

## POST-TRAUMATIC STRESS DISORDER AS A PREDICTOR OF COGNITIVE READINESS FOR COMMUNITY REINTEGRATION AMONG INTERNALLY DISPLACED PERSONS IN JOS, NIGERIA

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### ABSTRACT

**Background & Objectives:** Post-Traumatic stress disorder has often been associated with poorer, social, and occupational functioning and quality of life. However, a general assessment of functioning does not determine which of these difficulties is related to PTSD symptoms. This study examines whether PTSD severity is a significant predictor of cognitive readiness for reintegration among internally displaced persons in Jos, north central Nigeria. **Design:** A cross-sectional study design was used to systematically select 248 adult IDPs aged 18 years and above. **Methods:** The PTSD-8 inventory scale for the DSM-IV structured questionnaire was used to identify those with PTSD symptoms while a modified cognitive readiness questionnaire was used to assess cognitive readiness. Regression analysis was used to test the study hypotheses. A cross-tabulation analysis of PTSD and the demographic variables was performed. **Results:** Results revealed that PTSD severity significantly negatively predicted cognitive readiness for community reintegration ( $\beta = -.582$ ,  $R^2 = 0.338$ ,  $t = -11.216$ ,  $p < 0.001$ ). The result also revealed that level of education and marital status significantly predicted PTSD severity. **Conclusions:** We therefore propose that reintegration programs and community-based mental health care services including therapy, and social and medical support be made available to individuals affected by the crisis.

**Keywords: Background & Objectives:** Post-Traumatic stress disorder has often been associated with poorer, social, and occupational functioning and quality of life. However, general assessment of functioning does not determine which of these difficulties is related to PTSD symptoms. This study examines whether PTSD severity is a significant predictor of cognitive readiness for reintegration among internally displaced persons in Jos, north central Nigeria. **Design:** A cross-sectional study design was used to systematically select 248 adult IDPs aged 18 years and above. **Methods:** The PTSD-8 inventory scale for DSM-IV structured questionnaire was used to identify those with PTSD symptoms while a modified cognitive readiness questionnaire was used to assess cognitive readiness. Regression analysis was used to test the study hypotheses. A cross tabulation analysis of PTSD and the demographic variables was performed. **Results:** Results revealed that PTSD severity significantly negatively predicted cognitive readiness for community reintegration ( $\beta = -.582$ ,  $R^2 = 0.338$ ,  $t = -11.216$ ,  $p < 0.001$ ). The result also revealed that level of education and marital status significantly

predicted PTSD severity. **Conclusions:** We therefore propose that reintegration programs and community based mental health care services including therapy, social and medical support be made available to individuals affected by the crisis.

## 1.0 INTRODUCTION

Post-Traumatic stress symptoms have been associated with poorer social and occupational functioning and quality of life. However, assessing these functions do not determine the extent to which of these difficulties is related to PTSD symptoms (McCaslin et al., 2016). Post-Traumatic stress disorder is defined as a psychiatric disorder that may occur in persons who have experienced or witnessed a traumatic event such as a natural disaster, a serious accident, a terrorist act, war/combat, or rape or who have been threatened with death, sexual violence, or serious injury (American Psychiatric Association, 2013). In addition, the disorder is characterised by persistent, distorted cognitions about the cause or consequences of the traumatic event (s) that lead to the individual to blame him/her or others, persistent negative emotional state (e.g. fear, horror, anger, guilt, or shame), diminished interest or participation in significant activities (American Psychiatric Association, 2013).

Cognitive readiness is defined as a concept that has the possibility to predict the performance of individuals and teams prior to their engagement in complex, dynamics, and resource-limited tasks (Cramer et al. 2021). This definition is applicable to IDPs' situation wherein they may require adequate cognitive functioning abilities in order to make decisions regarding their reintegration back into their communities. Cognitive readiness for community reintegration in the context of this study is conceptualized as the extent to which IDPs are cognitively ready to reintegrate into their home areas after being in protracted displacement. In this study, IDPs are defined as individuals who have been uprooted from their communities as a result of clashes between Fulani herdsmen and farmers and are voluntarily willing or unwilling to go back to such communities due to their mental health challenges and several other factors. Specifically, these vulnerable persons are victims of displacement following clashes in some parts of Nigeria in particular the north central states and other parts (Egbuta, 2018). Cognitive readiness entails mental preparation and is of significance to the IDPs because they continually face challenges of reintegration into their communities after being uprooted from their communities. For instance, consequent to the aftermath of the violent attack on Nimbo community, Enugu state, south east Nigeria by herdsmen, survivors of such attacks were susceptible to high prevalence of PTSD and insecurity which impaired their cognitive functioning hence, affecting their readiness to return to their communities because of the fear of renewed attack (Uche and Iwumuadi 2018).

Since Nigeria returned to a democratic government in 1999 after a protracted military rule, the country has been plagued by persistent security challenges, including election violence, kidnapping, activities of the Boko Haram sect, and of recent, banditry and recurrent clashes between Fulani herdsmen and local farmers in different parts of the country in particular the north central region and other parts of the country (Egbuta, 2018). The clashes have been driven by many factors including the struggle for grazing land, water and scarce resources among others (Abbas, 2012). The attention of the Nigerian government at all levels has been drawn to proffer a lasting solution to these challenges. However, Nigeria's political leaders have not yet demonstrated any successful intentions to resolve or forestall further conflicts between the two

warring parties involved in the crisis (Egbuta, 2018). In spite of the pending grazing bill before the National Assembly which seeks the establishment of grazing reserves in each state to avert the herdsmen-farmers' clashes, it is uncertain if the bill may see the light of the day considering the frequency and intensity of the conflicts (Ogbette et al., 2018). The persistent clashes have resulted to displacement of hundreds of persons and destruction of properties worth millions of naira thus, survivors of the crisis are at a high risk of developing mental disorders notably PTSD (Morina et al., 2018).

### 1.1 Statement of the Problem

The recurring clashes between nomadic Fulani herdsmen and local farmers in some parts of Nigeria in particular the north central zone, have assumed ethnic and religious dimensions thus, resulting to loss of several lives, properties, and displacement of persons. The displacement in recent times has become an enormous problem considering its adverse effects on victims such as loss of lives and properties, means of livelihood, lack of access to good health services, and education. Survival is mostly dependent on government and donor agencies. The Nigerian government does not have adequate resources to cater for the displaced persons hence, the displaced persons need to supplement by engaging in economic activities which can best be achieved when reintegrated back into their communities. Furthermore, the prevalence of comorbid PTSD-depression could be so devastating among IDPs hence, making reintegration into their communities so difficult. For instance, with a comorbid PTSD-depression prevalent rate of 55.5% and 44.7% respectively, reintegration into communities became so difficult if not impossible for victims of armed conflict in Dogonahawa, north central Nigeria to re-integrate into their communities as per a study conducted by Taru et al., in 2018. However, empirical literature has shown that most studies conducted with IDPs in Nigeria have focused mainly on issues related to causes, effects, internal intervention, and provision of humanitarian aids such as food, clothes, temporary shelter to the IDPs (Okon, 2018), while issues related to their mental health and readiness for reintegration are often ignored during the reintegration processes. Consequently, this study was conducted with IDPs

### 1.2 Theoretical Framework

There are several theories of PTSD including the psychological, social, and the Drive to Thrive theories amongst others. The DTT explains how refugees and post-conflict populations such as the IDPs who are faced with different life challenges can cope with these adversities. However, this study adopted the Cognitive behavioral model of PTSD propounded by Ehlers and Clark (2000) to explain the manifestation of PTSD severity and how it significantly predicts IDPs' cognitive readiness to re-integrate into their communities in Nigeria. The model is anchored on the assumption that trauma survivors such as the IDPs continue to experience persistent trauma due to the way they assess the traumatic events which they experience and how the assessment leads to severe current threat (Ehlers & Clark, 2000). The cognitive theorists maintain that cognitive processing plays a significant role in how people approach future life situations. The cognitive behavioural model of PTSD is relevant to this study because most IDPs who witnessed the killing, abduction, torture, rape, of their loved ones, or were sexually assaulted themselves are liable to be exposed to severe trauma. Also, when traumatized IDPs remember, think about, or hear about events that occur in their communities whether actual, or imagined scenario in their communities where they are expected to return

to, it induces cognitive reactions such as fear, anger, and frustration which reflects lack of preparedness to re-integrate into their communities.

## 2.0 REVIEW OF LITERATURE

The recurring conflicts between the nomadic Fulani herdsmen and local farmers in some parts of Nigeria in particular the north central zone, have assumed ethnic and religious dimensions resulting to loss of several lives, properties, and displacement of persons. For instance, Mustapha & Ehrhardt (2014) documented that the clashes in recent times have degenerated into an ethno-religious crisis between predominant Muslim Fulani herdsmen and sedentary agrarian Christian communities, thus exacerbating ethno-religious hostilities. To buttress this further, Tagurum et al. (2015) in their study with IDPs in Jos, north central Nigeria concluded that PTSD is common in populations exposed to ethno-religious crises.

Research on IDPs' cognitive readiness for community reintegration is relatively sparse. Consequently, it is pertinent to note that for highly traumatized persons, reintegration is much more difficult and requires different support mechanism to avoid a potential for secondary trauma. However, only a few studies have been conducted on the several challenges facing IDPs' cognitive readiness for reintegration. Most of these studies have focused on the reintegration processes without critically examining IDPs' mental readiness for reintegration into their communities. Several reasons could be attributed to why most IDPs with severe mental disorders such as PTSD are unwilling to return to their original homes. For instance, in a study by Robert et al. (2008) with IDPs in Gulu northern Uganda, the result revealed that 54% of the IDPs suffered from PTSD, while two thirds showed symptoms of depression as a result of armed conflict, rebel attacks, massacres in northern Uganda between 1986 and 2006. The implication of the study is that the IDPs were unwilling to return to their homes because the memories of the war and conflict remained and frequently intruded in the minds of both those who were afraid of being killed and those who were forced to kill hence, the IDPs were not ready for reintegration to their communities for the fear of renewed attacks.

Empirical studies that have shown the association between PTSD severity and cognitive readiness for community reintegration among IDP returnees include that of IMPACT Initiatives (2018) which found that following the defeat of Islamic State and the Levants (ISIL), most IDP returnees and refugees in Syria returned to their original homes. However, those who were not willing to return to their original homes did so because they were yet to cognitively prepare themselves possibly on their decision on which alternative routes to take considering the devastating effects of the remnants of landmines or improvised explosive devices (IEDs) left in their communities during the crisis. Also, most of the IDPs were yet to obtain security information from the media as well as friends and relatives who had returned earlier. This might help the IDPs to be mentally prepared in making decisions to reintegrate into their communities.

In Nigeria, following the displacement of over 1.4m people in Borno State, north-east Nigeria between 2014 and 2015, REACH (2017), in partnership with the Norwegian Refugee Council (NRC), the Danish Refugee Council (DRC), conducted a survey to assess IDPs' intention to return to their homes, relocate, or integrate elsewhere within the place of displacement. Data was collected from 3,455 IDP households and 46 focus group discussions (FGDs) between July and September, 2017. Findings revealed that 23% of IDPs planned to reintegrate in their current

places of displacement, 63% who wished to leave the camp had no precise plans and time frame to do that, while 14% keenly reported to leave. However, majority was not ready to return home yet.

From the available literature, studies have shown that the desire to return often depends on how the traumatic displacement was in the first instance. For example, when displacement is caused by traumatic events, families are less likely willing to go back to their homes (Sert, 2010). Sert further also documented that reintegration was not the best option for Bosnian and Herzegovinian citizens following the disappearance or death of over 100,000 people as a result of ethnic cleansing and war. The dangers that still loomed in those communities might have instilled fear in the victims hence, resulting to lack of readiness for reintegration. To further support the findings of Sert and co-researchers, Deininger et al.(2004) asserted that when displacement is caused by traumatic events, for example the death of a household member, the family members are reluctant to leave their place of displacement. In addition, IDPs' reintegration will largely depend on their desire to re-possess their assets including abandoned lands in their place of origin and the employment opportunities available in where they are to return to (Sert, 2010). However, it is pertinent to note that in some circumstances, when displacement is caused by other factors rather than PTSD or comorbid PTSD-depression for instance, due to natural disasters, economic instability, and development projects, IDPs may be willing to leave the camps and return to a place where they may not need a right to be granted but a place where their property rights can be restored as well (Sert, 2010).

## **2.1 Purpose of the Study**

The study was conducted to assess the prevalence of PTSD and to also examine whether PTSD severity is a significant predictor of cognitive readiness for community reintegration among IDPs in Nigeria.

## **2.2 Research Objectives**

The following specific objectives are determined in the study:

- i. To examine whether Post-traumatic stress disorder predicts readiness for community re-integration among IDPs in Nigeria.
- ii. To determine the relationship between PTSD severity across the demographic variables of age, gender, marital status, and educational level among IDPs in Jos Nigeria.

## **2.3 Hypothesis**

The following hypotheses were tested in the study:

1. PTSD severity will significantly predict cognitive readiness for community reintegration among IDPs in Nigeria.
2. There will be a significant negative relationship between PTSD severity across demographic variables of age, gender, marital status, and educational level among IDPs in Jos.

## **2.4 Research Design**

A cross-sectional survey was adopted to examine whether PTSD severity is a significant predictor of cognitive readiness for community reintegration among IDPs in Jos, Nigeria. The quantitative approach was employed so as to quantify the data relevant to the research problem and objectives (Connolly, 2007). The quantitative approach was adopted as against the qualitative method taking into cognizance that this study involved collecting data from a larger sample which was randomly selected so as to make possible the generalisation of findings to the target population.

## 2.5 Study population

The population in this study were IDPs displaced by Fulani herdsmen from their communities to Geosciences IDP camp in Anguldi, Bukuru metropolis Jos south Local and Barkin Ladi Government Areas (LGAs) of Plateau state. IDPs in this study were defined as persons living in officially recognised IDP camp in the state following their displacement from their ancestral homes as a result of the herdsmen-farmers' conflicts.

## 2.6 Sampling Size Determination

The population of IDPs aged 18 years and above in Geosciences IDP camp was 3,500 IDPs. The G-power (3.1.9.7) calculator was used to determine a representative sample size for study (Faul, Erdfelder, Buchner, & Lang 2009). According to Bartlett (2020), to calculate the study sample size needed for a study, using the G-power calculator, the statistical tool used for testing the hypotheses is factored in the calculation. As such, using the linear multiple regression as the statistical tool for the study, the F tests is first selected as the Test family, and then regression: Fixed model, R<sup>2</sup> deviation from zero was selected. Two predictors were then specified (PTSD severity and Depression). A small effect size of 0.04 (Cohen, 1988) and a power of 0.80 were adopted for the study. As such, imputing an effect size of 0.04 (small effect size), and significance value of 0.05 (95% Confidence Interval), the G-power calculator determined a minimum sample size of two hundred and forty-four (244) to be adequate for the study. The justification for using the sample size is based on the fact that the sample size has an effect on increasing the statistical power by reducing sampling error. Besides, larger sample size decreases the detrimental effects of non-normality. In social science research, a sample size of 200 or more is favourable because with small sample, it is difficult to generalise the results since we cannot repeat with other samples (Field, 2013; Pallant, 2011).

## 2.7 Sampling technique

A systematic random sampling technique was adopted to select the participants for the study. A register of all IDPs in the camp was obtained from the camp secretary. Overall, there were 3,500 registered IDPs in the camp. A list of those aged 18 years and above was extracted according to their date of admission into the camp. From the list of IDPs who were above 18 years (2,678), every eight (n = 8th) participant who met the inclusion criteria and was willing to participate in the study was selected. This means that we utilised systematic random sampling choosing every 8th element of the respondents that met the inclusion criteria

## 2.8 Operationalization and Measurement of Variables

We utilized the PTSD-8 inventory and self-developed instrument in the measurement of PTSD and cognitive readiness for community reintegration respectively.

## 2.9 PTSD-8 Inventory scale

PTSD was assessed using the PTSD-8 inventory scale developed by Hansen et al. (2010). The scale has eight items for assessing PTSD among the study participants. The scale covers all the three symptom clusters of the DSM- IV PTSD diagnosis and contains a four- point likert scale options (0= "Not at all"/1= "Rarely" /2= "Sometimes" and /3= "Most of the time"). The Scoring of the PTSD-8 is based on three PTSD symptom clusters as obtained in DSM-IV (intrusion items 1-4, avoidance items 5-6, and hypervigilance, 7-8). In order to meet the PTSD-8 criterion, participants must be endorsed with at least one item from the eight (8) symptoms. A score of >3 shows endorsement of positive symptom on any of the items marked as "sometimes" or "most of the time". A score of less than 3 shows absence of PTSD symptoms on any of the items. The instrument was utilised in view of the fact that it has been validated in samples of rape survivors, whiplash patients, and survivors of disasters in Danish communities. Besides, the instrument has good psychometric properties (Cronbach alpha of .794, a good test-retest reliability and good internal consistency). For this study, the inventory registered a reliability coefficient of ( $\alpha = .910$ ).

## 2.10 Cognitive Readiness for Community Reintegration Scale

Readiness for community reintegration was assessed using a scale modified from the previously original proposed scale-Reintegration to Normal Living Index (RNLI) developed by Wood-Dauphinee & Williams, (1987). The modification of the cognitive readiness for community reintegration scale by the researchers involved four steps as follows:

The first step was item development which involved coming up with items intended to measure cognitive readiness for community re-integration. These items were developed on the basis of the researcher's experience, as well as a review of literature, and interview of expert psychologists and key-informants comprising of support workers, medical staff and individuals who had worked with refugees and IDPs.

1. A total of 11 items were formulated and categorized into the constructs or domain of cognitive readiness.
2. The third step, involved recruitment of 10 subject-matter experts such as senior lecturers in the department of psychology and requested them to rate each item on its relevance to measuring cognitive readiness for community re-integration.
3. Using the Cicchetti and Sparrow (1981) Intraclass Correlation Coefficient (ICC) intervals to establish inter-rater reliability.

Intraclass Correlation Coefficient (ICC) based on the 11 items by a group of 10 psychologists, and its 95% confidence intervals were calculated using SPSS statistical package version 25 (SPSS Inc, Chicago, IL) based on a mean-rating, two-way mixed- effects model, and absolute agreement. The results revealed a Cronbach Alpha ( $\alpha$ ) of cognitive readiness (11 items;  $\alpha = .837$ ) which is within an acceptable range (Cicchetti & Sparrow, 1981). Thus, there was a relatively high inter-rater reliability for the 11 items of the cognitive readiness scale. We also conducted a pilot study to come up with the inter-item reliability of the scale for the study. The

instrument is readily available to add as a supplemental material. Additionally, the instrument was written and carried out in English language. The research assistants were available to interpret the questionnaires on the instrument as the need became necessary. The modified cognitive readiness scale is available to add as a supplemental material as it was used to assess cognitive readiness for re-integration.

### **3.0 DATA COLLECTION PROCEDURE**

Subsequent to obtaining an introductory letter from Makerere University, approval to proceed on the study was granted by the Plateau State University Bokkos and the National Emergency Agency (NEMA) to conduct research in the chosen area (Geosciences IDP camp) where the IDPs were accommodated. While in the camp, a fruitful discussion was held with the camp management. Having discussed the purpose of our visit (data collection), approval was subsequently granted to proceed with the study using the IDPs as potential participants as well as the available camp facilities. First, the camp management staff were introduced to us and thereafter, we agreed on a convenient date and time to commence the data collection. To facilitate the data collection process, two research assistants who could speak both local Berom and Hausa languages and had previous experience in data collection were recruited and trained to assist in the administration of the questionnaires.

The study participants individually consented to take part in the study and were also assured of confidentiality and anonymity. Prior to the commencement of the exercise, participants were informed that the purpose of the study was strictly academics hence, data collected will not be divulged to the public or a third party. The primary source of data provided by the study participants made up the main source of data for this study. To further enhance a smooth and steady data collection process, pencils and other materials were distributed to the participants to enable them use in filling the questionnaires. Subsequently, some selected IDP camp leaders were consulted and they volunteered to serve as contact persons to follow-up on the participants to retrieve some of the filled questionnaires. This was achieved through reminders, phone calls, visits and SMS messages from the contact persons who also lived in the camp. Overall, data were collected between November 2018 and January 2019, precisely 6 months after the crisis. No financial inducement was given to the study participants. However, participants were given soda as entertainment so as to encourage them fully participate in the study considering their vulnerability.

#### **3.1 Data Analysis**

Data collected were analyzed using descriptive statistics, and linear regression for data processing and analysis. Generally, data were edited (cleaned) for the following reasons: (i) To find out if the responses indicated on the questionnaire were entered correctly (ii) To check if there were missing values in the data-set and decide on how to deal with them. (iii) To check for outliers and appropriately handle them. Linear regression was used to test the study hypothesis which stated that PTSD severity is not associated with cognitive readiness for community reintegration among IDPs in Nigeria. Data was analyzed using Statistical Package for Social Sciences (SPSS statistics version 22.00) software. A linear regression analysis was performed to test the relationship between the study variables.

#### **3.2 Ethical considerations**



Ethical approval was sought for and obtained from the Ethics Committee of the Research and Development department, Plateau State University Boko Plateau State, north central Nigeria (Review Number: PLASU/REC/000025/2018) in accordance with the ethical standards laid down in the 1964 Helsinki Declaration. In addition, approval was obtained from the National Emergency Management Agency (NEMA). Both the study questionnaires and study methodology were approved by the Ethics Committee. Verbal and written consents were obtained from the study participants. The written consent which comprised the general ethical guidelines including respect for anonymity and confidentiality, privacy, informed consent, and permission to withdraw from study were strictly adhered to. Permission was also granted by the camp commandant to utilize the IDPs as participants as well as the camp facilities for this study. Adults aged 18 years and above who are residents of the camp were eligible for inclusion in the study. Eligible participants who were either physically incapacitated or those with debilitating medical or surgical conditions which could impair their ability to participate in the study were given the chance to decide whether to participate or not. To guarantee anonymity, names were not included in the study. No financial inducement was given to any participant before their inclusion in the study. However, participants were provided with written materials to fill in the questionnaires with. In addition, the participants were also given some soda and biscuits to encourage them fully partake in the study. One Psychiatrist, three Psychiatric nurses, a clinical Psychologist, and a pharmacist were available in the camp to provide medical advice if there was any need. Also, IDPs who developed severe mental health distress were referred to a special psychiatric hospital for management at the end of the study.

#### 4.0 RESULTS

In this section, the results derived from testing of the study hypothesis are presented. The results are presented in various sections using tables. The descriptive statistics for the study variables are also presented in this section.

##### 4.1 Characteristics of Participants

A total of 248 IDPs comprised of adult men and women between the ages of 18 years and above participated in this study ( $M = 41.5$  years,  $SD = 15.2$  years, Range =18- 69 years). From the available demographic data, 248 IDPs 162 representing (65.3%) were females, and 86 (34.7%) males. 152(61.3%) of the participants were married, while 44(17.7%) were single. Widowed participants were 51(20.6%), while there was only one divorcee (0.4%). Majority of the participants 100 (40.3%) had secondary education, followed by 70 (28.2%) those with primary school education. 29 of the participants representing (11.7%) had diploma certificates, 11 participants with university degrees, and representing (4.4%) of the study participants, while those with adult education were 38 in number constituting (15%). Results are presented in Table 1 below

**Table 1: Demographic characteristics of Participants**

	Frequency	Percentage (%)
Age		
18-27yrs	46	18.5
28-37yrs	65	26.2
38-47yrs	59	23.8
48-57yrs	40	16.1
58-67yrs	24	9.7
68 and above	14	5.6
Total	248	100
Gender		
Male	86	34.7
Female	162	65.3
Total	248	100
Marital Status		
Single	44	17.7
Married	152	61.3
Widowed	51	20.6
Divorced	1	.4
Total	248	100
Level of Education		
Adult Education	38	15.3
Primary School	70	28.2
Secondary School	100	40.3
Tertiary Education	29	11.7
University	11	14
Total	248	100

Source: Primary Data, 2019

#### 4.2 Hypotheses Testing

##### Hypothesis 1:

A simple linear regression was used in testing the study hypotheses and the results revealed that PTSD severity significantly, negative predicted cognitive readiness for community reintegration among IDPs in Nigeria. The hypothesis was supported. Table 2 shows the details of the result.

**Table 2: Predictive role of PTSD Severity on Cognitive Readiness for Community Reintegration**

	Coefficients			t	p-value	95% Confidence Interval	
	Unstandardized β	Std. Error	Stand. Beta			Lower	Upper
(Constant)	48.435	1.481		32.708	<.001	45.518	51.352
PTSD severity	-.695	.062	-.582	-11.216	<.001	-.816	-.573

### 4.3 Dependent variable: Cognitive readiness for re-integration

The result in table 2 showed whether PTSD severity is a significant predictor of cognitive readiness for community reintegration among IDPs in Nigeria. The model summary showed  $R^2 = 0.338$ , which indicated that 33.8% significant change in cognitive readiness is attributed to PTSD severity. The results indicated that PTSD severity significantly negatively predicted cognitive readiness for re-integration ( $\beta = -.695$ ,  $t = -11.216$ ,  $p < .001$ ). This implied that an increase in PTSD severity predicted a decrease in cognitive readiness for community reintegration. Hypothesis 1 was therefore supported.

### Hypothesis 2:

We also tested the relationship between PTSD severity across the demographic variables of age, gender, marital status, and educational level using simple linear regression and the results indicated that there was a significant negative relationship between educational level and PTSD severity. The result also indicated significant relationship between PTSD and marital status as shown in table 3 below.

**Table 3: Relationship between PTSD Severity and cognitive readiness and demographic variables.**

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	18.980	1.679		2.263	.0000
Age	-.033	.030	-.092	-.1.118	.2644
Gender	.699	.793	.061	.882	.3799
Marital Status	1.476	.703	.171	2.100	.0377
Level of education	.637	.274	.158	2.320	.0211

### a. Dependent Variable: PTSD Severity

As presented in table 3 above, level of education significantly predicted PTSD Severity ( $P = 0.021$ ), with 27.4% variation in PTSD severity due to level of education; Also, marital status significantly predicted PTSD severity ( $P = 0.037$ ), with 17.1% due to marital status. However, socio demographic factors of age ( $P = 0.2644$ ), gender ( $P = 0.3799$ ), had no significant predictive relationship with PTSD severity as p-values were greater than 0.05.

## 5.0 DISCUSSION

The primary purpose of the study was to assess whether PTSD severity will significantly predict cognitive readiness for community reintegration among IDPs in Nigeria. In addition, the study was to examine the relationship between PTSD and readiness for community reintegration across IDPs' demographic variables of age, sex, and marital status, and level of education. We had initially predicted that PTSD severity will positively predict cognitive readiness for community reintegration among IDPs in Nigeria. However, contrary to our expectation, the result revealed that PTSD severity significantly negatively predicted cognitive readiness for community reintegration among IDPs in Nigeria. The study adopted the cognitive model of PTSD to predict IDPs' cognitive readiness to reintegrate into their communities. The study sample consisted of 248 IDPs in Plateau State, north central Nigeria. Majority of the participants were females. The implication of this result is that displaced persons may have cognitive impairments or challenges due to the severe traumatic experiences which resulted to severe PTSD symptoms and subsequently affected their cognitive abilities to make decisions on reintegration into their communities. It also indicates that individuals affected by herdsmen attack and displacement were not willing to reintegrate into their communities because of the horrifying events including witnessing the killings, abductions, rape, and torture, of their loved ones in the course of displacement by the Fulani herdsmen. Majority of the IDPs re-experienced symptoms of intrusion such as recurrent thoughts, memories of the trauma in form of flashbacks, and nightmares after the attack. Given a myriad of these traumatic events, it is likely that IDPs would be liable to avoid places, people, conversation, scenes, and activities that will remind them of their trauma (American Psychiatric Association, 2013). For example, the faces of people who resemble those who attacked them in their communities may trigger the trauma thus; cognitively affecting their reintegration into such communities.

When vulnerable populations such as the IDPs experience some of these traumatic symptoms, they are likely to react as if these events still hold a threat to them hence, they fail to realize that the trauma is a time-limited event that happened in the past and has no further negative implications (Ehlers, & Clark, 2000). Besides, when IDPs remember, think about, or hear about things that occur in their communities whether actual, or imagined scenarios in their communities where they are expected to return to, it induces cognitive reactions such as fear, anger, and frustration which reflect a lack of preparedness to reintegrate into their communities. Furthermore, IDPs are likely to over generalize from their traumatic events and conclude that other activities for instance sudden loud sounds may be perceived as dangerous as they really are hence, reminding them of gun shots they heard while they were attacked. This scenario could lead to circumstances where they (the IDPs) still perceived the fear of renewed attacks by the herdsmen who had constantly informed other community leaders whose communities were yet to be attacked of their intention to perpetrate similar atrocities on such communities thus inducing fear and panic among the IDPs who were already in camp on their decision to return to their communities or not. It is therefore apparent that when such perceived fears are induced in the IDPs, the chances of returning to their communities are reduced.

The result of this hypothesis also corroborates with the findings of IMPACT Initiatives (2018), which documented that following the defeat of the Islamic State and the Levants (ISIL), most displaced IDPs in Syria were willing to return to their original homes. However, those who did not want to return to their original homes did so because of the fear of renewed attacks as they were yet to obtain information from friends, relatives, and the media on the security situation particularly on the remnants of landmines or improvised explosive devices (IEDs) left in their

communities during the Syrian crisis. The lack of adequate security information from the communities the IDPs left behind and were expected to return to may have induced more fear in the already distressed IDPs hence increasing their PTSD levels which subsequently inhibited their desire to go back to their communities. In the same way, Salborn (2010) examined the needs and prerequisites for return and reintegration of IDPs in northern Uganda and found that IDPs failed to reintegrate into rural communities because of the severe trauma they were exposed to. For instance, memories of traumatic events such as the witnessing of massacres, abductions, rape and other crimes were still fresh on their minds of the IDPs and had disillusioned them hence, they were unwilling to return to their ancestral homes because of the fear of renewed attacks.

In examining the relationship between PTSD severities across the socio-demographic variables, we found that marital status and educational level were negatively associated PTSD severity, while age and gender were not. The result revealed that most women particularly the married ones were either raped or sexually abused thus, it is apparent that because these women were exposed to these horrible traumatic events, they were likely to develop PTSD which could have hindered their intention of reintegrating back to their communities. In terms of educational level, the result showed that most of the adolescents who were in the secondary school category constituted a majority of the study participants were deprived of going to school because their schools were destroyed, their teachers and loved ones were also killed by the herdsmen. Essentially, this finding suggests that majority of the IDPs still had memories of the traumatic events such as the killings, abductions of either their parents or friends, torture, rape of girls and women on their farmlands, by the Fulani herdsmen. This could have triggered the fear of renewed attacks on their communities by the herdsmen.

### 5.1 Study Limitations

There are a number of limitations in this study that need to be acknowledged. First, the study was limited to only one camp out of the two other camps in BarkinLadi local govern area affected by the herdsmen attack. Consequently, this may be very difficult to make a strong generalization about cognitive readiness for community reintegration among IDPs in Nigeria. Secondly, the data for the study was obtained from a small sample size exclusively of the Berom ethnic group in Plateau state north-central Nigeria, hence the need to carry out similar study with a larger sample size is justifiable to provide internal validity of the findings. Thirdly, this study participants were mostly females compared to the male participants. Lastly, study of this nature may require a blend of qualitative research wherein more details on the feelings and experiences of the study participants can be obtained.

### 6.0 CONCLUSIONS

The aftermath of the persistent herder-farmer conflicts in some parts of Nigeria have resulted in people developing mental health adversities notably PTSD, depression, and other related disorders. Findings of this study also revealed that PTSD severity was a significant predictor of IDPs' cognitive readiness to reintegrate into their communities ostensibly because they were exposed to severe traumatic experiences which induced fear, anger, and frustration which eventually dissuaded them from reintegrating to their home areas. Given the externalization of trauma, recovery could still be possible particularly in situations where displacement was due to other factors other than PTSD. For example, if displacement was as a result of natural

disasters and development projects IDPs may still be willing to reintegrate into their communities to re-possess their assets especially land. We therefore advocate that reintegration programs and community based mental health care services including therapy, social and medical support be made available to the affected persons.

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### **7.1 Data Availability Statement**

Data used in this study will be made available upon request provided that the confidentiality of the participants can be protected and legal rights concerning proprietary data do not preclude their release.

### **7.2 Competing Interest**

The authors declare that they have no competing interests.

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