Explanatory Models of Perception of Safety in a Public Housing Estate, Lagos, Nigeria

Segun Okunola[1] , Dolapo Amole[2]

[1]Department of Architecture, University of Lagos, Nigeria,
[2] Department of Architecture, Obafemi Awolowo University Ile – Ife, Nigeria

okunolasegun@yahoo.com

Abstract

This paper reports a study on the perception of safety in a public housing scheme. It uses two different models to explain this phenomenon. The rationale was that the components of these models are associated with the quality of life of residents. The results suggest that the model which explains the perception of safety using facilitating factors (vulnerability and disorder) is more explanatory than the model which uses inhibiting factors (social participation and sense of community).

Keywords: Social participation; fear of crime; perception of safety; sense of community; public housing, vulnerability

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1.0 Introduction

In recent times, researchers are increasingly making the case for variables of perception of safety as indicators of residents' quality of life (Baker & Palmer 2006).This paper addresses the factors which underpin perception of safety or the fear of crime in a public housing. A proper understanding of these factors should assist designers and policy makers' future development of urban housing as well as improve people's quality of life. Furthermore, this study provides the opportunity to study factors which explain perception of safety in a different cultural setting.

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This study was conducted in the context of a public housing scheme called FESTAC (Festival of Arts and Culture) Estate. Generally, public housing was seen primarily as a tool to allow families on the road to the middle class, a way station in which to acquire the necessary economic status to move on in life (Delone 2008). FESTAC was developed primarily to accommodate delegates to the festival . After the event, most of the units were sold to the public by ballot with only ten per cent (10%) retained for staff of ministries and agencies. The estate was planned to compare with any of its type anywhere in the world, but most of the facilities have progressively deteriorated due to neglect and population explosion. In spite of the problems, it is still to date one of the major efforts of government in public housing. The estate has fallen into the media stereotype of public housing which is often portrayed as being run-down, and rife with crime and disorder. (Delone, 2008)

2.0 Literature Review

A careful study of relevant literature indicates that some factors have been associated with perception of safety in residential neighbourhoods. These are social participation, sense of community, disorder, vulnerability and victimization. Various models have also emerged as explanatory models of the fear of crime and are discussed subsequently.

2.1 Explanatory Models of Fear of Crime

Fear of crime has been identified as a significant social problem affecting the quality of life across various demographic and socio-economic categories (Franklin, et al 2008). Studies have shown that fear of crime is synonymous with the perception of safety(Baba & MarkAustin1989) Recent studies on the quality of life of a population is increasingly including measures of crime or personal safety (Michalos & Zumbo 2000). Scholars (Kohn 2009) have defined fear of crime as an 'emotion or feeling of alarm or dread caused by awareness or expectation of danger'. For Karakus et al, (2010) fear of crime is an individual reaction to perceived likelihood of victimization. The three dominant models that predict fear of crime in

most recent literature are the victimization (or vulnerability) model; the disorder (Broken Windows) model and the social participation (community concern) models (Karakus, et al. 2010; Crank et al 2003).

Recently, two broad theoretical models have emerged- facilitators of fear and inhibitors of fear models. (Franklin et al, 2008). In the inhibitors of fear model, fear of crime is understood through characteristics that inhibit or reduce the grounds of fear. The argument is that increased participation, sense of community and neighbourhood cohesion dampens the fear of crime. The vulnerability model has two categories, namely the physical and the social. Physical vulnerability is explained as the perception of increased risk of physical assault. Social vulnerability results from increased exposure to factors such as economic distress, high crime and lack of resources to protect one-self (Franklin et al, 2008). The disorder model argues that the perception of high levels of physical and social disorder is related to high levels of fear of crime. (Bursik & Grasmick, 1993).In the literature, the fear of crime can be a powerful and independent factor that may affect people through different pathways than actual experiences (Wood et al 2007). Hence residents' perception of safety as conveyed by the built environment is believed to be inherent in fear of crime discourse.

2.2 Social Participation and Sense of Community

Social participation has been defined by Gamble & Well (Ohmer & Beck 2006) as the active, voluntary involvement of individuals and groups aimed at changing problematic conditions in poor communities, using programmes and policies that affect crime, safety and urban blight. Others (Long & Perkins 2007) considered social participation as one of the four dimensions of social capital (others being collective efficacy, social cohesion and social disorganization). Indeed participation in leisure or recreation activities is regarded by many researchers as an essential component of an individual's sense of well-being resulting in positive benefits such as self-improvement and family functioning (Wood et al 2007).

The importance of social participation has been highlighted in several studies. First, participation in formal organizations has been shown to increase feeling of safety (Crank et al 2003; Kruger 2007). Scholars (Long & Perkins 2007) have argued that social capital is intricately linked to sense of community which is often an outcome of social participation. Sense of community operates both at individual, and community levels to predict informal neighbouring behaviour and citizen participation. In fact, Mannarini & Tedi(2009) defined Sense of Community as "the sense that one was part of a readily available, mutually supportive network of relationships". She explained further, that sense of community is related to various indices of quality of life such as life satisfaction, mental, physical and social well-being. This implies that once residents lose their sense of community, the neighbourhood is vulnerable to crime which could then lead to increased fear of crime (Delone, 2008).

3.0 Methodology

Conceptually, this study identified two models which explain the perception of safety from the literature. In the first model were certain factors which inhibit the fear of crime. These factors

are related to the social participation of the residents and their sense of community. The second model suggests that fear of crime may be facilitated by the vulnerability of a place to physical assault and social distress. (Figure1.)

This study is part of a larger study which evaluated the perception of safety in FESTAC Estate. The unit of analysis was the household head in the housing units. Strip interval sampling technique was used. Out of a total population of 5,348 housing units, a sample of about 18% (1000 units) was selected, and questionnaires were distributed to the household heads of these units. Seven hundred and ten (710) questionnaires were returned.

Four types of data were collected. The first set was for the residents' perception of safety using 19 variables measured on a Likert scale. The second was the residents' sense of community, and this was also measured on a Likert scale using four variables. The third type of data was social participation. The variables of social participation are 'membership of residents association' (Ohmer & Beck 2006); 'presence of vigilante groups' (Ohmer & Beck 2006; Long & Perkins 2007). 'Friendship in the neighbourhood'and,'feeling of friendliness'. Disorder was operationalized as' the type of neighbourhood' because previous study (Okunola, 2010) had shown that the neighbourhoods are at varying degrees of disrepair. Four variables, measured on a Likert scale were also used to measure vulnerability to attack in the housing estate. The socio-economic characteristics of residents were also collected and are presented subsequently. The data collected were analysed using categorical regression model.

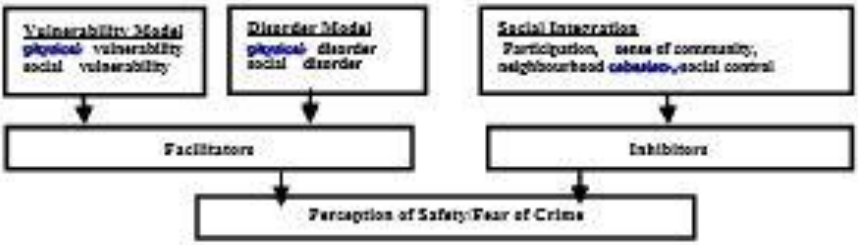

Figure1: Explanatory Model of Perception of Safety/Fear of Crime

4.0 Findings and Analysis

4.1 Demographic characteristics of respondents

The characteristics of residents as shown in Table 1 shows that the mean age is 38.7, more than half(53.95%) are university degree holders ,an average income of N66,480(USD420) and the simple majority are home owners.(56.16%). Furthermore, the average family size is approximately 6 persons per household and the average length of residency is around 14 years indicating a low resident turn-over.

Table 1- Socio –demographic variables

Variable	Characteristics	Mean	Frequency	%	Total
Gender	Male		358	52.03	
	Female		330	47.97	688
Age	20-29	38.7	212	31.03	
	30-39		199	29.14	
	40-49		124	18.16	
	50-59		82	12.01	
	60-69		48	7.03	
	70 and above		18	2.63	683
Educational Level	Primary school		11	1.67	
	Secondary school		114	17.33	
	Post secondary school		113	17.17	
	University degree		355	53.95	
	M.Sc./Ph.D.		65	9.88	658
Monthly Family Income	below 20,000	N68,480	102	21.47	
	21,000-35,000		105	22.11	
	36,000-50,000		97	20.42	
	51,000-75,000		63	13.26	
	76,000-100,000		43	9.05	
	101,000-200,000		36	7.58	
	201,000-350,000		12	2.53	
	above 350,000		17	3.58	475
Tenant Status	owner		374	56.16	
	rented		273	40.99	
	others		19	2.85	666
Family Size/Persons per Household	Single	5.90	8	1.26	
	Standard family		426	67.19	
	Large family		173	27.29	
	Very large family		27	4.26	634
Length of Residency	(0 - 4)Years	14.38	152	22.79	
	(5 - 9) Years		112	16.79	
	(10 - 14] Years		93	13.94	
	(15 - 19] Years		63	9.45	
	(20 - 24] Years		94	14.09	
	(25 - 29] Years		102	15.29	
	(30 - 34] Years		47	7.05	
	(35 - 39] Years		2	0.30	
	40 Years and above		2	0.30	667

4.2 Social Participation/Sense of Community and the Perception of Safety Model

The result of regression (Table 2) shows that $R^2 = 0.123$ which indicates that there is a relationship between the dependent variable and the independent variables. The analysis of variance (sum of square = 45.439; df = 28; $p \leq 0.016$) shows that it is a significant but weak relationship.

Table 2: Categorical regression analysis of Perception of Safety, Social Participation and Sense of Community

Variables	Beta	df	F	Sig
Visit to recreation	.100	4	4.759	.001*
Participation in recreation	.022	4	.283	.889
Membership of resident's association	.054	3	1.348	.259
Presence of vigilante groups	.031	3	.651	.583
Commercial activities around unit	.080	3	3.112	.026*
Hours spent at home during the day	.128	2	3.202	.042*
Length of residency	.161	2	9.296	.000*
Friendship in the neighbourhood	.070	2	.515	.598
Friendship in the estate	.030	2	.086	.918
Feeling of friendliness (neighbourhood cohesion)	.166	2	5.697	.004*
Sense of Community	.056	1	.348	.556

*$P \leq 0.05$

The result indicates that five variables of social participation namely, visit to recreation by residents, presence of commercial activities around the neighbourhoods, number of hours spent at home during the day, length of residency and feeling of friendliness (neighbourhood cohesion) are significant predictors of residents' perception of safety. As indicated in Table 2, participation in recreation is not a significant predictor of perception of safety. This did not support previous findings. However, 'strong feeling of friendliness', (Beta = .166)' length of residency', (.161)' hours spent during the day' (Beta = .128),' visit by members of the family to recreation spots' (Beta = .100) and lastly, presence of commercial activities in the neighbourhood (Beta = .080) are predictors of perception of safety in that order.

This result implies that neighbourhood cohesion would encourage informal contacts and enable residents to watch out for their neighbour's interest. This may enhance social trust and reciprocity that may lead to reduction in the fear of crime. Secondly, residents who have been in the neighbourhood for a fairly long time may have developed acquaintance with the neighbours and familiarity with the environment. This may have a positive effect on the strength of local social bonds which may also enhance perception of safety. Furthermore, residents who spent more hours during the day could provide surveillance to the residential neighbourhood.

Finally, the presence of commercial activities will ensure that people are always around the neighbourhood, and this may go some way to discourage crime. In all, this model generally supports previous findings about the positive influence of social participation on the perception of safety which in turn has the potential to enhance residents' quality of life.

4.3 Disorder, Vulnerability and Perception of Safety Model

The result of regression of this model shows that $R^2 = 0.138$ which indicates that there is a statistically significant but weak relationship between the dependent variable (perception of safety score) and the independent variables of vulnerability/disorder. Indeed the analysis of variance confirms the significance of the relationship (sum of squares = 69.634; df = 11; $p \leq .000$).

Table 3: Categorical regression analysis of Perception of Safety, Vulnerability and Disorder

Variables	Beta	df	F	Sig p value
Chance of being victim of car theft	.132	2	4.467	.012*
Chance of being victim of assault	.101	2	1.994	.137
Chance of being victim of robbery	.169	3	10.264	.000*
Neighbourhood type	.185	4	24.005	.000*

The result in Table 3 suggests that the predictors of perception of safety in this model are' chances of being victims of car theft' (.012) ,'chances of being a victim of robbery' (.000) and the' type of neighbourhood' (.000). Out of the three, 'type of neighbourhood' is the strongest predictor, (Beta = .185) followed by 'chance of being a victim of robbery' (Beta = .169) and then 'chance of being victim of car theft '(Beta = .132). This implies that perception of safety score is neighbourhood- sensitive. This means that some neighbourhoods enable residents to develop a sense of proprietary, which could reduce disorder. It also suggests that robbery and car theft have a very significant relationship with the perception of safety.

In summary, the last two tables suggest that the facilitators of crime have a stronger relationship with perception of safety, than the inhibitors of crime. This seems to suggest that facilitators of crime variables –vulnerability and disorder, are stronger predictors of perception of safety than inhibitor-variables. Therefore closer attention should be paid to these facilitator- variables in the design and management of not only existing residential environment, but also in the conceptualisation of new ones. Indeed, it would seem that paying attention to facilitators of crime variables will enhance the perception of safety in the neighbourhood. This will in turn enhance the quality of life of residents. The literature (Karakus *et al,* 2010) shows that the two models explain only about 10% of the perception of safety. It is expected that the variance in perception of safety will increase if the demographic characteristics of residents are included and the model is integrated.

5. Conclusions

This study supports previous findings (Crank et al 2003; Wood et al 2007; Kruger et al 2007) that social participation, vulnerability, victimization and disorder affect residents' perception of safety (Kruger et al 2007).It also contradicts previous studies that have suggested that participation in recreation is a predictor of perception of safety (Baker&Palmer,2006).The methodology used in this study is to test two models identified in literature as facilitators and inhibitors of fear of crime through the use of the variables that predict such models. The results suggest that controlling for cultural and socio-demographic variables, it should be

possible to generalise the findings of this study. Planning and design of neighbourhoods for improvements and new developments should take cognizance of commercial activities. Future research may therefore consider the use of integrated models that would not only have inhibitors and facilitators, but more of the variables regarded as inhibitors of crime.

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