Factors which predict violence victimization in Nigeria

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ABSTRACT

Background: Violence is a major public health issue, globally as well as in the African continent. This paper looks at Nigeria and begins the process of identifying the factors that predict interpersonal violence in that country. The purpose is to interpret the implications of the results presented here for violence prevention programmes in Nigeria. **Materials and Methods**: The study is based on the responses of 2324 Nigerians included in Round Four of the Afrobarometer surveys. The study concentrates on 579 respondents who reported either they or someone else in their family had been the victim of violence, defined as being physically attacked, in the past year. **Results:** A logistical regression analysis revealed five significant factors that predicted interpersonal violence: being the victim of a property crime, the fear of crime, the respondents faith, whethera police station was in the local area and poverty. The findings revealed that 43.7% of the sample had been victimised within the past year and 18.8% had been the victim of both violent and property crimes. One surprising findingwas the number of respondents who were re-victimised; 75% of violence victims also had been property crime victims. **Conclusions:** These findings suggest that target hardening should be the basis to plan, implement and evaluate violence prevention programmes in Nigeria. Prevention personnel and/or law enforcement need to respond to reported incidents of property and/or violence victimisation and attempt to prepare victims to protect both their premises and their persons in the future.

Key words: Fear of crime, property crime victimisation, re-victimisation, target hardening, violence, violence prevention, violent crime victimisation

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INTRODUCTION

In 1996, the World Health Organisation (WHO) declared violence a major public health problem,[1] in 2000, WHO created the Department for Injuries and Violence Prevention[2] and in 2002, WHO released the World Report on Violence and Health.[3] Violence was included in the call for improved research that highlighted public health's need to address data collection deficiencies, including hospital and police records, in order to begin to develop preventive interventions, including injury control programmes. Violence is a major societal problem in Nigeria and the majority of the research concerned with violence in Nigeria has recently concentrated on domestic[4] and youth violence.[5] Conflicts in Nigeria are often seen due to ethnic, regional and religious factors, rooted in largely territorial identities.[6]

This paper responds to increasing calls to develop violence prevention programmes heard at the country, continental and international levels, as well as the concomitant need to begin to develop violence prevention programmes.[7] One approach that has gained some support in Africa, and elsewhere, is called target hardening and is derived from what is known as the built environment framework.[8] Elements in the built environment include homes, schools, workplaces, parks/recreation areas, business areas and roads. It encompasses all buildings, spaces and products that are created or modified by people. This approach endorses a crime prevention approach called crime prevention through environmental design (CPTED), and target hardening falls under that rubric. Research in this tradition has focused mainly on housing, transportation and neighbourhood characteristics,[9] emphasising improved protection of self, property and neighbourhood,[10] as well as in areas like counties in the US.[11] Inadequate urban planning has been identified as a major source of problems in those areas, and some studies indicate that the impact of mediating and moderating factors within the built environment must be the focus of future health research.[12]

Nigeria does not have a comprehensive national injury data base, but it does have a national crime victimisation

survey, which provides some baseline for this study. First conducted in 2005[13] and again in 2006, 2007, 2009, 2010 and most recently in 2012, the survey study population includes all adult Nigerian males and females aged 18 years and older. Data collection consists of face-to-face personal interviews utilising a stratified multi-stage representative sample random selection process designed to generate a nationally representative sample.

The 2012 survey[14] had a sample of 11,518 respondents, with over 70% aged 35 years or younger, about 60% Christian, and equal numbers of males and females. The interviews were conducted in five languages, English, Pidgin English, Hausa, Igbo and Yoruba. The crime survey asked victimisation questions at two levels in households. One question asked 'whether any member of your household other than yourself suffered any of the following crimes?' Another question asked about their personal victimisation. A list of possible victimisations, crimes, was presented to respondents for both questions. The most common form of victimisation suffered by household members was thefts of mobile phones, theft of money, domestic violence, physical assault, burglary and robbery. The question about personal victimisation presented similar results, mobile phones, physical assault, theft of money, domestic violence and robbery. Almost one-third of the Nigerian respondents indicated that they had been a victim of crime in 2012.

The survey findings[15] revealed that respondents had adopted several methods to enhance their safety. The measures used by the respondents included physical target hardening such as installing locks, erecting barriers, fences and electronic monitoring at home (44.7%). It also included installation of security gadgets in cars (10.5%) and acquisition of firearms (4.2%). Victimisation levels varied greatly in certain states in Nigeria and by gender in those states. Only oneinfive victims reported their victimisation to the police, and trust in public agencies, like the police, was found to be very low.

The study recommendations dealt with the need to develop and implement national policies that addresses social, political and economic sources of crime, disorder, insurgency and terrorism in the country. Recommendations that dealt with corruption, improved data collection and fear of crime were also included in the report. The call was for the government to sustain an annual crime and victimisation survey, as well to create a system to disseminate results. This paper looks at an alternate victimisation source for Nigeria, one that is on-going, and possibly can be used to supplement current victimisation studies in Nigeria.

MATERIALS AND METHODS

The study's data source was Afrobarometer, a collaborative research effort produced by social scientists from 20 African countries. The project's objectives are as follows: (1) to produce scientifically reliable data on public opinion in sub-Saharan Africa; (2) to strengthen institutional capacity for survey research in Africa and (3) to broadly disseminate and apply survey results. Begun in 1999, five rounds of the survey have been completed; Nigeria was included in all five waves, as well as two other country-specificsurveys. The most recent survey was conducted in 2011, and will be available at the end of 2013. The last available wave was conducted in 2008 and those data provide the basis for this paper.

The survey consisted of face-to-face interviews completed by 2323 persons and who were aged 18 years or older. These interviews were conducted in five different languages. The sampling frame included all 36 Nigerian states, and the final sample supports estimates to the national population of all adults in Nigeria that is accurate to within a margin of error of plus or minus two percentage points at a confidence level of 95%. The sampling procedures used in all of the Afrobarometer surveys are explained in detail in Bratton et al.[16]

Survey respondents were asked about criminal victimisation. One question asked 'over the past year, how often, if ever, have you or anyone in your family been physically attacked?' Fixed responses were provided as follows: never, just once or twice, several times, many times and always. The study's dependent variable was created by treating never as one category (0) and all other affirmative responses were coded as one (1). This dichotomous variable is the study's dependent variable and provides the basis for the logistic regression presented below.

A poverty scale used in the Afrobarometer studies was adopted from Mattes et al. (2002)[17], factor scaled and scale scores were calculated and assigned to each respondent. The question generated the scale was 'over the past year, how often, if ever, have you or anyone in your family gone without the following'; enough food to eat, enough clean water for home use, without medical care, enough fuel to cook your food, and a cash income? Fixed responses were provided as follows: This scale's reliability co-efficient was 0.83 (Cronbach's Alpha). The control variables listed in Table 1 were measured by a single item, like age, and others were collapsed into fewer categories; for instance race, which became a dichotomous variable, Black Africans and all others education was reduced to five categories, by combining no school, informal only and some primary. Other variables were also measured by single items, including the fear of crime and property crime victimisation. Others, for instance, the presence of a police station in the respondent's local area, whether police were visible in the local area, and whether the electricity grid was available in the respondent's local area were recorded

by the interviewer and supplemented/checked by the interviewer's supervisor.

RESULTS

The sample social and demographic characteristics are displayed in Table 1, broken-down by whether respondents were or were not victims of physical violence within the last year. Note that there is no variation by race because all of the respondents were classified as Black Africans

Table 1 shows that there was no statistical significance between being a victim of violent crime and age, gender and place of residence, urban or rural. There were statistically significantdifferences in violence victimisation by educational level, faith and employment status. Those with higher levels of education were only slightly more likely to be victims of violence. Christians were also more likely to be violence victims, as were those employed part time.

In Table 2, violence victimisation in the past year is displayed for selected independent variables. These items begin with fear of crime, and include faith, the presence of a police station or whether police were visible in the area, residential crowding and whether the area is included in the electricity grid. The last three measures are derived from observations made by the interviewer and verified by the field supervisor.

Table 2 reveals that all of the measures included in Table 2, except residential crowding, reached statistical significance. Fear of crime and residential crowding are both related to violence victimisation at the 0.000 level. Of those who reported that they were afraid of crime, 397 had also been violent crime victims, a finding addressed further below. Christians were more likely to be victims of violent crime than Muslims, 29.7% compared with 17.8%. The percentage of respondents reporting violence events was higher in areas that contained a police station, 30.6% compared with 19.8%. The same was true for areas where police were visible in the area, 29.6% compared with 19.5%. Lighting is an important concern to the built environment approach and the presence of the electricity grid was also included in Table 2. This measure was also significantly related to violence, at the 0.002 level. This result must be looked at with great caution because most respondents were on the electricity grid and only 185 respondents included in Table 2 were not on the electric grid.

The next step in the analysis was to conduct a logistical regression and the results from that procedure are presented in Table 3, with violence victimisation the dependent variable.

Table 1: Demographic characteristics of the Nigerian sample broken down by violence victimisation (N = 2324)

| Variable | Victim of violent crime | | | |
	Yes	No	Total	P. Age (years)
18-29	331 (26.1)	939 (73.9)	1270	0.38
30-49	199 (24.2)	622 (75.8)	821	
50 and over	46 (22.1)	162 (77.9)	208	
Gender				
Male	229 (19.1)	971 (80.9)	1200	0.54
Female	191 (15.9)	1 009 (84.1)	1200	
Education				
No formal/informal schooling only	51 (17.8)	236 (82.2)	287	0.01
Some/primary school completed	72 (22.3)	251 (77.7)	323	
Some/completed high school	287 (27.1)	772 (72.9)	1059	
Post-secondary/qualifications	130 (27.1)	349 (72.9)	479	
Completed university/grad school	38 (24.5)	117 (75.5)	155	
Faith				
Christian	407 (29.7)	963 (70.3)	1 370	0.000
Muslim	155 (18.5)	717 (82.2)	872	
Residence				
Urban	275 (24.1)	865 (75.9)	1 140	.29
Rural	304 (26.1)	863 (74.0)	167	
Employment				
Unemployed	266 (23.6)	860 (76.4)	1 126	.001
Employed part-time	171 (31.0)	380 (69.0)	551	
Employed full-time	136 (22.4)	471 (77.6)	607	

Table 2: Cross-tabulation of violence victimisation and selected independent variables

| Variable | Victim of violent crime | | | |
	Yes	No	Total	P value
Fear of crime				
Yes	397 (46.8)	452 (53.2)	849	0.000
No	174 (12.0)	1271 (88.0)	1445	
Trust in the police				
No	268 (26.1)	760 (73.9)	1028	0.19
Yes	287 (23.7)	925 (76.3)	1212	
Police station in area				
Yes	344 (30.6)	780 (69.4)	1124	0.000
No	228 (19.8)	925 (80.2)	1153	
Police visible in area				
Yes	54 (29.6)	42 (70.4)	1196	0.000
No	209 (19.5)	862 (80.5)	1071	
Residential crowding				
One or two adults	332 (23.7)	1068 (76.3)	1400	0.12
Three or four adults	211 (27.8)	549 (72.2)	760	
Five or more adults	36 (24.5)	111 (54.5)	147	
Electricity grid in the area				
Yes	533 (26.1)	1510 (82.3)	2175	0.002
No	46 (17.4)	218 (82.6)	264	

Table 3 reveals that five variables reached significance in the logistical regression analysis. All of these were highly significant, with property crime victimisation the strongest, z = 13.71. Fear of crime was the second strongest, z = 8.04, followed by the faith measure, z = -3.93. Two other measures were significant, the presence of a police station in the area, z = 2.87 and the poverty measure, z = 2.44, whether soldiers were visible in the area just fell short of significance, z = 1.87; faith and poverty were the two social-demographic measure to reach significance. Table 3 shows that of the measures related to the police onlythe presence of a police station reached significance. The logistical regression produced a pseudo R2 of 0.24. The surprising findingin Table 3 was the strength of the property crime victimisation measure in the regression equation.

Because of the results in Table 3, Table 4 takes a closer look at the violence and property crime measures where property and violent crime victimisation are cross-tabulated.

Table 4 reveals that about half of those who were victims of property crime were also victims of violent crime, 50.5%. Overall, 43.7% of the sample had been victimised, 1007 of 2306 respondents. What is of interest is that 438 of 578 identified violence victims were also victims of property crimes (75.8%). This fact points to the need to begin to start thinking about the multiple/re-victimisation of these Nigerian respondents. Remember that in Table 2, there were 397 respondents that indicated they had fear of crime, 46.8%, who were also victims of violent crime. Table 4 reinforces the suggestion that re-victimisation is an important ingredient in crime prevention in Nigeria.[18]

DISCUSSION

Before we discuss the implication of these findings, it should be noted that the results of the findings presented in Tables 2 and 4 point to one of the weaknesses in this study, and a requirement for future research. There is the need to establish the time priority for the physical and property crime victimisation. We are unable to determine from this data which victimisation occurred first or if they occurred at the same time; that is the old problem that correlation does not necessarily mean causation. This same caution applies to the fear of crime indicator. The question is whether these respondents did have a valid reason to fear crime, because a large percentage of them had in fact been victims of crime.

The logistical regression analysis showed that there were five highly significant factors that predicted violence in Nigeria. Being a victim of property crime was the strongest, fear of crime was the second strongest, followed by the faith measure (particularly being a Christian), the presence of a police station in the area, and the poverty measure; whether soldiers were visible in the area just fell short of significance. This issue is central to possible crime prevention programmes in Nigeria, especially because these findings suggest that the target hardening should be the basis to begin to implement violence prevention programmes. This means crime prevention/law enforcement personnel would respond and follow-up incidents of reported property and/or violence victimisation in their jurisdictions. The purpose would be to attempt to prepare and assist victims to better protect both their premises and their persons. Target hardening refers to issues like improving locks, installing proper night lighting and clearing bushes from in front of their windows that might impede visibility of their property and neighbourhoods. Personal experience with target hardening programmes suggests that residents become open to target hardening approaches, and personnel, once they have been victimised. Also, once victimised, residents can be encouraged to develop local neighbourhood groups that provide security for them and those in their own communities.

Table 3: Logistic regression: Violent crime victimisation

Variable	Co-efficient	Standard error	z	P
Property crime victim	1.78	0.130	13.71	0.000
Fear of crime	1.04	0.129	8.04	0.000
Faith	-0.56	0.142	-.393	0.000
Police station in area	0.43	0.151	2.87	0.004
Poverty	0.03	0.012	2.44	0.015
Soldiers visible in area	0.33	0.174	1.87	0.06
Trust the police	-0.20	0.123	-1.58	0.11
Employment	0.03	0.075	0.38	0.70
Education	-0.03	0.067	-0.39	0.70
Urban–rural	0.15	0.094	1.58	0.11
Electric grid in area	0.34	0.211	1.59	0.11
Police visible in area	0.08	0.16	0.47	0.64
Age	0.001	0.001	0.78	0.44
Gender	0.034	0.123	-0.29	0.79
Residential crowding	0.123	0.10	1.23	0.22

Number of observations 2081; Chi-square – 566.39; Probability – 0.0000; Pseudo R2 – 0.2

Table 4: Cross-tabulation of property and violent crime victimisation

Victim of property crime	Victim of violent crime		Total
	Yes	No	
Yes	438 (50.5)	429 (49.5)	867
No	140 (9.7)	1299 (90.3)	1439
Total	578	1728	2306

Yate's chi-square – 479.27; P = 0.000

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