD Congolese refugees compared to previous studies in Uganda. A likely explanation of the findings is that following displacement by war, the new refugees tend to have high prevalence of PTSD that would ultimately decrease over time. The Congolese refugees also experienced a high trauma load, camp stressors and adjustment problems within a short period that increased their risk of developing PTSD.

A dose-effect relationship between trauma load and PTSD was confirmed in the present study, a findings that agreed with previous studies among refugees in Uganda (Karunakara et al., 2004; Kolassa et al., 2010; Neuner et al., 2004; Onyut et al., 2004). Results agreed with previous findings concerning the association between gender and PTSD (Neuner, et al., 2004). On the other hand, the present finding contradicted with previous findings among refugees in Uganda where males reported more PTSD compared to females (Karunakara, et al., 2004; Onyut et al., 2009).

Trauma load and number of displacements made a significant independent contribution to PTSD symptom severity among the refugees. These two factors were correlated with PTSD symptom severity (see Table 2). The assumption here is that the numerous displacements come with diverse challenges to the refugees, which necessitate adjustment. Altogether, these are likely to increase the subjective experience of the PTSD symptom severity.

Resilience and posttraumatic growth conferred protection against PTSD among the refugees. Possibly both factors influenced each other overtime to confer protection to the refugees. The results provided evidence that there are many outcomes subsequent to trauma exposure (Bonanno, et al., 2011; Yehuda & Flory, 2007). Despite witnessing or experiencing traumatic events, 163 (38.3%), refugees were resilient because of the absence of PTSD in the aftermath of potentially stressful events (Agaibi & Wilson, 2005; Klasen et al., 2010). Resilience with time resulted from resilient promoting factors including availability of example social support from family members, age and previous history of displacements (Leipold & Greve, 2009).

Posttraumatic growth was not a risk factor for PTSD. Finding constructive aspects to the traumatic event experience was beneficial to trauma survivor in the longer terms. Posttraumatic growth resulted from learning that occurred as refugees used various efforts to cope with the multitude of stressors (Park & Fenster, 2004).

Though resilient and experienced posttraumatic growth, the refugees faced disruption in their lives in the aftermath of trauma exposure. Refugees may have protective factors but in the aftermath of constant traumas and disruptions in their lives refugees exhibit symptoms of PTSD, which gradually worsen over time, thereby resulting into PTSD (Bonanno, 2004; Bonanno et al., 2011).

Many negative and positive pathways occur in the aftermath of trauma exposure. The focus of research among refugees has been consistently on the negative pathways, aimed at identifying refugees with PTSD. However, there are refugees who may not end up with PTSD despite trauma exposure. Resilience and Posttraumatic growth were protective factors among refugees. Therefore there is need to focus on the psychopathology and absence of psychopathology for a comprehensive explanation of the posttrauma adaptations among refugees.

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References

Agaibi, C. E., & Wilson, J. P. (2005). Trauma, PTSD and resilience: A review of literature. Trauma, *Violence, and Abuse, 6*, 195-216.

Bonanno, G. A., Westphal, M., & Mancini, A. (2011). Resilience to loss and trauma. *Annual Review of Clinical Psychology, 7*, 511-535.

Bonnano, G. A. (2004). Loss, trauma and human resilience. *American Psychologist, 59*, 20-28.

Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety, 18*, 76-82.

Connor, K. M., Davidson, J. R. T., & Lee, L. C. (2003). Spirituality, resilience and anger in survivors of violent trauma: A community survey. *Journal of Traumatic Stress, 16*, 487-494.

Ertl, V., Pfeiffer, A., Saile, R., Schauer, E., Elbert, T., & Neuner, F. (2010). Validation of a mental health assessment in an African conflict population. *Psychological Assessment, 22*, 318-324.

Foa, E. B. (1995). *Posttraumatic Stress Diagnostic Scale (Manual).* Minneapolis, MN: National Computer Systems.

Frazier, P., Conlon, A., & Glaser, T. (2001). Positive and negative life changes following sexual assault. *Journal of Consulting and Clinical Psychology, 69*, 1048-1055.

Frazier, P., Tennen, H., Gavian, M., Park, C., Tomich, P., & Tashiro, T. (2009). Does self-reported posttraumatic growth reflect genuine positive change? *Psychological Science, 20*, 912-919.

Haddadi, P., & Besharat, M. A. (2010). Resilience, vulnerability and mental health. *Procedia Social and Behavioral Sciences, 5*, 639-642.

Karunakara, U., Neuner, F., Schauer, M., Singh, K., Hill, K., Elbert, T., & Burnham, G. (2004). Traumatic events and symptoms of posttraumatic stress disorder amongst Sudanese nationals, refugees and Ugandan nationals in the West Nile. *African Health Sciences, 4*, 83-93.

Klasen, F., Oettingen, G., Daniels, J., Post, P., Hoyer, C., & Hubertus, A. (2010). Posttraumatic resilience in former Ugandan child soldiers. *Child Development, 81*, 1096-1113.

Kolassa, I., Ertl,V., Eckart, C., Kolassa,S., Onyut, L. P., & Elbert, T. (2010). Spontaneous remission from PTSD depends on the number of traumatic event types experienced. *Psychological Trauma: Theory, Research, Practice, and Policy, 2*, 169-174.

Leipold, B., & Greve, W. (2009). Resilience: A conceptual bridge between coping and development. European Psychologist, 14, 40-50.

McMillen, C., Smith, E. M., & Fisher, R. H. (1997). Perceived benefit and mental health after three types of disaster. *Journal of Consulting and Clinical Psychology, 65*, 733-739.

McNally, R. J. (2003). Progress and controversy in the study of posttraumatic stress disorder. *Annual Review of Psychology, 54*, 229-252.

Neuner, F., Schauer, M., Karunakara, U., Klaschik, C., Robert, C., & Elbert, T. (2004). Psychological trauma and evidence for enhanced vulnerability for posttraumatic stress disorder through previous trauma among West Nile refugees. BMC Psychiatry, 4, 34.

O'Leary, V. E., & Ickovics, J. R. (1995). Resilience and thriving in response to challenge: An opportunity for a paradigm shift in women's health. Women's Health: *Research on Gender, Behavior, and Policy, 1*, 121-142.

Onyut, L. P., Neuner, F., Ertl, V., Schauer, E., Odenwald, M., & Elbert, T. (2009). Trauma, poverty and mental health among Somali and Rwandese refugees living in an African refugee settlement-an epidemiological study. *Conflict and Health, 3*, 6. doi:10.1186/1752-1505-3-6

Onyut, L. P., Neuner, F., Schauer, E., Ertl, V., Odenwald, M., Schauer, M., & Elbert, T. (2004). The Nakivale Camp Mental Health Project: Building local competency for psychological assistance to traumatised refugees. *Interventions, 2*, 90-108.

Park, C. L., & Fenster, J. R. (2004). Stress-related growth: Predictors of occurrence and correlates with psychological adjustment. *Journal of Social and Clinical Psychology, 23,* 195-215.

Park, C. L., Cohen, L. H., & Murch, R. L. (1996). Assessment and prediction of stress-related growth. *Journal of Personality, 64*, 71-105.

Peltzer, K. (1999). Trauma and mental health problems of Sudanese refugees in Uganda. *Central African Journal of Medicine, 45,* 110-114.

Powell, S., Rosner, R., Butollo, W., Tedeschi, R. G., & Calhoun, L. G. (2003). Posttraumatic growth after war: A study with former refugees and displaced people in Sarajevo. *Journal of Traumatic Stress, 59*, 71-83.

Tedeschi, R. G. & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry, 15*, 1-18.

Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress, 9*, 455-472.

Watters, C. (2001). Emerging paradigms in the mental health care of refugees. *Social Science & Medicine, 52*, 1709-1718.

Yehuda, R., & Flory, J. D. (2007). Differentiating biological correlates of risk, PTSD, and resilience following trauma exposure. *Journal of Traumatic Stress, 20,* 435-447.