

Factors which Predict Violence Victimization in Tanzania

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Abstract

Background: This paper examines the predictors of interpersonal violence in Tanzania. The purpose is to identify those factors and then to interpret the implications of the study's results for violence prevention programs in that country. **Materials and Methods:** The study includes the responses of 2 386 Tanzanians collected in 2014 by the Sixth Round of the Afro barometer surveys. The study concentrates on 135 respondents who reported either they or someone else in their family had been the victim of violence, defined as being physically attacked in their home, within the last year. **Results:** the surprising finding was that 112 of the 135 violence victims had also been property crime victims (83 percent). Logistical regression analysis identified three factors which predicted respondent victimization. In order of their strength these were being the victim of a property crime, fear of crime in the home, and the respondent's perceptions about police corruption. The logistic regression produced Pseudo R² of .35. **Conclusions:** Re-victimization appears central to interpersonal violent crime in Tanzania. These findings suggest that target hardening should be the framework used to begin to plan, implement and evaluate violence prevention programs in Tanzania.

Keywords: Crimes of violence, property crime, crime prevention programs, fear of crime in the home, and walking.

Introduction

In 1996, the World Health Organization (WHO) declared violence a major public health problem, in 2000, WHO created the Department for Injuries and Violence Prevention, and in 2002, released the World Report on Violence and Health. 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 programs.

Violence has become a major societal problem in Tanzania, which is rated 16th worst in the world in violence deaths and violence as the cause of death ranks 9th. in the country. The majority of the research concerned with violence in Tanzania has most recently concentrated on HIV, domestic violence as well as youth violence. Based on 1998 data, an article showed that injuries rated as the third leading cause of death in Tanzania, and stressed the need for improved injury record keeping. A 2002 household survey of 8 188 respondents in Dares Salaam was designed to understand the factors associated with nonfatal injuries. The results showed that gender, (males), rural residence and age were related to certain kinds of injuries. A study published in 2012 reported on 1642 patients who appeared with intentional injuries in a medical centre in Tanzania. Criminal violence was the most common reason for those injuries, the majority occurring in the home. For females, domestic violence was responsible for 64.6 percent of female patients. Poverty, lack of education, unemployment and alcohol abuse were identified as contributing factors. A 2009 report based on the survey conducted by Afro barometer Project in 2008 (Round 4), indicated that 26 percent of the Tanzanian respondents revealed that something had been stolen from their homes in the previous year, 6 percent reported having been physically attacked in the last year. And 37 percent had at least occasional fear of crime.

Violence prevention Programs: There has been an increasing volume of calls to develop violence prevention programs at the country, continental and international levels, as well as the concomitant need to begin to develop the infra-structure to identify mediating factors which deter or promote better health.

One approach central to that call has gained some support in Africa is target hardening, derived from what is known as the built environment framework. 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 CPTED (Crime Prevention through Environmental Design), and target hardening falls under that rubric. Research in this tradition has focused mainly on housing, transportation and neighborhood characteristics, emphasizing improved protection of self, property and neighborhoods. 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. These issues raised about CEPTED as they relate to Public Health strategies will be addressed in the Discussion.

Materials and Methods

This study's Data Source is Afro barometer, a collaborative research effort produced by social scientists from 35 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 and the 6th is still in progress; Tanzania was included in all six waves, with the most recent survey, Round 6, conducted in 2014, which provides the basis of this study.

The 2014 survey consisted of face-to face Interviews completed by 2 386 respondents 18 years of age or older. These interviews were conducted in the Swahili language, or Kiswahili, the official language of Tanzania. The sampling frame included all Regions in Tanzania (21 Mainland and 5 in Zanzibar) and included the place of residence, rural or urban. The sampling procedures used in all of the Afro barometer surveys are explained in detail in Bratton, Mattes and Gyimah-Boadi (2005).

The Dependent Variable: Violence victimization: Survey respondents were asked about criminal victimization. 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, has 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.

The Independent Variables: A poverty index used in the Afro barometer studies was adopted from Mattes et al. (2003). The Question which generated poverty related responses 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. The control variables listed in Table 1 were measured by a single item, like age, and education, which were broken down into various categories; education, which 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 in the home and feeling of being unsafe walking in your neighborhood, property crime victimization, trust and perceptions of police corruption. Race does not appear in Table 1 because over 99 percent of the respondents were classified as Black Africans. Others, like the presence of a police station in the respondent's local area or whether police were visible in the local area were recorded by the interviewer and supplemented/checked by the interviewer's supervisor.

Results

The Tanzanian 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.

Table 1: Demographic Characteristics of the Tanzania Sample by Violence Victimization Victim of Violent Crime

Variable	Yes	No	Total	P.
18 through	29	53(7)	707 (93)	760.13
30 thru	49	42 (5.)	861 (95)	903
50 and over	40 (6)	670 (94)	710	
Gender				
Male	70 (6)	1,124 (94)	1,194.67	
Female	65 (5)	1,127 (95)	1 192	
Religion				
Christian	71 (5)	1,319 (95)	1,390.03	
Muslim	61 (7)	817 (93)	878	
None	1 (1)	88 (99)	89	
Education				
No formal/informal schooling only	11 (4)	243 (96)	254.00	
Some / Primary school completed	65 (5)	1,389	1,454	
Some /completed high school	46 (9)	478 (91)	524	
Post secondary/qualifications	10 (10)	91 (52.1)	101	
Completed University	3 (6)	50 (94)	53	
Employment				
Unemployed	44 (6)	674 (94)	718.74	
Employed part time	29 (5)	536 (95)	565	
Employed full time	62 (6)	1,039 (94)	1,101	
Residence				
Urban	73 (9)	763 (91)	836	.00
Rural	62 (4)	1,488 (96)	1,550	
Residential Crowding				
One or two adults	41 (4)	993 (96)	1,034	.00
Three or four adults	59 (6)	853 (94)	912	
Five or more adults	35 (8)	405 (92)	405	

Table 1 shows that there were four statistically significant differences in violence victimization, by religion, education, place of residence, (urban versus rural) and residential crowding in this Tanzanian sample, all but religion (.03) at .01 level or higher. Muslims were more likely than Christians to be victims. Respondents with higher levels of educational attainment were more likely to be victimized. Urban residents had the highest percentage of violence victims. In fact, urban residents were more than twice as likely as rural residents to be violence victims, 9 percent compared to 4 percent. Employment status, age and gender failed to reach significance in Table 1.

In Table 2 violence victimization in the last year is displayed cross-tabulated by selected independent variables. These items begin with whether the respondent was a victim of property crime within the last year, and include fear of crime in the home as well as feeling unsafe while walking in the neighborhood. Other measures included in Table 2 are residential crowding, measured by the number of adults living in each residence, whether there was a police station in the area and whether police were visible in the area. Another question asked whether the respondent trusted the police or thought they were corrupt. The final measure included in Table 2 asked if the area was connected to the electricity grid. This was included because lighting is an important consideration in the CPTED, target hardening approach.

Table 2: Cross-tabulation Violence Victimization and Selected Independent Variables

Variable	Victim of Violent Crime			P
	Yes	NO	Total	
Victim of property crime				
Yes	112 (22)	395 (78)	507	.000
No	23(1)	855(99)	1,878	
Fear of crime-home				
Yes	85 (23)	280 (77)	365	.000
No	50 (2)	1,969 (98)	2,019	
Felt unsafe walking				
Yes	86 (19)	371 (81)	457	.000
No	49 (3)	1,879 (97)	1,928	
Police station in area				
Yes	84 (7)	1,066	1,150	.001
No	51 (4)	1,185	1,236	
Police Visible in area				
Yes	30 (7)	407 (93)	437	.24
No	105 (5)	1,836 (95)	1,941	
Trust the police				
Not at all	119 (6)	1,927 (94)	2,046	.62
Little/alot1	6 (5)	297 (95)	313	
Police corrupt				
Yes	93 (6)	1,418 (94)	1,511	.97
No	33 (6)	507 (94)	540	
Electric grid in the area				
Yes	84 (7)	1,066 (93)	1,150	.001
No	51(4)	1,185(96)	1236	

Table 2 shows that 5 independent variables reached statistical significance. These were being the victim of a property crime in the last year, fear of crime in the home, and feeling unsafe walking in the neighborhood, whether there was a police station in the area, and whether the area was connected to the electricity grid; all of the above measures were significant at the .001 level. The independent variables listed in Tables 1 and 2 were all included in the logistic analysis presented in Table 3, with violence victimization the dependent variable.

Table 3: Logistic regression with Violence Victimization as the Dependent Variable

Variable	Coefficient	Standard Error	Z	P
Property crime victim	2.61	.26	9.86	.000
Fear of crime -home	1.48	.33	4.55	.000
Police corrupt	.53	.26	2.04	.04
Urban-rural	-.52	.30	-1.71	.09
Road paved	.75	.45	1.65	.10
Fell unsafe-walking	.41	.33	1.36	.21
Residential crowding	.18	.15	1.23	.22
Police visible	-.33	.31	-1.09	.27
Employment status	-.05	.12	-.40	.69
Education	.14	.15	.91	.36
Trust police	.30	.33	.91	.36
On electric grid	-.18	.31	-.59	.56
Police roadblocks	.15	.14	.26	.21
Religion	.16	.22	.73	.47
Police station	-.18	.22	-.78	.44
Poverty	-.01	.04	.53	.61
Age	-.13	.14	-.92	.36
Gender	.05	.22	.23	.83
Constant	- 1.62	.65	- 2.49	.01
Number of observations =	2, 003			
Chi square =	325.29			
Probability =	.000			
Pseudo R2 =	.35			

Table 3 reveals that three independent variables reached significance in the logistical regression analysis. Two of these were highly significant, with property crime victimization the strongest, $Z=9.86$ and fear of crime in the home was next, $Z=4.55$. The most unexpected result was the fact that perceptions of police corruption were the third variable to reach significance. $Z=2.04$, $p=.04$. Note in table 2 that this measure was not significant at the bi-variety level. The logistic regression results produced a pseudo R2 of .35.

Discussion

Before the implications of the findings are discussed further, it should be noted the results of the findings presented in Tables 2 and 3 point to one of the weaknesses in this study, and an issue which needs to be addressed in future research. There is the need to establish the time priority for the physical and property crime victimizations. We are unable to determine from this data which victimization 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. Regarding fear of crime, the real issue maybe whether these respondents did not in fact have a valid reason to fear crime, especially since a large percentage of them had been victims of crime. Returning to the findings, the strength of the property crime victimization and fear of crime in the home measures in the logistical regression equation was not a surprising finding, given the results included in Table 2. Note that in Table 2, that 112 of 135 violent crime victims (83 percent) had also reported a property crime in their residence within the last year. Of those who reported being fearful of crime in their home 85 of 135 (63 percent) had been violent crime victims. These results point to the need to consider how important re-victimization is for any crime prevention program in Tanzania.

Given the magnitude of the re-victimization findings, and their implications for crime prevention programs, these findings suggest that the target hardening should be the basis to begin to implement violence prevention programs in Tanzania. This suggests an approach to crime prevention where law enforcement personnel would respond and follow-up incidents of reported property and/ or violence victimization within their jurisdictions. The purpose of these home visits would be to attempt to prepare and assist previous 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 neighborhoods. Personal experience with target hardening programs suggests that residents become open to target hardening approaches, and personnel, once they have been victimized. Also, once victimized, residents can be encouraged to develop local neighborhood groups that help provide security for them and those in their own communities.

Conclusion:

The issues raised here are central to the development of crime prevention programs in Tanzania. These findings rise the issue of what Sheppard defined as criminal deterrence as a public health strategy. As Sheppard suggested, despite the fact that violence is now seen as a public health issue, criminal deterrence as a public health strategy has been greeted with ambivalence and even hostility. Target hardening, are one form of deterrence and the findings presented here highlighting the need to implement crime prevention programs based on prior victimization. Law enforcement personnel would appear to have a roadmap to develop crime prevention programs by following-up incidents of reported property and/ or violence victimization within their jurisdictions. Their purpose would be to attempt to prepare and assist victims to better protect both their premises and their persons. Victimized residents can be encouraged to develop local neighborhood run groups (Watches) that provide security for their homes and the rest of their own communities.

Acknowledgements

Afro barometer Data, Tanzania Round 6, available at <http://www.afrobarometer.org>

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