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Gender Differences in Trauma and Posttraumatic Stress Symptoms among Displaced Zimbabweans in South Africa

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Abstract

Background—Over the years, more than 3.4 million Zimbabweans (a quarter of the country's population) have fled the country to other countries with South Africa as the main popular destination. In South Africa, they become a vulnerable group with the plausibility of suffering trauma and PTSS or PTSD due to xenophobic attacks and resentment. How males and females are impacted is undocumented in psychological literature, particularly with regards to Africa. In addition, global research on gender differences, trauma and PTSS/PTSD are inconclusive. This paper explores gender differences in PTSS among displaced Zimbabweans in South Africa. A poor mental health status, pre and post-migration traumas of men and women were hypothesized to have a relationship with PTSS for women, but not to the same extent for men.

Method—Through a guided purposive convenient sampling, in-depth interviews using questionnaires, data were obtained from a sample of 125 displaced and homeless Zimbabwean refugees in Polokwane, Limpopo Province, South Africa. Participants were assessed on demographic variables, pre- and post-migration difficulties checklists, mental health using the General Health Questionnaire (GHQ-28) and the PTSD Checklist (Civilian Version (PCL)).

Result—The hypothesis of a gender difference in the predictability of PTSD was tested in structural equation models. For men none of the three paths (pre-migration stress, post-migration stress, and poor mental health) on PTSD is significant, whereas for women both the path from poor mental health onto PTSD ($\beta=.36, p=.013$) are significant, but the size of the gender differences was modest. However, effect sizes are always larger for women than they are for men.

Conclusion—The findings help closing the gap in PTSS/PTSD research for Africans and suggest that indeed likely gender differences in the prediction of PTSS, suggested in the literature, needs further attention.

Keywords

Gender differences; Trauma; PTSD/PTSS; Zimbabweans

Introduction

Posttraumatic stress symptoms (PTSS) and posttraumatic stress disorders (PTSD) are syndromes recognized in clinical practice as a significant health problem because of their

nature and diagnoses and the staggering costs that comes with it to the individual and society at large [1]. PTSS is so named because of the symptoms that are experienced after a traumatic event. PTSS and PTSD are the same thing except psychiatry prefers to differentiate between symptoms (PTSS) and the fully activated disorder (PTSD). PTSS or PTSD may lead to unfulfilled potential in several areas of an individual's life such as education, marriage, wellbeing etc. Statistical estimates show that PTSD is between 1% and 5% in a range of population studies [2,3] and between 3% and 58% for high-risk groups (such as displaced people; [4,5]). Yet, PTSD studies for high-risk groups and particularly in Africa are scarce. In this study, PTSS and PTSD are used interchangeably.

The relationship between trauma exposure and outcome including posttraumatic stress disorder (PTSD) in relation to gender is complex. While there are several theoretical explanations of PTSD, e.g. diathesis-stress model [6]; cognitive theories [7]; attribution style [8]; psychophysiological differences between the sexes [9], unfortunately, no single theory has been able to explain PTSD whether in the general population or refugees studies. In fact, there are several psychosocial peculiarities in the refugees that can complicate PTSD research outcomes.

However, studies on PTSD [3,10] have shown that women are more at a risk than men. The differences for gender have been attributed to different exposure to traumatic events and to different response to traumatic events [11]. Breslau [12] showed a higher lifetime prevalence of traumatic events for men than for women while the risk for PTSD following traumatic experience was twofold higher in women than men. The twofold risk for women was attributed to events that involved assaultive violence. In another study, Yasan, Saka, Ozkan and Ertem [13] reported a higher exposure to traumatic events (53%) for men than women (44%) and a different risk of PTSD among men and women with similar traumatic events but did not find any difference for PTSD prevalence.

In a recent paper, Ditlevsen and Elklit [14] also showed that men and women differed in lifespan distribution of PTSD with an overall twofold higher PTSD prevalence for women than men. Current studies [15,16] have shown that PTSD as a response to trauma is repeatedly found to be more common among women than men. Irish et al. [17], from a psychobiological framework, demonstrated a partial support for the hypothesis that initial response to trauma may account for observed gender differences in Posttraumatic Stress Disorder symptoms (PTSS) development.

According to Olff et al. [9], explanations reviewed within a psychobiological model of PTSD suggests that women's higher risk may be due to the type of trauma they experience, their younger age at the time of trauma exposure, their strong perception of threat and loss of control, higher levels of peri-traumatic dissociation, insufficient social support resources and greater use of alcohol in managing gender-specific acute psychobiological reactions to trauma.

Studies [18,19] have also shown that the emotional wellbeing of refugees appears to be influenced not only by premigration traumas and the post-migration adjustment experience but also by the biopsychosocial setting within which the participant exists.

Gender difference findings in trauma and PTSD research altogether still remain mixed and inconclusive. Olff et al. [9] recommended in their study that there is need for additional research of the gender differences in posttraumatic stress. In addition, PTSD research using data from Africa is scarce thereby causing a knowledge gap. A study of PTSD among Zimbabwean refugees or displaced persons will narrow this gap, contribute to our understanding and in addition facilitate possible prevention of PTSD among refugees in Africa and other areas of conflict.

Schweitzer et al. [20], have shown that refugees experience greater levels of stress and social difficulties than other immigrants and in addition, that refugees report greater emotional distress with high levels of posttraumatic stress, anxiety and depression and to a lesser extent other mental health issues such as psychosomatic disorders, grief-related disorders, crises of existential meaning and disruptions of cultural and family systems and separation from the family and ethnic community. Due to a lack of consensus theory of PTSD, special psychosocial situation of refugees, the need to provide and harmonize data from Africa, we therefore hypothesize that pre and post-migration difficulties, pre-poor mental health scores will combine to significantly predict PTSD differently for men and women. Conceptually, we expect prolonged experiences of multiple traumas such as pre-migration difficulties in Zimbabwe, continuous post-migration difficulties in South Africa and in addition poor mental health to significantly predict PTSD for men and women differently: We presume that for men, the explanatory power of the predictors will be negligible, while for women it will be more pronounced.

Methods

The present study is part of a larger investigation concerning trauma among Zimbabwean refugees in South Africa. One hundred and twenty five Zimbabweans responded to a questionnaire with three sections: Section A has 16 socio-demographic items including reasons why they fled Zimbabwe. Section B contained the pre/post migration difficulties checklist developed by the first author. It has 22 short items measuring history of pre-migration stressors in Zimbabwe and post-migration difficulties in South Africa with three domains: threat to life/family; lacking basic resources/hunger and sexual/physical abuses. Same items are used for pre and post migration difficulties. Section C contained a PTSD Scale (a 17-item PTSD checklist-Civilian Version, PCL-C, [21]), and the GHQ-28 (a 28-item GHQ, [22]).

Demographic and social characteristics

The sample consisted of 125 homeless Zimbabweans in Polokwane (formerly known as Pietersburg) in Limpopo Province, South Africa. Information was collected on the demographic and social characteristics and migration history. Variables include gender, age, marital status (pre and post migration), educational attainment, work history, reasons for migration, migration history, duration of stay in South Africa, current occupation, and history of post-migration difficulties.

Of all participants 53 were women (42.4%), 72 were men (57.6%). Age of participants ranged from 18-48 years, the average being $\bar{x} = 28.3$ ($SD = 6.27$), men being significantly ($p < .01$) younger (27) than women (30). The level of education of the sample was fairly high: Only 13 (10.4%) enjoyed at most primary education, 96 (76.8%) had at least some (or completed) secondary education, and 16 (12.8%) had tertiary education or even hold a degree.

As for marital status, 54.4% reported having been married in Zimbabwe, but now in South Africa 74.4% indicated that they are single. In Zimbabwe 77 participants had a job before they fled, 16 even held professional positions. About one half of the participants (63) indicated that it was economic hardship that motivated them to flee from Zimbabwe, with political reasons another prominent reason for participants (27) to leave their home country. A sizable group (28) indicated that multiple reasons (political, economic, and health) had driven them away from Zimbabwe. Average duration of stay in South Africa was 4.8 months; the entire sample had never been to South Africa before. Now in South Africa the refugees report money problems (58%) or multiple problems (27%); people reporting 'only'

partnership problems, ‘only’ problems with the police, other, or no problems make up the remainder and are thus fairly rare.

Instruments

Pre and post migration difficulties checklist—Pre/Post Migration Difficulties: This is a 22 item checklist designed by the first author. The checklist measures pre and post migration difficulties in Zimbabwe and South Africa. Some of the items were adapted from the Wyatt Sexual History Questionnaire which assessed child and adult sexual abuse. The instrument is based on a 5-point response format (from strongly agree to strongly disagree). A pilot study of 20 homeless Zimbabweans had yielded a good consistency for both pre-migration Zimbabwean and post-migration South African stress. Content validity was assessed using judgment of experts at UCLA, University of Limpopo, and from review of several peer-reviewed journal articles. For the current analyses responses were dichotomized into 0 (original scores 1, ‘strongly disagree.’ to 3, ‘neutral’) and 1 (original scores 4, ‘agree,’ and 5, ‘strongly agree’). The items are short, easy to understand and measures negative life events in the areas of problems with human rights abuse/violence/police victimization, poverty/lack, and sexual/physical abuse. For analyses presented here we only use those 14 items that qualify as A-criterion items as specified in DSM-IV (TR) [23]. All these items are presented in the report of results for the grand sample and broken down by gender. For further analytic purposes, we formed two subscales, one on ‘threat to life’ (9 items), and the other on ‘abuse’ (5 items). The ‘threat to life’ subscale exhibited a consistency of $\alpha = .86$ (♀ : $\alpha = .85$; ♂ : $\alpha = .86$) for pre-migration stress, and $\alpha = .83$ (♀ : $\alpha = .85$; ♂ : $\alpha = .80$) for post-migration stress. The ‘abuse’ subscale exhibited a consistency of $\alpha = .84$ (♀ : $\alpha = .82$; ♂ : $\alpha = .85$) for pre-migration stress, and $\alpha = .87$ (♀ : $\alpha = .82$; ♂ : $\alpha = .88$) for post-migration stress.

PTSD checklist (Civilian Version (PCL) [21]—The 17-item PTSD Checklist is a self-report measure that assesses trauma that people have in response to stressful experiences. Its items correspond to criteria for diagnosis of PTSD from the *Diagnostic and Statistical Manual of Mental* [23]. The scale has a Likert score system ranging from 1 (*not at all*) to 5 (*extremely*). The PCL-C can be used with any population. The symptoms endorsed may not be specific to just one event which makes it useful when assessing survivors with multiple (pre-migration, during and post-migration) events. The PCL-C determines whether the total severity score exceeds a given cut-point. In this study, a half-standard deviation was used to determine a continuous measure of PTSD symptoms severity of .50 and above. It has been validated in health care settings [24] and among older adults [25]. This instrument has been extensively used in South Africa and has been validated for South African men and women [26-28]. Its consistence in the present study was $\alpha = .80$ (♀ : $\alpha = .81$; ♂ : $\alpha = .78$). The cut-off point of 50 corresponds with the validation done by Hudson et al. [29].

General Health Questionnaire 28 (GHQ-28)—The General Health Questionnaire [22,30,31] is a psychological instrument used in measuring psychological mental health or dysfunctions. It is a self-administered screening instrument designed to detect psychiatric disorders in community settings and non-psychiatric clinical settings such as primary care or general practice. It comes in three packs GHQ 60, 28 and 12. This study used the GHQ 28. The GHQ is popular and widely used in research across different cultural settings [28,32-34]. In this scale, the respondents are asked to compare their recent psychological state with their usual state. It consists of 28 items comprising four sub-scales. Scale A (questions 1-7) measures somatic complaints, scale B (questions 8-14) measures anxiety and insomnia, scale C (questions 15-21) measures social dysfunction, and scale D (questions 22-28) measures severe depression. All items have a 4 point scoring system using Likert scoring (0-1-2-3) less than usual, no more than usual, not at all, and much more than usual

respectively). Each question has four possible responses. Some of the items are also reversed and so is the scoring. In this study, scoring was done in such a way that the higher the score, the poorer the psychological symptom report. A test-retest in two weeks for this study demonstrated good reliability (0.91). The GHQ-28 is a widely used instrument and validated for African cultures in Nigeria and South Africa with high reliabilities of .71 to .80 [26,28,32,35]. In the present study consistency coefficients were = .55 (♀: α = .49; ♂: α = .59) for the somatic complaints subscale, α = .51 (♀: α = .46; ♂: α = .55) for the anxiety and insomnia subscale, α = .59 (♀: α = .64; ♂: α = .53) for the social dysfunctions subscale, and α = .64 (♀: α = .61; ♂: α = .65). The overall scale exhibited a consistency of α = .79 (♀: α = .80; ♂: α = .77).

Procedure

The study was approved by the Institutional Review Board (IRB) of the University of California, Los Angeles, USA (GO8-06-010-02A) and the University of Limpopo, South Africa (TREC2009/65-119). Fliers were used to advertise the days and time of the study. Participants arrived at the study venue where the aims and objectives of the study were described and explained. The first time point occurred at the screening. Participants were screened and informed of the purpose of the study and afterwards if qualified informed consent was obtained. The second time point was to have participants explain the study in their own words to help us know that they had a clear understanding of the purpose of the study and the procedures before they were allowed to sign the informed consent forms and to participate in the study. Only eligible persons participated in the study.

Recruitment fliers were posted on public sites and facilities such as NGO buildings, shopping malls that are frequently visited by homeless Zimbabweans and the unemployed. Interested participants came to a designated mall (Savannah Mall, Polokwane) where they responded (if they passed a screening test) to a questionnaire on a face-to-face interview or participated in a 10-all-male and 10-all-female focused group discussions (FGD). Informed consents were collected before they participated. No identifying information was collected. Participants were given incentives to participate as advertised on the fliers. Participants were given incentives which included monetary and non-monetary assistance such as gift vouchers (R35 which is approximately \$6 US) and transportation fares (R15 which is approximately \$2.50) to and from Savannah Mall (Polokwane).

Participants were sampled based on the following entry criteria: (i) Minimum of one month of being a refugee (ii) first-entry refugees and homeless Zimbabweans (never had anywhere to stay/were living on the streets and hideouts) (iii) males and females, (iv) 15 years or older, (v) more than one month resident in South Africa and (vi) English speaking and (vii) willing to participate. Exclusion criteria were (i) refugees who have a residence (ii) South African resident Zimbabweans (iii) under 15 years (iv) unable to speak the English language (v) unable to participate in discussions due to serious drug, alcohol-oriented illness where they would not be able to concentrate or participate in discussions.

Statistical Analysis

The relationship between pre- and post-migration stress, and poor mental health as predictors, and post-traumatic stress disorder as the dependent variable was investigated using structural equation modeling (SEM) performed by IBM SPSS AMOS 21 [36]. The three predictor variables were modeled as latent variables following the parceling tradition of SEM [37]: This means that subscale scores were calculated by averaging across the pertinent items and the subscale scores were then entered into the model as manifest variables measuring the latent predictor variables pre-migration stress, post-migration stress,

and poor mental health. The dependent variable PTSD was entered into the tested model as a manifest variable, i.e., we predict the PTSD scale score.

Results

The results section first reports descriptive evidence for all variables in our model. As our instrument of pre- and post-migration stress is self-developed, we report results for all items for the grand sample as well as separately for women and men. For the GHQ-28, we report results for the overall scale and for the subscales both for the grand sample and for women and men separately. For PTSD we report scale score results for the grand sample as well as for women and men separately.

Pre- and post-migration trauma events

Table 1 documents percentages of agreement (agreeing or agreeing strongly to the question whether a given stressor was experienced) for the 14 items included in the present report plus percentages for women and men. The table encompasses results for pre- and post-migration incidence rates, results of a test for significant changes from before to after migration (exact Wilcoxon Signed Rank) as well as between women and men (Wilcoxon's rank sum test).

Table 1 shows that between 62% and 21% of the refugees reported experience with the 14 pre-migration stressors included in the present paper. For women these percentages varied between 64% (threat to life) and 19% (rape before age 18), whereas for men percentages varied between 61% (death of a family member) and 21% (forced sex after age 18). For only one item significant gender differences ($p = .05$) in pre-migration stress was found: Women reported significantly more harassment by the police than did men. For post-migration stress, incidence rates in the grand sample varied between 37% and 18%. For women these figures varied between 42% (harassment by the police) and 11% (forced to have sex for money), whereas for men percentages varied between 50% (harassment by the police) and 17% (forced to leave family members). In the grand sample, reported incidence rates dropped significantly for 10 out of the 14 stress items. Women reported a reduction for 11 of the 14 items, whereas for men a significant reduction emerged for 4 items only. Significant gender differences ($p = .05$) were also rare in post-migration stress: Only for threat to life such differences were found: Men reported more experience with this stressor.

Table 2 documents scores for the GHQ and its four subscales. For the GHQ-28, scale scores are sum scores.

The four subscales have 7 items each, the overall scale, thus, 28 items. The scores for this study are 16.5 (SD=3.0) for severe depression, 16.6 (SD=2.8) for anxiety/insomnia, 15.6 (SD=3.3) for social dysfunction, and 16.5 (SD=3.3) for somatic symptoms. There were no significant gender differences ($p = .05$) on either the four subscales or the overall GHQ score.

As for PTSD sum scores, their mean is 52.6 (SD=12.4) with scores ranging from 20 to 82, thus covering almost the entire span of possible scores from 17 to 85. For women, scores had a mean of 55.9 (SD=12.1); for men they were 50.8 (SD=11.8). Again, no significant gender differences emerged.

Our structural equation modeling proceeded by performing the test of a stacked model comparing predictors for men and women separately. As sketched in the methods section, predictors of the manifest PTSD score were three latent variables, namely Pre-Migration Stress (measured by two subscale scores-Threats to Life and Sexual Abuse, each for

Zimbabwe), Post-Migration Stress (the same two manifest variables for South Africa), and Poor Mental Health (measured by the four GHQ-28 subscales Depression, Anxiety, Social Dysfunction, and Somatic Symptoms). We were able to fit a model in which all coefficients for men and women were constrained to equality. For that model a χ^2 of 62.41 with 68 degrees of freedom ($p=.67$). The Jöreskog's GFI is .91; RMSEA is $<.01$. These fit indices are very good. The model could not be improved by freeing single parameters. The fully unconstrained model had a χ^2 of 40.43 with 46 degrees of freedom. The χ^2 -difference of 21.98 with 22 degrees of freedom is insignificant ($p>=.25$). This result at first glance suggests that there are no differences in the prediction of PTSD between women and men. Taking into consideration the small sample sizes for both men and women, and the consequentially reduced statistical power of our model test, we offer a second approach to testing our hypothesis (Figures 1 and 2).

When we inspect the fully unconstrained model and look at the three substantive predictor paths in our model, namely the ones suggesting a predictive influence of pre-migration stress, post-migration stress, and poor mental health on PTSD, and look at the emerging path coefficients and their statistical significance, gender differences do emerge. For men none of the three paths is significant, whereas for women the path from poor mental health onto PTSD ($\beta=.36, p=.013$) is significant. The fully unconstrained model is documented in Figure 1 (women) and 1b (men). Readers should note that coefficients for men are always smaller than those for women. For pre-migration stress coefficients were $\beta = .58$ for women and $\beta = .29$ for men. For post-migration stress coefficients were $\beta = -.37$ for women and $\beta = -.24$ for men. Readers should note that for post-migration stress path coefficients are negative, because in the model pre-migrations stress levels are partialled from post-migration stress. In substantive terms, this model specification has the consequence that the post-migration stress no longer encompasses pre-migration stress levels but only the difference between pre- and post-migration stress. As we have presented before, stress levels have typically gone down after fleeing Zimbabwe, so that the negative coefficients from post-migration stress to PTSD suggest a protective potential of the reduction in stress levels. For bad general mental health as a predictor of PTSD coefficients were $\beta = .36$ for women and $\beta = .08$ for men.

Discussion

The authors examined trauma exposure and PTSS of males and females among Zimbabweans refugees in South Africa. Participants were assessed at pre and post migration experiences in Zimbabwe and South Africa. It was hypothesized that pre and post migration difficulties, pre poor mental health scores will combine to significantly have a relationship with PTSS differently for men and women. Instruments used were the pre and post migration stress scale, the GHQ-28 and the PTSD scale.

Findings show no general support for male and female difference on the pre-post migration difficulties. Gender differences in incidence rates were rare. However, women reported more harassment from the police as a pre-migration difficulty while men reported threat to life, being hungry and not having a place to live. There were no gender differences on the four GHQ subscales. These results support the study of Breslau [12] in which a higher lifetime prevalence of traumatic events for men than for women while the risk factor for PTSD following traumatic experiences was twofold higher in women than men and the twofold risk for women were attributed to events that involved assaultive violence such as harassment from the police as found in this study.

However, findings from Structural Equation Modeling (SEM) show systematically higher effect sizes for relationships between pre-migration stress, post-migrations stress, poor

mental health and PTSD for women than for men. Only for poor mental health as a predictor of PTSD for women, these effects are, however, statistically significant. The SEM result thus offers, admittedly though weak, support for the stated hypothesis that pre- and post-migration stress as well as poor mental health will have a relationship with PTSD for women but not men. This result lends some support for the findings of Frans et al. [3] study in which they found women more at risk than men. According to Tolin and Foa [11], the differences for gender have been attributed to qualitatively different exposure to traumatic events and to a different response to traumatic events. Ditlevsen and Elklit [14] also show a difference in lifespan distribution of PTSD between men and women with an overall twofold higher PTSD prevalence for women than men. In general, the findings of the study supports the Olff et al. [9] study that trauma and PTSD research still remain mixed and therefore needs further research.

Limitations

A few limitations are associated with this study. First, the relatively small convenience sample makes it difficult to generalize the findings and reduces the power of the employed statistical tests. Second, an inherent problem in conducting research with a refugee population is that they are highly migratory and hard-to-reach. Third, despite having a significant population of Zimbabwean refugees, the study was conducted in only one province (Limpopo) out of the nine provinces in South Africa. Fourth, only Zimbabweans were studied. There were other ethnic groups, particularly those from Somalia/ Eritrea, Malawi, and West Africa, who may have similar problems in South Africa and should be included in future studies.

Conclusion

From the study, the following conclusions are made:

- Women reported more pre-migration harassment by the police than did men.
- Men reported more post-migration threat to life than did women.
- SEM results show a systematic difference in the strength of the impact of pre- and post-migration stress, poor mental health, and PTSD for women as compared to men.

Recommendations

According to Roberts et al. [38] and Westermeyer [39] mental health and PTSD are complex public health and clinical issues affecting diverse populations. Refugees, including the Zimbabwean participants in this study, are commonly marginalized and excluded from main stream populations. As such, they often lack access to medical care. Attempts to provide long-term and evidenced based interventions should be made available, especially to those who develop chronic PTSD particularly as it affects men and women.

According to Vigneswaran [40], asylum seeking can be a difficult process in South Africa which further exacerbates experiences of stress and trauma particularly for men as they can be easy targets for xenophobic attacks. Host or receiving countries should establish humane programs to minimize triggering factors that can predispose refugees to psychological problems. These programs should also target the local population in developing positive attitude to refugees.

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Figure 1: The prediction of PTSD for women.

Figure 1.
The prediction of PTSD for women.

Figure 2: The prediction of PTSD for men.

Figure 2.
The prediction of PTSD for men.

Table 1

Percentages of participants reporting an experience with a given stressor.

Item	Percent of Participants Reporting Having Experienced the Stress in Zimbabwe			Percent of Participants Reporting Having Experienced the Stress in South Africa		
	GS ^c	♀	♂	GS	♀	♂
I had a threat to my life	62	64	60	37 ^{***}	26 ^{***}	44 [†]
I had a threat to member of family life	48	49	47	31 ^{**}	25 ^{**}	36
I almost died due to the threat	58	62	54	23 ^{***}	17 ^{***}	28 ^{***}
I was beaten and harassed	58	60	57	29 ^{***}	25 ^{***}	32 ^{**}
I had a death of family life member	60	58	61	32 ^{***}	30 ^{***}	33 ^{***}
I was forced to separate from/leave family members	51	55	49	19 ^{***}	23 ^{***}	17 ^{***}
I almost died	48	51	46	29 ^{***}	21 ^{***}	35
The police and the military were following/beating me	47	55	42	36 [*]	28 ^{***}	42
I was harassed by the police	50	64	40 [†]	46	42 [*]	50
Someone raped/assaulted me before age 18 years	21	19	22	18	11	22
I was forced to have sex since 18 years	22	25	21	18	11	24
I was forced to sell my body for money or cross border	29	36	24	19 [*]	11 ^{***}	25
I was sexually harassed	27	32	24	30	23	35
I was physically beaten all the time	46	47	44	28 ^{***}	19 ^{***}	35

^aGS= grand sample; exact Wilcoxon Signed Rank test comparing pre- and post-migration stress:***
p .001**
p .01*
p .05; exact Wilcoxon Rank Sum test comparing men and women†
p .05

Table 2

Means and Standard Deviations for the GHQ-28.

	Depression			Anxiety			Social Dysfunction			Somatic Symptoms			GHQ-Overall		
	GS	♀	♂	GS	♀	♂	GS	♀	♂	GS	♀	♂	GS	♀	♂
Mean	16.5	16.3	16.5	16.6	16.7	16.6	15.6	16.1	15.2	16.5	17.1	16.1	65.2	66.2	64.5
Standard Deviation	3	2.9	3.1	2.9	2.7	3	3.3	3.3	3.2	3.3	3.1	3.4	9	9.1	9
Minimum	9	10	9	7	12	7	7	10	7	7	11	7	30	44	30
Maximum	21	21	21	21	21	21	21	21	21	21	21	21	84	84	83