Alia Badri[1,2]*, Rik Crutzen[1]§ and H.W. Van den Borne[1]§

[1]Department of Health promotion, CAPHRI, School of Public Health and Primary Care, Maastricht University, The Netherlands
[2]School of Psychology and Pre-School Education, Ahfad University for Women, Omdurman, Sudan
§These authors contributed equally to this work

*Corresponding author: Alia Badri, Department of Health promotion, CAPHRI, School of Public Health and Primary Care, Maastricht University, The Netherlands and School of Psychology and Pre-School Education, Ahfad University for Women, Omdurman, Sudan, E-mail: aliabadri@hotmail.com

Research Article

Anxiety, Depression and Resilience among War–Affected and Non–War–Affected Sudanese Female University Students: A Comparative Study

Abstract

Objective: To investigate and compare mental health status between war-affected Darfuri and non-war-affected Omdurmani undergraduate students at Ahfad University for Women in Omdurman city, Sudan.

Method: A cross-sectional study was used to assess and compare the anxiety, depression (HSCL-25) and resilience scores (Resilience Scale) and related demographic variables for 116 Darfuri and 299 Omdurmani students.

Results: Overall anxiety, depression and resilience scores varied minimally between Darfuri and Omdurmani students. Depression scores were negatively related with resilience scores, but not with anxiety scores. Younger participants (15-20 years) and those who had a parent deceased were more anxious, while those whose father was a blue-collar worker (indicating low socio-economic status) were more depressed, but also more resilient. Furthermore, participants whose tuition fees were paid by their parents (indicating a higher socio-economic status) scored lower on resilience.

Conclusion: This study provides evidence of considerably high anxiety and depression scores, and moderate resilience levels amongst the sample. The results are discussed with a view of assistance in the development of a comprehensive multidimensional psychosocial counselling intervention.

Introduction

With the growing Sudanese Diaspora, whether as internally displaced people (IDPs) or as refugees, the increasing body of literature has highlighted the issue of pre and post displacement concerns on the poor mental health status among survivors of war. Post-traumatic stress disorder (PTSD), generalized anxiety disorder and depression are the most frequent pre-displacement manifestations of mental health problems among Sudanese (Peltzer, 1999), while, post-displacement concerns of current on-going life stressor suggest an impact on elevated levels of psychosocial maladjustment within a host community (Schweitzer, Melville, Steel and Lacherez, 2006). Recent studies assessing Darfuri IDP women's mental health concluded that 31% – 38% exhibited signs of major depression symptoms (Kim, Torbay, and Lawry, 2007; Morgos, Worden & Gupta, 2007). Furthermore, Rasmussen and colleagues (2010) and Hamid and Musa (2010) have acknowledged that both pre-displacement factors and post-displacement stressors such as

daily social and material pressures contributed to the mental health burden among Darfuri IDPs.

Furthermore, anticipatory anxiety symptoms amongst those not directly exposed nor displaced by war occur in much the same way as war survivors (Thabet, Abed, and Vostanis, 2002). The possibility of associated factors such as the occurrence of daily life stressors (Paardekooper, de Jong, and Herman 1999), economic, social and cultural disruptions and changes in their ecological systems (Bronfenbrenner, 1979) have also predicted a higher than expected prevalence of anxiety and depression symptoms amongst urban populations, particularly amongst women (Lundberg, et al., 2009; Broadhead and, Abas, 1997; Mumford, et al., 2000).

Additional stressors of everyday life related to social problems, finance and budgeting, accommodation adjustments, and academic challenges have been shown to increase the risk of anxiety disorders and depressive episodes among university students (Hysenbegasi, Hass, Rowland,

2005; Tomoda, Mori, Kimura, Takahashi, and Kitamura, 2000; Dahlin, Joneborg, and Runeson. 2005; Vaz, Mbajiorgu, Acuda, 1998; Calkins, Arnold, Willough, et al. 1994; Bramness, Fixdal, Vaglum, 1991). Furthermore, anxiety and depression have been associated with differences in ethnic backgrounds. Some studies comparing ethnically diverse undergraduates report no differences (Constantine, Chen, Ceesay, 1997; Lester and DeSimone, 1995) while others report differences between ethnicities in relation to depression and anxiety (Bertocci, Hirch, Sommer, Williams, 1992. Aldwin, Greenberger, 1987). The mixed findings necessitate further investigation, which has been done in the current study by comparing two groups differing in ethnic background.

Resilience has been linked to the personal qualities and predispositions of Sudanese war traumatized populations. Their continued capacity both immediately and in the months following exposure has consistently shown a process for successful adaptation as the most common outcome trajectory despite varying stressors and symptom levels (Schweitzer, Greenslade and Kagee, 2007; and Khawaja, White, Schweitzer, and Greenslade, 2008; Badri et al., submitted; [1,2]; Goodman, 2004).

The association between mental health problems and positive resilience outcomes amongst undergraduates demonstrate their consistent need for achievement, perseverance, and high resilience levels; which speak to the ability of undergraduates in utilizing these personal characteristics in their attempt to effectively cope with current stressors (Work, Parker, & Cowen, 1990; Hall, Spruill, and Webster, 2002).

The findings from a preceding qualitative study amongst Darfuri war-traumatized AUW students gave an expanded view of daily confrontations with academic challenges, life hassles, and urban-cultural clashes and also explored their habitual coping strategies used to deal with these stressors (Badri, et al., in press). Published literature on generalized anxiety disorder, depression symptoms and resilience scores among female university students in the Sudan is nonexistent. The aim of the present study is to investigate and compare measures of anxiety, depression and resilience among war-affected Darfuri and non-war-affected Omdurmani undergraduate female students at Ahfad University for Women in Omdurman city, Sudan. These groups do not only differ in terms of being affected by war, but also in terms of ethnic background.

Methods

Participant Selection: AUW has an estimated 6839 female-only students from all parts of the Sudan; these include students from conflict and post-conflict areas of the west and south. Subsequent to ethical approval by the AUW ethics committee in February 2010, and written informed consent, students' lists were made available from the registrar's office. These included year group, school allocation, class locations and course timetables, and showed a total of 209 registered students originating from the state of Darfur and 511 Omdurmani registered students. In accordance with research objectives, a set of inclusion criteria were established: born

and raised in their respective place of origin; all members of her extended family must be of Darfuri/Omdurmani origin; and parents, siblings and extended family must still reside in the place of origin. As for the Darfuri students they must have been in Darfur up to at least 2003 (war broke out in 2003; massive destruction and displacement followed); and had no prior visits to Omdurman (their first visit to Omdurman was to continue her education). As for the Omdurmani students, they had not left Omdurman city for any length of time. In total, 176 Darfuri and 310 Omdurmani students fit the inclusion criteria and were invited to participate in this study. Thirty-four Darfuri students were unavailable at the allocated time because of conflict with their study schedules, and twenty-six questionnaires were discredited for incomplete data: actual participants from Darfuri were 116 students. Eleven of the Omdurmani questionnaires were discredited because of incompletion resulting in a total of 299 Omdurmani students.

Instruments: The questionnaire comprised three sections. An ethno-socio-economic demographic section in which data were collected on participants characteristics, such as date of birth, ethnicity and tribe name, name of catchment (Omdurmani students) and village (Darfuri students), composition of the family, parental death, parental occupation, parental property ownership and source for payment of tuition fees. A set of proxy indicators were included to determine socio-economic factors: age; father's death; father's occupation as blue or white collar job (as opposed to mother's occupation since approximately 90% of mothers were housewives and clearly fathers were the main breadwinners for the family); owning property at place of origin (whether in building, land, farm land or livestock); and source of payment of tuition fees (parents, self, scholarship, or other family member).

Section two of the booklet included the Hopkins Checklist-25 (HSCL-25; Hesbacher, Rickels, Morris, Newman, & Rosenfeld, 1980). Consistent with the DSM-IV criteria, this version consisted of ten items from the anxiety cluster, fifteen items from the depression cluster and two additional somatic symptoms (poor appetite; difficulty asleep or staying asleep). The HSCL-25 has demonstrated its usefulness and has been employed in several studies including the screening of depression and anxiety in normal populations (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974), and in refugee and displaced populations (Mollica, Wyshak, de Marneff, Khuon, & Lavelle, 1987), and in comparisons between and across cultures and contexts (Cepeda-Benito & Gleaves, 2000). A recent research undertaken among a Sudanese sample (Roberts et al., 2009) validated the original HSCL-25 and identified a cut-off score of 1.75 to detect clinically significant symptoms of generalized anxiety disorder and depression symptoms. This version has been translated into Arabic, known as 'Juba Arabic' (Roberts et al., 2009); however, a decision was made to initiate the translation process anew within the present samples' Sudanese context. The translation of the HSCL-25 was undertaken by the translation team according to the standard guidelines of instrument translation (Jones, Lee, and Phillips, 2001): translated and back-translated; resolution of discrepancies through discussions; and compared with

the original English version in order to establish semantic equivalence (a pre-requisite condition for reliability).

The final section of the questionnaire included the 25-items Resilience Scale (Wagnild & Young, 1993) to specifically measure the multidimensional aspects of resilience. The scale includes five different aspects of resilience: perseverance, equanimity, meaningfulness, self-reliance and existential aloneness. Scores range from 25-175; those greater than 145 indicate moderately high to high resilience, 125-145 indicate moderately low to moderate levels of resilience, and scores of 120 and below indicate low resilience. The Resilience Scale has been successfully used with a wide range of populations of different ages, socioeconomic, and educational backgrounds that measure the level of resilience, restored hope, and opportunity for rebuilding shattered lives.

Research team and data collection procedures: The research team was made up of eleven AUW staff members and divided into two sub-teams; six field team members and five members on the instrument translation team. Two senior members of staff served in a supervisory capacity overseeing the data collection procedure, providing debriefing sessions, and time-scheduling logistics, while the principal researcher and three staff members were responsible for the actual data collection and meetings with the student participants. The translation team included the in-house counsellor, a clinical psychologist from the school of psychology, two bilingual translators and the bilingual/bicultural principal researcher. Initial meetings with all members of the research team began on February 4 2010 and lasted for three weeks. The aim of these meetings was to introduce the research objectives, target populations, rationale and history of the HSCL-25 and the RS, give detailed discussions of each item in the questionnaire booklet, and plan for instrument translation, and data collection within the allocated timeframe, which was scheduled to start in March of that year. Each data collector was assigned a school and given a copy of the registrars list of student names. Introductory meetings with the students were made to ascertain availability and willingness to participate and to then agree upon exact dates, times and places for subsequent questionnaire administration. Thereafter s/he would meet the students, distribute the questionnaires and provide clarification if needed, and collect the finished questionnaires. Students were again informed of the voluntary nature of their participation, were assured confidentiality and were requested to sign a standard informed consent sheet on the covering page of the booklet. Depending on the actual volume of students within a particular school, on average there was a show of 7 students per session, with each session taking approximately 45 minutes to an hour to complete. Data collection concluded on April 17 2010. To assure overall data quality, standard protocols were followed to ensure consistency in the entering and coding of data. Routine comparisons were made between the hard copy data forms and the keyed data to reduce input errors. Periodic edits were performed on the computer database to safeguard against out-of-range entries.

Analysis

Descriptive analyses were performed to investigate the distribution of our data. Principle component analyses (PCA) were conducted for the anxiety, depression and resilience items separately. Items with factors loadings < .40 on all components were left out. Internal consistencies were assessed by means of Cronbach's alpha. Pearson correlation coefficients where $p < 0.05$ was considered statistically significant which were used to assess correlations between anxiety, depression and resilience scores. Subsequently, χ^2 –tests and independent samples t-tests were used to assess differences between Darfuri and Omdurmani participants in terms of place of origin, age, one of the parents deceased, paying for tuition fees, occupation of the father, and whether their parents owned property at their place of origin as well as depression, anxiety, and resilience scores. Furthermore, linear regression analyses were conducted using place of origin, age, one of the parents deceased, source of tuition fees, fathers' occupation, and whether their parents owned property at their place of origin as predictors. Separate analyses were run, using depression, anxiety and resilience scores as dependent variables. Backward procedures were used to create final parsimonious models. All analyses were conducted using SPSS 17.

Results

A total of 415 participants completed the measurements; 116 (28%) of them were Darfuri and 299 (72%) were Omdurmani. Sixty-one percent ranged between 15-20 years of age and thirty-seven percent between 21-25 years. Twenty-one percent had one or both of their parents deceased. Tuition fees were paid by parents (74%), relatives (17%) or by means of a scholarship (9%). Seventy-two percent of the fathers were blue-collar workers, ten percent were white-collar workers and the remaining eighteen percent were retired or unemployed. In their place of origin, 57% of parents owned property.

PCA regarding anxiety items revealed that there was one factor ($\alpha = .86$) underlying these items (Eigenvalue = 4.48), which explained 44.8% of the total variance. PCA regarding depression items revealed that there was one factor ($\alpha = .86$) underlying these items (Eigenvalue = 5.26), which explained 35.1% of variance. None of the factor loadings regarding anxiety or depression were < .40. PCA regarding resilience items revealed that four items had a factor loading < .40. Removing these items resulted in one factor ($\alpha = .90$) underlying these items (Eigenvalue = 7.16), which explained 32.5% of variance.

Fifty-six percent and 51% of the Darfuri sample manifested symptoms of anxiety and depression respectively, while Omdurmani students showed 54% and 58% of anxiety and depression respectively. The most commonly endorsed anxiety symptoms amongst both Darfuri and Omdurmani groups were headaches (84%), feeling fearful (80%), feeling restless and tense (73%), while depression symptoms mostly reported were self-blame (79%), feeling blue (78%), feeling no interest in usual activities (72%), and everything is an effort (89%).

Fifty-seven percent of the total sample indicated a moderate

to moderately low level of resilience, with very little variance between Darfuri and Omdurmani mean scores (5.3 and 5.1, respectively).

Anxiety scores were positively correlated with depression scores ($r = .68$, $p < .001$), but they were not correlated with resilience scores ($r = -.09$, $p = .08$). Depression scores, however, were negatively correlated with resilience scores ($r = -.19$, $p < .001$).

Table 1. provides an overview of the differences between Darfuri and Omdurmani participant characteristics. The Darfuri participants were older, were more likely to have one of their parents deceased, were less likely to have their parents pay for tuition fees, were more likely to have a father working in a blue-collar job, and their parents were less likely to have owned property in their place of origin. There were no differences between Darfuri and Omdurmani participants in terms of anxiety, depression, and resilience scores.

Table 2. provides an overview of the final regression models. In line with the independent-samples t-tests, geographical background/place of origin (as an indicator for urban-rural living) was not significant in any of the final models. With regard to anxiety, participants aged between 15-20 years and those who had one of their parents deceased scored lower on anxiety. That is they scored more that the 1.75 cut-off to detect clinically significant symptoms of generalized anxiety disorder and depression symptoms. Participants whose father was a blue-collar worker (as a proxy indicator for family socio-economic status) scored lower on depression, but higher on resilience. With regard to resilience, participants whose tuition

Table 2: Standardized betas in final regression models for Anxiety, Depression and Resilience.

Measure	Anxiety	Depression	Resilience
Place of origin			
Age			
15-20 years	-.16*		
21-25 years			
One of parents deceased	-.12*		
Tuition fees paid by			
Parents			-.14*
Scholarship			
Occupation father			
Blue-collar		-.12*	.12*
White-collar			
Owned property	-.10		
R²	.04	.01	.03

*p-values smaller than 05.

fees were paid by their parents scored lower on resilience. It needs to be stressed, however, that the variance explained by the final models was very limited: the included variables hardly had any predictive value regarding anxiety, depression or resilience scores.

Discussion

Interpreting the findings of this study need to be considered within a variety of contexts: pre and post displacement concerns amongst Darfuri war-affected students; and regarding the sample as a whole as undergraduate students in a least developed country. Comparing the data with representative national norms is virtually impossible. However, drawing on the findings of two preceding studies amongst this student sample and comparing the results from certain international studies relating to undergraduate students in terms of anxiety, depression and resilience may help interpretation of findings.

More than fifty percent of the participating war-affected Darfuri female undergraduates manifested symptoms of generalized anxiety disorder and major depression, with those Darfuris who had one of their parents deceased exhibiting more anxiety. Similar results for clinical symptoms of depression have been recorded amongst women in IDP camps in Darfur (Kim et al., 2007; Morgos et al., 2007), among other samples of Darfuri IDPs (Souza et al., 2009; Hamid and Musa, 2010), among Southern Sudanese (Roberts, et al., 2007; Coker, 2004; [2], and similarly can be found amongst war torn regions in Africa (Roberts et al., 2008; Tang and Fox 2001; Kagee, 2006; Pham et al., 2009). Furthermore, these war-related pre-displacement manifestations of mental health problems were further investigated in a preceding study where 80.9% of the current Darfuri sample met DSM-IV criteria for post-traumatic stress disorder (PTSD) symptoms, which were strongly associated with their experiential level of war-related traumas (Badri et al., submitted). Two-thirds of the current sample reported being survivors of and witnesses to a high number of war-related traumatic exposures including combat

Table 1: Personal and psychological characteristics and differences between Darfuri and Omdurmani participants.

Measure	Total (N = 415)	Darfuri (n = 116)	Omdurmani (n = 299)	Test
Age				$\chi^2 = 6.57$, $p = .04$
15-20 years [%]	61	51	64	
21-25 years [%]	37	43	33	
26+ years [%]	2	6	3	
One of parents deceased [%]	21	28	18	$\chi^2 = 4.99$, $p = .03$
Tuition fees paid by [%]				$\chi^2 = 30.58$, $p < .001$
Parents	74	59	80	
Relatives	17	20	16	
Scholarship	9	22	5	
Occupation father [%]				$\chi^2 = 9.25$, $p = .01$
Blue-collar	72	82	68	
White-collar	10	2	13	
Retired/unemployed	18	15	19	
Owned property [%]	57	48	61	$\chi^2 = 4.93$, $p = .03$
Anxiety [M (SD)]	1.90 (0.57)	1.95 (0.71)	1.88 (0.51)	$t = 0.92$, $p = .36$
Depression [M (SD)]	1.94 (0.55)	1.87 (0.61)	1.96 (0.53)	$t = -1.40$, $p = .16$
Resilience [M (SD)]	5.35 (1.07)	5.50 (1.07)	5.30 (1.06)	$t = 1.68$, $p = .09$

situations, loss of parents and family members, loss of material possessions and displacement in IDP camps. The loss of their family intensified feelings of isolation, discrimination, and humiliation, survival guilt and shame (Badri et al., submitted). Moreover, post-displacement stressors were chronicled in the findings of a preceding qualitative study amongst Darfuri war-traumatized AUW students (Badri, et al., in press). Their transportation struggles as they find the means to travel to Omdurman in the pursuance of their education, their confrontation with hassles related to relocating to Omdurman city and their life at AUW, their academic challenges, urban-cultural clashes, and financial worries have all predicted a mental health burden on these young Sudanese women (Badri, et al., in press).

Nevertheless, the results show that there are no differences between Darfuri and Omdurmani participants in terms of anxiety and depression scores highlighting the possibility of anticipatory anxiety symptoms amongst the Omdurmani undergraduates (Thabet, Abed, and Vostanis, 2002). The data also show that more Omdurmanis are depressed than Darfuris, underscoring the prospect of associated factors such as the occurrence of daily life stressors (Rasmussen, et al., 2010; Paardekooper, de Jong, and Herman 1999) in suggesting a higher than expected prevalence of anxiety and depression symptoms particularly amongst these urban undergraduates (Lundberg, et al., 2009; Mumford, et al., 2000).

The predictive variables of age, geographical background/ place of origin (as an indicator for urban-rural living), a parent's death, source of payments of tuition fees, father's occupation (as an indicator for SES), and parents owning property in their place of origin played a limited role in determining comparisons between the ethnic diversities of Darfuris and Omdurmanis in relation to anxiety and depression scores (Constantine, Chen, Ceesay, 1997; Lester and DeSimone, 1995). Moreover, younger participants and those who had one of their parents deceased were more anxious and those who were of a low socio-economic status were more depressed, indicating the possibility that the differences between Darfuris and Omdurmanis are less dramatic but more related to current stressful conditions of everyday life at a university in Omdurman. The findings demonstrate that the pervasiveness of a low SES, including the potential impediment on parents to cover educational fees, costs, unemployed or blue collar workers, places a substantial burden on both groups of students to excel in order to justify the major financial sacrifices their families are making. Additional academic challenges, finance and budgeting problems, social stressors, accommodation adjustments and harsh living conditions (Badri et al., in press) increase the risk for developing anxiety disorders and depressive episodes (Vaz, et al., 1998; Tomoda, et al., 2000).

Nonetheless, anxious and depressed Darfuri and Omdurmani students have demonstrated moderate to moderately low levels of resilience. Resilience has been linked to the personal qualities and predispositions of war traumatized Sudanese (Goodman, 2004; [1]. The moderate to moderately low levels of resilience demonstrated by the Darfuri students, reflect a pragmatic capacity to bounce back despite their adversity. Their cultural values and upbringing develops the potency for survival and fortitude given their harsh environmental surroundings (Young et al., 2005; Rasmussen and Annan, 2009; Rasmussen, et al., 2010), while purporting not to show its devastation. Also, being geographically distant from a war-torn Darfur and resettled in a more secure and stable environment (Omdurman city) may have served to increase their endurance and enhance their resilient expression, which relates to the significance of effective coping, endurance and resilience amongst war-affected Sudanese [2-5]. Furthermore, Darfuri students use religious practices and beliefs (praying and reading the Quran), form interpersonal relationships with other Darfuris, use social support networks, and a positive future outlook which seemed to lend to their ability to cope with war-related emotional distress, current on-going life hassles and urban-cultural challenges (Badri et al., in press). Darfuri students have also endorsed items relating to the avoidance subscale of PTSD symptomology (Badri et al., submitted). Several researchers have argued that avoidance behaviours, thoughts, or feelings need not necessarily be a maladaptive responses; in fact it is considered to be effective in reducing the disturbing memory which is a therapeutic objective in many forms of psychological interventions (Sarraj, et al, 1996;[1]. Their ability to avoid or numb their emotions and deal with their more immediate and current concerns of daily life stressors (Rasmussen, et al., 2010), such as financial worries, urban-cultural adaptation and academic challenges by relying on the various coping strategies (Badri et al, in press) is reflected in their resilient score and seems not to have interfered with life as an undergraduate student.

Fifty-seven percent of anxious and depressed Darfuri and Omdurmani students have demonstrated moderate to moderately low levels of resilience despite their on-going stressors and low SES (Garmezy, 1991; Wyman et al., 1991; Rew, 2001; Driscoll, 2006). Female students in many less developed countries confer that education improves resilient factors and coping capability (Dodani, and Zuberi, 2000; World Health Organization 2001), while familial and extra-familial support systems (D'Imperio, et al., 2000; Christle, et al., 2007) have been shown to enhance resilience amongst low SES students. These students may use their resilient characteristics (Wagnild, 2009) to raise their self-efficacy, self-esteem, giving them a greater sense of control over stressful situations (Harpham, 1994).

Limitations

This explorative and descriptive study included the limitations inherent to the use of a cross-sectional design; such as the difficultly to separate cause from effect between the variables in our study.

The fact that we studied just one sector of the general population (university students) and one gender in one private university may limit the generalisability of the results. However, the exclusivity of investigating a female sector of the Sudanese society, addresses an empirical gap in relation to knowing about their mental health and resilience levels. The findings

are hoped to serve as base line information concerning the mental status and resilience of Sudanese female undergraduate students. Furthermore, the lack of published research amongst this Sudanese community may have a two–fold disadvantage. On the one hand, the conceptualization of psychological symptoms and resilience amongst undergraduates has not been authenticated and on the other the instruments used to measure depression, anxiety, and resilience have not been culturally validated within this Sudanese context. This requires further research. However, this study, has followed instrument guidelines and protocol, and is envisaged to provide for absence of important empirical information on generalized anxiety and depression symptoms and resilience levels among female undergraduate students.

Conclusion & Recommendations

Contrary to much of the literature that established war affected individuals as being more depressed and anxious when compared to those not affected by war, the present study found that both war Darfuri and Omdurmani students displayed a similar burden of mental health problems. Both Darfuri and Omdurmani students endorsed equal numbers of anxiety and depression scores. Furthermore, the study is an important addition to the resilience literature in that it calls attention to the possibility that under conditions of cumulative stressor exposure and chronic stress, students in this sample portray a veneer of resilience.

With no national data available to support the findings, much remains to be done. Research which focuses on ameliorating the characteristics of resiliencies and patterns of protective resources used to alleviate stress among students may help shape the development of a culturally sensitive intervention program which fosters the use of successful protective resources and enhances the utilization of successful resilient characteristics by providing appropriate mental health services.

References

1. Tipping S, Bretherton D, Kaplan I (2007) Meaning in life and social connectedness: The experience of Sudanese young people (re)settling in Australia.

2. Kagee A (2005) Symptoms of distress and posstraumatic stress among South African former political detainees. Ethnicity and health 10: 169-179. **Link:** https://goo.gl/zNPmBS

3. Tipping S, Bretherton D, Kaplan I (2007). Meaning in life and social connectedness: The experience of Sudanese young people (re)settling in Australia.

4. Meffert SM, Marmar CR (2009) Darfur refugees in Cairo: Mental health and interpersonal conflict in the aftermath of genocide. Journal of Interpersonal Violence 24: 1835-1848. **Link:** https://goo.gl/c1paMK

5. Stoll K., Johnson P (2007) Determinants of the psychosocial adjustment of southern Sudanese men. Journal of Refugee Studies 20: 621-640. **Link:** https://goo.gl/RLkGc4