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**Factors Associated With Fear of Crime in Low Socio-Economic Status Communities in  
Johannesburg**

by

Blessing Masuku (Student number 201177765)

*Minor Dissertation (article format)*

Submitted in partial fulfilment of the requirements for the degree of

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(CLINICAL PSYCHOLOGY)

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FACULTY OF HUMANITIES

at the

UNIVERSITY OF JOHANNESBURG

Supervisor: Prof Brendon Barnes

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## 1. Preface

### 1.1 Article format

This minor-dissertation was done in article format as indicated by the guidelines of the University of Johannesburg.

### 1.2 Selected Journal

The journal of choice for this publication is the “*South African Journal of Psychology*”. An abridged version of the manuscript will be submitted to the journal in accordance with the journal’s requirements and guidelines. The editorial approach and referencing style for this manuscript is aligned with the Publication Manual of the American Psychological Association (6<sup>th</sup> edition, 2009), except where otherwise indicated by the “*South African Journal of Psychology*”.

The pages of this mini-dissertation have been numbered consecutively. For submission to the targeted journal, pages will be numbered in accordance with their requirements and as such numbering will start from the title page of the manuscript.

### 1.3 Permission from co-author

A letter of consent signed by the co-author in which they give permission that the manuscript entitled, “*Factors Associated With Fear of Crime in Low Socio-Economic Status Communities in Johannesburg*” may be submitted for purposes of a mini-dissertation by the first author, Blessing Masuku appears on the next page.

## 2. Author Guidelines and Manuscript

### **Factors Associated With Fear of Crime in Low Socio-Economic Status Communities in Johannesburg**

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## **Acknowledgements**

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Any acknowledgements should appear first at the end of your article prior to your Declaration of Conflicting Interests (if applicable), any notes and your References.

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The APA system of citing sources indicates the author's last name and the date, in parentheses, within the text of the paper.

A. A typical citation of an entire work consists of the author's name and the year of publication.

Example: Charlotte and Emily Bronte were polar opposites, not only in their personalities but in their sources of inspiration for writing (Taylor, 1990). Use the last name only in both first and subsequent citations, except when there is more than one author with the same last name. In that case, use the last name and the first initial.

B. If the author is named in the text, only the year is cited.

Example: According to Irene Taylor (1990), the personalities of Charlotte. . .

C. If both the name of the author and the date are used in the text, parenthetical reference is not necessary.

Example: In a 1989 article, Gould explains Darwin's most successful. . .

D. Specific citations of pages or chapters follow the year.

Example: Emily Bronte "expressed increasing hostility for the world of human relationships, whether sexual or social" (Taylor, 1988, p. 11).

E. When the reference is to a work by two authors, cite both names each time the reference appears.

Example: Sexual-selection theory often has been used to explore patters of various insect matings (Alcock & Thornhill, 1983) . . . Alcock and Thornhill (1983) also demonstrate. . .

F. When the reference is to a work by three to five authors, cite all the authors the first time the reference appears. In a subsequent reference, use the first author's last name followed by *et al.* (meaning "and others").

Example: Patterns of byzantine intrigue have long plagued the internal politics of community college administration in Texas (Douglas *et al.* , 1997) When the reference is to a work by six or more authors, use only the first author's name followed by *et al.* in the first and all subsequent references. The only exceptions to this rule are when some confusion might result because of similar names or the same author being cited. In that case, cite enough authors so that the distinction is clear.

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- Differentiate works by the same author and with the same publication date by adding an identifying letter to each date: (Bloom, 1987a, 1987b)
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#### *Book*

Paloutzian, R. F. (1996). *Invitation to the psychology of religion* (2nd ed.). Boston: Allyn and Bacon.

#### *Book with More than One Author*

Natarajan, R., & Chaturvedi, R. (1983). *Geology of the Indian Ocean* . Hartford, CT: University of Hartford Press.

Hesen, J., Carpenter, K., Moriber, H., & Milsop, A. (1983). *Computers in the business world* . Hartford, CT: Capital Press. and so on.

The abbreviation *et al.* is not used in the reference list, regardless of the number of authors, although it can be used in the text citation of material with three to five authors (after the initial citation, when all are listed) and in all parenthetical citations of material with six or more authors.

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*Article or Chapter in an Edited Book*

Shea, J. D. (1992). Religion and sexual adjustment. In J. F. Schumaker (Ed.), *Religion and mental health* (pp. 70-84). New York: Oxford University Press.



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## 2.2 Manuscript

### **Factors Associated With Fear of Crime in Low Socio-Economic Status Communities in Johannesburg**

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## **Factors Associated With Fear of Crime in Low Socio-Economic Status Communities in Johannesburg**

### **Abstract**

Fear of crime has been identified as a serious consequence of crime and is considered to be more common and widespread than the experience of crime itself. Furthermore, the definition of fear of crime appears to be complex and involves multiple levels. What is missing from the South African literature is a study of fear of crime using multilevel analysis, which would include factors such as gender, victimization, living with someone who has a criminal conviction, perceptions of crime in the neighbourhood and suburb. By drawing on social ecological theory, the aim of this study was to investigate the factors associated with fear of crime in five low socio-economic status communities in Johannesburg. The data used in this study was secondary data obtained from the Health, Environment and Development study (HEAD) and consisted of 548 participants. To achieve the aim, a quantitative approach was employed, using a cross-sectional design. The Statistical Programme for Social Sciences (SPSS) 24 was used to analyse the data. Results indicated that females presented with higher levels of fear of crime than males. Braamfischerville presented with high fear of crime after dark and Hillbrow with high fear of crime during the day. This study has identified various factors that predict fear of crime, including gender, living with a person who has been convicted of a crime and perceptions of crime in the neighbourhood.

Keywords: fear of crime, crime, gender, low socio-economic status

Warr and Ellison (2000, p. 551) define fear of crime as a “concern about the likelihood of criminal victimization”. According to Ferraro and LaGrande (1992) and Lemanski (2006), fear of crime has various manifestations.

The cognitive manifestations of fear of crime relate to an individual’s perceptions of being at risk of becoming a victim of crime (Farrall, Jackson & Gray, 2007; Kitchen & Williams, 2010). Chockalingham and Srinivasan (2008) place emphasis on the power of the mind, indicating that individuals will fear crime when they think they are likely to be attacked. For example, individuals residing in areas of the United States that were associated with high crime levels were likely to think that they were unsafe, regardless of where they were or not (Fox, Nobles & Piquero, 2009).

Fear of crime is said to transform public spaces into spaces that should be avoided, as it prevents individuals from freely leaving their homes and causes them to avoid certain areas (Alper, Allison & Chappell, 2012). Lemanski (2012) maintains that fear of crime creates an invisible form of intimidation that places individuals in a state of constant watchfulness, in which their behaviour is modified by restriction of movement in particular areas in order to reduce or eliminate fear. Stafford, Chandola and Marmot (2007) assert that this restriction of behaviour is a way of minimizing the risk of victimization and is likely to result in isolation, poor social relationships, rigidity and paranoia. Although fear of crime has various manifestations, these cannot be viewed in isolation as they are interrelated and influence one another. There are a number of ways in which fear of crime is defined, involving an emotional aspect in most cases. In this study, two questions were used as indicators of fear of crime, namely, how safe or unsafe individuals felt walking around in their neighbourhood during the day and after dark.

As crime increases, individuals have been found increasingly to report feelings of being unsafe (Le Roux & Mokhele, 2011). The definition of fear of crime has been observed

to be multifaceted, but for the purpose of this study it is defined in terms of reported feeling safe or unsafe during the day and after dark. Perceptions of the neighbourhood and how individuals feel in their communities has been noted as an indicator of safety and fear of crime; and the aspects of vulnerability and victimization have been incorporated into the definition. Jackson (2009) states that for an individual to feel unsafe, there needs to be an element of vulnerability; where an individual feels unable to protect themselves. Research indicates that vulnerability has been measured largely by using gender, age and residential area (Franklin & Fearn, 2008 & Jackson, 2009).

Fear of crime has been identified as a serious consequence of crime (Ferraro, 1996). Lauder, Kroll and Jones (2007) have further established that fear of crime is more common and widespread than the experience of crime itself. Research suggests that there are a number of factors associated with fear of crime (Stafford et al., 2007; Chockalingam & Srinivasan, 2008; Whitley & Prince, 2005; Pain, 2000; Rader, 2004). According to Statistics South Africa (2017) overall crime levels in South Africa have decreased. Eagle (2015) states that a decrease in crime levels does not mean that levels of fear of crime are decreasing; this is because South Africans still present with anxiety and fear to potential exposure to crime. Kaminer, du Plessis, Hardy and Benjamin (2013) agree with this, stating that, because the South African population has been exposed to violence in its history, criminal events in some parts of the country are still prevalent and as a result increased fear of crime.

Gender is considered to be the most stable predictor of fear of crime (Cossman & Rader, 2011). Hale (1996) and Chadee and Ying (2013) found that women present with higher levels of fear of crime than men. A study conducted by Malloch (2004) in the United Kingdom yielded similar results, finding that women presented with higher levels of fear of crime than men. In a study conducted by Clement and Kleiman (2007) in the United States, results showed that 61% of females were afraid to walk around at night in their

neighbourhoods. Research conducted by Roberts (2008) in South Africa, however, yielded different results, where between 1998 and 2007 the level of fear of crime experienced by men was as high as that of women. Although there are some contradictory findings within the different countries concerning the level of fear expressed by men and women, gender can be viewed as an important factor in relation to the prediction of fear of crime.

This study adopted the Social Ecological Model (SEM) as a theoretical framework. The SEM is a theory-based framework for understanding the multifaceted and interactive effects of personal and environmental factors that determine behaviours (Bronfenbrenner, 1990). This theory states that the environment, its organization and structure have an influence on how individuals perceive it and their feelings of security (World Health Organization, 2002). The model highlights the fact that fear of crime occurs on multiple levels and cannot be understood on the basis of only one aspect. All the levels interact and influence each other, this is to say that fear of crime does not happen in isolation; it influences and is influenced by a number of factors. Furthermore, the SEM emphasizes that behaviour, in this case fear of crime, is affected by multiple levels of influences and that individual behaviour shapes and is shaped by the social environment (McLeroy, Bibeau, Steckler & Glanz, 2008). The multiple levels of influence include individual, interpersonal, community, society and policy levels. The first four SEM levels will be applied in this study to understand how various factors may influence an individual's experience of fear of crime.

As noted above, fear of crime takes place at multiple levels and the extent to which fear of crime is experienced may be determined by an individual's characteristics and how individuals relate to their social and environmental structures (Perez-Soba, 2016). The first level of the SEM is the individual level, which suggests that fear of crime may be influenced by individual characteristics such as gender. Noted in the literature discussion, gender is a

stable predictor of fear of crime, and being female renders an individual more likely to be a victim of crime because of feelings of vulnerability (Cossman & Rader, 2011).

Individuals who perceived their neighbourhoods as unsafe were reported to be more fearful. Pantazis (2000) found that 33% of people reported feeling unsafe after dark in the U.K. Furthermore, in the same study, 67% of women reported feeling unsafe compared to 34% of men. The time of day has been noted to be related to fear of crime, and evenings are said to generate more fear than during the day (Vandeven, 2006). A study conducted by Le Roux and Mokhele (2011) in Cape Town found that fear of crime was highest at night, when participants indicated that they felt very unsafe. In a Pretoria crime survey, it was found that 50% of the participants reported feeling unsafe walking around in their neighbourhoods at night (Donaldson & Ferreira, 2007). In a study conducted in Switzerland, Killas and Clerici (2000) found that 30% of participants reported feeling unsafe at night in their neighbourhoods. These studies highlight the environment and perceptions of the neighbourhood as strong predictors of fear of crime. The SEM states that at the community level, factors such as walking in the neighbourhood during the day and after dark may influence fear of crime; that is the perceptions of the neighbourhood influences the level of fear in individuals (Bronfenbrenner, 1990).

Direct and indirect victimization has also been found to be positively linked to fear of crime (Ferraro, 1995; Sampson & Raudenbush, 2004). Direct victimization concerns the experience of crime while with indirect victimization, fear stems as a result of knowing someone who has been victimized (Sampson & Raudenbush, 2004). According to Walklate and Mythen (2008) whether the individual had been victimized or whether it was someone they knew that had been victimized, they were likely to present with fear of crime. Chadee and Ying (2003) found that individuals who had been directly affected by crime in their immediate social context feared victimization. The relationship or interpersonal level of the

SEM addresses the likelihood of victimization based on family relationships and whether a perpetrator is known or whether a convicted family member lives in the same household as the individual. A study by Truman (2005) showed that individuals who lived with a household member who had a criminal conviction were likely to adopt precautionary behaviours, as they had perceived risk and hence feared for their safety. Similar findings by Andersson and Norring (2013) in the USA indicated that fear of crime increased when the perpetrator was known or living in the same household. These studies suggest that being in an environment where individuals experience vulnerability and perceive a higher risk of being victimized, are likely to present with high fear of crime.

Fear of crime is also believed to be related to perceived economic, physical and social vulnerability at both individual and local levels (Jackson, 2004). Over one-half of the world's population resides in urban areas (Mathee, Harpham, Barnes, Swart, Naidoo, de Wet & Becker, 2009) and many of these individuals have been reported to experience high levels of fear of crime (Ferraro, 1995; Ricolfi, 2010; Skogan & Maxfield, 1981).

Ferguson and Mindel (2007) describe an association between fear of crime and an individual's proximal context, particularly their neighbourhood. Neighbourhood safety, concerns about physical disorder and suburban incivilities have links to fear of crime and perceived safety (Brown, Perkins & Brown, 2004). A study conducted by Schweitzer, Kim and Mackin (2009) found that environment played a role in fear of crime; participants from low socio-economic neighbourhoods were found to have a high fear of crime. Those from low socio-economic groups displayed higher levels of fear of crime than those in advantaged areas (Whitely & Prince, 2005). Furthermore, individuals from low-income backgrounds with dependents are reported to be most affected by the fear of crime (Whitley & Prince, 2005). According to Vieno, Rocacato and Arusso, (2013), individuals from advantaged areas are much more secure than individuals living in less advantaged areas. Walklate and Mythen



(2008) state however, that when looking at safety and security in countries, it is important to understand that socio-economic status and the neighbourhood context plays a role. According to Pantazis (2000) individuals from low economic status groups, especially those who were poor, displayed increased fear of crime. Furthermore, Sampson and Raudebush (2004) and McKee and Milner (2000) found that individuals in the U.S.A from low socio-economic status presented with higher levels of fear of crime than those with a higher income. Similarly, Pantazis (2000) found that lower and middle class people experienced higher levels of fear of crime than those of high socio-economic status.

The residential neighbourhood has also been suggested to be associated with fear of crime. Robinson, Lawton, Taylor and Perkins (2003) hold that fear of crime is associated with how individuals perceive their surroundings and neighbourhood and how safe they feel in these places. Stafford et al. (2007) agree with this, holding that there are contextual influences to crime which include the physical cues and social aspects of neighbourhoods, such as deprivation, overcrowding and social disorder that relate to fear of crime.

Ferraro (1994) and Hinkle and Weisburd (2008) state that fear has been observed to stem from disorderly physical and social conditions, which they term social incivilities. These social incivilities seem to afflict urban spaces in which residents spend most of their time, as with the case in the five communities being explored in this study. According to LaGrange, Ferraro and Supancic (1992) and Nardi (2003), disorderly social conditions include drinking in public, prostitution, rowdy, unruly teenagers and fighting neighbours. The other component of social incivilities is disorderly physical conditions, which include aspects such as broken glass in buildings, abandoned housing, graffiti, unkempt lawns and parks and rubbish bins lying around (Russo, Roccato, & Vieno, 2013). This brings the aspect of the community level of the SEM, which explores fear of crime in relation to multiple micro and macro levels: the neighbourhood area, perceptions of the neighbourhood and fear of crime.

This is to say individuals that live in neighbourhoods that are perceived as unsafe, consisting of social incivilities and disorderly physical conditions are likely to present with fear of crime (Bryk & Raudenbush, 2002; Ferraro, 1994; Hinkle & Weisburd, 2008).

Warr (2000) further states that fear of crime has been extended to encompass a variety of emotional states, perceptions and attitudes towards others and mistrust of others, perceived risk of victimization, discomfort with or fear of strangers and a concern about deteriorating neighbourhoods. Thus, the more socially disorganized the neighbourhood, the higher the reported fear of crime. Research indicates that living in a neighbourhood that is characterized by social disorganization, low social capital; poor street lighting and low use of land will increase residents' fear of crime (Ferraro, 1994; Taylor & Covington, Sampson & Raudenbush, 2004; Skogan, 1995). Furthermore, residents from neighbourhoods with limited access to recreational spaces will also have high levels of fear of crime (Vieno, Nation, Perkins, Pastore & Santinello, 2010; Wyant, 2008). According to Franklin and Fearn (2008), economic disadvantage weakens residents' control on physical health and efficacy and therefore giving rise to high levels of fear of crime. Individuals' perceptions of their safety in their neighbourhood will either decrease or increase the level of fear of crime (Wyant, 2008). Therefore, neighbourhood conditions seem to have an effect on reported fear of crime. The SEM highlights the fact that fear of crime does not occur in isolation, but rather at multiple levels involving a number of factors. The factors noted were individual, interpersonal and community factors. The individual factors that may influence fear of crime include gender, victimization and vulnerability. At the interpersonal level, factors such as direct and indirect experiences of victimization may play a role in fear of crime. The last aspect is the societal level, which explores broader societal factors such as socio-economic status and perceptions of the neighbourhood that may influence fear of crime.

There is therefore a difference between levels of fear of crime in individuals from advantaged backgrounds and those in individuals from disadvantaged backgrounds.

The above literature indicates that there are a number of variables associated with fear of crime. Studies conducted on these variables have been conducted in the western world, in countries such as the United States, the United Kingdom, Switzerland and Australia. These studies included large populations from different neighbourhoods, and included variables such as age, gender and race. However, looking at the African context and at South Africa in particular, the literature shows that there is a gap in the study of factors associated with fear of crime at multiple levels. Studies in South Africa have focused more on crime in general in the country (Bob, Kamilla, Swart, Turco & Douglas, 2007; Demombyness & Ozler, 2005; Hamber, 1999; Le Roux, 2003). Therefore, because of this gap in South Africa literature, the current study looks at fear of crime in five different communities in Johannesburg, using the socio-ecological model as a theory to understand the multifaceted nature of fear of crime, with the aim of exploring the research question: What factors predict fear of crime in five urban low socio-economic status communities in Johannesburg?

## **Method**

### ***Study design***

The study followed a cross sectional design which analyses data from a population at a specific point in time; this was a secondary analysis of a cross sectional study (Biemer & Lyberg, 2003). This design looks at different groups of people with different variables of interest, but who share some characteristics, such as gender, ethnicity, residential area and socio-economic status (Larsen & Eid, 2008).

### *Participants*

The HEAD study has been conducted since 2006 with the aim of monitoring change in health status and housing conditions in various Johannesburg areas. The areas include Braamfischerville (a post-apartheid low-cost housing development), Riverlea (a low-cost housing development emerging from the apartheid era), Hospital Hill (an informal settlement along the city's periphery), Bertrams (an inner city suburb, consisting of mixed residents and commercial property) and Hillbrow (an inner city suburb with high-rise residential accommodation). These sites were selected because they represent five important neighbourhood typologies in South Africa and they are all relatively impoverished settlements (Mathee, Harpham, Barnes, Swart, Naidoo, de Wet & Becker, 2009).

### *Sampling*

This study is based on secondary data obtained by HEAD, where the research participants were randomly selected on the basis of availability and willingness to respond (Mathee, Harpham, Barnes, Swart, Naidoo, de Wet & Becker, 2009). 548 participants were selected. The study included both male and female participants.

### *Procedure*

Information from the participants was collected using a questionnaire. The questionnaire included participants' demographic information such as gender and residential area. The questions about fear of crime in the neighbourhood included feelings of being safe or unsafe walking in the neighbourhood during the day and after dark. Furthermore, independent variables were questions including gender, residential area (suburb), perception of crime in the neighbourhood, experiences of crime, living in the same household with a crime convict and perceptions of the living environment.

The questions related to feelings of safety were initially recorded using four response categories which included very safe, fairly safe, a bit unsafe and very unsafe. These

categories were later converted into two categories, namely feeling safe and unsafe. The responses for levels of crime in the neighbourhood were categorized into increase and decrease. The responses for living in the same household as a person with a criminal conviction, experiences of crime in the neighbourhood as well as whether the perpetrator was known were categorized into yes and no. Perceptions of the neighbourhood and community connectedness were categorized as highly satisfied and highly dissatisfied. The dependent variable of the study is fear of crime. Fear of crime was measured in terms of how safe individuals felt during the day and after dark. The independent variables of this study are: gender, perceptions of crime in the neighbourhood, experienced crime (robbery, burglary, assault, stabbing, hi-jacking, gunshot injury and rape), suburb (Hillbrow, Bertrams, Hospital Hill, Riverlea and Braamfischerville), as well as perceptions of the neighbourhood (dwelling area, litter in neighbourhood, local roads, open area, refuse removal, children's play area in the neighbourhood).

### ***Data analysis***

Data in the current study was analysed using Statistical Programme for Social Sciences (SPSS) version 24.

Descriptive statistics and frequency tables were used to describe the fundamental tendencies of the variables under study and also to explain the sample characteristics and to test underlying assumptions (Wilson & Maclean, 2011). Frequency distributions were used to summarize the sample characteristics in terms of gender, residential area, perception of crime in the neighbourhood and perception of living environment. Furthermore, bivariate contingency tables using chi squared statistic were used to determine the relationship between fear of crime and a number of variables including: gender, residential area, experienced crime and perceptions of the neighbourhood. A profile of perceptions of crime in the neighbourhoods was employed to explore fear of crime amongst males and females, with the

dependent variable being fear of crime and the independent variable being gender, residential area and perceptions of crime in the neighbourhood and perceptions of living environment. Fear of crime was further divided into fear of crime during the day and fear of crime during the night (analysed separately). A binary logistic regression model was fitted in order to predict variables that are associated with fear of crime to determine the association at the multivariate level.

### *Ethical considerations*

Ethical guidelines were followed in conducting this study. Ethical clearance was obtained from the Witwatersrand University Ethics Committee, and permission was obtained from HEAD to use the data for analysis.

### **Results**

The sample obtained in the study consisted of (N = 548) male and female respondents, residing in the five communities (Braamfischerville, Riverlea ext. 1, Hospital Hill, Bertrams, Hillbrow) in Johannesburg. The sample group varied in terms of gender and residential area. The tables presenting these demographics are presented below:

Table 1

#### *Fear of Crime during the Day and after Dark*

	Fear of crime during the day		Fear of crime after dark	
	Frequency	Percent %	Frequency	Percent %
Very Safe	369	67.3	108	19.7

Fairly Safe	94	17.2	79	14.4
A bit unsafe	48	8.8	83	15.1
Very unsafe	36	6.6	276	50.4
<b>Total</b>	<b>548</b>	<b>100.0</b>	<b>548</b>	<b>100.0</b>

Table 1 shows that the majority of respondents (67.3%) feel very safe during the day and the minority of respondents (6.6%) feel very unsafe. In addition, majority of respondents (50.4%) reported that they felt very unsafe walking around in their area after dark and the minority (19.7%) reported that they felt very safe in their area.

Table 2

*Participant Gender*

	Frequency	Percent %
Male	220	38.7
Female	328	57.5
<b>Total</b>	<b>548</b>	<b>96.2</b>

Table 2 shows that there were more females (N=315 or 57.5%) than males (N=212 or 38.7%) in the study.

Table 3

*Area of Residence*

	Frequency	Percent
Braamfischerville	147	26.8
Riverlea ext 1	124	22.6

Hospital Hill	138	25.2
Bertrams	73	13.3
Hillbrow	66	12.0
<b>Total</b>	<b>548</b>	<b>100.0</b>

Table 3 indicates that the most respondents were from Braamfischerville (N=147 or 26.8%) followed by Hospital Hill (N=124 or 22.6%). The area with the fewest respondents was Hillbrow (N=66 or 12%).

Table 4

*Violent Crime Committed by a Member of the Household*

	Frequency	Percent %
No	514	93.8
Yes	31	5.7
<b>Total</b>	<b>548</b>	<b>100.0</b>

Table 4 shows that 93.8% of the respondents had not experienced a violent crime committed by a member of the household, while 5.7% did.

***Bivariate Analysis***

Bivariate analysis was used to analyse the fear of crime with the independent variables in order to determine the relationship between them.



Table 5

*Factors Associated with Fear of Crime during the Day and after Dark*

	Fear of crime during day				Fear of crime after dark			
	Unsafe n	%	P- Value	Odds Ratios	Unsafe n	%	P- Value	Odds Ratios
Gender: Female	n=56	17.8	.091	.65	n=221	70.2	.009*	.61
Experienced robbery (Yes)	n=20	21.1	.262	.63	n=73	76.8	.053	.53
Experienced theft (Yes)	n=29	22.0	.057	.54	n=92	69.7	.361	.79
Experienced burglary (Yes)	n= 22	23.2	.071	.54	n=68	71.6	.228	.71
Experienced assault or beating (Yes)	n=14	19.7	.600	.71	n=50	70.4	.696	.78
Experienced hijacking (Yes)	n=8	27.6	.157	.46	n=24	82.8	.077	.02
Experienced gunshot injury (Yes)	n=8	34.8	.059	.32	n=90	82.6	.109	.38
Experienced stabbing (Yes)	n=11	20.0	.327	.72	n=40	72.7	.296	.68
Experienced rape (Yes)	n=7	41.2	.010*	.25	n=15	88.2	.098	.24
Anyone in household convicted of a crime (Yes)	n=6	16.7	.002*	.86	n=19	52.8	.358	1.77
Violent crime levels in area compared to past 12 months	n=36	20.6	.011*	.57	n=137	78.3	.000*	.30

(Increased)								
Crime levels in your area compared to past 12 months	n=38	20	.046*	.59	n=143	75.7	.000*	.17
(Increased)								
Perpetrator known	n=8	25.8	.011*	.48	n=23	74.2	.594	.65
(Yes)								
Poor perceptions of dwelling area	n=54	17.7	.073	.64	n=210	68.9	.084	.73
Poor perceptions of litter in neighbourhood	n=57	15.6	.891	.96	n=244	66.8	.428	.85
Poor street lighting in area	n=44	16.5	.387	.81	n=184	69.2	.092	.74
Poor police services in area	n=46	15.8	.759	.93	n=195	66.8	.604	.91
Poor refuse removal	n=25	16.8	.583	.87	n=107	71.8	.054	.67
Poor state of local roads	n=48	16.4	.466	.84	n=206	7.3	.015*	.64
Suburb (Braamfischeville versus others)	n=22	15.0	.200	.078	n=93	63.3	.002*	.152
Suburb (Riverlea)	n=16	12.9	.260	.86	n=65	52.5	.686	.73

Suburb (Hospital Hill)	n=23	16.7	.457	.79	n=106	76.8	.081	.61
Suburb (Bertrams)	n=17	23.3	.164	.89	n=52	71.2	.111	.34
Suburb (Hillbrow)	n=6	9.2	.032	.063	n=43	66.2	.521	.52
Dissatisfied with social connectedness	n=43	12.8	.081	.72	n=215	64.2	.389	.64

\*Statistically significant at the level of  $p < 0.05$

More females (17.8%) reported feeling unsafe walking during the day than males. Furthermore, there was a significant association between fear of crime during the day when the perpetrator is known (0.011). There was a significant association between fear of crime during the day and experienced rape ( $p=0.010$ ). In addition there was a significant association between fear of crime during the day and living with an individual who has been convicted of a crime ( $p=0.002$ ). Another significant link was found between fear of crime during the day and perceptions of an increase of crimes in the area over the past 12 months ( $p=0.11$ ;  $p=0.05$ ). Furthermore, fear of crime and having experienced a gunshot injury was  $p=0.059$  and was approaching significance.

There was also a significant association between fear of crime during the night experienced by men and that experienced by women ( $p= 0.009$ ). Another significance was between fear of crime during the night if violent crimes had increased in the past 12 months ( $p= 0.000$ ). There was no significant relationship between poor perceptions of the environment and reported fear of crime during the day. It is also indicated that there is a strong relationship between fear of crime and the perception of poor conditions of the local roads after dark ( $p=.015$ ). Another strong correlation was found between poor perceptions of air quality in the area and fear of crime ( $p=.004$ ). Furthermore, a significant correlation was between fear of crime and poor refuse removal in the area ( $p=.054$ ) after dark.

Lastly, it is indicated that there is a strong relationship between fear of crime and Hillbrow during the day ( $p=.032$ ). Another suburb area with a strong correlation with fear of crime after dark was Braamfischerville ( $p= .002$ ).

***At the Multivariate Level***

Table 6

*Gender, Experienced Crime, Perceptions of Crime in Neighbourhood, Perceptions of Neighbourhood (Dwelling Area, Litter in Neighbourhood, Local Roads, Open Area, Refuse Removal, Children’s Play Area and Suburb as Predictors of Fear of Crime*

*R Squared for Fear of Crime and After Dark*

**Model Summary**

Model	R	R Square	Adjusted R Square
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1	.096	.008	.006
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The association between experienced hijacking and fear of crime after dark approached significance ( $p=.053$ ). Furthermore, perceptions of crime in the past 12 months was significantly associated with fear of crime after dark ( $p=.009$ ). There was a strong association between fear of crime and the perception of children's playing area in the neighbourhood during the day ( $p=.036$ ). The adjusted R2 suggested that 6% of the variance in fear of crime after dark can be explained by the independent variables (Table 6).

## Discussion

Participants in the current study reported low levels of fear of crime during the day as compared to after dark. In a study by Fox, Nobles and Piquero (2009) it was found that fear of crime is lower during the day than after dark. By contrast, Richard (2002) found that fear of crime is low after dark. Therefore different studies produced different results and it can be understood that individuals present with fear of crime during the day and after dark. The results also show that females reported high levels of fear of crime both during the day and after dark. Similarly, Fox, Nobles and Piquero (2009) reported that fear of crime is higher amongst females during the day and after dark as compared to males. One of the strengths of the study was finding an association between gender and fear of crime at certain times of the day. The results of the study show that there is a significant link between fear of crime after dark and gender ( $p=.009$ ). Gender is considered to be the most stable predictor of fear of crime (Cossman & Radar, 2011). Fox, Nobles and Piquero (2009) also found that there is a significant link between fear of crime during the night and gender. Their study shows that females are more likely than males to be fearful of crime during the night. Richard (2002)

conducted a study in Australia and found that women were more afraid of walking in their neighbourhood at night than men were. Furthermore, the results show that there is a significant increase in fear of crime during the night if crime has increased in the past 12 months ( $p=.000$ ). These findings were consistent with those reported by Moore and Trojanowicz (1988) in the U.S.A, as they found that individuals who lived in areas with high crime rates were more afraid at night and took more preventive action than people who lived in areas where the risk of victimization was lower. It was also found that there was a strong relationship between fear of crime and the perception of poor conditions of the local roads after dark.

Furthermore, it was found in this study that living with someone convicted of crime in the same household increased fear. These findings are consistent with those reported by the United States Department of Justice (1992) and Byrne-Hessick (2007) showing that fear of crime is higher when crime is committed by a member of the household. By contrast, a study conducted by Janherich (2005) in Canada showed that fear of crime was not high in individuals living with a convicted member. Similar findings were reported by Truman (2005) in a study conducted in the U.S.A, where the study showed that respondents who lived with a convicted household member were likely to adopt precautionary behaviours, as they had perceived risk and as a result feared for their safety.

It was also found that theft had been the most commonly reported crime in Johannesburg in the past 12 months. These findings were consistent with those reported by Dijk, Kesteren and Smith (2007) in the Netherlands, Denmark, the U.S.A and Australia. Dijk, Kesteren and Smith (2007) found that theft is the most commonly experienced crime. Higgins (1997) and Hedayati (2008) maintain that theft is the most common crime experienced in the U.K.

The results also show that there is a significant link between fear of crime during the day and when the perpetrator is known. In a study by Andersson and Norring (2013) in the USA it was found that fear of crime decreases when the perpetrator is known. Furthermore, there is a significant link between fear of crime during the day and if anyone in the household had been raped. The literature (Hening & Maxfield, 1978; Warr, 1993; Truman, 2005) shows that knowing someone who has been raped can be direct and indirect victimization and increases perceived risk in women and as a result increased fear of crime. Hough (2004) maintains that knowing about a committed crime may elicit anxiety in individuals who may not have experienced the crime directly.

There was also an indication that individuals who perceived their neighbourhood negatively had a higher reported fear of crime. Individuals who perceived refuse removal, air quality and the condition of local roads as poor reported high levels of fear of crime. Ferraro (1994) found that individuals who perceive social incivilities will report increased levels of fear of crime.

On the basis of the results of this study the following recommendations are made:

The government should implement or improve safety structures in the areas of Johannesburg that have been studied here, so as to address the high levels of crime, and this may reduce fear of crime. These measures could include strengthening security and protection in the area through deploying police patrols during the day and at night in these areas. Given that this study was quantitative, future research may be conducted using qualitative methods to gather the subjective experiences of individuals who have been victimized or who live in high crime areas. Future studies could look into the various components that define fear of crime. Future studies could also look at the attitudes of males and females towards fear of crime. Given that this study was cross-sectional in nature; future work may use a longitudinal study design to determine the changes in fear of crime over a

period of time. Furthermore, this study only included low socio-economic areas of Johannesburg; future studies may be conducted in high socio-economic areas of Johannesburg to see if the findings are similar.

Limitations include the fact that the study was limited to low socio-economic areas of Johannesburg and did not cover all the areas of Johannesburg. The results may be transferrable to other similar contexts, but cannot necessarily be generalized. The study used secondary data collected by the HEAD study, meaning that the researcher was not involved in the research process. Furthermore, the data analysed was mostly through self-report at the household level, and no other more objective measures were used. The data collected by HEAD was not collected specifically to examine fear of crime but to examine factors such as the environment and poor quality housing which may affect residents' wellbeing; it is recommended that future studies develop questionnaires specifically to measure the predictors of fear of crime. Lastly, this study was based on cross-sectional design; therefore it limits the drawing of any causal inferences in the relationship between the predictors of fear of crime unless repeated over time. Nevertheless, cross-sectional studies indicate associations that may exist, and are therefore useful in generating hypotheses for future research.

## **Conclusion**

This study provided an overview of the predictors of fear of crime in low socio-economic areas of Johannesburg. The study managed to identify predictors of fear of crime that need attention and gave recommendations. The results indicated that fear of crime is high particularly after dark and females presented with high fear of crime than males. It was also found that experiences of crime were exceedingly high and living with the perpetrator in the same household was associated with high fear of crime. Braamfischerville was the suburb with the highest fear of crime after dark and Hillbrow the highest fear of crime during the



day. It can be concluded that fear of crime is associated with a number of predictors depending on whether it is during the day or after dark.



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