



Post-Traumatic Stress and Depression among Internally Displaced Persons in Adamawa State, Nigeria

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Abstract

Adamawa state is one of the states affected by insurgency, banditry, herdsmen and natural disasters such as flood, sound storm and tornados in the Northern region. These have led to displacement of many of the indigenes and could have consequently taken tolls on their mental health. The study thus investigated Post-Traumatic Stress (PTS) and depression among internally displaced persons in Adamawa state, Nigeria. The relationship between the four components of PTS (intrusion, avoidance, alterations in cognition and mood; and alteration in arousal and reactivity) and depression were examined. Based on the 213,467 population of IDPs in Adamawa State (International Organization for Migration, 2020); 396 IDPs participated in the study. The respondents were selected using random and purposive sampling techniques across the three senatorial districts of the state. The PTSD and Depression questionnaires were used to collect data in the study. Two mental health counsellors and three medical experts checked the content validity of the instruments. The reliability indices obtained for the two questionnaires were 0.88 and 0.91 respectively. At the end of the data collection exercise, 388 responses were valid for data analysis. The data were analyzed using percentages and Pearson's (r) statistics. The findings of the study revealed that post-traumatic stress and depression are high among the IDPs in Adamawa State. Also, there is positive relationship between the four dimensions (intrusion, avoidance, cognition and mood alteration; and arousal and reactivity symptoms) of PTS and depression ($p = 0.000 < 0.05$). In line with these findings, relevant recommendations were made.

Keywords: Post-traumatic stress; depression; internally displaced persons; Adamawa State, Nigeria

Introduction

Displaced population is peculiar to countries where war, conflict, violence, persecution, economic and political crises persist. Nigeria as a country is currently witnessing different traumatic incidents such as religious bigotry, ethnic violence, kidnapping and banditry, violation of fundamental human rights, insurgency and natural disasters; which had rendered a large number of the citizens internally displaced, particularly, in the North-East of the country. Internally displaced persons are individuals or groups of individuals who have been forced or compelled to abandon or leave their homes or places of residence, particularly as a result of or to avoid the effects of widespread violence, armed conflict or human rights violations (Michael, 2014). They are people who have dumped their homes for reasons similar to refugees, but who



stay within their own national territory and are subject to the laws of their home country (Hayson, 2013).

Countless number of lives and properties had been lost and over 3.3 million people had been displaced since the emergence of Boko-Haram insurgency (Olanrewaju, 2018). In corroborating this, Davies (2021) reported United Nations that in August 2021, seven people died, while 74,713 people were internally displaced by floods across 79 villages in the 16 Local Government Areas of Adamawa state. Moreover, in the midst of the Covid-19 pandemic, insecurity, poverty and malnutrition, poor health facilities, Cholera cases had climbed 169 with seven fatalities across the six LGAs of Yola North, Yola South, Shelleng, Gombi, Girei and Fufore. Victims of these types of tragic events or painful experiences are likely to develop mental health challenges such as post-traumatic stress and depression because of their inability to cope with or overcome the terrible situations to which they were exposed.

Studies (such as Steel, et al., 2009; Mahmood, et al., 2019) revealed that posttraumatic stress and depression are the highly prevalent mental health problem associated with a wide range of tragic events or incidences. Fawa, et al. (2021) also found a 59.66 percent prevalence rate of PTS among internally displaced persons. Post-traumatic stress is a mental disorder that that is associated with the experiences of painful or traumatic incidences. According to the America Psychiatric Association (2021), PTS can manifest in an individual in four different ways; intrusion, avoidance, alterations in cognition and mood, and alterations in arousal and reactivity. Intrusive thoughts occur in form of nightmare, flashbacks of the previous painful event, uncontrolled repeated memory, among others.

Traumatic victims might exhibit avoidance behaviours by avoiding places, activities, people or situations that bring back the miserable memory. Cognition and mood of people with PTS are altered by not showing interest in activities they previously enjoyed, negative thoughts about the causes and consequences of the tragic memories, engaging in self-blaming on the past traumatic event, inability to remember that painful experience, among others (Gore, 2018); Alterations in arousal and reactivity manifestation may include behaving in a self-destructive way or being recklessly; angry outbursts and being irritable; poor sleeping or concentration; and being easily startled (Brazier & Ames, 2022).

Depression, on the other hand, is a serious and common mood disorder. In an individual, it is characterised by persistent feeling of hopelessness and sadness; depressed mood, disinterest in different important activities, low appetite, weight loss or gain when not fasting or dieting; slow physical movement and thought; daily loss of energy; persistent feeling of worthlessness; poor concentration and recurrent suicidal ideation or attempt (American Psychiatry Association, 2013). These challenges may include inability to perform daily tasks as a result of depressed mood and loss of interest which are likely to interfere with one's overall living status. Sheikh, Abdulaziz, et al. (2015); Faronbi, et al. (2020); Aluh, et al. (2020); revealed a high level of depression among the internally displaced persons in Maiduguri, Nigeria.

Taha, et al. (2021) worked on posttraumatic stress disorder correlates among internally displaced Yazidi population. The findings revealed that avoidance and intrusion symptoms had the highest means and were positively correlated with depression. Some of the factors for PTSD among the respondents include high witness of traumatic events, unmet basic needs and



witnessing the destruction of residential or religious areas. Spiller, et al. (2019) had revealed that displaced people with traumatic experiences reported difficulties in regulating their emotions and lower emotion regulation capacity. Moreover, heightened emotional reactivity and emotion regulation difficulties in IDPs varied in severity of mental health problems of post-traumatic stress and depressive symptoms (Shepherd & Wild, 2014).

The Schachter-Singer theory of stress validates the displaced people's post-traumatic stress disorder. According to the hypothesis, when an emotional response's cause is not immediately apparent, people start to hunt for external cues to help them understand the experience correctly (Sincero, 2012). Therefore, perception and interpretation of the experience that occurs when victims of displacement encounter catastrophic occurrences frequently result in pain. Also, Aaron Beck cognitive behaviour theory also explained about depression. He theorised that depressed symptoms are frequently brought on by negative thoughts that emerged as a result of dysfunctional beliefs (McLead, 2023). In other words, a displaced person is likely to grow more depressed the more negative ideas he or she is nursing. This may therefore affect their mental health status.

Empirical studies are scarce on post-traumatic stress and depression among internally displaced population in Nigeria, especially, in the North-Eastern region (where insurgency and other traumatic events prevail more) and the relationship that exists between the two (PTSD and depression) had not been well defined. Some of the available studies (such as Isaac and Greenwood, 2011; Sheikh, et al., 2015; Chukwuorji, et al., 2017; Fawa, et al., 2021; Ugbe, et al., 2022) did not focus on relationship between post-traumatic stress components and depression; and they were not conducted in Adamawa State; hence, the motivation of the researcher to investigate post-traumatic stress and depression among internally displaced persons (IDPs) in Adamawa State, Nigeria.

Statement of the Problem

It takes a great deal of mental health functioning for an individual to live a healthy and fulfilling life. A poor mental health is capable of incapacitating an individual to function optimally in daily life. Such has been the case for many of the internally displaced victims in the North-East, Nigeria, especially, in Adamawa State. Nearly all villages across the three senatorial districts of the state have witnessed series of crises and mishaps that have truncated their peaceful coexistence, rendered many of them homeless and have affected their mental health functioning. For example, natural disasters such as incessant fire outbreak, diseases, drought, poverty, insurgency and flooding had wreaked havoc among villagers in the state including the capital city, Yola. Some people witnessed the slaughtering of their family, relatives and friends, how their homes and properties were set on fire, how flood swept-off their edifices and belongings, and abuses of their female/children's folks. The government is also lagging behind in providing for the basic needs (such as food, healthcare, water, security, education) of the internally displaced (Akuto, 2017).

The tragic experiences may have long lasting traumatic effects on the internally displaced victims if adequate medical and psychological interventions are not provided to support them; as Fazel, et al. (2012) noted that there is a high prevalence of mental disorders among the internally



displaced victims. Thus, the mayhems could have created fear, panic attack, anxiety, stress and depression in the people of the state; which could be more devastating for the internally displaced persons to endure.

Reports also have it that the Internally Displaced Persons (IDPs) are discriminated against in different capacities; the communities with which they seek shelter are hostile to their children in schools, unequal access to health facilities in those locales, they also faced with ethnic discrimination and those living in IDP camps were not much comfortable due to congestion (Olanrewaju, et al., 2019). This ugly situation is capable of worsening mental health of the internally displaced victims, lead them to suicidal ideation and consequently death, particularly, the young adolescents who might lack positive mechanism to cope with their present condition. In this regard, this study deems it imperative to investigate the relationship that exists between post-traumatic stress and depression among internally displaced persons in Adamawa State, Nigeria.

Objectives of the Study

The objectives of this study are to specifically examine the relationship between:

1. Intrusion symptoms of PTS and depression among IDPs in Adamawa State.
2. Avoidance symptoms of PTS and depression among IDPs in Adamawa State.
3. Cognition and mood alteration symptoms of PTS and depression among IDPs in Adamawa State.
4. Arousal and reactivity alteration symptoms of PTS and depression among IDPs in Adamawa State.
5. Post-traumatic stress and depression among IDPs in Adamawa State.

Research Hypotheses

The null hypotheses tested in this study include:

1. There is no significant relationship between intrusion symptoms of PTS and depression among IDPs in Adamawa State.
2. There is no significant relationship between avoidance symptoms of PTS and depression among IDPs in Adamawa State.
3. There is no significant relationship between cognition and mood alteration symptoms of PTS and depression among IDPs in Adamawa State.
4. There is no significant relationship between arousal and reactivity alteration symptoms of PTS and depression among IDPs in Adamawa State.
5. There is no significant relationship between PTS and depression among IDPs in Adamawa State.

Methodology

The research design adopted for this study was a correlational survey as it investigated the relationship that exists between dimensions of Post-Traumatic Stress Disorder and Depression among the IDPs in Adamawa State. The population for this study is 213,467 Internally Displaced Persons in Adamawa State (International Organization for Migration, 2020).



This comprises 21,670 IDPs in 27 sites within camps and camp-like setting and 191,797 IDPs in 462 sites within the host communities. Based on this population estimate, a sample of 384 was recommended by the Research Advisor (2006) but the researcher increase the sample size by 3% of 384 (that is, 12 + 384); hence, 396 IDPs was considered for this study. The increment was to cover for possible attrition during the data collection exercise. The respondents were selected using random and purposive sampling techniques. Random sampling technique was used to select 2 Local Government Areas from each of the three senatorial districts of Adamawa North, Central and South respectively. Thus, Michika and Mubi North were selected from Adamawa North; Fufore and Girei were selected from Adamawa Central; while Ganye and Toungo were selected from Adamawa South. Purposive sampling technique was used to select one 1 site from Camps and camp-like setting; and 2 sites from Host communities in each of the selected LGAs; making a total of 6 sites from camps and camp-like setting; and 12 sites from host communities. Therefore, 22 IDPs were randomly selected from the 18 IDP sites visited.

Two instruments were used in this study, one measures the four major dimensions of Post-Traumatic Stress Disorder and the other one measures depressive symptoms among the respondents. The instrument “Post-Traumatic Stress Disorder Questionnaire” was adopted from Weathers, et al. (2013); while the instrument titled “Depression Inventory” was adapted from Beck’s (1967). What makes the Depression questionnaire an adapted one was that only 10 items were selected relevant to the focus of this study. The instruments were validated by mental health counsellors and medical expert. The Cronbach reliability statistical indices obtained for the two questionnaires were 0.88 and 0.91 respectively. Out of the 396-questionnaire administered, 388 were valid for data analysis. The drop in the copies of question was because few of those questionnaires were not adequately completed; hence, were removed from data coding and analysis. The data collected from the respondents were analyzed using percentages and Pearson’s (r) statistics.

Results

H₀₁: There is no significant relationship between intrusion symptoms of PTS and depression among IDPs in Adamawa State.

Table 4: Pearson (r) Statistic on Relationship Between Intrusion Symptoms of Post-Traumatic Stress (ISPTS) and Depression among IDPs in Adamawa State

Variables	N	Mean	SD	df	Cal. r	p-value
ISPTS	388	9.63	1.619	386	0.194*	0.000
Depression	388	31.81	9.321			

* Sig. at $p < 0.05$

Table 4 shows that at a degree of freedom (df) of 386, the calculated r-value of 0.194 is statistically significant at 0.05 level of significance ($p = 0.000 < 0.05$). Hence, the hypothesis which states that there is no significant relationship between intrusion symptoms of PTS and

depression among IDPs in Adamawa State is rejected. This means that there is a significant positive relationship between intrusion symptoms of PTS and depression among IDPs in Adamawa State.

H₀₂: There is no significant relationship between avoidance symptoms of PTS and depression among IDPs in Adamawa State.

Table 5: Pearson (r) Statistic on Relationship Between Avoidance Symptoms of Post-Traumatic Stress (ASPTS) and Depression among IDPs in Adamawa State

Variables	N	Mean	SD	df	Cal. r	p-value
ASPTS	388	11.30	2.863	386	0.440*	0.000
Depression	388	31.81	9.321			

* Sig. at $p < 0.05$

Table 5 shows that at a degree of freedom (df) of 386, the calculated r-value of 0.444 is statistically significant at 0.05 level of significance ($p = 0.000 < 0.05$). Hence, the hypothesis which states that there is no significant relationship between avoidance symptoms of PTS and depression among IDPs in Adamawa State is rejected. This means that there is a significant positive relationship between avoidance symptoms of PTS and depression among IDPs in Adamawa State.

H₀₃: There is no significant relationship between cognition and mood alteration symptoms of PTS and depression among IDPs in Adamawa State.

Table 6: Pearson (r) Statistic on Relationship Between Cognition and Mood Alteration Symptoms (CMASPTS) of Post-Traumatic Stress (ASPTS) and Depression among IDPs in Adamawa State

Variables	N	Mean	SD	df	Cal. r	p-value
CMASPTS	388	21.56	7.983	386	0.699*	0.000
Depression	388	31.81	9.321			

* Sig. at $p < 0.05$

Table 6 shows that at a degree of freedom (df) of 386, the calculated r-value of 0.699 is statistically significant at 0.05 level of significance ($p = 0.000 < 0.05$). Hence, the hypothesis which states that there is no significant relationship between cognition and mood alteration symptoms of PTS and depression among IDPs in Adamawa State is rejected. This means that there is a significant positive relationship between cognition and mood alteration symptoms of PTS and depression among IDPs in Adamawa State.

H₀₄: There is no significant relationship between arousal and reactivity alteration symptoms of PTS and depression among IDPs in Adamawa State.

Table 7: Pearson (r) Statistic on Relationship Between Arousal and Reactivity Alteration Symptoms (ARASPTS) of Post-Traumatic Stress (ASPTS) and Depression among IDPs in Adamawa State

Variables	N	Mean	SD	df	Cal. r	p-value
ARASPTS	388	19.83	3.964	386	0.244*	0.000
Depression	388	31.81	9.321			

* Sig. at $p < 0.05$

Table 7 shows that at a degree of freedom (df) of 386, the calculated r-value of 0.244 is statistically significant at 0.05 level of significance ($p = 0.000 < 0.05$). Hence, the hypothesis which states that there is no significant relationship between arousal and reactivity alteration symptoms of PTS and depression among IDPs in Adamawa State is rejected. This means that there is a significant positive relationship between arousal and reactivity alteration symptoms of PTS and depression among IDPs in Adamawa State.

H_{0s}: There is no significant relationship between PTS and depression among IDPs in Adamawa State.

Table 8: Pearson (r) Statistic on Relationship Between Post-Traumatic Stress (PTS) and Depression among IDPs in Adamawa State

Variables	N	Mean	SD	df	Cal. r	p-value
PTS	388	62.31	11.604	386	0.700*	0.000
Depression	388	31.81	9.321			

* Sig. at $p < 0.05$

Table 8 shows that at a degree of freedom (df) of 386, the calculated r-value of 0.700 is statistically significant at 0.05 level of significance ($p = 0.000 < 0.05$). Hence, the hypothesis which states that there is no significant relationship between PTS and depression among IDPs in Adamawa State is rejected. This means that there is a significant positive relationship between PTS and depression among IDPs in Adamawa State.

Discussion of Findings

The Pearson's (r) statistic result revealed that there is a significant positive relationship between intrusion symptoms of PTS and depression among IDPs in Adamawa State. This implies that the higher the level of intrusion symptom exhibits by a victim of displacement, the high the level of depression they experience and vice-versa. The finding of this study is in line



with the study of Taha, et al. (2021) whose result indicated that positive relationship exists between intrusion symptoms of PTS and depression among internally displaced victims. This study and the previous study were conducted in similar locale; hence, the similarity in their findings.

A significant positive relationship was also found between avoidance symptoms of PTS and depression among IDPs in Adamawa State. This means that the higher the level of avoidance symptoms displayed by an internally displaced person, the higher the level of depression he/she experiences and vice-versa. This finding supports the finding of Taha, et al. (2021) which showed that there is a positive relationship between avoidance symptoms of PTSD and depression among victims of natural disaster. Consistency of this current finding with the previous study perhaps, results from the similarity in the age categories of the internally displayed people that participated in the studies.

There is a significant positive relationship between cognition and mood alteration symptoms of PTS and depression among IDPs in Adamawa State. This finding implies that the more an individual cognition and mood is altered due to PTSD, the higher the level of depression he/she is likely to experience and vice-versa. This finding is consistent with the study of Shepherd and Wild (2014) whose finding revealed that cognition and mood dimension of PTSD has a positive link or association with depression among the internally displaced persons.

An arousal and reactivity alteration symptom of PTS was also found to having a positive relationship with depression among IDPs in Adamawa State. This follows that the level of arousal and reactivity alteration experience by an internally displaced person will concurrently determine the level of depressive symptoms they displayed and vice-versa. The finding of this study in tandem with the study of Isaac and Greenwood (2011) whose result revealed that arousal and reactivity alteration symptoms of PTSD has a positive correlation with depressive symptoms among the respondents studied. The finding of this study and the previous finding were consistent perhaps, due to the fact that they were respondents with similar challenge of internal displacement.

The Pearson's (r) statistic revealed that there is a significant positive relationship between PTS and depression among IDPs in Adamawa State. This means that the higher the level of PTSD, the higher the level of depression experienced by internally displaced persons and vice-versa. The result of this study is congruent with the findings of Fawa, et al. (2021); Ugbe, et al. (2022) which revealed that PTS has a positive relationship with depression among internally displaced persons. This finding and the previous research were related because of the similarity in methodology adopted in the studies.

Conclusion

Based on the research findings, it was concluded that the positive relationship exists between post-traumatic stress disorder and depression among IDPs in Adamawa State, Nigeria. The major four dimensions (intrusion, avoidance, cognition and mood alteration; and arousal and reactivity symptoms) of PTSD also correlated positively with depression. Higher level of PTSD is linked to depression and vice-versa. The findings underscore the need for development of



mental health programme to reduce the level of PTSD among the IDPs and to prevent depression and its accompanying consequences.

Recommendations

With respect to the findings of this study, it was recommended that:

1. Counselling should be provided for the IDP on strategies that can be employed to overcome intrusion symptoms of PTS and mental depressive mood by equipping them with emotional resilience skills where they can learn how to alleviate depression and manage their mental health effectively.
2. Counsellors, psychologists and social workers should work collaboratively to help IDP in designing a programme that will help them socialize with one another and equip them with social relationship skills that can enable them overcome avoidance symptoms of PTS and depression.
3. Counsellors and psychologist should provide IDP with appropriate counseling intervention such as cognitive behavior therapy or cognitive restructuring technique to help them for these people alter their problematic experiences or thoughts and alleviate distress; thereby, living a healthy and purposeful lifestyle despite their condition.
4. Medical and counselling practitioners should help people who are internally displaced in the state by helping them diagnose the symptoms of PTS and depression; particularly, difficulty in sleeping (insomnia) so that they can provide appropriate medical and counseling interventions that can help the adjust effectively.
5. The government in collaboration with non-governmental organization should provide psychological programme of interventions (such as mindfulness skills exercise, counselling services, positive human relationship, etc.) for internally displaced persons in Adamawa State in order to ameliorate their PTSD and depression experiences, which result from different tragic occurrences in the state.

References

- Akuto, G. W. (2017). Challenges of internally displaced persons (IDPs) in Nigeria: implications for counselling and the role of key stakeholders. *International Journal of Innovative Psychology Social Development*, 5, 21–27.
- Aluh, D. O., Okoro, R. N. & Zimboh, A. (2020). The prevalence of depression and post-traumatic stress disorder among internally displaced persons in Maiduguri, Nigeria. *Journal of Public Mental Health*, 19 (2), 159-168. <https://doi.org/10.1108/JPMH-07-2019-0071>.
- American Psychiatric Association (2021). *What is posttraumatic stress disorder (PTSD)?* <https://www.psychiatry.org/patients-families/ptsd>.
- American Psychiatric Association. (2013). DSM-V. In *Diagnostic and statistical manual of mental disorders* (5th edition). APA.
- Bhui, K., Craig, T., Mohamud, S., Warfa, N. & Stansfeld, S. (2006). Mental disorders among Somali refugees. Developing culturally appropriate measures and assessing socio-cultural risk factors. *Journal of Social Psychiatry and Psychiatry Epidemiology*, 20, 1-9s.



- Brazier, Y. & Ames, H. (2022). *PTSD: What you need to know*. <https://www.medicalnewstoday.com/articles/156285>.
- Chukwuorji, J-B. C., Ifeagwazi, C. M. & Eze, J. E. (2017). Role of event centrality and emotion regulation in posttraumatic stress disorder symptoms among internally displaced persons. *Anxiety, Stress & Coping*, 30 (6), 702-715.
- Davies, R. (2021). *Nigeria: Floods affect 100,000 in Adamawa as cholera cases rise, say United Nation*. <https://floodlist.com/africa/nigeria>.
- Faronbi, J. O., Adegbola, G. A., Bello, C. B., Akinyoola, O. D. & Oginni, M. O. (2020). Posttraumatic stress disorder and suicidal ideation among the internally displaced persons in Nigeria. *Egyptian Nursing Journal*, 17 (3), 154-160.
- Fawa, I. M., Musa, I. & Abdullahi, A. (2021). Assessment of post-traumatic stress disorder among internally displaced persons in Ringim Town, Jigawa State-Nigeria. *Sule Lamido University Journal of Science and Technology*, 2 (3), 100-113.
- Fazel, M., Reed, R. V., Panter-Brick, C. & Stein, A. (2012). Mental health of displaced and refugee children resettled in high-income countries: Risk and protective factors. *Lancet*, 379 (9812), 266-282.
- Gore, T. A. (2018). *Posttraumatic stress disorder*. <https://emedicine.medscape.com/article/288154-overview>.
- Hayson, S. (2013). *Sanctuary in the city? Reframing response to protracted urban development*. *Humanitarian Policy Group (HPG)*. Policy Briefs. <http://www.odi.org.uk/publications> [accessed on 28/08/2021].
- International Organization for Migration (2020). *Displacement report 33: North East Nigeria August 2020*. United Nation Migration.
- Isaac, F. & Greenwood, K. M. (2011). The relationship between insomnia and depressive symptoms: Genuine or artifact? *Neuropsychiatric Disease Treatment*, 7, 57-63.
- Mahmood, H. N., Ibrahim, H., Goessmann, K., Ismail, A. A. & Neuner, F. (2019). Post-traumatic stress disorder and depression among Syrian refugees residing in the Kurdistan region of Iraq. *Conflict and Health*, 13 (51), 1-11.
- McLeod, S. (2023). *Psychological theories of depression*. <https://www.simplypsychology.org/depression.html>.
- Michael, A. O. (2014). Crisis induced internal displacement: The implication on real estate investment in Nigeria. *Journal of Economic and Sustainable Development*, 5 (4), 23-31.
- Olanrewaju, F. O., Olanrewaju, A., Omotoso, F., Alabi, J. O., Amoo, E., Loromeke, E. & Ajayi, L. A. (2019). *Insurgency and the invisible displaced population in Nigeria: A situation analysis*. <https://doi.org/10.1177/2158244019846207>.
- Olanrewaju, F. O. (2018). *Boko-Haram insurgency and crisis of internal displacement of women in Nigeria*. A published Ph.D. Thesis, Covenant University, Nigeria.
- Sheikh, T. L., Abdulaziz, M., Agunbiade, S., Joseph, I., Ebiti, B. & Adekeye, O. (2015). Correlates of depression among internally displaced persons after post-election violence in Kaduna, North Western Nigeria. *Journal of Affective Disorder*, 170, 46-51.



- Shepherd, L. & Wild, J. (2014). Emotion regulation, physiological arousal and PTSD symptoms in trauma-exposed individuals. *Journal of Behaviour Therapy Exp Psychiatry*, 45, 360–367. <https://doi.org/10.1016/j.jbtep.2014.03.002>.
- Sincero, S. M. (2012). *Schachter-Singer theory of emotion*. <https://explorable.com/schachter-singer-theory-of-emotion>.
- Spiller, T. R., Liddell, B. J., Schick, M., Morina, N., Schnyder, U., Pfaltz, M., et al. (2019). Emotional reactivity, emotion regulation capacity and posttraumatic stress disorder in traumatized refugees: An experimental investigation. *Journal of Trauma Stress*, 32, 32–41. <https://doi.org/10.1002/jts.22371>.
- Steel, Z., Chey, T., Silove, D., Marnane, C., Bryant, R. A. & van Ommeren, M. (2009). Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement. *JAMA*, 302 (5), 537–49. <https://doi.org/10.1001/jama.2009.1132>.
- Taha, P. H., Taib, N. I. & Sulaiman, H. M. (2021). Posttraumatic stress disorder correlates among internally displaced Yazidi population following Islamic state of Iraq and Syria attacks in Iraq. *British Medical Council*, 21 (290), 1-8.
- Ugbe, U. M., Esu, E. B., Efut, J. A., Bisongedam, M. M., Awa, T. M. & Ekpo, O. I. (2022). Sociodemographic correlates and associated factors of depression and anxiety among internally displaced adults in Ogoja, Nigeria. *General Psychiatry*, 35 (2), e100749.
- Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). *The PTSD Checklist for DSM-5 (PCL-5): Standard measurement instrument*. Retrieved from <https://www.ptsd.va.gov/>.