



## **Family Structure and Literacy Level as Correlates of Post-traumatic Stress among Victims of Human Trafficking in Nigeria**

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### **Authors' contributions**

*This work was carried out in collaboration between both authors. Author OAO designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. While author OCE managed the analyses of the study. Both authors read and approved the final manuscript.*

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### **ABSTRACT**

Victims of human trafficking suffer a plethora of psychological problems and it has been one of much deliberation by governments and other human rights organizations. The present study examined the family structure and literacy levels as predictors of Post-Traumatic stress among a group of selected victims of human trafficking. A cross-sectional survey design was adopted in the study. Accidental sampling technique was performed to select seventy-eight (78) victims of human trafficking who were in different zones of the National Agency for Trafficked Persons (NAPTIP). Post-traumatic Stress Scale, developed by Keane et al (1984) was used to gather necessary information for the study with Cronbach's Alpha of .92. Three hypotheses were formulated as well as tested by using Pearson Product Moment Correlation and independent t-test analysis. The results showed that literacy level, [ $r(78) = .24; p > 0.05$ ] and family structure [ $r(78) = .31; p > 0.01$ ] were significantly correlates with Post-Traumatic Stress. Based on the findings, it is recommended

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that National Agency for Trafficked Persons should engage victims into therapeutic and educational programmes and using clinical interventions to help boost self-esteem, self-awareness and psycho-emotional development of these victims to reduce trauma-related problems associated with activities of human trafficking.

*Keywords: Family structure; literacy level and post-traumatic.*

## 1. INTRODUCTION

### 1.1 Background of the Study

A family, made up of people who are related by blood, marriage or adoption, is very important to the Nigerian cultural system. There are two major family structures: the monogamous and polygamous family structures [1]. The monogamous family, also known as nuclear family, comprises of the father, mother and their unmarried children, while the polygamous or extended family structure comprises of a series of nuclear families co-habiting together [2].

The typical Nigerian family structure is based essentially based on the cultures of the family in context, however, most families practice patrilineal descent, having the patriarchal rule of residence and patricentric orientation. This is characterized by males becoming the head of the family, and females play sub-ordinate roles.

World Health Organization [3] defined traumatic stress or as events or situations that are exceptionally threatening or catastrophic, which are likely to cause pervasive distress in almost anyone. The American Psychiatry Association (APA) defined traumatic stressors as events that involve life endangerment, death, or serious injury or threat and are accompanied by feelings of intense fear, horror or helplessness [4].

Epidemiological studies have shown that not everyone exposed to the same extreme stressor develops Post-Traumatic Stress Disorder (PTSD), hence personal predisposition plays a significant role [5]. Studies to identify the mental health consequences of human trafficking in Nigeria, especially with regards to PTSD is found to be the most common psychological disorder, following traumatic experience, are yet to be done. The present study aims to find out if there will be an incidence of PTSD among the victims of human trafficking in Nigeria who are in the National Agency for the Prohibition of Persons (NAPTIP) rehabilitation centres in Enugu Zone (South East), Benin Zone (South-South) and Lagos Zone (South West), and equally establish

if some of the demographic factors might have some influence on its incidence among the victims.

According to Galea et al. [6], traumatic experiences are often relatively common with more than two-thirds of persons in the general population experiencing a significant traumatic event at some point in their lives. Although comparable international data may be limited, it is believed that large proportions of populations in several countries have been exposed to terrorism, forced relocation, violence and disasters (natural and/or human-made including, technological. Following exposure to a traumatic event (e.g. trafficking), some individuals develop symptoms of PTSD that are not sufficient to meet the full diagnostic criteria. This condition has been referred to as partial or sub threshold PTSD or sub-syndromal form of PTSD or posttraumatic stress symptoms (PTSS) (Davinson, Neale, & King, 2004). Partial PTSD may be accompanied by significant occupational and social impairment which is similar to that for PTSD, yet many individuals with partial PTSD remain untreated [7].

Human trafficking has been described as a phenomenon that affects and implicates all regions and most countries of the world [8]; This is now regarded by the world at large as a modern form of slavery (UN, 2001a), and one of the most repulsive and worst violations of human rights [9]. It takes many different forms and is described as dynamic and adaptable; and, like many other forms of criminal activities, it is constantly changing to defeat efforts by law enforcement agencies to prevent it (United Nations Office for Drug and Crime [10].

Human trafficking must be differentiated from the phenomenon of "people smuggling". The latter refers to the services provided to migrants to cross international boundaries illegally and constitutes a crime for both the smuggler and the person smuggled, while there is no violation of the rights of the smuggled individual [11]. Also, smuggling is usually understood as being a crime against the state while trafficking constitutes a crime against an individual person [12].

## 1.2 Statement of Problem

Limited data on human trafficking demonstrates the paucity of reliable data on trafficking across the world, which is explained by the clandestine and illegal nature of trafficking and the reluctance of victims to report their experiences to the authorities, hence it is suspected that accurate statistical data on it is hardly available (International Organization for Migration [13]. However, it is estimated that the number of men, women and children trafficked across international borders is between 600,000 and 800,000 annually [14], with approximately 80 per cent of the trafficked persons being women and girls, and up to 50% are minors, majority of whom are trafficked for commercial sex exploitation. The report equally estimated that the largest number of victims trafficked internationally came from Asia with over 225,000 each year coming from Southeast Asia and over 150,000 from South Asia. The former Soviet Union is reported to have recorded the largest number of trafficking victims for prostitution and the slave industry. Over 75,000 are reported to be from Eastern Europe, with Latin America and the Caribbean having over 100,000 and Africa having at least 50,000.

In Africa, Western, Central, Southern and Eastern African Regions are primarily countries of origin [15], with West African countries, Egypt and South Africa (SA) being the primary countries of destination in Africa with SA as the leader and a well-known transit country where victims are transported from Asia to destinations in Africa and Europe [15]. As the North African States are transit countries for victims moving from Africa to Europe, in West and Central African regions, the flow of trafficking is generally cyclical as all of them serve as origin, transit and destination [15].

IOM [13] estimated that trafficking in human beings is a huge billion-dollar industry worldwide. These figures (~30 to 32 billion US dollars) have been rated as the largest source of profit for organized crime behind international trade in illicit drugs and weapons. Nigeria has been described as a centre of trafficking in human beings especially women and children [10]. The country has become a source, route, transit and destination country for trafficked children and one of the major countries of origin for trafficked women and the only African country with such an unenviable record [10].

On the other hand, the United Nations Children's Education Fund (UNICEF) in 2003 [16], estimated that between 10,000 and 15,000 West African children worked on cocoa plantations in various cocoa farms across Africa and that there were close to 15 million children engaged in child labour in Nigeria. Out of this 15 million, almost 40%, i.e 8 million were at the risk of being trafficked [16]. Sixty-seven children being trafficked from, Niger State to Lagos state via containerized truck for distribution as house helps and street hawkers to various people were intercepted by law enforcement agents [16]. Additionally, 190 Beninos children trafficked into Nigeria were rescued from slave camp in Ogun State and handed over to their country by the Nigeria Police [16]. Furthermore, Morka [16] notes that there has been a significant increase in the activities of internal traffickers ranging from using orphanages as fronts for child trafficking to exploiting the deaf and dumb, using them to beg for alms on major streets or bus stops.

According to Osakwe [17], trafficking from Nigeria is especially well organized, and centers around a female figure called "mama", who plays a pivotal role in persuading young women to leave their homes. Author also notes that victims were recruited using deception, physical threats or payments made to their families. Also, girls have been noted to be particularly easily preferred because they are more marketable, as well as being easily persuaded [17].

Osakwe [18] reported that insourcing for these victims of human trafficking were obtained through trafficking agents, parents, looking for sponsors for their daughters, girls who were looking for sponsors by themselves with or without the knowledge of their family members (mostly from polygamous families), traffickers searching for victims by themselves, and victims that were trafficked by their close friends and relations ranging from brothers, sisters, uncles, aunts, etc., who lived abroad and visited or sent message back home asking for such girls to join them with the hope of better future.

## 1.3 Purpose of the Study

The purpose of the study is to examine how family structure/type and literacy level predicted Post-Traumatic stress among selected victims of human trafficking. However, the specific objectives of the study were as follows:

1. Determine whether family type correlates with Post-Traumatic stress among selected victims of human trafficking.
2. Examine whether literacy level correlates with Post-Traumatic stress among selected victims of human trafficking.

#### 1.4 Literature Review

Learning theorists assume that PTSD arises from classical conditioning of fear [19]. A trafficked victim who has been raped, for example, may come to fear walking in a certain place (conditioned stimulus (CS) because of memories of having been raped in a similar environment (UCS). Based on this classically conditioned fear, avoidance is built up, and they are negatively reinforced by the reduction of fear that comes from not being in the presence of the CS. PTSD is a prime example of the two-factor theory of avoidance learning, proposed years ago by Mowrer in 1947 [20].

Epidemiological studies revealed that traumatic events are mostly common and the rate of exposure to trauma is increasing worldwide [21]. The USA National Comorbidity Survey (NCS) reported a lifetime history of at least one traumatic event for 61% of men and 51% of women, with several individuals (25.50%) experiencing two or more traumas (Stein et al., 1997). The Australian National Survey of mental health and wellbeing also reported a lifetime prevalence of experiencing trauma to be 57% in the general population [22]. Studies from Germany report the rate of experiencing traumatic event among the general population to be within the range of 17.7%- 25.3% [23].

In an international study of trafficked prostituted children and adults, including male prostitutes in five countries, it was found that almost three-fourths of the victims met the diagnostic criteria for PTSD [24]. Again, a multi-country report published in 2003 found that nearly 70% of women trafficked for prostitution that was studied met the criteria for PTSD [25]. In a study of female survivors of human trafficking in Nepal, PTSD was found to be higher in sex workers group (29.6%) than in the non-sex worker's group (7.5%) [26]. Also, in Israel, about 17% of trafficked women (the majority of which were from Moldavia, Ukraine, Russia, and Central Asian Republics of Soviet Union), who had worked as sex workers scored over the cut-off point of measurement for PTSD [26].

#### 1.5 Hypotheses

1. The family structure will significantly correlate with Post-Traumatic Stress Disorder among victims of human trafficking, such that, increase in perceived family structure will significantly led to increase in perceived Post-Traumatic Disorder among selected victims of trafficking in Nigeria.
2. The scores of victims from a monogamous family setting will differ significantly with those from a polygamous family setting on Post- Traumatic Stress Disorder.
3. Victims who are literate will differ significantly with victims who are non-literate on measures of Post-Traumatic Stress Disorder.

### 2. MATERIALS AND METHODS

#### 2.1 Research Design

This study was conducted by using a cross-sectional survey design. Relevant data were collected using standardized self-report questionnaires. The independent variable was Post-Traumatic Stress Disorder (PTSD), and the independent variables were; literacy level and family structure. The variables of this study were not actively manipulated.

#### 2.2 Research Setting

The population for this study was victims of human trafficking in NAPTIP rehabilitation centres from several zones in the country. These zones included; Enugu, Edo, Lagos, Ebonyi, Ogun, Benue, Calabar, Kwara, Imo, Kano, Delta, Anambra and Akwa-Ibom states. However, NAPTIP maintains only one rehabilitation centre in South East, Nigeria located in Enugu. This centre covers 5 states of Enugu, Anambra, Imo, Ebonyi and the Abia States. Again, NAPTIP Benin zonal rehabilitation centre is the only centre in the South-South part of Nigeria, and it covers all the states in the zone viz, Edo, Delta, Bayelsa, Rivers, Cross Rivers and Akwa -Ibom States. More so, NAPTIP Lagos zonal rehabilitation centre is the only rehabilitation centre in the South-West part of Nigeria and it covers for all the states in the zone namely, Lagos, Ogun, Osun, Ekiti, Ondo and Oyo states. The counseling and rehabilitation (C & R) Unit in each NAPTIP zonal offices is in-charge for the rehabilitation of the victims.

## 2.3 Participants

A total of n78 participants were selected through convenience sampling procedure. The participants comprised of 17 victims (all female) from Enugu zone, 12 victims (all female) from Benin zone and 26 victims (2 males and 24 females) from Lagos zone. Their age range varied between 14 to 25 with a mean age of 19.89 and a standard deviation of 2.87. Twenty five (25) victims were from Edo state, 5 each from Ebonyi and Ogun states, 1 each from Benue, Calabar, Kwara, Imo and Kano States, 4 from Lagos State, 6 from Delta State, 3 from Anambra State and 2 from Akwa –Ibom state. Fifty one (51) of the participants were Christians, while the remaining 4 were Muslims. 25 victims (45.5%) were from monogamous family type, while 30 victims (54.5%) were from polygamous family type. 44 victims (80.0%) attended school (4 primary schools, 37 secondary schools and 3 higher institutions) while 11 victims (20.0%) did not attend. 27 victims (49.1%) were trafficked within Nigeria, while 28 victims (50.9%) were trafficked outside Nigeria. 18 victims (32.7%) were trafficked for sexual exploitation, while 37 victims (67.3%) were trafficked for non-sexual exploitation. 24 victims (43.6%) were formerly employed, while 31 victims (56.4%) were formerly unemployed and all the victims were still single.

## 2.4 Instruments

The questionnaire was designed in three sections (A, B, and C). Section A captured demographic data such as age, gender, religious affiliation and family structure/type. Section B comprised items that measured Posttraumatic Stress Disorder. The Keane Posttraumatic Stress Disorder Scale (PKS) developed by Keane, Malloy & Fairbanks, was used to measure PTSD. The instrument is a 46 item inventory which is one of the six additional MMPI-2 supplementary scales. These are scales specially developed by analyzing the content of MMPI-2 items [27] and regrouping them to measure specific personality behavioural characteristics that are distinct from the clinical scales of MMPI-2. The PKS is particularly valuable in distinguishing war veterans with PTSD from those of them with either psychiatric disorder but no PTSD or no disorder at all [28].

The PKS was scored such that, a score of 1 point is given for each expected response. The

following are the expected scores for the items: a.1 point for each “F” shaded/marked in items:1,2,3,14,19,24,26,29. b.1 point for each “T” shaded / marked in the remaining 38 items: 4-13, 15-18, 20-23, 25, 27, 28, 30-46. c. The final score is obtained by adding together the number of “F” and “T” items correctly marked to obtain the total test score for PKS. Separate norm has been reported for male and female Nigerian samples as follows: Males = 14.38, females = 12.44 [29]. In this study, the Nigerian norm for male and female samples was the basis for the interpretation of the scores of the participants. Scores equal to or higher than the norms indicate that the victim manifests PTSD while scores lower than the norm indicates the absence of PTSD.

On PKS, Keane et al. [30] obtained a Cronbach’s Alpha reliability coefficients of 0.50 for men and 0.87 for women and test-retest reliability coefficients of 0.86 for men and 0.89 for women. Keane et al [30] obtained a concurrent validity coefficient of 0.80 by correlating the PKS version of MMPI – 1 with that in MMPI -2. By correlating PKS with SCL -90 Somatization scale [31] and Psychophysiological Symptom Checklist (PSC) [28,29] obtained concurrent validity coefficients of 0.97 and 0.94 respectively.

## 2.5 Procedure

Written approval was obtained from the participating NAPTIP zones and different dates were chosen by the researcher to come to the zones and administer the instruments on the participants. On the said dates, the researcher went to the zones and with the assistance of NAPTIP staff in Counseling & Rehabilitation unit in the zone, created rapport with the victims and was able to explain to the victims how they should respond to the test and to do it honestly. The victims were given a consent form to fill out. The instruments were collected back from each victim the same day by the researcher after he or she completed his or her responses to the test.

## 2.6 Data Analysis

To test the extent and interrelatedness of study variables, hypothesis 1 was tested by using the Pearson Product Moment Correlation (PPMC) and hypotheses 2, and 3 were tested by using the independent t-test. All statistical analyses were carried out using the Statistical Package for Social Sciences (SPSS) version 20.

### 3. RESULTS

#### 3.1 Test of Relationship among the Study Variables

The collected data were analyzed by using Pearson Product Moment Correlation to test the extent and direction of the relationship that exists among the variables of the study. The result is presented in Table 1.

Table 1 indicated that age, [r (78) = 0.17; p > 0.05] had significant relationship on Post-Traumatic stress. However, gender [r (78) = .03; p > 0.05] did not show any significant influence on Post-Traumatic stress, marital status [r (78) = .24; p > 0.05] showed significant influence on Post-Traumatic stress and religious orientation showed significant influence on Post-Traumatic stress [r (78) = .22; p > 0.05].

In addition, Table 1, also showed that literacy level does have a significant influence on Post-Traumatic stress [r (78) = .24; p > 0.05]. This implies that literacy levels increase with Post-Traumatic stress. Family Structure showed significant relationship with Post-Traumatic

stress [r (78) = .31; p < 0.01]. This indicates that victims of trafficking family structure/type influenced Post-Traumatic stress. This result confirmed hypothesis 1. Therefore, hypothesis 1 was accepted.

Hypothesis Two stated that victims from the monogamous family setting will differ significantly with victims from a polygamous family setting on PTSD. Table 2 showed that victims from a monogamous family setting scored mean higher than those from a polygamous family setting, (Monogamous (X) = 23.20, Polygamous (X)= 22.13). However, the observed difference in the mean failure to reach a significant level at t (53)=.57,P>.05, therefore hypothesis two is rejected.

Hypothesis three stated that victims who are literate will differ significantly with victims who are non-literate on measures of PTSD. Table 3 showed that victims who were literate scored a mean higher than those who are non-literate (literate (X) = 22.93, non-literate (X)= 21.36). However, the observed difference in the mean failed to reach a significant level at t(53)=.68, P>.05, hence hypothesis three is rejected.

**Table 1. Correlation Matrix Showing the Mean, SD and Inter-Variable Relationships among Variables of the Study**

| Variables                | Mean  | SD   | 1     | 2     | 3      | 4      | 5   | 6    | 7 |
|--------------------------|-------|------|-------|-------|--------|--------|-----|------|---|
| 1. Age                   | 30.93 | 4.24 | 1     |       |        |        |     |      |   |
| 2. Gender                | -     | -    | .25** | 1     |        |        |     |      |   |
| 3. Marital Status        | -     | -    | .59** | -.06  | 1      |        |     |      |   |
| 4. Religious Orient      | -     | -    | .42** | .06   | -.30** | 1      |     |      |   |
| 5. Literacy Level        | 38.3  | 3.42 | .37** | -.13* | .35**  | -.19** | 1   |      |   |
| 6. Family Structure      | 12.30 | 7.32 | .15   | .07   | .00    | .07    | .02 | 1    |   |
| 7. Post-Traumatic Stress | 80.96 | 4.26 | .178  | .03   | .24    | .22    | .24 | .31* | 1 |

\*\* Religious Orient = Religious Orientation, p < .01, \* p < .05, N=78

**Table 2. Summary Table of Mean, Standard Deviation and t-test on the Family type**

| Source              | Family type | Mean  | Std deviation | N  | t   | df | Sig |
|---------------------|-------------|-------|---------------|----|-----|----|-----|
| Family type on PTSD | Monogamous  | 23.20 | 7.41          | 25 | .57 | 53 | .57 |
|                     | Polygamous  | 22.13 | 6.40          | 30 |     |    |     |

**Table 3. Summary Table of Mean, Standard Deviation and t-test on School Attempt**

| Source                 | Academic Level | Mean  | SD   | N  | T   | Df | Sig |
|------------------------|----------------|-------|------|----|-----|----|-----|
| Academic Level On PTSD | Literate       | 22.93 | 6.81 | 44 | .68 | 53 | .50 |
|                        | Non-Literate   | 21.36 | 7.10 | 11 |     |    |     |

#### 4. DISCUSSION

The consequences of human trafficking to its victims are enormous as it affects their mental health status. Many mental and behavioral disorder have been reported as some of the consequences experienced by victims of human trafficking [11].

This study sought to know if there is the incidence of PTSD among victims of human trafficking in Nigeria who are at various NAPTIP rehabilitation centres in Enugu zone, Benin zone and Lagos zone. Out of 55 participants, 21 (38.18%) (2 males (3.6%) and 19 females (34.5%) achieved scores above the norm on PKS for the diagnoses of PTSD.

To the study results confirm that traumatic experience of human trafficking like other traumatic experiences emanating from a different traumatic event can lead to PTSD as [32] found it to be the most common psychological disorder following traumatic experiences. Also this showed that victims of human trafficking in Nigeria, as reported in various studies of survivors of human trafficking in other countries [24,25,26] suffer from PTSD among other possible mental health disorders which are of no concern to this study. In addition, 34 (61.8%) of the participants achieved scores below the norm and can hold to be free from PTSD as PKS is particularly valuable in distinguishing traumatic events victims with PTSD from those with no PTSD at all [28], or that theirs is on the formation stage.

Some factors, ranging from demographic characteristic to personal psychological factors have been associated with PTSD onset after the disaster. Age as a predictive factor of PTSD onset, severity and prevalence has been recorded. Green et al. [33] endorsed that age of traumatization tends to predispose older victims to PTSD onset than their younger counterparts after a disaster. However, these findings were not supported with the outcome of this study where minors and adults do not have any significant difference in the incidence of PTSD.

This may be due to the differences in age bracket of their study participants as compared with this present study as Maercker et al. [23] noted that the development of PTSD requires a certain maturation of memory organization and arousal modulation, which is not achieved before adolescence and the youngest age group in [33]

study are yet to achieve this, and it tends to explain their observed differences in PTSD symptoms as compared with the adolescent group in the study. No significant difference based on age on the incidence of PTSD among the victims of human trafficking obtained in this study showed that given equal traumatic experience, age does not count to determine who develops PTSD between the minor and adult participants used in this study.

Furthermore, it is assumed that exposure obtained through schooling will equip individuals into fitting in at different levels of job categories in life with academic qualification and as such may place him or her at an advantage over another who do not attempt going to school at all, especially in the society like ours where certificates are taken to be performance ability, which most of the time are not really so. As UNODC [10] equally identified lack of educational opportunities as one of the factors contributing to the crime of human trafficking in West African sub-region, this study made it known that not only that the educated ones were trafficked, more of them were trafficked (44) as compared with their uneducated counterparts (11). More so, this observed differences in schooling was shown to have no influence on the incidence of PTSD among these victims of human trafficking in Nigeria, meaning that whether educated or not, equal exposure to traumatic experience in the course of being trafficked can lead to PTSD onset among the victims with no consideration of one's academic attainment.

The status given to Nigeria as a country of sources and destination for human trafficked victims were confirmed by the study. Two Ghanaians were among the victims used for this study, while so many of the victims trafficked into Nigeria and who are in NAPTIP rehabilitation centres did not participate in the study due to the language barrier. This study equally confirmed the reports that the activities of TIP in Nigeria take place outside and within Nigeria [16,15]. As a country of source, 28 victims among the participants were found to have been trafficked outside Nigeria, and some of them come from states identified by UNICRI / UNODC [34], Nwogu [35], as states where most Nigerian victims of international trafficking are from, namely Edo, Delta, Kwara, Lagos and Kano states and their destinations include Gabon, Burkina Faso, Togo, Niger Republic, Spain and Italy.

The study also confirmed the activities of internal human trafficking in Nigeria as 27 victims among the participants were found to have been trafficked within Nigeria and some of them come from states identified by UNODC, [10] as states where most Nigerian victims of internal trafficking are from, namely Ebonyi, Benue, Ogun, Anambra, Kwara, Imo and Akwa –Ibom states. The trafficked destination of the participants was shown by the study to have no effect on the incidence of PTSD among the victims. This means that the traumatic experiences from being trafficked outside or within Nigeria can cause PTSD onset on the victim with no particular destination (outside or within Nigeria) shown to have more predisposition to PTSD onset since no statistically significant difference on the incidence of PTSD between those trafficked outside Nigeria and those trafficked within was obtained.

Some of these victims of sexual exploitation and non -sexual exploitation may know what awaits them on their destination even before the process of their trafficking begin, especially those of them with dysfunctional attitude to sexual relationship who willingly submitted themselves to be trafficked for sexual exploitation as they consciously choose to do prostitution. Also, Edo State providing for more victims trafficked internationally for sexual exploitation might be explained by the reason of vulnerability of young girls in the state who have those trafficked outside the country for prostitution returning home with the money they made abroad as their role models, and this is equally encouraged by the recognition and respect according to these people by the society, increase in poverty level in the state, the issue of strong mother and weak father, as well as broken homes as Chandra – Mouli [36] suggested.

Tsutsumi et al. [26] also stated that female survivors of human trafficking in Nepal reported that PTSD was found to be higher in sex workers group than in the non-sex worker's group. Again, the idea that those trafficked for sexual exploitation are at greater risk of developing psychological disorders following their being at greater risk of violence and abuse [37] was not supported in the present study as the traumatic experiences obtained from both reasons for trafficking (sexual exploitation and non-sexual exploitation) among the participants makes no one group more vulnerable than the other for incidence of PTSD, as the hypothesis on this was not confirmed.

## 5. CONCLUSION

The study examined the incidence of PTSD among the victims of human trafficking in Nigeria and to know if some demographic factors contribute to this incidence. The participants were made up of fifty-five participants drawn from NAPTIP rehabilitation centres in the South East (Enugu zone), South-South (Benin zone) and South West (Lagos zone) parts of Nigeria. The measure employed in the study include; Posttraumatic Stress Disorder Keane Scale (PKS) [30]. Based on the 2 hypotheses tested it was ascertained through the univariate analysis of variance that none of the hypotheses was found significant. The study recommended, based on the results, theoretical and practical implications aimed at ensuring a guaranteed national development. Also, based on the limitations discovered, several ideas were suggested for future research in clinical psychology and studies on trafficked victims in Nigeria.

## 6. IMPLICATIONS OF THE STUDY

The findings of this study have great implications for NAPTIP as an Agency, government policymakers, victims themselves and the academia at large. Firstly, it provided the Agency with data that victims of human trafficking in their rehabilitation centres do suffer from mental health problems especially PTSD. Secondly, government policymakers should note that the mental health consequences of victims of traumatic events in Nigeria are enormous as this study made it known that PTSD is one of the mental health consequences of an example of such traumatic events in the country. Thirdly, the victims themselves should note that the unusual reactions or behaviours of their fellow victims may be symptoms of mental or behavioural problems where the traumatic experience of trafficking caused and identified PTSD as one of them. Finally, the study serves as a veritable source of literature and data on the incidence of PTSD among the victims of human trafficking in Nigeria which is first of its kind.

## 7. RECOMMENDATION

Firstly, NAPTIP as an Agency should create Clinical Psychology Unit in their Agency who will take the responsibility of providing professional psychological services to the victims since their mental health state should be central for their full rehabilitation. Secondly, government

policymakers should anticipate for this kind of traumatic event in the society and make policies that will tend to protect and provide for them especially as they are being reintegrated back into the society to prevent the possibility of their being re-trafficked.

Finally, sincere and committed efforts should be required towards stopping this kind of trend. Efforts should be more on preventing it by government providing the basic social amenities (e.g. electricity, pipe-borne water, schools, good road, hospital) that encourage self –employment as well as create job opportunities for their people. It is believed that this will go a long way in reducing this menace because poverty seems to be the primary factor encouraging this in the country.

## 8. LIMITATIONS OF THE STUDY

Despite the revelations achieved from the findings of this study, caution in interpreting the result is warranted since there are limitations in the study's findings. First, this study was unable to relatively balance the samples across the independent variables especially those of gender and academic level of the participants. This may have influenced the results thereby making the study's generalization prone to errors. Secondly, the small sample size may have given a wrong conclusion. There is a need to use large sample size and the possible inclusion of qualitative approach such as focused group discussion to understand areas of effect or impact that the victims may have instrument for capture. Finally, the generalization of results across Nigeria may be biased as participants were predominantly from the southern parts of Nigeria in NAPTIP rehabilitation centres in South East, South, South and South-West zones of the country. A wider spread of the sample to include the NAPTIP rehabilitation centres in the Northern zones of the country may make the study more acceptable to the wider generality of Nigeria.

## 9. SUGGESTIONS for FURTHER STUDIES

With increasing interest in the activities of human trafficking in Nigeria, future research on clinical psychology should focus more on its mental health consequences on the victims. This is because it is evident that the mental health status of these victims is pivotal for their full rehabilitation and future life. Also, future studies should try to replicate this study among other victims of traumatic events in the country (e.g.,

victims of the recent different bomb blast in Northern parts of the country) to know if the incidence of PTSD could be found among them. This will inform the plans made to rehabilitate them to equally take care of their mental health state. Finally, future studies should try to find out if there are other mental and behavioural disorders these victims may be having as one of the consequences of their traumatic experiences of being trafficked.

## CONSENT

As per international standard informed and written participant consent has been collected and preserved by the authors.

## ETHICAL APPROVAL

As per international standard ethical permission has been collected and preserved by the author(s).

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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