EFFECTIVENESS OF MOTIVATIONAL COUNSELLING ON POST-TRAUMATIC STRESS DISORDER SYMPTOM- REDUCTION AMONG INTERNALLY DISPLACED ELDERLY PERSONS IN BORNO STATE NIGERIA

Nnodiemele Onuigbo Atulomah, Jonathan Musa' Dangana*, Motunrayo Florence Olanrewaju, Kolawole S. Oritogun
Department of Public Health Babcock University, Nigeria
***Correspondence:** Jonathan Musa'Dangana; **Email:** danganaj@gmail.com

ABSTRACT

Background: *Displacement is an antecedent to a number of psychosocial and trauma related health situations. Activities of insurgents, have characterized a major cause of displacement, economic hardship, and post-traumatic stress disorder.*

Aim: *This study examined the effect of motivational counselling on post-traumatic stress symptom reduction among internally displaced elderly persons in Borno state, Nigeria.*

Methodology: *This study used a quasi-experimental design. A total sample of (N=40) internally displaced elderly persons were purposively selected from 2 internal displacement camps with each displacement camp comprising 20 participants. The participants were assigned to Motivational Counselling group and a control group. A pre-tested, validated instrument was adapted to the study. Descriptive and inferential statistics where used to analyze the data ($p < 0.05$).*

Results: *Results show that, at baseline, post-traumatic stress disorder symptoms between the motivational counselling group and control group was (3.50±0.60 and 3.75±0.69) respectively, while post-test values of post-traumatic stress disorder symptoms only dropped for the Motivational Counselling (2.60±0.60) and not for control group (3.75±0.44). More so, at the 13th week follow-up, the motivational counselling group, demonstrated higher scores of post-traumatic stress disorder symptom-reduction, (83.45±5.77 an aggregate of 15.79%) compared to the control group. Overall mean score of post-traumatic stress disorder symptoms reduction, showed changes of value (-15.0 and +0.05) on symptoms reduction in the motivational counselling group and control group respectively.*

Conclusion: *The study concludes that, motivational counselling is effective in post-traumatic stress disorder symptom reduction among internally displaced Elderly persons. Hence, it is recommended that the governments, incorporate: counselling services in the health facilities operated in internal displaced persons camps, for more effective symptom-reduction.*

Key words*: Motivational Counselling, Post-Traumatic Stress Disorder, Internal Displacement, Elderly, Symptom-reduction.*

INTRODUCTION

In the 21st century, millions are been hunted with traumatic experiences; pscycho-traumatization, has become pervasive globally. Trauma experiences are intrinsically complex and exposes victims to a wide array of responses that affect all facets of their lives.[1] Post-Traumatic Stress Disorder (PTSD) and other trauma often lead the victim to question their beliefs whilst their assumptions of trust is shattered and destroyed.

The ability to recognize trauma, especially PTSD and managing it, is an important phenomena in contemporary society.[2-7] An essential and strategic role to counteract impairments and disability, which characterizes the elderly is rehabilitation.[8-9]This contributes a great deal to difficulties in their interpersonal relationships and self-care.[10] This and other mental health related disorders have become prevalent, incapacitating victims and a huge source of suffering and growing public health burden.[11,12]

Motivational counselling has also over the years been utilized as a means of alleviating psychosocial situations among varied populations. Within displaced settlements, the life of displaced people have been adversely affected by displacement, has caused many to have no expectation of re-uniting, talk-less more to know the where about of their loved ones. [13]Hence making them predisposed to mental health situations chiefly post-traumatic stress disorder.

Challenges experienced by elderly persons, are often chronic and disabling (especially in the event that they are hunted by disaster that could have been averted) and requires a number of multiple treatment and rehabilitative approach (this is due to the complexity of elderly persons) one of which includes motivational counselling. Further, studies reveals that, dedicated geriatric health care in developing countries of Asia and Africa is still a dream yet undreamt largely due to lack of specialized trained workforce and absence of infrastructure beyond tertiary care hospital.[14] Furthermore, beside health infrastructure, health-seeking behaviour when investigated, could be found to affect greatly, health of elderly and active aging, equipping elderly persons with the right knowhow on how to deal with their health issues early by approaching a health facility, will greatly minimize complications and advancing alignments they may be confronted with.

Insurgency, a severe problem facing Nigeria especially the North-East, and has shown overwhelming effects on the economic, religious, political and social activities of the Nigerian State.[15]Globally, Internal Displacement geometrically increased, with a global estimate of forty two (42) million people displaced in 2014 from various regional conflicts and natural disasters, and 30.6 million new internal displacements associated with conflict and disasters in 2017.[16,17]

Post-Traumatic Stress Disorder (PTSD) is described as one of the most frequently reported mental condition among refugees

and internally displaced populations (IDPs).[18] If left untreated, the condition may become chronic with a huge health care costs and economic losses.[19] Studies have pointed out that, generally an epoch prevalence of PTDS in peaceful populations has a range of between 0% in Switzerland[20]and 7.8% in the United States of America [21], whilst an extremely large number of persons who have lived in war belts have been seen to come down with huge symptoms of PTDS.[22] Prevalence of PTDS among Internally Displaced persons is incredibly high with rates ranging from 42-80% in Nigeria[23,24], Uganda[25], South Sudan[26]and Kenya[27].

Individuals displaced by armed group conflict violence, suffers from various death-defying problems. IDPs affected by insurgents and conflict are often at higher risk of mental health problems and Psychological reactions; frequently reported isPTSD in reaction to violence and depression as a reaction loss.[28-30] While there is growing evidence that group psychosocial interventions are helpful, the effectiveness of these interventions for adults with post-traumatic stress symptoms and mental health issues in conflict setting is less clear especially in sub-Saharan Africa. In this paper, we examined the extent to which Motivational counselling (MC) intervention can influence Internally displaced elderly persons and invariably cause PTSD Symptom-reduction, among internally displaced elderly residing in internal displacement camps in Borno State Nigeria.

Methodology

Study design: We conducted a quasi-experimental study among male and female IDPs aged ⩾ 60years. We defined internally displaced elderly persons (IDEP) as elderly people living within a government recognized (formal) camp, and have been displaced from their homes and communities as a result of Boko Haram insurgency in Borno, North East Nigeria. Elderly persons below the age of 60years, and those who refused to give consent were excluded.

Sample size determination: The sample size which was used for the study was derived from the computation using level of significance of 95% and 80% power. There was no given estimate of the prevalence of PTSD among displaced elderly persons. This formula is important to this study because, the normal distribution is the most important probability distribution, it is also the most powerful (parametric) statistical tests used by psychologists; it standardized the values (raw scores) of a normal distribution by converting them into z-scores.[31] This procedure also allows researchers to determine the proportion of the values that fall within a specified number of standard deviations from the mean. Thus, the sample size was determined by utilizing the normal distribution formula

$$N = \frac{(Z_\alpha + Z_\beta)^2 \times P_0 (1 - P_0)}{(P_1 - P_0)^2}$$

N = Sample size

Z_α = Standard normal deviation at 95% confidence interval (1.96)

Z_β = Statistical power at 80% confidence interval; 0.84

P_0 = prevalence at 30%

P_1 = 80% (desired level of PTSD Symptom reduction from the intervention)

$$n = (1.96 + 0.84)^2 \times 0.5(1 - 0.5)$$
$$\mathbf{(0.8 - 0.3)^2}$$
$$(2.8)^2 \times 0.5(0.5)$$
$$\mathbf{(0.8 - 0.3)^2}$$
$$7.84 \times 0.25$$
$$\mathbf{0.25}$$
$$\mathbf{=7.84} \simeq 8$$

Twenty percent of the sample size will be added to take care of attrition.
8+ 1.6 ≃ 10.

The formula for estimating proportions for 2 independent groups was used to generate a maximum of 20 participants per IDP camp. Hence, based on computation, the minimum total sample size was 40 participants (20 x 2 Camps).

Sampling technique: We used purposive sampling technique to select the participant's for the study. 40 IDEPs, were purposively included in the final sampling frame for the study. We divided the study sample size into male and female groups of 10 for each gender group.

Study instrument: A questionnaire was designed to measure the socio-demographic characteristics of IDPs and their living conditions, which was assessed by asking the following questions: availability of sleeping mat, private facility, toilets or latrine, sufficient food, and protection from animals and insects for individual IDPs.

We also asked of the type of accommodations, if it were tent or shelter or rooms, if their health was good, and if they had any form of livelihood support. Conflict-related trauma was assessed with a shortened version of the communal traumatic events inventory used to study Bosnian refugees.[32] We included only trauma events, the IDEPs were likely to have experienced and respondents were to indicate "yes" or "no" depending on experience during the conflict. To measure the IDEPs Social-Rehabilitation, construct from the social provision scale developed by Cutrona and Russell was adapted[33] and further strengthened with cultural perspectives, generated from focus Group Discussion (FDG). We defined good Social-Rehabilitation as answering "strongly agree" or "agree" to questions. Finally, we used the Harvard trauma questionnaire (HTQ)[34] designed by Harvard Program in Refugee Trauma, Massachusetts General Hospital (Cambodia version) to establish PTSD likelihood. The PTSD section consists of 16 questions based on the diagnostic criteria of the diagnostic and statistical manual for mental disorders fourth edition (DSM IV).[35] The questions were measured on a 5-point severity scale 1–5. Scores for each respondent were summed up and divided by the number of items (16) to derive the score for each individual. Individuals with total score >2.5 were considered symptomatic for PTSD.[35] The cut off score of 2.5 had been standardized for several version of HTQ[36-38] and the HTQ had been validated for use in displaced persons in several cross-cultural studies.[39-41] The questionnaire was translated to Kanuri the main language spoken in Borno, North East Nigeria and back translated to English. The translation underwent detailed review by the study team and followed

recommended guidelines.[41,42]

Data collection and procedure

Six research assistants who could speak both Kanuri and English language fluently and were experienced in data collection from prior activities were recruited and trained (for 5 days) to collect data. Data collection took place over a period of three months, August-October 2019, with the aid of a questionnaire and semi-structured interview guide to discover experiences of IDEPs. Open-ended and culture-sensitive questions were utilized, initial questions permitted instituting rapport with participants, this made participants feel relaxed and comfortable in answering questions about their experiences especially personal ones that characterised traumatic events, traumatic symptoms and coping strategies. An interview guide and questionnaire, originally developed in English was translated into kanuri (the predominant language spoken in Borno State) and back to English language. The interview sessions were audiotape-recorded and lasted from 40 minutes to 45 minutes.

Data analysis

Qualitative data gathered through focus group discussion, were transcribed verbatim, except for names, which were substituted with functional codes to ensure confidentiality. The transcripts of the data were subjected into coding to identify specific patterns; themes, and illustrative quotations reflecting these themes. This involved a number of stages: First, transcribed interviews were read several times to identify initial codes. The second stage was the development of focused codes (sub-themes and themes) that applied to all the interviews. Thirdly, a meaning unit approach was adopted, which was chunking together groups of themes into categories. Key sub-themes and themes that emerged from the data, strengthen line items in the questionnaire that dealt with Motivational Counselling. However, Credibility, Dependability, Transferability and Confirmability were all followed to ensure trustworthiness.[52]

Quantitative data was analyzed with the use of SPSS version 20.0. Descriptive and inferential statistics where used to analyze quantitative data. A Generalized Linear Model (GLM) for repeated measures approach was also used to consider changes over time by group, while controlling for significant between-group differences, including motivational counselling, symptom-reduction and gender.

Ethical Clearance

Prior to the commencement of this study, a letter of Introduction was secured from the Department of Public Health, Babcock University and an application for Ethical approval to carry out the study was sort from the Babcock University Health Research and Ethics Committee. Clearance was obtained also from the Borno State Emergency Management Authority. Inform consent was obtained from every participant before data collection and intervention, willing participants were assured (through one on one discussion) of confidentially and that, the data collected will be used solely, strictly and specifically for the study.

Results

Table 1: Effect of motivational counselling on symptom-reduction in PTSD among internally displaced Elderly persons

	Aggregate PTSD Symptom Reduction Score					
Group	**Mean Pre-test**	**SD Pre-test**	**Mean Post-test**	**SD Post-test**	**Mean Difference**	**Percentage Increase/ Decrease in Symptoms**
Motivational Counselling	99.10	17.0	83.45	13.33	-15.65	-15.8%
Control	103.95	14.85	104.00	14.90	+0.05	0.0%

($p < 0.05$)

Table 1, describes the effect of motivational counselling on symptom-reduction in PTSD among internally displaced Elderly persons in the social rehabilitation and control groups (n=20 across categories). The pretest and posttest experimental group of means and standard deviation scores on aggregate PTSD symptom reduction score for motivational counselling (99.10±17.0 and 83.45±13.337) and control (109.35±14.85 and 104.0±14.90). The overall mean scores shows -15.65 for motivational counselling and +0.05 for the control group. There was 15.8% reduction in aggregate PTSD symptom reduction valuein the motivational counselling group while the pre and post PTSD symptoms remained the same in the control group. This result suggests an effect of motivational counselling intervention on aggregate PTSD symptom reduction score among internally displaced elderly persons in Borno State.

Table 1, describes the effect of motivational counseling on aggregate PTSD symptoms reduction. The pretest and posttest experimental group of means and standard deviation scores on aggregate PTSD symptom reduction score for motivational counselling (99.10±17.0 and 83.45±13.337), control (109.35±14.85 and 104.0±14.90). The overall mean scores shows -15.65 for motivational counselling, +0.05 for the control group. There was 15.79% reduction in aggregate PTSD symptom scores in the motivational counselling while the pre and post PTSD symptoms remained the same in the control group.

Table 2: Mean and standard deviation of the interaction effect of gender and motivational counselling on symptom-reduction in PTSD

		Aggregate PTSD Symptom Reduction Score					
Group	**Sex**	**Mean Pre-test**	**SD Pre-test**	**Mean Post-test**	**SD Post-test**	**Mean Difference**	**Percentage Increase/ Decrease in Symptoms**
Motivational counselling	Male	96.60	20.99	77.40	14.80	-19.20	-19.88%
	Female	101.60	12.69	89.50	8.66	-12.10	-11.91%
	Total	99.10	17.08	83.45	13.33	-15.65	-15.79%
Control	Male	106.30	17.09	106.40	16.96	0.10	0.09%
	Female	101.60	12.69	101.60	12.98	0.00	0.00%
	Total	103.95	14.85	104.00	14.90	0.05	0.05%

($p < 0.05$).

Table 3 describes the interaction effect of gender and motivational counseling on symptom-reduction in PTSD among internally displaced elderly persons. Male and female participants in the control group experienced the same PTSD symptom reduction scores. However, male participants exposed to the motivational counseling intervention experienced a higher reduction in PTSD symptom than their female counterparts.

Table 3: A Generalized Linear Model (GLM) model of the effect of motivational counselling on symptom-reduction in PTSD

Source	Type III Sum of Squares	Df	Mean Square	*F*	*P*	Partial Eta Squared
Corrected Model	3348.900	1	3348.900	45.490	.000	.545
Intercept	3459.600	1	3459.600	46.994	.000	.553
Motivational counselling	3348.900	1	3348.900	45.490	.000	.545
Error	2797.500	38	73.618			
Total	9606.000	40				
Corrected Total	6146.400	39				
a. R Squared = .545 (Adjusted R Squared = .533)						

Table 4 presents the Generalized Linear Model (GLM) model result for the main effect of motivational counselling on symptom reduction. The result showed that there is a significant effect of motivational counselling on symptom-reduction in PTSD among internally displaced Elderly persons ($F_{(1, 39)}$ = 45.490; p = 0.000, Partial Eta Squared = 0.545). The Partial Eta Squared value (0.545) indicates that motivational counselling intervention accounted for 54.5% of the variability in symptom reduction in PTSD leaving 44.5% to variables not considered in the GLM model. Therefore, the null hypothesis which states that there is no significant effect of motivational counselling on symptom reduction in PTSD among internally displaced Elderly persons is rejected. This result suggests that motivational counselling reduces PTSD symptoms among internally displaced elderly persons in Borno state.

Table 4: A Generalized Linear Model (GLM) model of the interaction effect of gender and motivational counselling on symptom-reduction in PTSD

Source	Type III Sum of Squares	Df	Mean Square	*F*	*p*	Partial Eta Squared
Corrected Model	3693.400[a]	3	1231.133	18.068	.000	.601
Intercept	3459.600	1	3459.600	50.773	.000	.585
Motivational counselling	3348.900	1	3348.900	49.148	.000	.577
Sex	168.100	1	168.100	2.467	.125	.064
Motivational counselling * Sex	176.400	1	176.400	2.589	.116	.067
Error	2453.000	36	68.139			
Total	9606.000	40				
Corrected Total	6146.400	39				
a. R Squared = .601 (Adjusted R Squared = .568)						

Table 5 presents the interaction effects of gender and motivational counselling on symptom-reduction in PTSD. The result $F_{(1, 39)}$ value of 21.90 (p = 0.000, Partial Eta Squared = 0.378) is *not* significant at 0.05 level. Therefore, the null hypothesis which states that There is no significant interaction effect of gender and motivational counseling on symptom-reduction in PTSD among internally displaced Elderly persons is rejected while the alternate hypothesis is accepted. This means that there is significant interaction effect of gender and motivational counseling on symptom-reduction in PTSD among internally displaced elderly persons.

DISCUSSION

Combining study designs that requires different rigor in volatile settings often will present varying degrees of gender experiences; responses require different treatments that are culturally acceptable, this brought about a diverse range of data by harnessing elderly women's and men's experiences that are robust especially from displacement in developing countries.

Systematic review and meta-analysis of twenty three studies that evaluated the efficacy of group based psychological therapies for mental health situations such as depression, PTSD in primary care and the community indicated that group cognitive behavioral therapies conferred benefit for individuals who were clinically diagnosed of mental health condition specifically depressed over that of usual care alone.[43] Other reviews which have examined the effectiveness of psychosocial interventions for HIV positive populations have shown that they are effective in not only reducing mental health situation symptoms but also improving coping skills and quality of life.[44-46] The potential effectiveness of counselling in conflict population is important to establish. Given the large numbers of patients in health centers available in displacement camps and the corresponding limited number of health professional workers especially mental health workers, this interventive study would be a great cost-effective approach to deal with emotional problems among individuals being confronted with post-traumatic stress disorder. While medication has characteristically been the standard and most explored disorder treatment method, results from this study in keeping with research findings also shows that even individuals taking medical treatment can still benefit from psychosocial interventions.[47] A post conflict study that examined the impact of group counselling on PTSD and function outcomes, poised the strong need for interventions to be co-developed with cultural perspective In other to address PTSD symptoms and other mental health related situations among populations.[48]

The motivational counselling and control group showed akin baseline outcome, whilst comparison of PTSD frequency and symptoms among participants at post-test. This settles with the submission, of investigated women offenders, where trauma informed treatment, decreases PTSD symptoms[49] itpoised that, between-group, interrelated symptomatology of PTSD were similar at baseline and at follow-up, presented significant difference for each of the measures of PTSD symptomatology.

It is difficult to venture into why some interactions were significant for some of the symptoms, given the nature of the terrain under investigation. Borno State, is characterized with insurgent reprisal attacks, with potential to trigger; sleeplessness, emotional instability such as getting upset intermittently, nightmares, feeling of hopelessness these triggers, cause individuals develop an increased risk for either PTSD or Mental health[54], because psychological sequella related to disaster often last for many years.[50,51]

The significant difference in PTSD Symptom reduction, agrees with findings from[52] in which female who received the same therapy with their male counterparts, presented more improved form outcomes than their male counterparts. While studies have shown that females tend to derive more benefit from therapy than males.[53,54] Other studies have found that both genders benefitted more when therapy was provided by females[53,55] while more evidence abound which suggest association exist between the gender of the therapy provider and the

treatment outcome is weak.[56-59] Methodological limitations of past research on gender effects in therapy may have contributed to the majority of nonsignificant findings. These limitations may include but not limited to the use of small sample sizes, use of only one gender, lack of valid and reliable measures of outcome. However, findings from this study further suggest that both Elderly males and females equally benefitted from the same type of counselling intervention; however, further research is encouraged to explore the cofounding factors that enable a more significant therapy reception among females than males.

Avoiding people or places, feeling alienated, emotionally numb, memory loss are other indicators of avoidance, therefore, it is possible that gender response and motivational counselling protocol was able to create and proffer a conducive environment for participants to freely reconnoiter the symptoms and, traumatic experiences. Therefore, the findings suggested that the educational aspect of the motivational counselling, such as understanding what PTSD, ABC model of rehabilitative counselling and the role plays, may have been instrumental, beneficial and impactful in these symptoms.

CONCLUSION

With the increasing activities that brought about displacement in Nigeria, various disciplines have documented through literature, and predictions of the end (of insurgency) not in sight, it makes PTSD an inevitable occurrence among victims of such unrest and other societal menace, there is hence need to adopt, develop a more deliberate approach that are culturally relevant and acceptable programmes that will address this mental health problem within the population. Since the neglect of the elderly population in situation of displacement and the serious challenge it posses has been brought to bear, evidence-based approach such as provided by this study, need to be employed to help address PTSD among displaced persons especially internally displaced Elderly persons. It is with the forgoing conclusions that the recommendations are made, which have taken into consideration both practical issues in programme design, policy implications and logistics of moderation of existing health education to accommodate the following recommendations, that:

1. Social-support be incorparated in community health extention worker's strategies for engaging internally displaced persons especially the elderly for effective health information reinforcement of symptom reduction strategies.
2. Evidence generated from this study is an all important tool for policy makers on formulating policies that will address aid activities in displacements. There is hence need for a modification on the means by which Health talk/education is given and counselling strategies be put in place for elderly persons within displacement camps.
3. There is need for the establishment of a interdisciplinary, interministry, interparastal (Ministry of Health, Ministry of Humanitarian Affair, Disaster Management and Social Development

and State Emergency Management Authority) taskforce whose responsibility is to interphase with researchers (from within and outside the country) and will ensure that research results are harnessed and such research data will reside with each collaborating institution and will aid in policy formulation and budgetary allocation.

4. Establishment of social rehabilitation Centers where culturally relevant, sustainable and cost effective activities can be done and soft skills generated to aid in aleviating the idleness of displaced elderly persons.

REFERENCE

1. Quiros, L., Berger, R.. Responding to the sociopolitical complexity of trauma: An integration of theory and practice. *Journal of Loss and Trauma,* 2015, **20**, : 149-159. https://doi.org/10.1080/15325024.2013.836353
2. Bryant-Davis, T., Ellis, M. U., & Edwards, N. Therapeutic treatment approaches for ethnicallydiverse survivors of interpersonal trauma. In F. A. Paniagua, & A. Yamada (Eds.), Handbook of multicultural mental health: assessment and treatment of diverse populations 2013; (2nd ed., pp. 505-524). New York: Academic Press. https://doi.org/10.1016/B978-0-12-394420-7.00026-6
3. Peter, B., Joanne C.Personal Fear of Death and Grief in Bereaved Mothers, *Death Studies,* 2008; **32**:445-460,DOI: 10.1080/07481180801974752
4. Courtois, C. A., Ford, J. D. Treatment of complex trauma: a sequenced, relationship-based approach. 2016; New York: Guilford Press.
5. Giles, M. D., Nelson, A. L., Shizgal, F., Stern, E. M., Fourt, A., Woods, P.& Classen, C. C. A multi-modal treatment program for childhood trauma recovery: Women Recovering from Abuse Program (WRAP). *Journal of Trauma & Dissociation,* 2007; **8**, 7-24.https://doi.org/10.1300/J229v08n04_02
6. Mary R. Harvey, Anne V. M., Holly, A. Fostering Resilience in Traumatized Communities, *Journal of Aggression, Maltreatment & Trauma,* 2007;**14**:1-2, 265-285, DOI: 10.1300/J146v14n01_14
7. Karatzias, T., Ferguson, S., Gullone, A., & Cosgrove, K. Group psychotherapy for female adult survivors of interpersonal psychological trauma: a preliminary study in Scotland. *Journal of Mental Health,* 2016; **25**, 512-519. https://doi.org/10.3109/09638237.2016.1139062
8. Serlin, I., Krippner, S., & Kirwan, R. Integrated Care for the Traumatized: A Whole-Person Approach. 2013.
9. Liotta, L., Springer, C., Misurell, J. R., Block-Lerner, J., & Brandwein, D. Group treatment for child sexual abuse: treatment referral and therapeutic outcomes. *Journal of Child Sexual Abuse,* 2015; **24**, 217-237. https://doi.org/10.1080/10538712.2015.1006747
10. Tummala-Narra, P., Kallivayalil, D., Singer, R., & Andreini, R. Relational experiences of complex trauma

survivors in treatment: Preliminary findings from a naturalistic study. *Psychological Trauma: Theory, Research, Practice, and Policy,* 2012; **4**, 640–648. https://doi.org/10.1037/a0024929

11. Stein, S. J., Shephard, K., & Harris, I. Conceptions of e-learning and professional development for e-learning held by tertiary educators in New Zealand. *British Journal of Educational Technology,* 2011; **42**:145-165.
12. Charles C. B., & Albert B. Social cognitive theory of posttraumatic recovery: the role of perceived self-efficacy. *Behaviour Research and Therapy* 2004; **42** 1129–1148.
13. Sambo, A. S. Internal Displaced Persons and Their Information Needs. *Library Philosophy and Practice* 2017 *;(e-j o u r n a l)* . http://digitalcommons.unl.edu/libphilprac/1512.
14. Evans, J.M., Kiran, P.R., Bhattacharyya, O.K. Activating the knowledge-to-action cycle for geriatric care in India. *Health Res Policy System;* 2011; **9**:42
15. Maurice U.O., Uyi K.E. "Niger Delta Militancy and Boko Haram Insurgency: National Security in Nigeria", *Global Security Studies,* 2013; 4 .
16. Internal Displacement Monitoring Center and Norwegian Refugee Council. Global report on Internal Displacement 2014: People displaced by disasters h t t p s : / / w w w . i n t e r n a l - displacement.org/sites/default/files/i n l i n e - f i l e s / 2 0 1 4 0 9 - g l o b a l - estimates2.pdf
17. Internal Displacement Monitoring Center and Norwegian Refugee Council. Global Activity Report on Internal D i s p l a c e m e n t , 2 0 1 8 ; h t t p s : / / w w w . i n t e r n a l - displacement.org/sites/default/files/publications/documents/2018-activity-report-corporate-2018-en.pdf
18. Mariana L., Julio C., Gutierrez S., Guillermo J. L., Alfonso J. R., (2017) Post-traumatic Stress Disorder in Internally Displaced People of Colombia: An ecological study. *Travel Medicine and Infectious Disease* **16**:41-45
19. Kessler R.C. Post-traumatic stress disorder: The burden to the individual and to society. *Journal of Clinical Psychiatryy.* 2000; **40**:409-418.
20. Hepp, U., Gamma, A., Milos, G., Eich, D., Ajdacic-gross, V., Rossler, W. Prevalence of exposure to potentially traumatic events and PTSD: The Zurich cohort study. *European Archives of Psychiatry and Clinical Neuroscience.* 2006; **256**:151-158.
21. Kessler R.C., Sonnega A, Bromet E, Nelson C.B. Posttraumatic stress disorder in National Comorbidity Survey. *Archives of General Psychiatry.* 1995; **52**:1048-1060.
22. Prevention CfDCa. IERH Scientific Publications: Mental Health in Conflict Affected Populations: 2014; Fact Sheet.
23. Agbir, T.M, Audu, M.D, Obindo, J.T et al., Post-traumatic stress disorder among internally displaced persons in Riyom, Plateau State, North Central Nigeria. *Journal of Medicine Research and Practice,* 2016; **4**:13-17.
24. Sheikh T.L., Mohammed A, Agunbiade S, Ike J, Ebiti W.N., Adekeye O. Psycho-

trauma, psychosocial adjustment, and symptomatic post-traumatic stress disorder among internally displaced persons in Kaduna, Northwestern Nigeria. *Front Psychiatry* 2014; **5**:127.

25. Roberts B, Ocaka KF, Browne J, Oyok T, Sondorp E. Factors associated with post-traumatic stress disorder and depression amongst internally displaced persons in Northern Uganda. *BMC Public Health,* 2010; **10**:518-616.
26. Karunakara, U.K., Neuner, F., Schauer, M., Singh, K., Hill, K., Elbert, T., Burnha G. Traumatic events and symptoms of post-traumatic stress disorder amongst Sudanese nationals, refugees and Ugandans in the West Nile. *African health sciences,* 2004; **4**: 83-93.
27. Njau J.W Post-traumatic stress disorder among heads of households of ethnic clashes survivors in the rift valley province, Kenya: a comparative study. *Thesis University of Nairobi,* 2005.
28. Getanda EM, Papadopoulos C, Evans H.The mental health, quality of life and life satisfaction of internally displaced persons living in Nakuru County, Kenya. *BMC Public Health*, 2015;**15**:755.
29. Mujeeb A. Mental health of internally displaced persons in Jalozai camp, Pakistan. *International Journal of Social Psychiatry.* 2015; **61**:653-932.
30. Asad N, Karmaliani R, Somani R, Hirani S, Pasha A, Hirani S, Laila, C., McFarlane, J. Preventing Abuse and Trauma to Internally Displaced Children Living in Camps Due to Disasters in Pakistan, *Child Care in Practice,* 2013;**19**:3,267-274, DOI: 10.1080/13575279.2013.785936
31. McLeod, S. A.. What is a normal distribution in statistics? Simply psychology, 2019; https://www.simplypsychology.org/normal-distribution.html
32. Weine S, Becker D, McGlashan T, Laub D, Lazrove S, Vojvoda D. Clinical assessments and trauma testimonies of newly resettled Bosnian refugees. *American Journal of Psychiatry,* 1995; **152**:536–42.
33. Moti, R., Dishman, R.K., Saunders, R.P., Dawda, M., Pate, R.R. Measuring social provisions for physical activity among adolescent black and white girls. *Education Psychology Measurement,* 2004; **64**:682–706. doi:10.1177/0013164404263880
34. Mollica R, Caspi-Yavin Y, Bollini P, Truong T, Tor S, Lavelle J. The Harvard trauma questionnaire. Validating across-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. *Journal of Nervous and Mental Disease,* 1992; **180**:111–6. doi:10.1097/00005053-199202000-00008
35. American Psychiatric. Association. Diagnostic and Statistical Manual of Mental Disorders. Washington, DC: 2000; APA. 4th ed.
36. Choi, Y., Mericle, A., Harachi, T.W. Using Rasch analysis to test the cross cultural item equivalence of the Harvard trauma questionnaire and the Hopkins symptom checklist across Vietnamese and Cambodian immigrant mothers. *Journal of Applied Measurement,* 2006;

7:16–38.

37. Ichikawa, M., Nakahara, S., Wakai, S. Cross-cultural use of the predetermined scale cut off points in refugee mental health research. *Social Psychiatry Epidemiological,* 2006; **41**:248–50. doi:10.1007/s00127-005-0016-2
38. Silove, D., Manicavasagar, V., Mollica, R., Thai, M., Khiek, D., Lavelle, J., et al. Screening for depression and PTSD in a Cambodian population unaffected by war: comparing the Hopkins symptom checklist and Harvard trauma questionnaire with the structured clinical interview. *Journal of Nervous Mental Disease,* 2007; **195**:152–7. doi:10.1097/01.nmd.0000254747.03333.70
39. Fawzi, M.C.S., Pham, T., Lin, L., Nguyen, T.V., Ngo, D., Murphy, E, et al. The validity of posttraumatic stress disorder among Vietnamese refugees. *Journal of Trauma Stress,* 1997; **10**:101–8. Doi: 10.1023/A:1024812514796
40. Kleijn, W., Hovens, J., Rodenburg, J. Posttraumatic stress symptoms in refugees assessments with the Harvard trauma questionnaire and the Hopkins symptom checklist-25 in different languages. *Psychol Rep,* 2001; **88**: 527–32. doi:10.2466/pr0.2001.88.2.527
41. Mollica, R., Massagli, L., Silove, D. Measuring Trauma, Measuring Torture. Cambridge, MA: Harvard University. 2004.
42. Creswell, J. W. Qualitative inquiry and research design: Choosing among five traditions, 2007; (2nd ed.).Thousand Oaks, CA: Sage.
43. Alyson, L. H., Ricardo, A., Chris, S., Group Psychological Therapies for depression in the community: Systematic Review and Meta-Analysis. *British Journal Psychiatry* 2012; **200**:184-90. doi: 10.1192/bjp.bp.111.092049.
44. Nicole C., Warren, F.P., Jeffrey, H. H., Sima M.R., Robert M. M., David, W.P., Richard, J.W., HIV/AIDS Prevention Research Synthesis Team. Meta-analysis of Cognitive-Behavioral Interventions on HIV-positive persons' Mental Health and Immune Functioning. *Health Psychology Journal.*2008;**27**:4-14. doi: 10.1037/0278-6133.27.1.4.
45. Seth H, Deborah, R.M, Gloria, O. Efficacy of Group Psychotherapy to Reduce Depressive Symptoms Among HIV-infected Individuals: A Systematic Review and Meta-Analysis. *AIDS Patient Care STDS.* 2007; **21**:732-9. doi: 10.1089/apc.2007.0012.
46. David BP., Lori A.J., Scott-Sheldon, Blair, T.J., Michael, P.C., Computer-delivered Interventions for Health Promotion and Behavioral Risk Reduction: A Meta-Analysis of 75 Randomized Controlled Trials, 1988-2007. *Preventive Medicine.* 2008; **47**:3-16. doi:10.1016/j.ypmed.2008.02.014.
47. Otto, M. W., McHugh, R. K., & Kantak, K. M.Combined Pharmacotherapy and Cognitive-Behavioral Therapy for Anxiety Disorders: Medication Effects, Glucocorticoids, and Attenuated Treatment Outcomes. *Clinical psychology : a publication of the Division of Clinical Psychology of the American Psychological Association*, 2010; **17**: 91–103.

https://doi.org/10.1111/j.1468-2850.2010.01198.x
48. Nakimuli-Mpungu, E.,Okello, J., Kinyanda, E., Alderman, S., Nakku, Alderman J. S., Pavia, A., Adaku, A., Allden, K., Musisi, S. The Impact of group counselling on depression, post-traumatic stress and function outomes: A prospective comparison study in Peter C. Alderman trauma clinics in Northern Uganda. *Journal of Affective Disorders.* 2013;**151** ,:78-84
49. Nena, M., Stacy Calhoun, M.A., & Jeremy Braithwaite, M.A.Trauma-informed treatment decreases ptsd among women offenders. *Journal of Trauma Dissociation*. 2014; **15**: doi: 10.1080/15299732.2013.818609
50. Fichter, M. M., Kohlboeck, G.,& Quadflieg N.The Upper Bavarian longitudinal community study 1975-2004. 2. Long-term course and outcome of depression. A controlled study. *Eurupean Archives Psychiatry Clinical Neuroscice*. 2008;**258**:476–488. doi: 10.1007/s00406-008-0821-z.
51. Yule, W. Posttraumatic stress disorder in the general population and in children. *Journal of Clinical Psychiatry* 2001; **62**(Suppl 17):23–28.
52. Ogrodniczuk, J. S., Piper, W. E., Joyce, A. S., & McCallum, M.Effect of patient gender on outcome in two forms of short-term individual psychotherapy. *The Journal of psychotherapy practice and research*, 2001; **10**,:69–78.
53. Jones EE, Zoppell CL: Impact of client and therapist gender on psychotherapy process and outcome. *J Consult Clin Psychol* 1982; **50**:259–272
54. Kirshner LA, Genack A, Hauser ST: Effects of gender on short-term psychotherapy. *Psychotherapy* 1978; **15**:158–167
55. Jones EE, Krupnick JL, Kerig PA: Some gender effects in a brief psychotherapy. *Psychotherapy* 1987; **24**:37–352
56. Sotsky SM, Glass DR, Shea MT, et al: Patient predictors of response to psychotherapy and pharmacotherapy: findings in the NIMH Treatment of Depression Collaborative Research Program. *Am J Psychiatry* 1991; **148**:997–1008
57. Thase ME, Reynolds CF, Frank E, et al: Do depressed men and women respond similarly to cognitive behavior therapy? *Am J Psychiatry* 1994; **151**:500–505
58. Zlotnick C, Shea MT, Pilkonis PA, et al: Gender, type of treatment, dysfunctional attitudes, social support, life events, and depressive symptoms over naturalistic follow-up. *Am J Psychiatry* 1996; **153**:1021–1027
59. Beutler LE, Machado PPP, Neufeldt SA: Therapist variables, in Handbook of Psychotherapy and Behavior Change, 4th edition, edited by Bergin AE, Garfield SL. *New York, Wiley,* 1994, pp 229–269