

Assessment of Post- Traumatic Stress Disorder (PTSD) in Federal Unity Schools, in North East Geo-political Zone - Nigeria

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Abstract: The study assessed the symptom of Post Traumatic Stress Disorder (PTSD) prevailing among Federal unity schools students caused by the traumatic events of BokoHaram insurgency in the Northeast zone States, Nigeria. Determining the percentage of JSSII; SSII students, with the symptom and non- symptom of PTSD, were among the objectives of the study. A survey design was used for the study. The population of the study consist 1250 (600 JSS II and 650 SSII) Students. A sample of 480 (male= 240, and female =240) were randomly selected. A symptom of Post Traumatic Stress Disorder (PTSD) outlined by Costi (2003) was used to develop PTSD Questionnaire. The PTST questionnaire shows strong test-retest reliability (0.88) and internal consistency (Alpha= 0.83). Hypotheses were tested at $\alpha = 0.05$ level of significance. The data were analyzed using frequency count, percentages and Chi-square test. Finding from the study revealed 68.7 % and 20.3 %; 58.8 % and 29.7% as the percentages of JSS II and SSII students with symptom of PTSD and non- symptom of PTSD; there is no significant (Chi-square = 61.216, $p=0.000$) difference in percentages between JSSII and SSII students with symptom and non- symptom of PTSD were among the findings from the study. The recommendation made include school administrators should put in more effort in assisting students to forget the nightmares they have on trauma events emanating from BokoHaram insurgency.

Keywords: Assessment, Post- Traumatic Stress Disorder, Federal Unity Schools, Northeast zone

Introduction

Assessment, as used, is set to provide direction for action for school administrators based on the outcome of the study. The study is significant as it determined the extent to which proportion of Federal Unity School students in the Northeast geo-political zone of Nigeria exposed to traumatic events caused by BokoHaram (Islamic Religious Sect terrorism) insurgency have symptoms of Post Traumatic Stress Disorder (PTSD).

Nigeria is divided into six (North central, Northeast, Northwest, Southeast, Southwest and South-south) Geo-political zones. The Northeast zone comprises of six (Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe) states. In each of the Nigerian State two Federal Unity schools (Federal Government Girls College and Federal Government College) were built, run, finance and supervise by Federal Ministry of Education with Headquarters at Federal Capital Territory, Abuja.

The Northeast zone states had one of the highest rates of reporting lack of safe travelling and barrier to access to school (Jones & Naylor, 2014) as a result of insecurity emanated from BokoHaram. Jones and Naylor reported that from 2013- early 2014 over 53 schools and 1 College were damaged, 30 teachers and around 200 students were killed, 30-40 abducted while thousands were prevented from attending education. Abdullahi and Terhamba (2014) observed that millions of school children in Nigeria Northeast were caught up in a conflict that resulted in insecurity not only to their school attendance but to their lives and property.

The attacks on schools have resulted in all schools being closed in Borno State since 2014 though, few schools reopened in November 2014. (national Human Right, NH update, 2014). These attacks on the innocent school children no doubt traumatizes them. Illechukwu (2014) observed that a traumatized incident can make students suffer both physical and psychological damages which could impair their ability to learn.

Costi (2014) observed that traumatic events are caused by natural (earthquakes, cyclones, floods) or manmade (bombing, shooting, kidnapping and rape) disasters. The impact of the traumatic events leads to symptoms of Posttraumatic Stress Disorder (PTSD).

PTSD is a serious condition some people develop after shocking, terrifying or dangerous event (trauma) either experiencing it or witnessing it (Dersakissin, 2017). Epidemiological studies confirm the PTSD occurs following a wide range of extreme life events, war, rape, bombing, shooting (Keane & Barlow, 2003). The symptoms of PTSD may include flashback, nightmares and severe anxiety as well as uncontrolled thoughts about the event (Sawchuk, 2017). Costi (2001) observed that students suffering from the symptoms of PTSD live in a constant state of fearfulness, reliving the experience over and over again (Costi, 2001) in their daily school

routines(study, play, sleep, relation with colleagues). The student suffering from asymptom of PTSD is characterized by higher level of anxiety, panic and often depression(Keane & Bartow, 2002).

Saigh as cited in Keane and Bartow (2002) examined adolescents during various periods of war stress in Lebanon, reported elevations in anxiety and depression and low levels of assertiveness. Keane and Bartow (2002) observed that when children are exposed to the death and destruction accompanying technological (man-made) and natural disasters, they experience high rates of PTSD. Although literature documented on BokoHaram insurgency in schools in the Northeast States focuses mostly on n the impact of BokoHaram insurgency on education,, Enrolment ,access and learning; Cost on human and educational facilities; impact on teaching force and administration;(Jones & Naylor, 2014; Abdullahi&Terhemba, 2014; Bilyaminu ,Iya&Purokayo, 2017; Isokpan&Durajaye, 2017). These were acknowledged. However, there is need to assess the symptom of PTSD prevailing among Federal unity schools students causedby the traumatic events of BokoHaram insurgency in the Northeast zone States.

In view of this, the study determined the percentage of Federal unity school students with thesymptom of PTSD. Specifically, the study assessed by determines the extent to which students in Federal Unity Schools in the Northeast Geo-political zone of Nigeria posses the symptoms of Post –Traumatic Stress Disorder (PTSD) through determining

- i. Percentage of JSSIIstudents with thesymptom and non- symptom of PTSD.
- ii. Percentage of SSII students with the symptom and non-symptom of PTSD.
- iii. The difference in percentage between JSSII and SSIIstudents with thesymptom and non-symptom of PTSD.
- iv. Percentage of JSSII and SSIIstudents having apanic on attack and suffering from depression.
- v. The difference in percentage between JSSII and SSII students having apanic on attack and suffering from depression.

Hypotheses

The following hypotheses were tested at $\alpha = 0.05$ level of significance.

H₀1: There is no significant differencein percentage between JSSII and SSII students with thesymptom and non-symptom of PTSD.

H₀2: There is no significantdifference in percentage between JSSIIand SSII students havingpanic on attack and suffering from depression.

Methodology

A survey design was used for the study. The population of the study consisted of all Junior Secondary School (JSS II) and Senior Secondary School (SSII) Students in Federal Unity schools in the North-East zone of Nigeria. JSSII and SSII students were chosen as they had trauma experience of bombing and shootings unlike new admitted JSSII and SSI students and currently, are not occupy in preparation of standardized examination like JSSIII and SSIII students. The North –East zone consists of seven (Adamawa,Bauchi, Borno, Gombe, Maiduguri Taraba and Yobe) States; andthree (Borno, Yobe and Bauchi) States were randomly selected (using computer-generatednumbers) for the study. The JSSIIstudent’s population in these states stood at 600students with Mean_{age} = 11 years while the SSII population was 650 students with Mean_{age} = 14 years. A sample of 480(male= 240, and female =240) were selected. The sample was drawn at random from each of the school.

Table 1.Sample size as used in the study.

S t a t e	S c h o o l	JSS II	S S I I	Total
B a u c h i	Federal Government College (FGC) , Azare	4 0	4 0	8 0
	Federal Government Girls College(FGGC), Bauchi	4 0	4 0	8 0
B o r n o	Federal Government College(FGC) , Maiduguri	4 0	4 0	8 0
	Federal Government Girls College(FGGC) ,Mungunu	4 0	4 0	8 0
Y o b e	Federal Government College(FGC) , Buniyadi	4 0	4 0	8 0
	Federal Government Girls College(FGGC) , Potaskum	4 0	4 0	8 0
T o t a l		2 4 0	2 4 0	4 8 0

From Table 1 above,A sample of 240 JSSII and SSII students each were randomly selected for the study. A symptom of Post Traumatic Stress Disorder (PTSD) outlined by Costi (2003) was used to develop PTSD Questionnaire. It is a self-report questionnaire where the subject is expected to give response using five point ratingLikert scale. The PTSD questionnaire consisted of 10 items that seek to determine the symptoms of PTSD among the students.A symptom of PTSD_{Score} was interpreted as the sum score of SA and A percentages,

non - symptom of PTSD_{Score} was interpreted as the sum score of SD and D percentages while percentage score of the Undecided was interpreted as the percentage of students who remains neutral in response to the QT items. These scores (Symptom of PTSD_{Score} or non-symptom of PTSD_{Score}) were interpreted as the percentage of students with either or non- symptom of PTSD. Similarly, the percentage score on fear of panic on attack and depression was interpreted as Panic and depression_{score} as the sum of percentages of SA and A while non- panic on attack and depression was interpreted as an Panic and depression_{score} as the sum of percentages of SD and D. The questionnaire (PTSD) was validated by a senior lecturer from Department of Education Foundations, Faculty of Technology Education, Abubakar Tafawa Balewa University, and Bauchi. At the initial stage, 15 items were formulated, however, the 3 items were dropped retaining to 12 items based on the face validation by the expert. The retained 12 retained items were subjected to pilot testing using 30 JSSII and SSII students each, from Hassan Usman Katsina Unity Secondary school, Bauchi who experienced bomb explosion few meters from their school. The result from the pilot testing analysis shows item 7 and 11 correlated negatively with the remaining items as such the items were dropped retaining 10 items only. The PTST questionnaire shows strong test-retest reliability (0.88) and internal consistency (Alpha= 0.83) as well as sensitivity (0.86), and specificity (0.84) were obtained.

Thirty (10 for each state) Long vocation Training (LVT) 2016/2017 contact students from the Faculty of Technology Education, Abubakar Tafawa Balewa University, Bauchi (ATBU) were used as research assistants for data administration, collection and organization. The ten research assistants were further sub-group into 2 each subgroup covering one Federal Unity School. The research activity was financed by the researcher and voluntarily contribution by LVT 2016/2017 contact students offering the course Research Methods and Statistics.

The data were analyzed using percentage and Chi-square test.

Result

Table1. Responses of JSSII students

S/N	I t e m	S t a t e m e n t	S	A	A	U	D	S	D	Total										
1	I have difficulty falling or staying asleep.		6	9	6	4	2	4	5	1	2	9	2	3	7					
2	I always concentrate on my study.		1	2	6	8	4	1	5	6		6		2	3	7				
3	I am always on the alert.		8	9	7	7	3	3	2	7	1	1	1	2	3	7				
4	I have an exaggerated startle (such as jerking my body nervously) in a very obvious way at the slightest unfamiliar sound		8	2	7	8	2	5	2	8	2	4	2	3	7					
5	I always experience a panic attack in a similar situation or becomes manically at the mention of it or something similar.		6	8	7	8	3	5	3	3	2	3	2	3	7					
6	I am distressed if someone reminded me of the traumatic event of insurgent activity		1	0	2	8	3	1	4	2	1	1	7	2	3	7				
7	I repeatedly put into practice the traumatic experience through play.		5	3	7	2	4	2	4	0	3	0	2	3	7					
8	I have apanic on attack and suffer from depression.		9	9	6	5	2	5	2	4	2	4	2	3	7					
9	I have persistently avoided anything that reminds me of the traumatic event.		9	2	8	9	1	5	2	4	1	7	2	3	7					
10	I experience guilt at not preventing the thing (insurgency) from happening.		6	9	9	0	3	2	1	8	2	2	2	3	7					
	Total		8	4	9	7	8	0	2	6	0	2	7	8	2	0	3	2	3	7
	Percentage		35.8		32.9		11.0		11.7		8.6		100							

Table 1, above shows the responses in percentages of JSSII students with symptom of PTSD=68.7% (SA=35.8,A=32.9), non symptom of PTSD =20.3%(D=11.7,SD=8.6)

Table2. Responses of SSII students

S/N	I t e m	S t a t e m e n t	S	A	A	U	D	S	D	Total						
1	I have difficulty falling or staying asleep.		4	6	5	1	3	7	7	0	3	3	2	3	7	
2	I always concentrate on my study.		1	5	1	5	7	3		2	1	5		2	3	7
3	I am always on the alert.		8	4	4	8	3	2	4	4	2	9	2	3	7	
4	I have an exaggerated startle (such as jerking my body nervously) in a very obvious way at the slightest unfamiliar sound		5	3	8	0	3	7	4	4	2	3	2	3	7	
5	I always experience a panic attack in a similar situation or becomes manically at the mention of it or something similar.		6	4	9	5	2	2	3	5	2	1	2	3	7	
6	I am distressed if someone reminded me of the traumatic event of insurgent activity		6	2	7	2	2	6	5	1	2	6	2	3	7	
7	I repeatedly put into practice the traumatic experience through play.		5	9	5	7	3	2	5	1	3	8	2	3	7	
8	I have a panic on attack and suffer from depression.		6	2	7	0	2	8	1	9	5	8	2	3	7	

9 .	I have persistently avoided anything that reminds me of the traumatic event.	6	0	1	0	7	2	0	2	2	2	8	2	3	7					
10 .	I experience guilt at not preventing the thing (insurgency) from happening.	6	0	5	6	3	6	4	8	3	7	2	3	7						
	Total	7	0	1	6	9	3	2	7	3	4	0	5	2	9	8	2	3	7	0
	Percentage	29.6			29.2			11.5			17.1		12.6			100				

Table 2, above shows the responses in percentages of SSII students with symptom of PTSD =58.8% (SA=29.6,A=29.2), non symptom of PTSD =29.7%(D=17.1,SD=12.6).

Table3. Chi-square test computed on testing H₀₁

	V a l u e	d	f	Asym.sig(2-sided)
Pearson chi-square	61.216^a	4	.	0
Likelihood Ratio	61.488	4	.	0
Linear –by –Linear Association	56.962	1	.	0
N of valid cases	470			

a.0 cells (.0 %) have expected count less than 5. The minimum expected count is 250.50.

Table 3 above shows the result computed on testing H₀₁. From the result Chi-square = 61.216,p=0.000 at α = 0.05 level of significance was obtained.

Table 4. Percentage of students responses to panic attack and suffering from depression

Students Responses	S	A	A	U	D	S	D
JSSII students	6	2	7	0	2	8	1
	26.2 %		29.5 %		11.8 %	8.0%	24.5 %
SSII Students	9	9	6	5	2	5	2
	42.5%		27.4%		10.7%	10.3%	8.6%

Table 4 shows the percentage of JSSII and SSII students’ responses to panic attack and suffering from depression.

Table5. Chi-square test computed on testing H₀₂

	V a l u e	d	f	Asym.sig(2-sided)
Pearson chi-square	27.920^a	4	.	0
Likelihood Ratio	28.808	4	.	0
Linear –by –Linear Association	20.333	1	.	0
N of valid cases	470			

a.0 cells (.0 %) have expected count less than 5. The minimum expected count is 13.62.

Table 5 above, shows Chi square =27.920, p=0.000 at α = 0.05 level of significance.

Findings

- 68.75% of JSS II students have the symptom of PTSD and 20.3 % have no symptom of PTSD.
- 58.8% SSII students have the symptom of PTSD and 29.7% have no symptom of PTSD.
- There is no significant (Chi-square = 61.216,p=0.000) difference in percentages between JSSII and SSII students with symptom and non- symptom of PTSD.
- 55.7 % and 69.9 % of JSS II and SSII students have a panic on attack and suffer from depression.
- There is significant (Chi-square =27.920, p=0.000) difference in percentage between JSSII and SSII students having apanic on attack and suffering from depression.

Discussion

In discussing the result from the study limitation on the percentage of symptoms of PSTD based on gender must be acknowledged.

To achieve objective I, on the percentage of JSSII students with symptom and non symptom of PTSD, result in Table I was used. From the result in Table 1, Symptom of PTSD score =68.75% (SA=35.8%, A=32.9%) and non symptom of PTSD score 20.3% (D= 11.7 %,SD=8.6%). Finding from this revealed that 68.75% of JSII had the symptom of PTSD; 20.3% have no symptom of PTSD while only 11.0 % were neutral on the symptom of PTSD.

Result in Table 2 was used to determine the percentage of SSII students with symptom and non symptom of PTSD. From the result on Table 2, Symptom of PTSD score = 58.8% (SA= 29.6%, A= 29.2%)

and non symptom of PTSD_{score} = 29.7 % (D = 17.1 %, SD = 12.6 %). Finding from this revealed that 58.85% of SSII had the symptom of PTSD; 29.7 % have no symptom of PTSD while only 11.0 % were neutral on the symptom of PTSD. The finding of a higher rate of asymptomatic PTSD_{score} (68.75% for JSII and 58.8%) is in agreement with Keane and Bartow (2002) who reports a higher rate of PTSD among the children and adolescents who were exposed to death that occurred through bombing and shooting.

To determine the difference in percentage between JSSII and SSII students with the symptom and non symptom of PTSD (objective iii) of the study, Hypothesis **H₀₁**, was tested at $\alpha = 0.05$ level of significance. To test **H₀₁** results in Table 1 and Table 2 were used and the result was tabulated in Table 3. From the result on Table 3, Chi-square = 61.216, $p = 0.000$, at $\alpha = 0.05$. Thus, **H₀₁** was rejected at $p < 0.05$. From the result (Table 1 and Table 2), the symptom of PTSD and non-symptom of PTSD between JSSII and SSII students were 68.7 % and 20.3 % and 58.8 % and 29.7% were obtained. However, these differences in percentages were statistically significant (Chi-square = 61.216, $p = 0.000$). at $\alpha = 0.05$ level of significance. Finding from this, revealed that there is a significant difference in percentages between JSSII and SSII students with symptom and non symptom of PTSD.

To achieve objective iii of the study (proportion of students that have a panic on attack and suffer from depression) item 8 on the PTSD questionnaire was used. The result was tabulated in Table 3. From the result in Table 3, Panic and depression_{score} = 55.7 % (SA = 26.2 %, A = 29.5 %) and 69.9 % (SA = 42.5 %, A = 27.4 %) of the JSSII and SSII students, have panic while in panic and depression_{score} = 32.5 % (SD = 24.5 %, D = 8.0 %) and 18.9 % (SD = 8.6 %, D = 10.3 %) for JSSII and SSII students. Finding from this, revealed that 55.7 % and 69.9 % of JSSII and SSII students have a panic on attack and suffer from depression. While 18.9% and 32.5 % of JSSII and SSII students have neither panic on attack nor suffer from depression. The higher proportion (55.7 % and 69.9 %) of JSSII and SSII students having panic on attack and suffer from depression would likely have an impact on students' achievement in school. The finding is in agreement with Saigh as cited in Keane and Barton (2002) who reports high elevation of anxiety and depression among the civilian adolescents in war stress Lebanon.

To achieve objective iv on the difference between JSSII and SSII students having a panic on attack and suffering from depression. The result in Table 4 was used to test the **H₀₂**. The result of testing **H₀₂** was tabulated in Table 5. From the result in Table 5, Chi-square = 27.920, $p = 0.000$ at $\alpha = 0.05$ level of significance. Thus the **H₀₂** was rejected at $p < 0.05$ level of significance. Although the result in Table 3, shows that 55.7 % and 69.9 % of the JSSII and SSII students have panic from attack and suffer from depression while 32.5 % and 18.9 % have neither panic from attack and suffer from depression for JSSII and SSII students. However, these differences in percentages (55.7 % and 69.9 %; 32.5 % and 18.9 %) were statistically significant (Chi-square = 27.920, $p = 0.000$). Finding from this revealed that there is a significant difference in percentage between JSSII and SSII students having a panic on attack and suffering from depression.

Conclusion

The study assessed the extent to which JSSII and SSII students from Federal unity schools in the Northeast geopolitical zone of Nigeria had symptoms associated with PTSD that emanated from the Boko Haram insurgency attacks in schools. The difference in proportion between JSSII and SSII from FGGC and FGC with or non symptom of PTSD and the extent to which the students had a panic on attack and suffer from depression was also assessed. Recommendations were made based on the findings from the study.

Recommendations

- The school administrators (Guidance and counselling, master, form and, year group masters) should put in more effort in assisting students to forget the nightmares they have on trauma events emanating from Boko Haram insurgency
- Guidance and counselling unit of each school to organize counselling program with the aim of minimizing the impact of traumatic events on the student's achievement (Curricular and non Curricular activities) in schools.
- A similar study to be carried out to determine the impact of PTSD on students' performances in Standardized Examination such as West African Senior School Certificate (WASSCE) or the Senior School Certificate Examination (SSCE) as well as the National Examination (NABTEE), conducted by WAEC, NECO and NABTEC respectively.

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