

Influence of Posttraumatic Stress Reactions on Economic Activities of Victims of Cattle Rustling in Zamfara state, Nigeria

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ABSTRACT

The study investigated the influence of psychological aspects of cattle rustling in Zamfara state focusing on posttraumatic reaction and its impact on the need of economic recovery in Nigeria. The objectives of this study were to present a realistic and up-to-date of the influence of posttraumatic disorder on the occupation of victims of cattle rustling, to determine its effects on national economy which might make significant impact on recovering the economy, and to establish the influence of literacy/illiteracy on posttraumatic reaction and occupational participation which could form the basis of efforts to support rehabilitating thousands of victims at different IDPs across the state. Descriptive survey was adopted. Out of 384 participants, 258 (67.2%) males and 126 (32.8%) were females. The instruments used to collect data were Posttraumatic Stress Disorder DSM -5 (a 20-item questionnaire), interview questions and a demographic sheet. Analysis of Variance, Independent t-test, chi-square and Post-Hoc Scheffe's test were the statistical tools used to analyze data. Results of the analysis indicated a significant influence of posttraumatic stress reactions on occupations of victims of cattle rustling in Zamfara state – Nigeria ($p\text{-value}=0.013 < 0.05$ alpha level), the analysis further shows that literacy level influences posttraumatic reactions of victims of cattle rustling as manifested in their occupational status while no mediation effect of gender was found. Some recommendations were made, among which include the need for government to give adequate psychological interventions (through therapy) which will stabilize victims' emotions before material or cash donations

Key Words: Post-traumatic Stress Reaction, Cattle Rustling

INTRODUCTION

In Nigeria, Cattle Rustling has recently become a major threat to internal security across the country. Both local and international media are filled with reports of the dimensions to which cattle rustling has taken as well as the extent of destruction the menace is causing the country. At the psychological level, a large number of people have been disposed of their belongings, and families have been traumatized through rape and kidnapping which has serious psychological trauma (Olaniyan & Yahya; 2016). Economically, it becomes a menace threatening the livelihood of herders, farmers and anyone that relies on livestock production for his survival.

The economic relevance of any conflict has its origin in the motive of the actors involve. Starting as a conflict between herds-men and farmers, the hoodlums have quickly

assumed authority by imposing embargo on farmers. Their excesses imposed serious threat to life and property especially at this hard time of economic recession. The relevance of livestock in the Nigeria's economy has recently gained the attention of Northern governors during the 21st Nigeria's Economic Summit (NESG) to call for the Federal Government intervention. Through the governors' efforts, a military taskforce mobilized was able to degrade the activities of the bandit rustlers and recovered thousands of stolen cattle. This attempt can be applauded but the immediate needs would require understanding and modifying the psychological trauma of victims which if not suppressed could result to weak participation in their respective occupations.

The progressive nature of cattle rustling in the North and its spreading to other parts of Nigeria points to its connectedness to economic gains. This system of exploitation has taken different dimensions starting as communal clashes between farmers and the herds-men and have now emerged new trends and dynamics, leading to commercialization and internalization of the practice which has adverse effects on the economic development of the state.

The magnitude of destruction of human and material resources continue to raise serious suspicion among the people of Zamfara because of how the phenomenon metamorphosed to bloody circumstances that costs over one thousand lives in less than two years. From Linyado village to Guru town attacks, killings of over fifty (50) people in Kizara community, attack on Dansadau, Dangulbi, Rukudawa, and several other communities in Tsafe, Zurmi and Dan-Sadau Emirate councils, residents of Zamfara continue to entertain fear as to whether if these daily attacks will not consume both the economic and social development of the state in the long run (247Ureport, 2016). This has resulted to poverty and negative reaction of people towards their occupation because of the trauma. The concept of 'human capital' as the determinant of economic growth can be best achieved by the development of human behavior which is the heart of psychological propositions. Psychology has an increasingly important role to play in helping to shape the economy by directing and modifying people's behavior toward their occupations. It is in this light that investigating the influence of posttraumatic stress reactions on the economic activities of victims of cattle rustling in Zamfara state becomes necessary.

According to the Marxist theory of Conflict, society finds itself in continues conflict due to competition for limited resources – a situation where the social order is maintained by domination and power rather than consensus and conformity. The Fulani culture has attested to this assertion of Marxist theory of conflict because traditionally to rustle cattle was a sign of testing one's brevity and prowess (Manu, Andu, Tarla & Agharih; 2014). This cultural practice was initially controlled by elders before turning into bloody warfare between various groups or communities. Similarly, the Realistic Conflict Theory (RCT) has explained that the rationale for intergroup hostility can arise as a result of conflicting goals and competition over limited resources. Here exist two opposing goals. The herders' main goal is to satisfy their livestock with available water and access to pasture. On the other hand, the farmer targets bumper harvest. These conflicting goals could result to hostilities among farmers and herds-men thereby triggering war among them.

Mowrer's two-factor theory (1960) has been the most influential in the explanation of the pathological anxiety seen in posttraumatic stress disorder. In this theory (learning theory), fear is acquired through classical conditioning, in which a neutral stimulus is paired with an

aversive stimulus, so that they come to elicit a conditioned fear response. Several theorists invoked this theory to explain the symptoms of posttraumatic stress disorder, such that previously neutral stimuli that was present during the trauma come to elicit anxiety themselves. Through generalization and second-order conditioning, additional stimuli that are associated with either the feared stimuli or neutral stimuli that were present during the trauma also come to evoke fear. Like words, thoughts and images acquire the capacity to cause anxiety. Subsequently, avoidance behavior is established through the process of operant conditioning. In this process, an individual learns to reduce trauma-related anxiety through avoidance of, or escape from, the Condition Stimulus. Escape and avoidance behaviors become established through the process of negative reinforcement, via their predicted capacity to end the aversive fear state. Because avoidance obstructs the realization that the Condition Stimulus has ceased to be followed by the Unconditioned Stimulus, fear is maintained. This theory therefore forms the basis of investigation the variable on posttraumatic stress reaction in this study.

Moreover, the Queer Ladder Theory is also relevant in this study. The theory was influenced by an American sociologist, Daniel Bell (1919-2011), who coined the idea of 'queer ladder' in an attempt to explain the functional significance of organized crime as a desperate tactic for socioeconomic empowerment and social climbing (Okoli, & Okpaleke, 2014). This theoretical perspective has since fertilized into a popular theoretical framework widely used in contemporary crime studies. The basic assumptions of QLT are: organized crime is an instrumental behavior; it is a means to an end; it is an instrument of social climbing and/or socio-economic advancement and or it is a means to accumulate wealth and build power. Thus, these hypotheses have been identified as some of the major factors fuelling farmers-herdsmen conflict in Zamfara state.

METHOD

Participants

Participants were 384 victims of Cattle Rustling (258 males 67.2% and 126 females 32.8%) drawn from Eight (8) Local Government Areas of Zamfara State Nigeria (2017). The affected areas are Gusau, Anka, Bungudu, Birnin Magaji, Maradun, Maru, Shinkafi and Zurmi Local Government Area. This study used purposive sampling technique.

Procedure

This is a descriptive survey. Participants were reached through Zamfara State Emergency Management Agency and their District Heads. Participants were interviewed using structured questionnaire. The questionnaire consists of demographic variables (gender, occupation, occupational status, literacy level, etc.), 23-item Post-traumatic Stress Reaction Inventory DSM-5 (The American Psychiatric Association, 2013) and a 10-item interview questions administered to District Heads and other stakeholders. The scale for victims was anonymous where participants were told the purpose of the study was to understand their wellbeing after the traumatic event(s). There was no treatment; they only reported their demographic characteristics and their feelings.

Materials

The instruments used to collect data were demographic sheet, Post-traumatic Stress Reaction Inventory DSM-5 (The American Psychiatric Association, 2013) and Structured

Interview on Economic Recovery of Victims of Cattle Rustling SIERVCR (Likko, 2017). According to pilot test (conducted in Katsina) results, PTSD inventory has a reliability of .81 while the SIERVCR questions were qualitatively validated by experts and translated into Hausa and Fulfulde by language experts.

RESULTS

The data collected were analyzed by Descriptive statistics, Analysis of Variance (testing hypothesis 1-3) and Chi-square (testing hypothesis 4). The hypotheses tested are:

Ho₁: There is no significant influence of post-traumatic Stress Reactions on the Occupation of victims of Cattle Rustling in Zamfara state.

Ho₂: There is no significant influence of Cattle Rustling on Economic Recovery in Zamfara state – Nigeria.

Ho₃: There is no significant influence of posttraumatic reactions on Occupational Productivity among victims of Cattle Rustling in Zamfara state.

Ho₄: There is no significant influence of literacy/illiteracy on Occupation of Victims of Cattle Rustling in Zamfara state – Nigeria.

Table 1: Distribution of Respondents by District

District	Frequency	Percentage %
Gusau	48	12.5
Anka	48	12.5
Bungudu	48	12.5
Birnin-Magaji	48	12.5
Maradun	48	12.5
Maru	48	12.5
Shinkafi	48	12.5
Zurmi	48	12.5
Total	384	100.0

The table shows that the respondents were sampled from 8 districts of Zamfara state as presented above. Each district has 48 respondents representing 12.5% and the total respondents are 384. These districts sampled are Gusau, Anka, Bungundu, Birnin-Magaji, Maradun, Maru, Shinkafi and Zurmi indicating an equal percentage drawn from each district.

Table 2: Distribution of Respondents by their Occupations

Occupation	Frequency	Percentage %
Animal Rearing	179	46.6
Farming	131	34.1
Trading	74	19.3
Total	384	100.0

Table 3 above showed the respondents' occupation. It showed that 179 (46.6%) of them were animal rearing, while 131 (34.1%) were into farming and the rest 74 (19.3%) were traders.

Table 3: Distribution of Respondents by Occupational Status after Traumatic Event

Occupational Status	Frequency	Percentage %
As Usual	44	11.5
Reduced	228	59.4
Stopped	112	29.2
Total	384	100.0

On the present status of their occupation after the traumatic events, data above showed that only 44 victims of cattle rustling had their occupation continued as usual, while the productivity of 228 victims representing 59.4% reduced and the rest 112 (28.2%) said their occupation stopped completely as a result of the incidence. This suggests that there is about 89.5% effect of cattle rustling on the economy of individuals affected.

Table 4a: Analysis of Variance on the Influence Post-traumatic Stress Reaction on the Occupation of Victims of Cattle Rustling

Source	SS	Df	MS	F	Sig.
Between Groups	418.485	2	209.243	4.362	0.13
Within Groups	18275.348	381	47.967		
Total	18693.833	383			

Table 4b: Distribution of Responses on the influence of Occupation on Post-traumatic Stress Reactions of Victims of Cattle Rustling in Zamfara State

Measure	N	Mean	SD
Animal Rearing	179	57.81	7.96
Farming	131	59.96	6.02
Trading	74	57.66	5.58
Total	384	58.52	6.98

Table 4c Post Hoc Scheffe's test mean comparison of Post-traumatic Reaction on Victims Occupation

Occupation	N	Subset for alpha = 0.05	
		1	2
Trading	74	57.6622	
Animal Rearing	179		57.8156
Farming	131		59.9695
Sig.			.068

From the above tables of Analysis of Variance, descriptive and Scheffe's Post Hoc tests statistics, it is obvious that the Post-Traumatic stress reaction is significantly influenced the occupation of the victims of cattle rustling in Zamfara state. Reasons being that in the Analysis of Variances statistic, the calculated p-value of 0.013 is lower than the 0.05 alpha level of significance and the computed F value of 4.362 is higher than the 2.60 F critical value. In the descriptive statistics also, their computed mean Post traumatic stress reactions on the basis of

their occupation were 57.8156, 59.9695 and 57.6622 by Animal Rearing, farming and trading respectively. By contrast, the farmers' post-traumatic reactions is relatively higher ($x=59.9695$) regardless of whether the effect was significant or insignificant.

The Post Hoc Scheffe's tests showed that the mean score of traders was placed in the least subset 1 while that of Animal rearing and farmers were placed in the significantly higher subset 2., implying that animal rearers and farmers had significantly higher post-traumatic stress reactions than their traders counterparts. Thus, this is compelling support for an influence of post-traumatic stress reaction on occupation of victims of cattle rustling in Zamfara state. Therefore, the null hypothesis which states that there is no significant influence of Post-Traumatic stress reactions on the occupation of victims of cattle rustling in Zamfara state, is hereby rejected.

Table 5: Distribution of Stake-holders view on the Influence of Cattle Rustling on the Economic Recovery

Response	Frequency	Percentage %
Yes	18	75.0
No	6	25.0
Total	24	100.0

The outcome of the frequency table above, suggests that cattle rustling has significant effect on National Economic recovery. This is because an overwhelming majority of the respondents numbering 18 which represents 75.0% believed that cattle rustling has significant effect on National Economic recovery, while only 6 which represents 25.0% think otherwise.

Table 6a: Analysis of variances statistics on the level of Post traumatic conditions on victims' occupational status after the incidence

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	351.824	2	175.912	3.654	.027
Within Groups	18342.708	381	48.142		
Total	18693.833	383			

Table 6b: Descriptive Responses on Post-traumatic condition on the basis of Victims' Occupational Status after the Incidence

Measure	N	Mean	SD
As Usual	44	57.29	6.83
Reduced	228	58.74	6.38
Stopped	112	60.50	7.99
Total	384	58.52	6.98

Table 6b: Descriptive Responses on Post-traumatic condition on the basis of Victims' Occupational Status after the Incidence

Level of Productivity	N	Subset for alpha = 0.05	
		1	2
Stopped	112		60.5000
Reduced	228		58.7412
As Usual	44	57.2949	
Sig.		.406	.264

Means for groups in homogeneous subsets are displayed.

Results emanating from the above Analysis of variance (Table 6a), descriptive statistics (Table 6b) and Post Hoc Scheffe's test statistics (Table 6c); all showed that significant differences exist on victims Post-traumatic conditions on the basis of their occupational status after the incidence. Reasons being that in the Analysis of variance statistics table, the calculated p value of 0.027 is lower than the 0.05 alpha level of significance while the computed F value of 3.654 is greater than the 2.60 F critical value, The descriptive statistics table showed that the victims mean post traumatic reactions are 57.2946, 58.7412 and 60.5000 by victims whose occupational status after the incidences are As usual, reduced and stopped respectively. The Post Hoc Scheffe's multiple mean comparisons showed that victims whose occupational status after the incidence continue as usual have the least post-traumatic reactions while those who has their businesses stopped or decreased have the significantly higher level post traumatic reactions. Therefore the null hypothesis which state that there is no significant differences in the Post traumatic conditions on the basis of their occupational status after the incidence, is hereby rejected.

Table 7: Chi-square Analysis of the influence of Educational Qualification on Occupational Status of Victims of Cattle Rustling

	Value	Df	Sig
Pearson Chi-Square	12.680 ^a	6	.045
Likelihood Ratio	11.768	6	.067
Linear-by-Linear Association	1.389	1	.239
N of Cases	384		

1 cells (8.3%) have expected count less than 5. The minimum expected count is 3.67.

As described in the table above, literacy/illiteracy level has significant influence on occupational participation or occupational status of victims because of the data from chi-square analysis. Thus, the calculated p-value of 0.000 is lower than the 0.05 alpha level of significance and the computed chi-square value of 12.680 is higher than the chi-square critical (table value) of 12.592 at df 6.

In the cross tabulation statistics it was discovered that majority of the no educated and primary school education level victims had their businesses stopped drastically or sharply reduced after the incidence while most of those with secondary or tertiary education still continued their businesses as usual after the incidence. By implication, education has

significant effect on national economic recovery. Thus, the null hypothesis that states that there is no significant influence of literacy/illiteracy on Occupation of Victims of Cattle Rustling in Zamfara state is rejected.

DISCUSSION

The aim of the present study was to explore how economic activities of victims of cattle rustling and the quest for economic recovery are influenced by their posttraumatic stress reactions. This section therefore discusses the findings of the study. In terms of the hypothesis tested in this study, results revealed a statistically significant influence of posttraumatic stress reactions on occupations of victims of cattle rustling in zamfara state – Nigeria ($p\text{-value}=0.013 < 0.05$ alpha level, $F\text{-value} = 4.362 > 2.60$ F-critical). This suggests that the level of the trauma experienced by victims has lasted for a long time influencing their day to day businesses of animal rearing, farming and trading. In other words having higher level of posttraumatic reactions could deter victims from engaging in their respective occupations. While several theorists like Marxist theory of conflict, Realistic conflict theory, etc have paid much attention about the economic reasons behind the conflict, the present study looked at the extent to which psychological wellbeing of the victims influence their economy. The results obtained from the analysis is in consonant with the previous findings of Jarl et al (2015) that communities affected by trauma continue to lag behind its neighbors in economic outcomes. As seen in the literature review as well as the data analysis, higher rates of posttraumatic reactions was found among farmers compared to animal rearers and traders. Trauma exposure that is related to cattle rustling including exposure to physical destruction of their farms and violence on any farmer sighted may influence higher degree of posttraumatic reactions. The attachment a farmer has to his land especially the fertile one cannot be estimated.

The results of this study signify the importance of addressing the menace of cattle rustling in Zamfara state where the findings indicate how trauma becomes an impediment towards National Economic recovery. The findings are in line with the previous studies of Hendrickson and Mearns (1996), Cheserek, et al (2014), etc. Using simple percentage, the result indicates that a direct significant influence (75%) of posttraumatic reactions hinders commerce and economic investments. Farming, rearing animals, buying and selling have become difficult in the areas affected. This coincides with the literature that high exposure level could lead to increased psychological problems such as anxiety, avoidance and somatic pain. Similarly, the results have shown existence of strong influence of literacy/illiteracy on victims' posttraumatic stress reactions. This result differed in the assertion of Rozario, Baroi and Shaheen (2017) that Educational level has no significant impact on posttraumatic stress reactions of victims. Here, the results further stressed the importance of education to human psychological make-up. As indicated in the analysis, with or without any intervention, victims with lower or no education experienced the severity of traumatic events implying that the higher the educational qualification, the higher one is likely going to cope with the situation. Regarding the influence of literacy/illiteracy on victims' occupation, the results showed an existence of a significant influence. As was expected and found in previous research there was a significant influence of educational level on the economic activities of victims after the traumatic experience. Literally this result provides support that education is a breakthrough in all aspects of life because it has significant effect on the quest for economic recovery. The

findings further suggest that education is an instrument to be used in addressing economic problems in Zamfara state and Nigeria at large.

This study shows that posttraumatic stress reaction influence victims' productivity. This in line with the literature where Boscarino, Adams, and Figley, (2006) suggest that exposure to traumatic events is associated with high productivity loss at baseline, but consistently at follow-up. As explained in the data analysis section, experiencing negative life events results to workdays lost and lower quality workdays and the posttraumatic stress reactions is associated with lower quality workdays. As seen in the three categories, the highest reactions resulted in the reduction and stoppage of workdays as well as production while the few victims that continued with their normal businesses had little or close to zero level of posttraumatic reactions. It is important to deduce here that for an economy to thrive, the psychological wellbeing of individuals is required. And where the wellbeing is challenged, an immediate intervention must be put in place to adjust such individuals affected.

Furthermore, prior writings have suggested a number of solutions regarding the problem of cattle rustling in Zamfara state. However, majority of such suggestions were based on political and economic theories without any empirical support. The present study has sought out the opinions of stakeholders on possible ways of addressing the menace. 50% believed that increasing the presence of security personnel and recruiting vigilante group members should be the first measure. Equally important is the need for arresting and punishing offenders which was represented by 37.5%. It was also observed that a number of cattle rustlers were engaged by the military and some were arrested. Failure to arraign these people in court and punish them accordingly has given out a signal that terrorizing people could go unpunished. Also, 12.5% (of stakeholders) believe that fighting corruption of any form from the side of government officials, traditional institutions and law enforcement agencies must be ensured. The researchers also pointed out that apart from the aforementioned measures, sustainable programmes must be initiated to address victims' psychological needs and adjustment so that they can begin to heal and return to the journey of joyful living. At the local level, the stakeholders have identified the role of the police force as crucial. A reasonable 75% of the opinions stressed the need for providing adequate number of policemen in the trouble areas who are to work hand in hand with district heads and religious leaders. The need for community policing was another important idea representing 25% of the responses.

CONCLUSION

The results of the present investigation indicate that posttraumatic stress reactions do influence the occupation as well as the occupational status of victims of cattle rustling by reducing their productivity. At the time of the present investigation, the scores of victims on PTSD was still very high. The behavioral symptoms that accompany PTSD have less impact on educated victims which further highlight the importance of literacy in human normal and abnormal behavior. There is a greater chance for Zamfara state and other states in Nigeria to revive victims' economy through psychological rehabilitation of victims of cattle rustling.

RECOMMENDATIONS

Following the above findings, it is recommended that the economic status of victims should be looked into by government at all levels through job creation. It is also

recommended that the victims of posttraumatic events such as cattle rustling should undergo psychological rehabilitation before any financial or material compensation. There is the need for government to adopt new methods and strategies that will be friendlier in handling emergency situations involving human lives and occupation so that significant contributions to the GDP could be sustained. Since it is found that literacy level absorbs shock from traumatic experience, herders, farmers and traders with no education qualification should be encouraged and sponsored to become literate.

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