



**UNIVERSITY OF
KWAZULU-NATAL**

**INYUVESI
YAKWAZULU-NATALI**

**AN ASSESSMENT OF WEATHER PATTERNS ON PROPERTY-RELATED CRIMES
IN NEWLANDS EAST POLICING AREA, DURBAN**

by

Nokukhanya Neptune Mbonambi

Submitted in fulfilment of the requirements for the degree

MASTER OF SOCIAL SCIENCE IN CRIMINOLOGY AND FORENSICS STUDIES

in the

SCHOOL OF APPLIED HUMAN SCIENCES

COLLEGE OF HUMANITIES

UNIVERSITY OF KWAZULU-NATAL

Supervisor: Dr Siyanda Dlamini

2018

DECLARATION

I, Nokukhanya Neptune Mbonambi declare that:

(i) The research reported in this dissertation, except where otherwise indicated is my work.

(ii) This research has not been submitted for any degree or examination at any other university.

(iii) The sources have been properly referenced in text and in the reference section.

Signature:

Date:

DEDICATION

This study is dedicated to my parents; Mr Nhlanhla and Mrs Hloniphile, as well as my sister (Nothando Mbonambi). Collectively, you have shown me that I am stronger than I ever could have imagined. This research work would not have been possible without your constant love and encouragements.

ACKNOWLEDGEMENTS

As the following biblical scriptures confirms; Romans 8:28, “*And we know that all things work together for good to them that love God, to them who are called according to His purpose*”. Philippians 4:13, “*I can do all things through Christ who strengthens me*”. These cited verses have ministered to me at times when I felt like giving up, all glory and honour goes to the Most High for making it possible for me to complete this work.

Furthermore, herewith my sincere appreciation and gratitude goes to the following individuals:

Dr Siyanda Dlamini: my supervisor for your invaluable support and guidance. Your mentorship has meant so much to me, I consider myself very fortunate to have had the opportunity to learn from you and I could not have worked with a better supervisor. Thank you

Dr Witness Maluleke: Thank you for always having your door open for me and your willingness to always assist me with insightful comments and suggestions. I am forever in your debt.

Newlands East South African Police Service (SAPS) officials: Thank you very much for your co-operation and contributions towards the fulfilment of this study. Your input is highly appreciated.

To all my friends, family members and loved ones who always cheered me on; thank you more.

ABSTRACT

It is in the best interest of community members, as well as policy makers to comprehend the factors that influence crime while not solely focusing on the effectiveness of the available strategies. This study aimed at exploring the South African Police Services (SAPS) perceptions on weather patterns as a contributory factor to residential burglary in the Newlands East Policing Area of Durban. The motivation behind this study was based in safety within the selected community, mainly focusing on burglary at residential burglary premises because this crime has seen the highest reported property-related crime in the area for the past five years (2012-2016). It was also underpinned by the National Developmental Plan (NDP) of attempting to build safer communities by 2030.

In ensuring that the aim of this study was achieved, a qualitative research designed was used, which assisted the researcher to focus on the exploration of weather patterns on burglary in a residential setting. Data collection for this study was based on semi-structured interviews conducted on an individual basis with selected participants. It combined a set of pre-determined questions that enabled the interviewer to explore further particular themes and responses.

The findings of this study revealed that residential burglary increase and decrease in relation to different weather conditions within the location of this study. Overall, it can be concluded that weather patterns are indeed a contributory factor to residential burglary. It also suggested that police officials have developed strategies against weather patterns on residential burglary. However, the challenge lies in the communities' co-operation in fighting this kind of crime.

Keywords: *Property-related crime, housebreaking/burglary at residential premises, weather patterns, seasonality, perceptions*

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT.....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES	x
LIST OF FIGURES	x
CHAPTER ONE: GENERAL ORIENTATION	11
1.1. Introduction	11
1.2. The problem statement.....	12
1.3. Research aim and objectives	15
1.4. Research questions.....	15
1.5. Operationalisation of relevant concepts.....	16
1.5.1 Crime:	16
1.5.1.1 Property related crime:.....	17
1.5.1.2 Housebreaking/burglary at residential premises:.....	17
1.5.2 Weather:.....	17
1.5.3 Seasonality:	17
1.5.4 Perceptions:.....	17
1.6. Study significance.....	18
1.7 Outline of the dissertation.....	18
1.8 Summary	19
CHAPTER TWO: LITERATURE REVIEW AND THEORITICAL FRAMEWORKS.....	20
2.1. Introduction.....	20
2.2. The National Development Plan 2030.....	21
2.3. General weather patterns in KwaZulu-Natal, Durban	22

2.4. The nature of burglary at residential premises.....	23
2.4.1 Temporal weather patterns.....	23
2.4.1.1 Time of day/day of week/month of the year/periods	24
2.4.2 Notable methods of gaining entry.....	29
2.4.3 Probable motivations and suitable items targeted.....	30
2.4.4 The section process for housebreaker’s targets	33
2.5. The phenomenon of weather patterns and burglary at residential premises.....	37
2.6. Burglary at residential and environmental: criminological theoretical perspectives.....	41
2.6.1 Routine Activities Theory.....	41
2.6.2 Rational Choice Theory	44
2.6.2.1 Preventative measures for residential burglary during different weather patterns	
– Situational Crime Prevention	45
2.6.2.2 What the community can do to respond to burglary at residential premises	47
2.7. Justification of the study	47
CHAPTER THREE: METHODOLOGY	49
3.1. Introduction.....	49
3.2 Research design	49
3.3 Exploratory case study method.....	51
3.4 Research paradigm.....	52
3.5 Strategy for participant recruitment	53
3.5.1 Entry into the research site.....	54
3.5.2 Selection of participants.....	54
3.6 Scope of the study.....	55
3.6.1 Study location	56
3.7 Data collection	57
3.7.1 In-depth interviews	57
3.7.2 Data analysis	59

3.8. Ethical considerations	60
3.9 Methods to ensure trustworthiness.....	63
3.9.1 Credibility	63
3.9.2 Transferability.....	64
3.9.3 Dependability.....	64
3.9.4 Conformability.....	65
3.10 Limitations and challenges experienced in conducting the study.....	65
3.10.1 Conceptual demarcation.....	66
3.10.2 Financial constraints and travelling distances.....	66
3.10.3 Geographic delimitation.....	66
3.10.4 Limited previous research in South Africa on the linkage of weather patterns and burglary at residential premises.....	66
3.10.5 Permission to conduct the current study	67
3.10.6 The study participants	67
3.10.7 Time delimitation (setting dates for the interviews).....	67
3.11 Summary.....	68
CHAPTER FOUR: DATA PRESENTATION AND INTERPRETATION OF FINDINGS	69
4.1. Introduction.....	69
4.2. Summary of the research	69
4.3. Discussion of the findings.....	70
4.3.1 Question 1:.....	70
4.3.2 Question 2:	61
4.3.3 Question 3:	66
4.3.4 Question 4.....	77
4.3.5 Question 5	69
4.3.6 Question 6:.....	80
4.3.7 Question 7:.....	83

4.3.8 Question 8:	83
4.3.9 Question 9:	87
4.4. Summary	89
CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS	90
5.1. Introduction.....	90
5.2. Conclusions relating to the achievement of the objectives of the study	90
5.2.1 Exploring the SAPS perceptions on weather patterns on residential burglary in Newlands East Policing Area, Durban.....	90
5.2.2 To understand the contributing factors of weather patterns in the occurrences of residential burglary in the Newlands East Policing Area	91
5.2.3 Explore the current strategies employed by the Newlands East SAPS in response to weather patterns and residential burglary	92
5.2.4 To evaluate the challenges that may exist between the local SAPS and residents in responding to burglary at residential premises during unfavourable weather patterns	92
5.2.5 Identification of community’s engagement in addressing burglary at residential premises during weather patterns changes	93
5.3. Recommendations for the attention of SAPS and community members.....	93
5.4. Recommendations for future research	94
5.5. Conclusion	95
REFERENCES	96
ANNEXURE B: Interview Schedule Guide in IsiZulu:	107
ANNEXURE C: University Of KwaZulu-Natal Full Approval Letter	108
ANNEXURE D: South African Police Service Provisional and Full Approval Letters	109
ANNEXURE E: Gatekeeper Permission Letter	110
ANNEXURE E: Informed Consent Letter	111

LIST OF TABLES

Table 1.1: Property-related crime (burglary at residential premises) in Newlands East, Durban.....	12
Table 2.1: Study analysis of housebreaking responses: Residential burglary in South Africa - a geographical perspective.....	35
Table 3.1: Characteristics of intepretivism	53
Table 5.1: Contributing factors of weather patterns on residential burglary	91

LIST OF FIGURES

Figure 1.1: The provincial percentage distribution of timelines of housebreaking/burglary at residential premises commission during the day by province	13
Figure 1.2: The provincial percentage distribution of the way the burglar entered the house.....	14
Figure 2.1: Linkage of Routine Activities Theory and crime.....	42
Figure 3.1: Map of Newlands East Police Station	57

CHAPTER ONE: GENERAL ORIENTATION

“Life is no different than the weather. Not only is it unpredictable, but it shows us a new perspective of the world every day.” Suzy Kassem (2011)

1.1. Introduction

Crime and the factors that influences it has been investigated in many ways. In investigating these factors, a significant number of criminologist have focused on socio-demographic variables, for instance, age, sex, race and financial status (McGrath, Lasher, & Cumming, 2011 ;Ellis, Beaver, & Wright, 2009) . Notwithstanding, few researchers have researched the influence of the physical environment on crime and one of the physical environmental factors which influences crime refers to weather patterns.

The propositions connecting weather patterns and crime were investigated through astrology 5000 years ago (Cheatwood, 1988). This connection continued to receive enormous global scholarly attention (Cohn & Rotton, 2000: Hird & Ruparel, 2007: Crank & Jacoby 2015). A significant number of this literature support that weather patterns are indeed a contributing factor to crime causation. However, scholarly research on this correlation within a South African context, is yet to be fully explored (Breetzke & Cohn, 2012).

Considering the above, this study seeks to offer valuable contribution in the field of Criminology and in South Africa, by offering new insights on the exploration of weather patterns on property crime in Newlands East Policing Area, Durban. The focus of this study was confined to property crime (housebreaking/burglary at residential premises) to understand whether different weather conditions contribute to its occurrences. Therefore, this study explored the SAPS’s perceptions of weather patterns on residential burglary.

1.2. The problem statement

Recognising a problem is the core of any research (Naidoo, 2015). All research studies are intended to address a problem. Once a problem has been identified, the researcher collects applicable information to solve the problem (Leedy & Ormrod, 2013). The research problem for this study read as follows:

Crime is a universal problem that endangers the well-being of many individuals, undermining quality of life in general and compromising safety within communities (Dlamini, 2017). In light of this, there exists a need for community members and policy makers to comprehend the factors that influence crime while not solely focusing on the effectiveness of the available strategies.

Weather patterns are an unavoidable part of everyone's surrounding, yet research on its influence on property – related crime (burglary residential premises) is still on its infancy, especially within the South African context. The motivation behind the demarcated crime is safety within the communities, given that every individual wants to feel safe in their homes. However, this is not the case in Newlands East Policing Area because burglary at residential area level has consistently been one of the highest reported property crimes according to the SAPS crime statistics since 2012 (refer to table 1).

Table 1.1: Property-related crime (burglary at residential premises) in Newlands East, Durban

2012	2013	2014	2015	2016
351	489	495	280	310

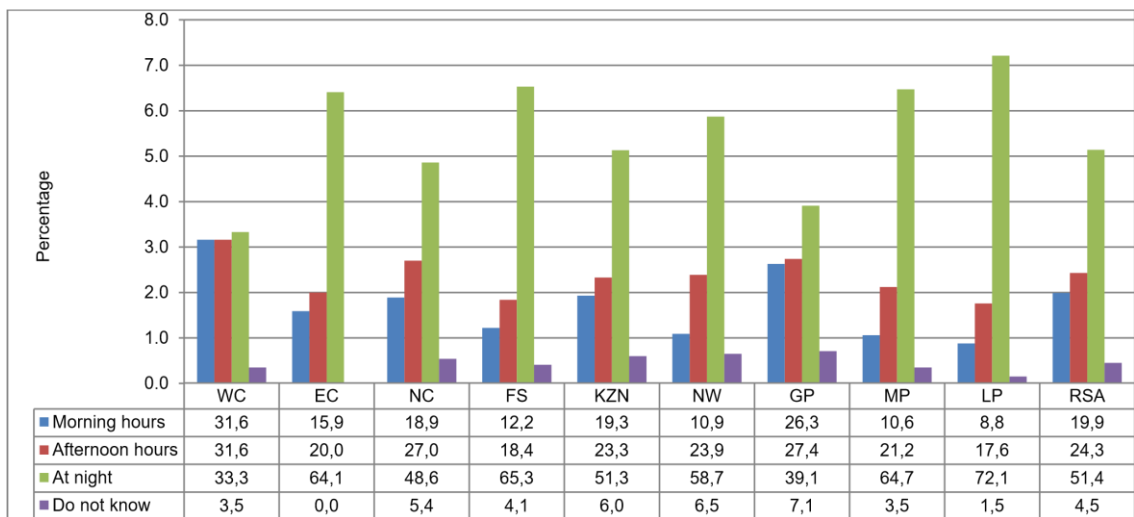
Source: Crime Statistics South Africa (2015)

From the available statistics on reported burglary at residential premises have increased drastically over the last three years reporting periods as indicated above.

The impact of burglary at residential premises in the Newlands East Policing Area suggests that this type of crime is prevalent in this area. Apparently, it does not only hold financial implications but can

harm its victims psychologically and emotionally. Furthermore, in the light of the nature and extent of burglary at residential premises has evidently become a global and growing problem, which is more complex in nature than a mere, property-crime related. In 2015/16, 250 and 606 house burglaries were recorded respectively, a decrease of 1.2% from the previous year. The house burglary rate decreased from 468.6 in 2014/15 to 455.5 in 2015/16. On average 686.6 houses were burgled each day (Africa Check, 2017).

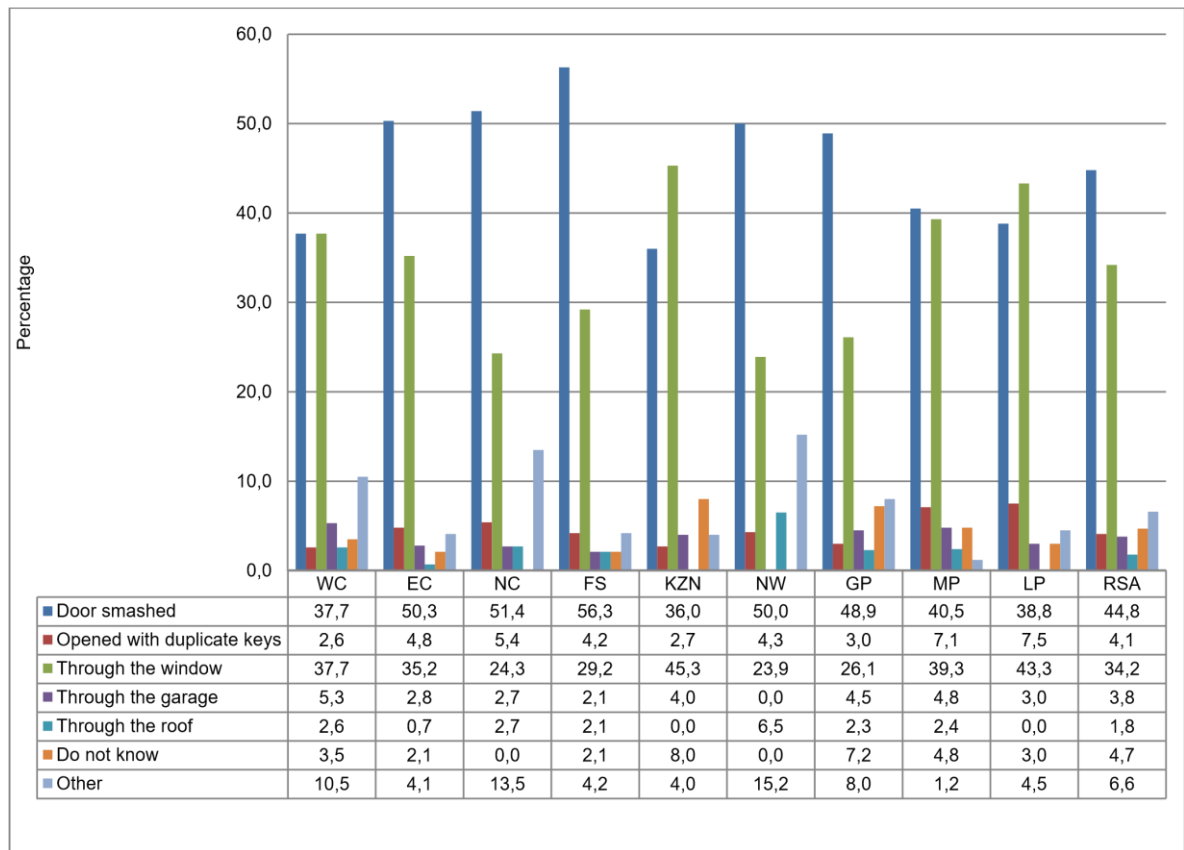
Figure 1.1: The provincial percentage distribution of timelines of housebreaking/burglary at residential premises commission during the day by province



Source: Victims of Crime Survey [VOCS] (2015/16:65).

Figure 1 shows the percentage distribution of households that experienced housebreaking/burglary during the period 2015/16 by the time of day it took place. The pattern is the same in all provinces where the most likely time of the day housebreaking/burglary takes place is at night followed by afternoon hours. Morning hours are the least likely time for housebreaking/burglary to take place in every province except in the Western Cape where housebreaking/burglary is equally likely to happen at any time of the day (Victims of Crime Survey, 2015/16:65).

Figure 1.2: The provincial percentage distribution of the way the burglar entered the house



Source: Victims of Crime Survey (2015/16:65).

Figure 2 above indicates percentage distribution of the way the burglar entered the house by province is shown in Figure 63. Most households in South Africa responded that the door was smashed (44, 8%) as a way of entry into their house than any other reason, while about 34, 2% of households indicated that burglars managed to gain entry to their houses through the window. Entry through the roof (1, 8%) was the least mentioned entry method (Victims of Crime Survey, 2015/16:65).

It is hoped that the findings from this study will enable SAPS officials and community members of Newlands East Policing Area to respond effectively to property-related crimes in the study area by understanding if there is a link between weather patterns and former crime, this will aid to the achievement of the envisaged NDP of 2030.

1.3. Research aim and objectives

Mouton (1996) provides that the aim of research is to establish facts, to gather new data and to identify interesting patterns in the data collected in a specific study. The primary aim of this research is “*to explore SAPS members’ perceptions of weather patterns as contributing factor on residential burglary in Newlands East Policing Area.*”

It is imperative to comprehend weather patterns on crime, to implement effective crime prevention strategies. Crime is a social conduct, and almost all conduct in which individuals take part is affected in minor or major ways by the weather that surrounds us and the change of seasons that change that weather (Cheatwood, 2009). In light of the above statement; the key objectives of this study are:

1. To explore the SAPS’ perceptions on weather patterns on residential burglary in Newlands East Policing Area.
2. To understand the contributing factors of weather patterns in the occurrences of residential burglary in the Newlands East Policing Area.
3. To explore the current strategies employed by the Newlands East SAPS in response to weather patterns on residential burglary.
4. To evaluate the challenges that may exist between the local SAPS and residents in responding to burglary at residential premises during unfavorable weather patterns.
5. To identify community’s engagement in addressing burglary at residential premises during changes in weather patterns.

1.4. Research questions

According to Noaks and Wincup (2004), researchers must think through the important themes they hope to tackle at the beginning of the study, then construct the research in accordance to these important themes. Denscombe (2002:31) explains that research questions stipulate precisely what the researcher is going to be investigating as well as what will be “observed, measured and interrogated”, with the aim of shedding light on the topic. Therefore, derived from the problem being studied and the research objectives, the researcher formulated the following key research questions:

1. What are the perceptions of the SAPS members on the weather patterns on residential burglary in the Newlands East Policing Area?
2. How do different weather patterns contribute to the occurrences of residential burglary in the Newlands East Policing Area?
3. What strategies have been put to place to respond to weather patterns on residential burglary in Newlands East?
4. What are the challenges that exist between the local SAPS and the residents of Newlands Policing Area in responding to burglary at residential premises during unfavourable weather patterns?
5. How is the communication and co-operation between the community and the local SAPS in addressing burglary at residential premises during weather patterns changes in the Newlands East Policing Area?

1.5. Operationalisation of relevant concepts

This section of this chapter was designed to provide operationalisation of relevant concepts in terms of definitions and interpretation as applicable to this study. A concept is defined as an idea which is illustrative of something. The aim of conceptualisation is to safeguard meaningful communication (Welman, Kruger & Mitchell, 2005:20). For this study, the below concepts are clarified to benefit readers and future researchers. The clarity on the use and applications of these concepts is highlighted as follows:

1.5.1 Crime:

The legal definition of crime is that, it is an act of omission or an omission of an act that is illegal, transgresses/violates formally constituted law, and is thereby prohibited or punishable by law. (Munice & McLaughlin, 2001)

Furthermore, the non-legal definition of crime refers to an “act that violate socially accepted rules of human, ethical, or moral behavior” (Ahmadi, Sharifi & Valadan, 2003:5).

Crime can be grouped into several categories. However, the following types of crimes guided this study:

1.5.1.1 Property related crime:

refers to “unlawful and intentional threatening or damaging or appropriation of threatening property belonging to other(s)” (VOCS, 2015/16:80- 81).

This study provided the following type of property related crime:

1.5.1.2 Housebreaking/burglary at residential premises:

is defined as “unlawful and intentional breaking into a building or similar structure, used for human habitation, and entering or penetrating it with part of the body or with an instrument, with the intention to control something on the premises, intending to commit a crime on the premises, where there is no contact between the victim(s) and the perpetrator(s)”. Furthermore, a house burglary is committed when a person “unlawfully and intentionally breaks into a building” with the intention to take something on the premises (Africa Check, 2017).

1.5.2 Weather:

As defined in the Glossary of Meteorology (in Miller, 2009:52) is “The state of the atmosphere, mainly with respect to its effects upon life and human activities. As distinguished from climate, weather consists of the short-term (minutes to days) variations in the atmosphere. Popularly, weather is thought of in terms of temperature, humidity, precipitation, cloudiness, visibility and wind”.

1.5.3 Seasonality:

refers to “a pattern of weather characterized of a period of time, usually months that recurs with regularity from year to year,” Miller (2009:52).

1.5.4 Perceptions:

According to the Chambers Dictionary (2008), ‘perception’ (or its plural derivative ‘perceptions’), is defined as a situation in which a person is “...conscious of [his/her] environment through physical experiences and sensations”, and the term denotes “...an individual’s ability to understand”. The Oxford Dictionary also defines the term as “...an interpretation or impression based on one’s understanding of something” (Thompson, 1995:1 014). Within the framework of social science,

Nelson and Quick (1997:83-84) define 'social perception' as "...the process of interpreting information about another person".

1.6. Study significance

The motivation of the study was underpinned by the aim of the NDP of 2030 for building safer communities as mentioned *Supra*. Safety is one of everyone's priority in life and it is an essential human right.

The National Planning Commission Diagnostic Report (2011) underlines that safety is a necessity requirement for humans to develop, improve their quality of living, as well as enhance production. Once the community does not feel and live their lives in fear, the nation's economic growth and individual's well-being is impinged, holding back their capability towards achieving their potential. Furthermore, in the analysis of the National Crime Statistics 2013/14, the SAPS states that burglary at residential premises is probably the crime, second to robberies at residential premises which has the most direct effect upon victims, signifying the invasion of their privacy as well as adding to their feelings of insecurity.

Considering that the researcher did not only wish to contribute to the existing literature in this field of study. Since the literature searched revealed that no previous study had focused specifically on the perceptions of SAPS members on weather patterns as a contributing factor to property-related crimes. However, also wishes to make a real difference in the community of Newlands. As a closer scrutiny of crime trends is conducted to enable the SAPS officials to make effective decisions and design interventions to mitigate this selected type crime the study setting. Moreover, it is envisaged that the findings will enable residents to protect themselves against property crimes in different weather conditions. In that way, this crime could be possible prevented, or at least reduced.

1.7 Outline of the dissertation

Chapter One: This is the introductory chapter that presents the background of this study, the statement of the problem, and the objectives of the study.

Chapter Two: This chapter outlines the theoretical framework. The theoretical framework demonstrated an understanding of theories and concepts that are relevant to this research. This chapter also introduced and described the theories which explain why the research problem exists. This chapter also provides a discussion on the literature that is relevant to the current study. The literature review provided a background to the study on weather patterns on crime. This chapter also presents a review of existing literature and locates the current study in the body of existing of knowledge.

Chapter Three: This chapter presents the methodology used in the study to collect data. Consequently, it incorporates the steps, techniques, procedures as well as approaches in obtaining and analysing data. This chapter also highlighted some of the strengths and limitations these methods had in the process of collecting data. Furthermore, methods to ensure trustworthiness are discussed and ethical considerations are also described.

Chapter Four: This chapter presents and discusses the findings. The data is discussed in line with the relevant literature that validated the analysis. It also provided an explanation for the conclusions drawn from the data.

Chapter Five: This chapter comprises the conclusion for the entire dissertation. Furthermore, the chapter presents the recommendations and suggestions for further research on weather patterns and crime.

1.8 Summary

This chapter provided a general orientation of the study by giving insight into the core of the dissertation as expressed through the background, aim and objectives. The next chapter discusses the literature and theoretical framework which provide more insight into the theme of this study.

CHAPTER TWO: LITERATURE REVIEW AND THEORITICAL FRAMEWORKS

“There was something horribly depressing, she felt, about watching the weather report. That life could be planned like the perfect summer picnic drained it of spontaneity.” Galt Niederhoffer (2010)

2.1. Introduction

Researchers frequently work towards comprehending the causes contributing to crime and one of the numerous factors, which has been studied, refers to weather patterns. The researcher established that numerous international researchers have studied weather patterns on many categories of crime, through these studies, it is alluded that weather patterns can provide an understanding on circumstances contributing to the unexpected event. It is without surprise that hypotheses exist regarding weather patterns on crime, since it is very instinctive that people’s behaviour differs with regards to weather conditions, for example, some people find themselves outdoors during day time [i.e. however the rational of night outing cannot be ignored at all costs] (Mamayek, 2013). Largely, Sutherland and Cressey (1978:82) emphasise that weather conditions “provide the habitat for human life, consequently may facilitate or impede contacts among human beings, and perhaps in that sense be related to opportunities for criminal behaviour”. Despite all the highlighted efforts, researchers are still striving to comprehend fully “how crime is related to weather?” which will have formed the crux of the presented discussion by this chapter relating to literature review and theoretical frameworks section.

The previous chapter provided a general orientation of this study in relation to the problem under investigation, study objectives, the research questions as well as an explanation of the rationale/key contributions made by this study. Against this backdrop, the literature review serves as an essential part of any research project and is a valued input to virtually every single operative step (Kumar, 2011). According to Neuman (2011:124), “literature review builds on the idea that “knowledge accumulates and that we can learn from and build on what others have done.” Furthermore, Leedy (1989:12) states that the objective of a literature review “is the referral in an area, not specifically similar but collateral to, the area of study.” Whereas, a theoretical framework refers to “a structure that can hold or support a theory of a research study” (Swanson, 2013:1) Grant and Osanloo (2014:13)

further refer to the theoretical framework as the “blueprint” for the entire dissertation inquiry. As this practice also “serves as the guide on which to build and support an undertaken study, and provides the structure to define how a researcher will philosophically, epistemologically, methodologically, and analytically approach a research project holistically”. For this study, the literature review and theoretical framework provide a premise of conducted studies on the nexus of weather patterns and crime (residential burglary) and those related to the area of study. Furthermore, this chapter demonstrated an understanding of theories and concepts relevant to the current study.

The objective of this chapter is to present the National Development Plan 2030, which underpinned this study (as stated in the introductory section of this study). Secondly, it gives a general overview on how weather patterns change from season to season in Durban, South Africa, for getting an idea of how it would likely affect crime patterns. . Thirdly, it examines literature on residential burglary both internationally and locally (South African context). The literature reviewed in this chapter provides an understanding on how individuals interact with the physical and social environment. Furthermore, it considered the rational choice of committing a crime; in collaboration to this statement, this chapter explains the types of behaviours as arranged across space and time in accordance to weather patterns. This provided an insight on how burglary in residential premises is carried out as well as its characteristics. The fourth section of this chapter introduced and described theories explaining the problem under scrutiny. Followed by the linkage between weather patterns and residential burglary, this section connected characteristics of residential burglary with weather patterns in Durban. It ought to be noticed that the literature revised in this section includes all the meteorological conditions and aspects of weather, which are studied in the field of criminology, which includes the weather itself (temperature, humidity, and sunshine [daylight]) and seasonality. Consequently, the preventative measures to this crime are also discussed in this chapter.

2.2. The National Development Plan 2030

The South African government felt the necessity for an intervention on the crime situation in South Africa, of which safety and security takes priority in both NDP 2030 and the Medium Term Strategic Framework. The introduction of the NDP 2030 stressed that “safety is a core human right and a necessary condition for human development and improving productivity”. Thus, the NDP has proposed as a strategic priority that criminality be decreased by reinforcing the criminal justice system

as well as bettering the communities' environments. Moreover, it is additionally specified that not later than 2030, "people living in South Africa should have no fear of crime. Women, children and those who are vulnerable should feel protected". There are five fundamental priorities which the NDP prioritises to attain communities which are free of crime. These are, (i). Strengthening the criminal justice system (ii) making the police service more professional (iii). Demilitarising the police (iv). Building safety using an integrated approach (v). Building community participation in community safety (National Planning Commission Diagnostic Report, 2011). This study was informed by priority (iv) and (v) of the NDP. Since these priority emphasises active citizen involvement and co-responsibility in the achievement of a crime –free South Africa. Residential burglary is one crime which requires active community participation as critical elements of a safe and secure society.

2.3. General weather patterns in KwaZulu-Natal, Durban

The South African Weather Services [SAWS] (2017) provides that KwaZulu-Natal (KZN) is situated on the east coast of South Africa and the warm waters of the Indian Ocean lap its shores. It enjoys a warm, coastal climate with plenty of sunshine, quite a lot of humidity and a fair amount of light rainfall. KZN's climate is generally warm and characterised by mild winters. Much of this is owing to its sub-tropical latitude and its affiliation with the Indian Ocean. The largest city in KZN is Durban, the area of study, which is a colourful city that enjoys a relaxed atmosphere with approximately 320 days of sunshine each year.

The hottest season hits the province between September and April, of which temperatures stay comfortable between 23°C and 33°C (Celsius) during this time ([SAWS] (2017). December and January are considered the hottest months of the year and this is when temperatures average 32° C, which is mixed with light. During this time, most locals and some visitors choose to make the most of the good weather by heading off to the city's many great beaches. Some may find, however, that the rather warm waters of the Mozambique current which flow past the city are not very refreshing. The seas temperature in KZN seldom falls below 17° C – this happens even in mid-winter. Light rain falls in Durban throughout the year, but summer is the wettest season. This however, is mainly due to afternoon and evening thunderstorms that strike on a daily basis, generally during the afternoon, particularly hot and humid days. These storms are usually intense, but pass quickly and the next day dawns bright, clear and hot weather. The average rainfall per year is a mere 1009mm (SAWS, 2017).

Temperatures range from 16 to 25° C during the cold seasons (May – August) in Durban. At night, the average minimum temperature drops down to around 18°C. The winters are mild to warm, and the temperatures are, on average, over 20 degrees, and in contrast to the summer weather, Durban is rarely bothered by rain during the winter. The windy season starts around August and can last right through to January (SAWS, 2017).

With the information presented *Supra*, the general purpose of this section (see section 2.3 of this chapter) was to give an overview of weather patterns in Durban, South Africa, to get an idea of how it would likely affect crime in the study setting. Most importantly, weather patterns are likely to change during the day, months and seasons, which would give a clarification on the variation in residential burglary during those different times.

2.4. The nature of burglary at residential premises

Burglary at residential premises is frequently opportunistic. It regularly happens at an opportune moment when residents are evidently absent and the house is perceived as vulnerable (Cromwell & Olson, 2006). A motivated offender needs to firstly recognise a suitable target before they go in the house without being noticed. A housebreaker's choice to "hit" a target is constructed on environmental cues that are apparent to have immediate consequences.

With the above being noted, this segment explains the conditions which burglary at residential premises occurred, specifically temporal patterns, which include the time of the day/day of week/month of the year/period, the method of which the housebreaker got into the house, motivation and items targeted, and target selection.

2.4.1 Temporal weather patterns

Burglary at residential premises may happen at any given period of the day, though there are periods of which people are additionally at risk of victimisation. The period within the day typically provides a hint in terms of visibility; namely that "morning hours are associated with light whilst night hours

are associated with darkness”. Nee (2003:40) asserts that housebreakers are frequently more well-informed compared to their victim(s). In addition to this, they are logical in their strategies with regards to targeting possible victim(s). Once the housebreaker has cautiously evaluated the possible risks as well as rewards related with it, Coupe and Blake (2006:454) additionally affirmed that perpetrating residential burglary is a rational choice by the criminal. The housebreaker probably target residential premises which will reduce their risk of being caught, even though there are other aspects for instance “the accessibility of the target house and the routine activities of victims which create burglary opportunities”. This is to say that burglary opportunities differ depending on the time of the day (day or night time), in which they affirm that active housebreakers suggest that they account for the time use and daily activities of people in neighbourhoods.

2.4.1.1 Time of day/day of week/month of the year/periods

David (2003) states that housebreakers shun interaction with residents and mentions that before the mass entrance of womankind in the labour force, burglary at residential premises tended to be a night-time occurrence. To-date, the percentage of daytime break-ins has increased severely with the number of females employed, as numerous additional houses are now completely vacant throughout the daytime. Weisel (2002) refers to an investigation by Rengert and Wasilchick (2000) approximating that the percentage of day-time break-ins in the United States of America (USA) increased from 16 per cent in 1961 to 40 per cent in 1995 to the present Federal Bureau of Investigation approximation of 60 per cent. In contrast to the USA, approximations from the British Crime Survey (BCS) suggested that no more than 40 per cent of British break-ins happen throughout day time hours, whereas 56 per cent happen throughout times or darkness. Even though the explanations for this cross-national variation is unclear, the lower percentage of night-time break-ins in the USA might reveal a better attempt from the USA burglars to shun interaction with their victims. After all, the percentage of houses that have a firearm is roughly ten times higher in the USA (48 per cent) compared to England and Wales (4.7 per cent) (Killias, 1993).

The monthly difference in the amount of residential burglaries recorded in Britain clearly varies with months, it reaches its highest in the month of December as well as an additional sharp increase in the month of July. David (2003) asserts that these sharp increases in burglary are probable to indicate times of non-occupancy throughout Christmas as well as the Danish industrial holidays. The complete

decrease in residential burglary noticed amongst the month of January as well as April might indicate the decreasing cover of dark hours throughout those months, whereas the opposite can be factual of the total rise noticed amongst the month of August as well as December. The slight rises recorded in May as well as June might well replicate the increasing propensity of residents leaving their doors as well as windows open as the weather gets warmer.

In other words, with reference to residential burglary in Britain, seasonal patterns in occupancy, light of day hours, as well as temperature are altogether very probable clarifications for the patterns noticed. These clarifications are compatible with criminals' individual self-reports about the elements they think through at the time determining what properties to burglarise as well as when to hit them (Wright & Decker, 1994). Furthermore, David (2003) mentions that alcohol consumption may perhaps similarly be a factor in the month of December, because alcoholism might intensify the occurrence of opportunistic offending, in addition to this reduce victims' tendencies to lock doors as well as windows.

In a Victim of Crime Survey (VOCS) conducted in South Africa, participants were requested to specify the period within the day of which residential burglary happened with the purpose of determining the circumstances under which residential burglary was possible to take place. In the year 2010, roughly 30.4 per cent of burglary at residential premises occurrences happened during the night, which is the time related with darkness, followed by the afternoon (22. 0 per cent) and morning (15. 9 per cent) hours. Approximately 12 per cent of residential burglary occurrences in the year 2010 happened during the evening times, whereas the smallest (2. 9 per cent) occurred at dawn. The same pattern in the occurrences was noticed in 2011, where the utmost occurrences (27. 5 per cent) happened during the night and the smallest (4. 6 per cent) at dawn (VOCS, 2012).

The above mentioned discoveries indicate that variations into light of day and darkness influence the probability of residential burglary. This proposes that darker times increase the probability of residential burglary occurrences, henceforth occurrences that happen during the evening tend to be lesser than occurrences that happen late at night. Researchers assumed that these discoveries could be accredited to activities surrounding the residences house of which is predicted to being greater during the evening hours compared to the late hours during the night. Furthermore, it is likely that the

increased levels of activities in the evening might be a deterrent to possible break-ins which per definition takes place without physical contact between the victim and perpetrator.

In addition to the above, VOCS conducted another study in the year 2014/2015 and 2015/2016 of which they examined the pattern of residential burglary throughout the mentioned years. They stated that recognising the lowest and highest periods during the year for residential burglary as well as the time during the day which the offence is probable to occur can be beneficial in the development of security strategies for homes, as well as for organising deployment of resource for the police. In this survey, participants were questioned about the month as well as the year the most current residential burglary happened. The outcomes of the survey indicated that equally in the years 2014/15 as well as 2015/16 residential burglary appears to be at its greatest in the month of March and June. In the 2014/15 series, there were additional peaks in the month of December, whereas the 2015/16 series peaks in the month of August. The lowest points for residential burglary were indicated clearly in the months of January, May and November.

Moreover, the participants also indicated the time in which the crimes occurred, if it was during the morning or else the afternoon or night. They were given the selection of “Do not know” just in case the respondents had no idea of the time in which the housebreaking had occurred. The findings were similar to the findings of the year 2011, it was clear that the night periods were the most preferable period for residential burglary, with over 49.4 per cent occurrences happening during the night. The morning periods were the least favourable for residential burglary with only 20.4 per cent occurrences.

In contrast to the above mentioned studies, Breetzke (2016) conducted a study which examined the spatial periodicity of crime in South Africa using Fourier analysis. This study was conducted in the City of Tshwane (Pretoria) from 2001 to 2006, using crime data which was acquired from the Crime Information Analysis Centre (CIAC) of the SAPS. The CIAC provided crime data for Tshwane from the 4th of September 2001 to 31st of August 2006, which was assigned a quintile rank to all neighbourhoods in Tshwane. Quintile ranks assigned to each neighbourhood in Tshwane ranged from 1 (indicating low deprivation) to 5 (indicating high deprivation). The author discovered from the data that property crime was the utmost throughout the daytime and lowermost throughout the early times of the morning. It ought to be noticed that this temporal pattern in property crime recognised by

Gregory is characteristically discovered in international research as well (Miethe & McCorkle, 2006). Nonetheless, the largest peak in property crime in Tshwane was discovered to be during the late afternoon/early evening, at the time after majority of individuals would most probably be at home. The mentioned surprising outcome is reinforced by a survey of property criminals conducted by Zinn (2010a) in South Africa, who discovered that residential burglaries in South Africa were most probable to happen at the time when residents were at home and awake. Moreover, the author discovered that property crime was constantly greatest in the summer months, with peaks in October as well as March, which is efficiently the start and end of the warm weather period.

Furthermore, the same study also investigated the day of the week property crime is likely to occur. It was discovered that property crime in Tshwane is most probable to happen throughout the week than on the weekend, no more than 26% of all property crimes in Tshwane occur during the weekend. Intriguingly, the utmost prevalent day during the week for property crimes is Friday, along with an acute decrease throughout the weekend and a moderate increase during the weekdays. Morrison and O'Donnell (1994) also discovered the Friday increase for property crime in England and Wales and accredited the findings to the reality that thieves tend to be more motivated towards the end of the week since they require cash to use for weekend events. While this clarification may possibly relate to the South African context, additional explanations for this tendency may possibly be the better chances which exist on Fridays equally for wages which are waged out on Friday, frequently in cash as well as because a lot of business persons carry home their weekly incomes on the end of the week. Tshwane specifically includes very mobile residents. In addition to this, it is a common place for migrant employees from neighbouring provinces as well as countries. Actually, community surveys discovered that up to 28 per cent of migrant employees in Tshwane do not reside in the city (City of Tshwane (CoT) Municipality Household Survey, 2008). The immigration of citizens to their household families or 'secondary' homes at the end of the working week may well be a causative element to the escalation in property crimes such as burglary on these days. The mentioned circumstances can increase offender's motivation by making suitable targets for burglary particularly if these employees are carrying home cash and/ or other goods with them.

The author further mentions that the utmost thought-provoking finding from the statistics of property crime through the five neighbourhoods quintiles is the substantial increase in property crime which happens in Quintile 3 (middle class) approximately every 75 days. To be precise, every 75 days throughout the five years, there is an increase in property crime in middle-class neighbourhoods of

Tshwane. Of more attention, though, is that this increase does not happen within other neighbourhood quintiles. The explanations that the author provided for this increase is theoretical nonetheless mentions that this may possibly be connected to the periodic incidence of school breaks which happen approximately during this period or else it might be connected to repeat victimisation. Concerning the first mentioned, it has been found before that more well-off neighbourhoods of Tshwane are additionally probable to be place of property crime (Breetzke & Cohn, 2013) also it might be that these neighbourhoods are targeted in school holidays when occupants might be on holiday somewhere else leaving their homes unoccupied. As stated by the Routine Activities Theory, through the holiday times, people are most probable to spend time outdoor from their houses leaving their households more vulnerable to crimes such as burglary (Cohen and Felson, 1979). Research conducted in the United States of America by Cohn and Rotton (2003) has revealed that criminality commonly escalates during school as well as public holidays. Concerning the last mention, it may well be that this 75-day interval is a visible 'lag-period' for repeat victimisation. Namely, the period that criminals are willing to wait before they target the same property and/or neighbourhood again.

With the above contrast being presented, the SAPS Annual Crime Report for (2015/2016) reveals that different provinces vary concerning the day and time in which the utmost incidences of burglary at residential premises occur. This was confirmed by an analysis which was conducted by the SAPS in three different provinces in South Africa, namely; Western Cape (WC), the Eastern Cape (EC) and KZN. In KZN, 59.0 per cent of the entire occurrences were reported from Wednesday to Saturday, with the greatest occurrence being 17.0 per cent on Friday. In the EC 62.0 per cent of all incidences happened on Friday to Sunday by which 38 per cent on Saturday only. Moreover, it was reported that in the 10 policing areas of the WC, the greatest occurrence of residential burglary was 50.0 per cent which happened from Thursday to Saturday with the greatest being 18.0 per cent on Fridays. Even though several burglaries at residential premises were committed between 06:00 and 12:00, the utmost occurrences happened from 18:00 to 04:00 in the morning. In the province of KZN, 32.0 per cent of occurrences happened between 18:00 and 24:00, whereas in the EC Province, just about 65.0 per cent occurred from 21:00 to 03:00 while in the Western Cape Province, it was discovered that almost 21.0 per cent of occurrences happened between 20:00 and 04:00. The SAPS highlight that it is very distressing to notice that a significant amount of all the occurrences happen at the time when individuals are usually sleeping. As a result, this might have twisted into a house robbery in which the residents would have possibly been hurt or murdered if they were in their house during that time, as it occurs in some circumstances.

In summation, the time-based variations into the incidences of burglary at residential premises – by means of time of the day, day of the week, or month of the year – generally disclose a combination of time-specific differences in occupancy, the intensity of security for instance windows left open and nocturnal cover. Whereas all the mentioned factors are theoretically agreeable to residential burglary prevention (stay at home, close windows, increase outdoor lighting), it is predominantly hard to persuade individuals to modify their lifestyle. Nevertheless, analysis of temporal patterns in burglary may aid in the diagnosis of particular crimes – particularly once studied in a specific setting. Firstly, it can give awareness on burglary prevention methods which individuals driven to make changes can use. Secondly, it can aid in the identification of fundamental local difficulties causative to the occurrence of residential burglary. With that being noticed, the literature provided above indicates the importance of studying the circumstances of residential burglary within a selected setting.

2.4.2 Notable methods of gaining entry

There are numerous methods through which burglars may be able to illegally gain entry into someone's house. This illegal entrance violates the home's privacy and can possibly harm the household members.

Crime data from the British Crime Survey (BCS) indicated that 61 per cent of burglary at residential premises was occupied by the use of force entrance, in which the lock on the door or window was forced open (37 per cent) or else the doors or windows were merely broken in (24 per cent). In 22 per cent of incidents, entrance was obtained by means of an open door or window. Six percent of house breakers gained entrance by a key, 5 per cent pushed past a person who opened the door. In addition, 6 per cent gained entry on false pretences by distracting the (usually elderly) resident. The outstanding 6 per cent obtained entrance through "other" means (Budd, 1999: 60). Not surprisingly, forced entrances are more common throughout the winter season than in the summer season in Britain (Curtin, Liz, Tilley, Owen & Pease, 2001).

In South Africa the VOCSs show, frequent ways in which burglars gained entry in the residential burglaries that were perpetrated in the year 2011 and discovered that forced entry was prevalent in residential burglaries that year. There were roughly 44 per cent of the occurrences which doors were broken to gain entrance to the house. Entrance through the window happened in 34.7 per cent of the break-ins. Additional ways to gain entrance included entrance through the rooftop or when doors were

not closed, which together accounted for 8.5 per cent of methods used to gain entrance when residential burglary was committed. VOCS (2012) specified that entrance by the garage was 4.2 per cent or by means of duplicate keys was 4.5 per cent were the least frequent. The utmost prevalent way to gain entrance employed by criminal(s) throughout burglary at residential premises was by a door, followed by a window. The criminal might likewise have broken the door or else discovered an open window or smashed it. VOCS (2012) highlight that it is imperative to take notice that residents might have left their residences unlocked with no one available. One of the limitation of VOCS is the fact that they do not ask if the window was smashed or it was found open.

Furthermore, in their 2013/2014 report, it specifies the method wherein the housebreakers obtained entrance into the residence by provinces. It was stated that housebreakers are most probable to obtain entrance by means of a broken door (40.7 per cent). The Gauteng Province (GP) had the utmost percentage of residential burglaries happening in this way (52.0 per cent), followed by EC (46.1 per cent) and Free State [FS] (44.5 per cent). In addition to this, it was reported that the second manner of entrance used was through the window (36.1 per cent). The province of Limpopo had the utmost percentage with (47.9 per cent) followed by KZN (39.7 per cent) and Free State (39.2 per cent) for such a residential burglary method.

The above is consistent with the findings by the SAPS indicating that the utmost frequent way of gaining entrance for burglary at residential premises is by smashing the door open by means of force, which accounted for 42.3 per cent, breaking windows 18.4 per cent. The least ways which were mentioned were breaking locks open (9.3 per cent), opening windows or burglar bars by means of force (7.4 per cent) and pushing unlocked doors open (5.4 per cent) of incidences.

From the discussion presented in this section, it is evident that most burglars gain entrance to residents either through the window or the door. This may indicate that if individuals strengthen the security at these entrances, it will assist reduce the probabilities of burglaries as well as keep families and valuables safe from harm.

2.4.3 Probable motivations and suitable items targeted

Housebreakers much frequently specify that the desire for cash as well as drugs are primary motivators for choosing criminality (David, 2003). Weisel (2002) records that some specifically youthful

housebreakers are driven by excitement. The author adds that a slight percentage might be driven by a longing to pursue revenge against an ex-girlfriend or previous employer. A lot of burglaries at residential premises are perpetrated to fund drug use. In the USA, use of heroin is particularly common amongst housebreak criminals; however, marijuana as well as heroin users seem to approach residential burglary more carefully as compared to cocaine abusers, who appear mostly unmindful of the danger of apprehension (Weisel, 2002). Both USA and British investigations specify that the mostly sought items are usually money and jewellery. In the USA, electrical equipment (televisions, sound system, and laptops, among others) and fire arms are targeted (Budd, 1999; Weisel, 2002). Money and jewellery are, unquestionably, easiest to take away even when one is walking on foot. These housebreakers dispose their earnings through pawnshops, taxi drivers, small store owners, as well as on the street in exchange for either drugs or cash. They generally obtain little in terms of reward (Weisel, 2002).

The above findings are in harmony with the findings of the SAPS, in which they indicate that in some of South Africa's provinces for instance Limpopo, the Northern Cape (NC) and North West, drug abuse is acknowledged as a driver of burglary at residential premises. Drug addicts perpetrate residential burglaries and trade the stolen material goods with the intention to purchase drugs such as *Nyaope*. Furthermore, investigations conducted in several of provinces in South Africa discovered that the favoured items stolen during burglaries at residential premises were television sets, clothing or linen, computer equipment, mobile phones and accessories, tools, small electrical appliances (i.e. toasters, microwave ovens), jewellery as well as money, among others. The enormous amount of second-hand merchandise traders generates chances for offenders to perpetrate property-related criminalities and be certain of a marketplace to trade their assets.

In addition to the mentioned above, VOCS highlights that it is imperative to be acknowledgeable about the house-hold possessions that housebreakers go all-out for throughout burglary at residential premises. In their 2015–2016 analysis, interviewees were questioned about the list of items that were stolen during a residential burglary. It was discovered that it was mostly electrical appliances that were frequently targeted. Other items like jewellery, cash as well as mobile phones were the utmost frequent possessions taken after electrical appliances. The explanation that the authors provided for this is that individuals generally carry their cash and mobile phones along with them, and at the time of the occurrence of residential burglary and there is no interaction amongst the housebreakers and the victims.

The above is consistent with 2011 findings of the VOCS, which depicts that electrical appliances for instance laptops, computers as well as television sets were housebreakers favoured merchandises. The VOCS (2012) discovers that 58.6 per cent of households who were victims of residential burglary had lost electrical appliances in the occurrence. Personal belongings (watches, jewellery, etc.) were stolen in 30.4 per cent of residential burglary occurrences, followed by money (23.3 per cent). Possessions like handbags/wallets (10.9 per cent) and travelling bags (8.2 per cent) were the least probable to be taken during residential burglaries. These discoveries confirm Fitzgerald and Poynton (2011) that housebreakers are concerned with possessions, which are of great worth or else can be effortlessly disposed of. Cash was prevalent in residential burglaries because not like other possessions, it does not require to be re-sold.

Furthermore, Professor Rudolph Zinn, senior lecturer in Forensic and Crime investigation at the University of South Africa mentions in his book that was launched on the 19th of May 2010 titled “Home Invasion. Robbers disclose what you should know.” that 97 per cent of criminals in his research indicated that the main motivational factors for getting drawn into this crime is for “economic gain” (Zinn, 2010b). Out of that 65 per cent of things that are taken were spent on “cars, clothes, drugs, and alcohol.” In addition, 35 per cent was spent on “survival” (e.g. food items rentals). Furthermore, their victims were selected for their riches. The perpetrators mentioned that another contributing factor was the presence of individuals who they could look up to in the community, who were offenders and gained wealth due to lawbreaking. These role-models are famous and are usually respected in the community. Whereas, 80 per cent indicated that their family members, buddies as well as acquaintances in the community were aware that they engage in criminal activities to make a living. This points to a great tolerance for crime in the community which they come from.

It is evident from the argument made *Supra* that the primary motivation of housebreakers relates to the need for cash, either as a means of subsistence, or to buy alcohol and drugs. This shows that there is need for a joint effort between the police and community in terms of reporting people suspected of selling stolen goods. Furthermore, in checking if local pawn shops are selling those goods.

2.4.4 The section process for housebreaker's targets

Along with understanding more with regards to the occurrence as well as the nature of residential burglary, the target selection for this crime offers imperative information that can be utilised for the development of crime prevention activities. David (2003) asserts that the risk of residential burglary is greatly dependent on the location and physical features of the home, surrounding area, as well as socio-demographic and lifestyle characteristics of residents.

In an in-depth evaluation of studies from the United Kingdom (UK) and USA, Weisel (2002: 5-13) recognises the following reasons as primary for housebreaker's target selection regarding detached single-family houses:

- **Familiarity with the target and convenience of location:** Most offenders do not travel very far to offend since familiarity with surroundings reduces stress (Block & Bernasco, 2009; Rengert, Piquero & Jones, 1999). Housebreakers, specifically youngsters, tend to commit crimes near their homes, and target homes alongside their usual routes between home, work, as well as school. This suggests that homes situated close greater concentrations of likely criminals (i.e., concentrations of youth, drug addicts) are at risk. The identical factor applies to houses situated on major pedestrian or motor vehicle routes, as they will get the highest attention as well as surveillance from passing offenders. Houses on side streets, cul-de-sacs, and dead-end roads, on the other hand, are usually at lower risk since they fall outside the regular route of those passing through. Strangers are also more easily noticed in such areas (Weisel, 2002). Individuals who are friends with criminals put their houses at higher risk, as it is not uncommon for housebreakers to burglarise their very acquaintances – specifically when they are familiar with those acquaintances' schedules (Weisel, 2002).
- **Occupancy:** Housebreakers shun interactions with homeowners. They consider signals of occupancy (for example sounds, lights, cars parked), they go to the extent of ringing doorbells to ratify their impression if the home is unoccupied. Visibility and occupancy are somewhat passive concepts and therefore some prefer the concept of guardianship (Reynald & Elffers, 2009). Similarly, occupancy by neighbours may decrease the risk of residential burglary. Houses categorised by little occupancy (dual working couples, single working parent students) are at predominantly higher danger. Housebreakers tend to dodge homes with dogs virtually as much as those occupied by individuals (Weisel, 2002; Wright & Decker, 1994).

- **Visibility or surveillability:** Housebreakers avoid houses easily seen by neighbours or passers-by. As a result, homes in isolated places, away from the road, and those on large plots of land next to parks or other non-residential areas are more highly at risk. Houses categorised by small levels of night lights, tall fences, or heavy trees or bushes give cover, of which is specifically attractive once discovered nearby possible entrance points like doors or windows. Corner residences are at greater danger because their sides might be distant from neighbours compared to non-corner residences. Moreover, they are additionally obvious to transitory criminals and effortlessly surveyed whilst criminals walk or else drive by (Weisel, 2002).
- **Accessibility:** Separated homes in the USA are mostly accessed by housebreakers by means of side or back entries. Consequently, homes where these entrance points are effortlessly reachable are appealing to housebreakers. The similar thing applies for homes situated on alleys, which offer together entrance as well as escaping routes (Weisel, 2002).
- **Vulnerability or security:** Residences with entrance points which are dilapidated or fragile resources (rotten wood, cheap locks, to highlight the few) are easier targets and are therefore at greater danger. The equivalent applies for residences where residents regularly leave their windows or doors unclosed throughout the warmer months, as well as individuals with insufficient or no security devices (Weisel, 2002).
- **Potential rewards:** Housebreakers evaluate the possible benefits of a housebreak through weighing the size and situation of residences, yards, as well as vehicles parked in garages. Consequently, noticeable indication of riches places a residence at greater danger of victimisation. There is, nevertheless, some confirmation that the utmost luxurious looking residences are out of danger for anxiety that they are most probable to use security appliances or else be occupied by domestic workforce (Macintyre, 2001; Weisel, 2002).

In the South African context Van Zyl (2002) conducted a study which examined residential burglary from a geographical perspective. In this study, housebreakers were interviewed and questioned about the *modus operandi* they followed when searching for a suitable target. From their answers, it was probable to recognise two central methods, which the researcher clarified as follows:

- The first housebreakers stick to an arranged schedule to collect information as well as to recognise possible targets. Various approaches were utilised to collect information before selecting the suitable target, this comprised: driving all over the neighbourhood till a suitable target was recognised; making use of informers, for example; job-seekers or domestic workers, they would

even bribe these workers if they needed to. Once the possible target was carefully chosen, the housebreakers would continue to observe the target for the duration of two to three days to find out the amount of people in the house, their routine activities, or if they were on holiday.

- The second housebreakers proceeded in an unprincipled way to recognise suitable targets. Housebreakers in this group would regularly housebreak unaccompanied or else with just one associate. They walked around on foot, searching for right opportunities to perpetrate residential burglary. Whilst searching they would knock on doors, ring the intercom, observing signals which may specify the absence of occupants, for example; no cars visible, sealed gates, junk mail in the driveway, exterior lights on, or a dog in the house during the day. At times they would merely take a bicycle from the residence, not entering the home. They may even be coming back to the house, which they were working before, having knowledge of the place as well as the routine activities of occupants.

The sentenced housebreakers in the research were additionally questioned to provide explanations why they choose a particular target. The researcher analysed their answers presented in the table below.

Table 2.1: Study analysis of housebreaking responses: Residential burglary in South Africa - a geographical perspective

Category of rating	Cited factors by the burglars
1. Housebreakers were knowledgeable of the place as well as their possible victims before	<ul style="list-style-type: none"> - Being knowledgeable of the place -Were previously employed as gardeners -Got info from the domestic employees or gardeners -Were knowledgeable of routine activities of the occupants

2. Lack of guardians (occupants or else -neighbours)	<ul style="list-style-type: none"> - The street was very quiet - There were no signals of residents (avoiding making interaction with the occupants). - No neighbours/onlookers in sight
3. Effortless entrance as well as escape routes	<ul style="list-style-type: none"> - House is close to central roads - House is next to open field
4. Design features of residence	<ul style="list-style-type: none"> - Signals of wealth - Hidden entries
5. No security methods	<ul style="list-style-type: none"> - No armed response - Little supervision (neighbours looking on) - Barking dogs (specifically throughout the night-time) - Shelter to hide (Burglars indicated that such measures would not necessarily put them off, it would only make them more cautious)
6. Additional factors	<ul style="list-style-type: none"> - Raining night-time (including lightning, thunder and dogs barking – the residential burglary occurrences can go unobserved)

Source: Van Zyl (2002:127)

To complement the above findings Zinn (2010:37) discovered that in South Africa, 63 per cent of offenders preferred to travel about ten to thirty minutes using a car from the place which they resided to commit this crime. On the other hand, majority travelled lengthier periods if the target is regarded sufficiently profitable. Whereas another 77 per cent of offenders said that they selected their targets wherefore they had some “inside information”, for example; “they would be able to get information about a particular house from domestic workers, gardeners or other service providers including security guards (or from the relatives or acquaintances of these people)”. Furthermore, other offenders knew individuals who make a living as a result of burglary, and will obtain info on particular homes from them.

In general, offenders will preferably select targets in areas which have a lot of entry as well as departure points by means of effortless access to the main roads as well as where street security is little or non-existent. Nevertheless, just 25 per cent of the offenders in the study specified that they would intentionally select a household owing to its little security. More accurately, targets are selected due to having sound facts or else suspicion that there is a lot of value to take after getting entrance to the house. The offenders in this investigation indicated that they had a tendency of focusing on what they

termed as the “middle class”. Nonetheless, this expression was employed very broadly to refer to anybody who had relative wealth. At times individuals who had luxurious jewels and clothing would be followed to their house by the belief that they will possess costly goods in their houses.

It is clear from the discussion presented herein that burglary target selection does not stop at the selection of a target neighbourhood, but certain characteristics of individual properties within the same neighbourhood are in turn indicative of burglary risk. While burglary target selection strategies are consistent with opportunity-based explanations of offending, the impact of environmental context is also significant. Which all together have an importance of understanding the function of residential target selection by burglars, as part of the broader context of the development of relevant crime prevention strategies.

2.5. The phenomenon of weather patterns and burglary at residential premises

Investigation on the study weather patterns on crime dates back to the work of Quetelet (1842) in the 18th century. Quetelet (1842) using data for France for 1826-29 noticed that crimes against property were greater during cold winter months. Quetelet (1842) contended that this pattern could be because cold winter months produced challenging circumstances, therefore evoking criminality as a necessity (i.e. burglary at residential premises). The author highlights that this is due to increased financial motivations centred on increased joblessness and primary needs for instance food, warmer clothing and shelter. This general point of people’s needs increasing because of intensified pressures to attain accommodation during the cold winter months once it is harder to survive outdoor was reinforced in Falk’s (Falk, 1952: 211) investigation titled “The Influence of the Seasons on the Crime Rate.” The author mentions that this leads to food theft and other property crime being a more frequent incidence. The author goes further to mention that firstly "there is a higher metabolic action, so it takes more to keep the body warm and fed," secondly “seasonal unemployment reaches its peak in the winter season.”

Expenditures for heat, clothes as well as electrical energy tend to rise during the cold winter months, making it challenging for individuals to pay for the similar possessions they have been capable of affording in the warmer months of spring and summer. This may result in an increase in financially driven crimes being perpetrated for instance housebreaking, especially by individuals who do not have

steady earnings. This increase of residential burglary during cold winter months was later supported by Landau and Fridman (1993) which they assert that the shortened daylight hours experienced in cold winter months place potential targets on an increased probability of victimisation (Landau & Fridman, 1993). In which Rotton and Kelly (1985) emphasis by stating that “darkness affords offenders the advantageous conditions of anonymity; darkness is “de-individuating” (1985:288).

Considering the above perspective, darkness reduces the capacity of guardians to recognise possible offenders; as they cannot be distinguished from other community members in the dark. Henceforth darkness may be “thought of as a key inhibitor to capable guardianship”. Atlanta Crime Stoppers reinforce the same idea that residential burglary occurrences may modify during the cold winter season since it becomes darker earlier as well as that individuals are more probable to perpetrate it during the night hours as opposed to throughout the daytime hours (Gaynor, 2016). Over and above the reduced days, few individuals are generally out as well as active throughout the cold winter months which means there will be less eyewitnesses to observe the crime. The mentioned are equally appealing environments for individuals thinking about perpetrating a theft of property.

Over the years, as additional crime records as well as weather data were obtainable, the study on how property crime is connected to the weather is extensively studied internationally (Ranson, 2014: Linning, 2015: Hird & Ruparel, 2007), with additional weather conditions being incorporated, for instance temperature, wind, relative humidity, precipitation and sunlight. In contrast to the discussions *Supra*, studies in the year 2011 James Horrocks and Andrea Menclova associates of the University of Canterbury conducted a study concerning the effects of weather on crime in New Zealand. The weather conditions which were utilised comprised the following; temperature as well as precipitation which the authors discovered confirmation that they reinforced that property crimes were affected by the weather conditions in the investigation. The methodology that was used in this study comprised attaining daily violent crime data and weather data from three Canterbury police districts from the year 2000 to 2008 (Horrocks & Menclova, 2011). The authors discovered that property crime had a significant correlation with weather in which property crimes tend to increase in hot summer days and decrease in cold winter days. These authors highlight that the idea of property crime correlating with weather could be explained using the rational choice theory, and routine activities theory (Horrocks & Menclova, 2011). They found that weather conditions can have a direct influence on the likelihood of a perpetrator getting caught committing a crime (burglary at residential area) and getting away with it. Since weather is likely to influence the movement of a person, family or household.

These authors highlight that during fine or pleasant weather conditions (which is sunshine and heat), people are more likely to spend time outdoors and less likely to be in their homes which gives the opportunity for burglary to occur (Schmallager, 1997). This is so especially on weekends, evening and during school holidays and when children are taken to vacation. For common practices, this increases the number of empty houses, and decreases the likelihood of a “capable guardian”. Therefore, the rational consideration of the offender according to the rational choice theory is that, this is likely decrease the likelihood of being caught and as a result increases the number of property crimes.

Furthermore, during hot summer months there is an increase in daytime hours, which may increase the time individuals spend absent from their households during the day, which also increases the time those households, which are left empty (Andresen & Malleson, 2013; Chimbos, 1973). Moreover, if the weather is pleasant and more houses are empty, potential burglars get to choose the house to rob. This increases the predicted benefits of committing property crime because the most, “suitable target” can be chosen. For example, if the homes of a particular neighbourhood are all empty, the potential burglar gets to choose the most expensive home in the neighborhood. As a result, increase the anticipation of monetary gain of a property crime.

In addition, Hamilton-Smith and Kent (2005) highlight that one of the utmost efficient crime deterrence methods for burglary is to lock the doors and windows of one’s home, however, people are likely to not close their windows and doors in summer because of high temperatures, which then provides criminals with easier access to their homes. For instance, in warm climates, the lack of air conditioning may facilitate open window break-ins at night. An open window that is visible from the street may be the sole reason that a house is targeted. An open window with only a locked window screen is particularly inviting to thieves. For that reason, it easier, quicker as well as silent to gain access. This condition of windows being left open in hot summer months leads to situation which may be exploited by offenders in relation to the rational choice theory.

Taking all the above into consideration, researchers have indicated that property crimes are often caused by a perceived need for cash immediately and houses that are likely to be targeted are those with cash and valuables. These elements are predominate in the hot summer months of December when people get bonuses and are less likely to stay at home (Cohn & Rotton, 2003).

On the contrary, when the weather is unpleasant or bad (which is rainfall, change in temperature – cold), criminals are less driven to commit property crimes. Firstly, because during bad weather (relatively rain) or during cold winter (low temperatures), people tend to stay indoors (homes) because being outside is relatively uncomfortable. This increases the likelihood of a “capable guardian” and being caught and makes property crime or burglary more difficult since individuals are inside their homes. In addition, bad weather such as rainfall makes it difficult to transport stolen goods, especially electronic equipment if walking on foot (Horrocks & Menclova, 2011).

On the contrast to the submission *Supra*, Van Zyl (2003) mentions that rain during the night-time (including lightning, thunder) may facilitate residential burglary occurrences since it can go unobserved, due to the noise. Letkemann (1973:140) agrees by recording a study on robbers in which it records that, “rain may facilitate crime directly, as in the muffling of noise or in directly. An armed robber noted that one cannot run down a main street or side walk except on a rainy day because it will be empty”. In addition to this, a comparison study conducted in Enschede (Netherlands) between self-report studies of burglars and observational data from Enschede, participants brought this cue to attention. They stated that they preferred to commit residential burglary during windy weather, since the noise of a break-in is harder to overhear. This has led to the expectation that in Enschede more burglaries occur during windy weather than during normal weather conditions (Aantjes, 2012).

In the South African context, little is known concerning weather patterns on property crimes since such a study was the first a of its kind as conducted by Breetzke (2017). Breetzke (2017) examined the periodicity property crimes committed in City of Tshwane South Africa for the duration 2001 to 2006. This researcher discovered that there was no clear periodic fluctuation for property crimes in Tshwane during the investigation time. Property crimes were constantly higher throughout the summer months, with peaks in October and March; these are effectively the start and end of the warm weather period.

The information provided can help law enforcement to prepare for service calls depending on the bad or good weather conditions. It could be possible that the police incorporate weather as a decision variable when deciding on the level and intensity of policing. First, police departments may have already observed the relationship between weather and crime and adjusted police presence

accordingly. If the police presence is consistently higher during weather conditions which are expected to influence crime, this could result in fewer crimes occurring as criminals acknowledge the increased probability of being caught.

2.6. Burglary at residential and environmental: criminological theoretical perspectives

The occurrence of residential burglary is best comprehended within the theoretic setting of the rational choice theory, as well as the routines activities theory, under the umbrella of environmental criminology. This framework indicates that for a burglary to occur, there must be four factors in correspondence: “a law, an offender, a target, and a place” (Brantingham & Brantingham, 1991:5). The completion of this crime arises once the four mentioned factors come together in time and space. The “environmental criminologist begin their study of crime by asking about where and when crimes occur” (Brantingham & Brantingham, 1991:8). It is within this philosophy that the occurrence of residential burglary may best be advanced. Most of the clarifications for residential burglary fall within the umbrella of environmental criminology and lie within the rational choice and routines activities theory (Cornish & Clark, 1986; Felson, 1994; Wright & Decker, 1994). As stated by the Routine Activities Theory (RAT) is executed daily on life routine activities for instance heading to shopping, entertainment, workplace, as well as college. Since some activities happen generally throughout the daytime whereas others throughout the night-time, the profits as well as costs for residential burglary may possibly differ by way of time as well as place. Criminals try to make rational choices, which might influence the residential burglary patterns in different ways by daytime or else by night-time.

2.6.1 Routine Activities Theory

The Routine Activities Theory (RAT) is defined as, “the recurrent and prevalent vocational and leisure activities individuals undertake in a regular day-to-day basis” (Cohen & Felson, 1979: 593). Developed by Cohen and Felson (1979), the RAT is the most widely used theory in explaining weather patterns on residential burglary and most adept at interpreting as well as comprehending seasonality of crime. Nothing like the majority of theoretical frameworks, which focus on the criminals characteristics, the RAT provides emphasis to the significance of investigating characteristics of crimes (Breetzke & Cohn, 2012). The aforementioned generally puts emphases on where and when people are, what they are doing as well as what happens to those individuals consequently (Clarke &

Felson 1993). This theory refers to direct-contact predatory crimes that is “predatory violations involving direct physical contact between at least one offender and at least one person or object which that offender attempts to take or damage” (Cohen & Felson 1979:589). To expand on the above, this theory stipulates that, “crime is the result of the convergence in time and in space of motivated offenders, suitable targets, and the absence of capable guardians”.

Figure 2.1: Linkage of Routine Activities Theory and crime



Source: ([http://criminal-justice.iresearchnet.com/criminology/theories/routine-activities-theory/.](http://criminal-justice.iresearchnet.com/criminology/theories/routine-activities-theory/))

A motivated offender can be imagined as any individual who is competent and willing to exploit a chance to commit crime. A suitable target can be any individual or item (house) liable to be assaulted, while a capable guardian can incorporate neighbours, companions, relatives, bystanders, security monitors, or any alert framework or laser bar. This theory simply states that when individuals who might get involved in criminal activities, end up in the same place and time as individuals or places that are suitable targets and there are no other individuals or structures who can protect suitable targets crime, will increase.

The probability that the above three components will come together differs over time (because of the presence of routine activities). These activities might be every day and essentially obligatory (periods inside a day in which an individual is working or in school), week after week (weekday versus weekend schedules, for example; going to church) or even yearly (yearly school schedules that decide when youth do and do not go to school) (Brunsdon, Corcoran, Higgs & Ware, 2009). These tend to be fairly fixed over periods and hardly change. On the other hand, additional activities (i.e., social events)

are optional and less settled in time; people have a decision as to whether or not as well as when they will participate in those activities (Lebeau & Corcoran, 1990). This theory proposes that throughout the periods when people are not involved in typical routine activities, the probability of convergence of the three key components increases and this may influence the implementation of crime.

Furthermore, Felson and Clark (1998) set forward four fundamentals, comprising value, inertia, visibility, and access (VIVA) which has an influence on a target's danger of being a victim of crime. These four fundamentals are observed on the offender's perspective. Value refers to the suitable target that it must be rewarding. Inertia refers to the capability of which the suitable target can be moved. Visibility relates to the exposure of the suitable targets to offenders. Access consist of entirely all the environmental as well as situational features which might enable the offender to get to the suitable target. Felson and Clark (1998) considered that this method clarifies the increase of burglary at residential premises between the 1960's and 1980's. This is so because during this time, many houses were left unguarded during the day, as an increased number of women were employed full time. The absence of a capable guardian throughout the working hours resulted in the increased likelihood of burglary at residential premises. Simultaneously, the rise of transportable electrical merchandises in individuals' homes, for instance television set and videotape recorders, presented an increased number of suitable targets for burglary at residential premises.

Weather patterns and routines activities theory are companionable because of weather conditions (i.e., hot or cold, wet or dry, calm or stormy, clear or cloudy), which are environmental elements that can modify routine activities. Cohn (1990:52) even states that "the theory calls attention to how weather help structure individuals behavior, most obviously through changes in the physical environment". In addition, modifications in routine activity may consecutively, contribute to a rise in changes one or more of the three elements contained in the routines activity approach because weather conditions shape the activities that people take part in (Landau & Fridman 1993). The RAT proposes that weather modifications in people's behaviour patterns aid to the explanation for seasonal dissimilarities in crime rates. Whereby people might decide to participate in non-typical activities due to the modifications in weather conditions, and, consequently, can either increase or decrease the occurrences of crime. For this reason, some scholars emphasise that the activities humans engage in are the bases of the routines activities theory, it is therefore imperative to comprehend the pattern of these activities over time as well as they relation to the weather conditions (Le Beau & Langworthy, 1986; Ceccato, 2005).

Lastly, residential burglary which the study focuses on fit into Cohen and Felsons' (1979) classification of direct-contact predatory crimes discussed in the literature review section.

2.6.2 Rational Choice Theory

Whilst the RAT suggests a decisional offender, it did not, in its unique formation take into consideration the decisional procedure of which the offender worked clearly (Felson, 2008). This work was left to the rational choice theory, to understand the occurrence of crime within a sequence of decision making by the criminal (Cornish & Clarke, 1986).

The Rational Choice Theory (RCT) is founded upon the central principles of the classical school of criminology, which believes that individuals freely choose their conduct and there are driven by the evasion of pain as well as the pursuit of pleasure (this tenet excludes individuals who have a mental disorder). The fundamental principle of the RCT is that individuals are rational humans whose conducts may be changed through the fear of being punished. Along these lines, it is supposed that criminals may be influenced towards desisting from criminality by increasing their "fear of punishment" (Cornish & Clark, 1986).

In 1968, Gary Becker, 1992 Nobel Prize Laureate in Economics published his influential work on the rational behaviour of criminals. For this author, the number of crimes committed depends on the individual's particular costs and benefits analysis of carrying out that specific crime, this can be further linked to individual's specific preferences and circumstances (Becker, 1968). Definitionally, a crime can be perpetrated when the predicted utility of perpetrating it surpasses the predicted costs, including the opportunity costs, for example; the expected utility of using the same amount of time and resources elsewhere. In most cases; when the likelihood of getting caught increases, the predicted costs of perpetrating the crime also increases, thus, decreasing the amount of crimes being perpetrated. Similarly, if the predicted punishment for committing a crime increases, then the predicted costs of perpetrating that crime increases, thus decreasing the amount of crimes being perpetrated (Sjoquist, 1973). In this model, weather conditions can have a direct influence on the likelihood of a perpetrator getting caught committing a crime (residential burglary) and getting away with it (Jacob et al., 2007).

Since weather patterns are a variable in the production function for crime wherein, people make choices regarding whether to perpetrate crime constructed upon the rational consideration of the costs and benefits (Becker, 1968).

In addition, there exist two additional tenets which originate from the rational choice theory. Firstly, to clearly understand the differences in the choices that criminals make, a crime-specific emphasis is necessary as well as understanding that there are differences amongst decisions which are connected to getting involved in crime i.e. motivation to commit crime and decisions that relate to the criminal event itself. The RCT unapologetically puts emphasis on the last one of the two, choosing to leave clarifications on motivation to commit crime to other sociologists (Cornish & Clarke, 2008). The RCT suggests that “immediate crises, events, and conditions are important factors in the offender's decision to commit a crime”. (Cohn, 1990:52) It attempts to clarify that the relations amongst the psychical environment and a person whom has an inclination for crime, influences the person’s chances as well as choices regarding crime (Felson, 1986).

Both the RAT and RCT are significant to the current study, hence they are used to guide the empirical analysis. The RAT is an influential way of considering weather patterns that regulate the movement of individuals, which as a result, present opportunities for crime. The RCT perspective focuses on the decision-making process of the offender, when opportunities of crime have presented themselves. Furthermore, both theories offer vital components for the foundation of burglary prevention because even when an offender is motivated, without opportunity there is no crime possible. For example, locking the door and windows of one’s house even during high temperatures removes the rational consideration that the offender can get easier to the home. Furthermore, because an offender, a target, and the absence of a capable guardian are needed for a crime to happen, if one of the preconditions is removed, the theory argues that the offence can be prevented from happening. Therefore, removing valuable items from visibility or providing a capable guardian (i.e., alarm system, dogs, among others) may be useful methods to prevent crime.

2.6.2.1 Preventative measures for residential burglary during different weather patterns – Situational Crime Prevention

Situational Crime Prevention (SCP) involves the organisation, pattern or manipulation of the immediate physical and/or social environment with the intention of making crime look harder, riskier, or less rewarding in the eyes of potential offenders (Clarke, 1997). The following segment contains some of the effective methods in which the method explained is intended to decrease burglary at residential premises.

The first most effective way of reducing burglary at residential premises is by installing a security alarm system. The security alarm system can diminish successful completion of burglary at residential premises in one or more ways. Firstly, for example even if individuals decide to leave their windows unclosed because of hot weather at night-time or else throughout the daytime, a security alarm system when noticeable or else marketed on wall stickers would intensify a criminal's view of the dangers inherent in breaking into a specific house. Secondly, even when a criminal chooses to tackle a security alarm system, triggering of an audible security alarm system will commonly force the housebreaker to run off from the house either with nothing, or with less properties than he or she could have otherwise stolen (Kesteren, John van, Mayhew, & Nieuwbeerta, 2000).

The second most effective way of reducing burglary at residential premises is through neighbourhood watch. Neighbourhood Watch (NW) is a program that involves the organised team work of inhabitants with the intention of watching neighbourhood homes as well as reporting of suspicious behaviours to the police department. Neighbourhood watch can prevent burglary at residential premises for example if people away in the hot summer months for extended hours or on vacation, the community may know and watch the house. Furthermore, during unfavourable weather conditions that criminals take advantage of, they can patrol to see if there are no suspicious activities happening. This program normally goes together with the presence of prominently placed signs indicating the active existence of a NW program in the community. NW is designed to both deter burglary, by increasing an offender's perception of associated risk, and to aid in the detection and apprehension of suspicious persons (Kesteren *et al.*, 2000).

The third most effective way of reducing burglary is through mock occupancy indicators. Research has proven that burglars avoid contact with residents and work hard to determine whether a property is occupied before attempting to enter it. Hence, the decrease in burglary during cold and raining days

when people are in doors. While residents cannot be home always, the use of mock occupancy indicators may fool some offenders into believing that a home is occupied. Mock occupancy indicators are designed to deter burglary by increasing an offender's perception of risk. Common mock occupancy indicators include leaving lights on or television and radios playing; using timers to turn lights/televisions radios on and off at appropriate times; leaving a car parked outside a house or in the garage; and closing curtains (Kesteren, 2000).

2.6.2.2 What the community can do to respond to burglary at residential premises

Hughes (1998) believes criminality is caused by the lack of integrity in the country. Accordingly, this scholar states that a change in attitude as well as values is necessary in communities by doing public campaigns. The community should not tolerate offenders as well as the justifications of why individuals become involved in criminal activities. Community members should be encouraged to form a forum for Community Safety Networks which seek to communicate as well as share information on best practices. Furthermore, the community should give information on crime to the police. In agreement with this, Zinn (2010) contends that community crime prevention initiatives can make a difference in decreasing the possibility of particular areas being targeted by offenders of house break-ins. For instance, consistent neighbourhood watches, community patrols, and securities located at street corners who are connected by radio communication will make a particular community less attractive to criminals. The author records that the police district of Garsfontein noted a reduction of 36.5 per cent in residential break-ins throughout the 2007/08 financial year resulting from community centred crime prevention initiatives. This was during the period when residential break-ins were increasing significantly throughout the nation.

2.7. Justification of the study

The reason for choosing this research topic is that, such studies on the exploration of weather patterns on property crime are still few across South Africa and more research is needed to bring about a rationale that the findings of Gregory cannot be generalised to the whole of South Africa considering the year of publication and the current waves of property crimes in the Newlands East Policing area of Durban. Moreover, the study in question was confined to the City of Tshwane it is most certain that other cities produce different results as each city and community is unique and has different seasonal

events and environments that can affect the magnitude and nature of crime, hence, Newlands East Policing Area is no different.

In addition to the above, all consulted researches investigating weather patterns and property related crime were conducted in a quantitative nature and the crime data was studied as provided by various police departments to make assumptions based on it. This study seeks to fill the gap in knowledge identified from the consulted national and international studies. This was done by conducting a qualitative study and interviewing SAPS officials on their perceptions of weather patterns on property crimes. Furthermore, this study attempts to make valuable contribution to the community of Newlands East Policing Area. To this end, , closer scrutiny of crime trends associated with property crimes were evaluated by the researcher to enable residents to protect themselves and for the SAPS official to make effective decisions and interventions regarding these types of crimes, as this study refers.

2.8 Summary

This chapter outlined the theoretical framework. The theoretical framework demonstrated an understanding of theories and concepts that are relevant to this research. This chapter also introduced and described the theories which explain why the research problem exists. This chapter also provided a discussion on the literature that is relevant to the current study. The literature review provided a background to the study on weather patterns on crime. This chapter also presented a review of existing literature and locates the current study in the body of existing of knowledge.

The next chapter is the research methodology and procedures that were used to elicit relevant data to achieve the objectives of the study and eventually answer the key research questions

CHAPTER THREE: METHODOLOGY

“But who wants to be foretold the weather? It is bad enough when it comes, without our having the misery of knowing about it beforehand.”

— Jerome K. Jerome, (2010)

3.1. Introduction

The advancement of information is essential in the field of Criminology, as well as the Criminal Justice System (CJS) holistically. Higgins (2009) asserts that research is the “discovery of information that is either new or replicates previous findings.” The author also presents that research is scientific in nature, since it follows precise methods, which other researchers can repeat and get the same outcomes. In addition, there are three dominant research approaches in the field of Criminology and CJS, which give this logic of science. There are quantitative, qualitative and mixed-method design. With the goal of fulfilling the aim and objectives of the present study, it was crucial for the researcher to choose a suitable research design and methodology.

The purpose of this chapter is to describe the research design and the overall methodology, which this study took. The motivation for using the specific research design and methodology is provided and discussed in detail. This chapter also outlines the research paradigm and how the researcher gained entry to the research site. Furthermore, it describes the selection of participants, data collection method, the process of data analysis along with ethical considerations and the strategies which were used to ensure trustworthiness of the study. Lastly, the limitations and challenges experienced in conducting the study are briefly outlined.

3.2 Research design

Research design refers to a set of guidelines and instructions that need to be followed to address the research problem (Fouché, Delport & De Vos, 2011). Furthermore, De Vaus (2001) and Trochim (2006) (cited in Labaree, 2013:1) state that research design is “the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby,

ensuring you will effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data". In simpler terms, the research design entails the problem being researched and the methods used to collect and process as well as explain observations with the intention of resolving the research problem at hand (Singleton & Straits, 1999). The research design serves a purpose of ensuring that the data gathered permits the researcher to respond to the initial enquiry as clearly as possible (David & Sutton, 2011).

To explore weather patterns on residential burglary in the Newlands East Policing Area, Durban, the researcher adopted a qualitative research design. Qualitative research involves "an in-depth investigation of knowledge" (Crix, 2004:119). Bryman (2004:26) defines qualitative research as a "research strategy that usually emphasizes words rather than quantification in the collection and analysis of data". Denzin and Lincoln (2000) assert that qualitative research involves an interpretive as well as naturalistic method. Qualitative researchers "study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 2000:3). The use of a qualitative research design facilitates a more in-depth understanding of factors that would be difficult to get in the event that a quantitative design is used. Subjective factors such as opinion, attitude, personality, emotion, motivation, interest, personal problems, mood, drive and frustration are relatively more complex, and hence more difficult to capture quantitatively than variables that can be empirically verified (Baumgartner & Strong, 1998).

In the current study, a qualitative research design enabled the researcher to explore the attitudes, opinions, perceptions and views of the SAPS officials on the contributory factor of weather patterns on property crimes in the Newlands East Policing Area. Specifically, the qualitative design suited this study since not like the investigations of weather patterns on crime, which were conducted quantitatively by studying crime data and making assumptions based on it, where there has been a lot of research conducted. This study brought on different trends of discussions, which brought about new insight on causal links between weather patterns and residential burglary. Welman and Kruger (1999) argue that data gathered qualitatively from interviews is grounded upon actual experiences and not on speculations. Accordingly, possible recommendations based on the insight which was gathered on how the residents of Newlands East can protect themselves against this scourge is provided by this study in Chapter Five.

Furthermore, a qualitative research design was suitable for this study because it made possible the elicitation of different perceptions of the SAPS officials regarding crime and weather patterns, as it facilitated a setting in which they could explain and describe their feelings and experiences. Such reflections are hindered by statistics which are generated through the use of quantitative methods alone. Moreover, the SAPS officials are usually the first people to respond to calls for service and occasionally witness the contributory factors associated with how weather patterns can play a role in residential burglary occurrences, hence the choice of a qualitative design. A qualitative design was used to answer the study objectives and research questions designed to guide this study. The motivation behind the chosen design is that the researcher believes that the SAPS officials could give an in-depth understanding from their viewpoint, rather than quantifying it. This offers an opportunity to gain unique insight into the topic. Basically, this research design was indirectly driven by what the researcher is knowledgeable about and directly motivated by what the study aims to discover.

3.3 Exploratory case study method

Within the qualitative design, the present study adopted a case study method, mainly focusing on SAPS officials in the Newlands East Policing Area, Durban. A case study refers to a research approach which concentrates on comprehending an event in its natural setting (Iacono, Brown & Holtham, 2009). Furthermore, Eisenhardt (2002) refers to a case study as a strategy which focuses on understanding the dynamics present in single settings. The use of a case study is appropriate for this study as it permits the researcher to collect information directly from SAPS members in their natural environment for the purpose of studying their attitudes, views and comments about their experiences of how weather patterns contribute to the occurrences of residential burglary in their area of policing.

Furthermore, case studies may be categorised in relation to their objective for instance being exploratory, descriptive and explanatory (Gray, 2014). The purpose of inquiry in this study was exploratory as it explored the SAPS members' perceptions of weather patterns as a contributing factor to residential burglary. Singleton and Straits (1999) clarify that exploratory research is done when not much is known concerning a specific topic. Therefore, the explorative case study permitted the researcher to obtain knowledge, viewpoints, comprehension, clarifications and experiences of SAPS officials who were the study participants. This enabled the researcher to construct situational knowledge of how weather patterns contribute to the occurrences of crime in the Newlands East

Policing Area of Durban. The rationale behind choosing an explorative case study research is because the researcher wanted to discover new information, which was not in existence. This was done by posing exploratory questions to the participants, mainly how, what etc. (see Annexure A). Exploratory questions play an important role when researching people's perceptions and attitudes. Accordingly, the explorative case study was suitable for this study since it provided an opportunity to elicit the perceptions of SAPS officials regarding crime and weather patterns.

3.4 Research paradigm

Both quantitative and qualitative research designs are “grounded in different research paradigms” (Vishnevsky & Beanlands, 2004:234). Babbie (2007:32) defines paradigms as “models or frameworks for observation and understanding which shape both what we see and how we understand it”. Furthermore, Steyn (2018) as well as Maxfield and Babbie (2018) state that, there are three paradigms in criminological research which are; positivist, hermeneutics (descriptive-interpretive), as well as semiotics (constructionist). In the present study, the researcher selected the interpretive research paradigm as the most appropriate for this research.

According to Shank (2002:5) qualitative research design is “a form of systematic empirical inquiry into meaning”. By systematic, the author refers to “planned, ordered and public”, which abides by the regulations approved upon by the participants of that qualitative research community. By empirical, the author denotes that the kind of inquiry is based on the sphere of experiences. Inquiry into meaning states that the researchers are attempting to comprehend exactly how other individuals make sense of their experiences. Accordingly, qualitative research permits the assessment of meaning involved in societal issues (Creswell, 2014). Consequently, an interpretive research paradigm which is suitable for a qualitative research design indicates that the researcher seeks to “comprehend social members’ definitions as well as understanding of situations, hence it is not concerned with the search for broadly applicable laws and rules, but rather seeks to produce descriptive analysis that emphasizes deep, interpretive understanding of social phenomena” (Henning, Rensburg & Smit, 2004:20).

Furthermore, research studies that use an interpretive paradigm emphasises the understanding of phenomena through the meanings that people assign to them (Myers, 2013; Warden & Wong, 2007).

In basic terms, this study focused on getting a deeper understanding of the SAPS officials' perceptions of weather patterns on residential burglary in Newlands East Policing Area. To be precise, the purpose of this research was on to establish an understanding whether different weather conditions contribute to the occurrence of residential burglary from the SAPS officials' standpoint.

The table below outlines the characteristics of interpretivism as a paradigm with specific reference to this study. Apparently, a paradigm is characterised by the nature of reality (ontology), nature of knowledge and the relationship between the inquirer and the inquired-into (epistemology) and the methodology used (Cantrell, 2001).

Table 3.1: Characteristics of interpretivism

Feature	Description
Ontology	-There are multiple social realities which exist because of different individual experiences including people's understanding, viewpoints, and interpretations as well as experiences. This feature enabled the researcher to inquire on the day-to-day working experiences of the SAPS members, with the purpose of making sense of their experiences by interacting with them to capture the essence of their reality regarding weather patterns and residential burglary. -Realities can be explored, and socially constructed through human interactions. Henceforth, this feature positioned the researcher in the context and realities of the SAPS officials through the process of interpreting what they said during in-depth interviews.
Epistemology	-Those active in the research process socially construct knowledge by experiencing the real life in natural settings. The researcher seeks to understand weather patterns on residential burglary as 'perceived' by the SAPS officials in their area of policing.
Methodology	-Qualitative (in-depth interviews)

Source: Cantrell, 2001

3.5 Strategy for participant recruitment

Any research involving human subjects at the University of KwaZulu-Natal (UKZN) requires approval by the UKZN Research Ethics Committee before the researcher commences and participants are selected. Below, the researcher outlines how entrance into the research site was obtained, who facilitated the access to the participants and how they were selected.

3.5.1 Entry into the research site

In order to obtain entrance into the research site, the researcher had to obtain gatekeeper's permission as required by the University of KwaZulu-Natal's Humanities and Social Sciences Research Ethics Committee (HSSREC) rules. Gatekeepers are individuals who have the authority to allow or refuse admission to a particular setting (Seidman, 2006; Hennick, Hutter, & Bailey, 2011; Hennig et al., 2004). As stated by Hennick et al. (2011:93) the "researcher will often meet with the local gatekeeper before data collection begins, to inform them about the study, seek their endorsement, discuss any concerns and request their assistance with various aspects of the fieldwork". In line with this, gatekeeper permission was obtained at two levels. Firstly, the study was authorised by SAPS's Division of Commissioner Research (see Annexure D) and the letter was used to apply for ethical clearance at UKZN's HSSREC. Secondly, the researcher had a meeting with the station management of the Newlands East Police Station before conducting the study. In the meeting the researcher outlined what the research entailed by mentioning the aim and objectives of the study in order to give an indication of the type of individuals the researcher needs to interview. Thereafter, the station management selected the individuals to participate in the study and provided the researcher with their numbers and office numbers in order to schedule meetings with them.

3.5.2 Selection of participants

The study sample consisted of seven (7) SAPS officials at police station level (i.e. Social Crime Prevention Unit) attached to Newlands East Police Station. A sample refers to a subgroup of a population carefully chosen to take part in a research; it is a portion of the entire population chosen to participate in the research project (Brink, 1996; Polit & Hungler 1999). The Social Crime Prevention Unit management selected this specific group of participants, as they knew them very well. The participants were selected mainly to provide detailed information on the study subject, and this sampling method was used to gather information from the officials to be selected. In this manner, the researcher gathered different points of views on this topic, formed from personal work experience and an unthreatening environment created for these participants to be interviewed at ease, thus, the researcher used the purposive sampling technique for this study.

Purposive sampling technique is also referred to as judgment sampling (Etikan, Musa & Alkasim, 2016). Qualitative research samples purposively (Carter & Little, 2007). This type of sampling uses purposeful selection of participants because of the attributes the participants hold. To put it in much simpler terms, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience (Bernard, 2002). Baxter and Babbie (2003:135) also offer a comprehensive definition and define it as a method “where a researcher uses his/her own judgment to select a population that reflects an important aspect of the research. It is obtained according to the discretion of someone who is familiar with the relevant characteristics of the population”, hence the choice of purposive sampling and requesting the station management to select the participants.

It was envisaged that these participants would possess rich information on the study subject and their experiences would be of importance to the study subject. The members of this Unit timeously respond to crime in the area, which include residential burglary. It is against this background that purposive sampling was chosen. Denscombe (1998) explains that when using purposive sampling, the researcher already knows something about the specific people that are selected to participate because, they are seen as a unit of analysis that will produce the most valuable data and they are selected with a specific purpose in mind. Furthermore, Du Plooy (1995) states that the benefit of using purposive sampling is that the unit of analysis chosen are characterised by experiential knowledge and can contribute meaningfully to the study.

3.6 Scope of the study

To provide an in-depth understanding of the context wherein the South African Police Services (SAPS) officials were interviewed on, the researcher deemed it necessary to provide information on the historical background of the case study. This study is based on the area of Newlands in Durban. The area is classified as eastern and western Newlands. During the apartheid era, the western side was designated for Indian communities only, and the eastern side was reserved for Coloured people. This setting was in line with the Group Areas Act that permitted solely Indian and Coloured families to live there (Population Registration Act of 1950). However, due to the new democratic dispensation in South Africa, Newlands is now an area which accommodates all races (eThekweni Municipality, 2006). Newlands is an area in the EThekweni Municipality roughly 20 km from the Durban Central Business District (CBD), in a northwesterly direction.

The western side of Newlands is 1320 hectares in size and accommodates a population of 23 238 (Chunderduri, 2013). The democratic change in Newlands resulted in the western side facing numerous difficulties as families who were originally from rural areas came to live in Newlands. Due to challenges with accommodation, others created slums near this area, which led to overcrowding in the Newlands West area. This overcrowding and slums was partially solved by the formation of the sub-economic area of Westrich, a low-cost housing project (Stan, 2005). The Indian and African families who occupied this area were mostly neither well-off nor educated. Several of them were jobless or else had baseline jobs with very little income. This resulted in the area of Newlands West facing numerous difficulties such as drug and alcohol abuse, teenage pregnancy, HIV and AIDS, residential burglary and theft. The change in Newlands West forced a lot of well-off Indians as well as African families to migrate from the area. On the other hand, the less well-off families and other families who were of middle class status and were already established in this area remained to present day (Chunderduri, 2013).

Eastern Newlands is just under five square kilometres and accommodates 30 000 residents (Bengtson, 2010), which are now both Coloureds and Africans. A large percentage of the people residing in the area have not completed high school, moreover, those who have are facing an “overwhelming sense of hopelessness and apathy with respect to finding employment. Unemployment is well over the 40 per cent mark in the community” (Onwards & Upwards Foundation, 2009 cited in Bengtson, 2010:5). This area is well known for its high level of violence and gangs (Bengtson, 2010).

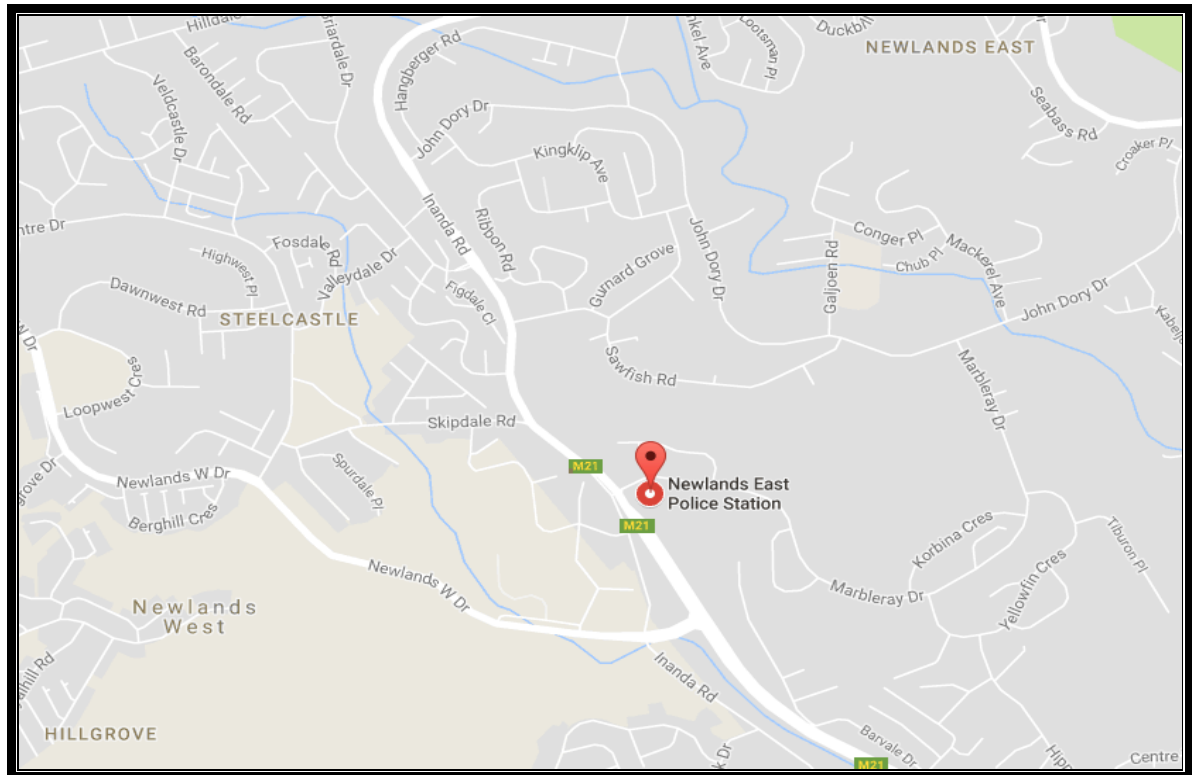
It is against this background that the area of Newlands cannot be described as being safe because a lot of under-privileged residents in the area commit crimes for both survival and feeding their drug addiction. Furthermore, the parental involvement in their children’s lives in Newlands is little to none existent.

3.6.1 Study location

To achieve the objectives and research questions of this study, the sample of this study consisted of SAPS officials from the Newlands East police station. The police station is situated on the eastern side of Newlands, hence the name “Newlands East Police Station”. However, response to calls for service

in both Newlands East and West of Durban. Hence, Newlands East police station was adopted in this study and the sample was drawn from this police station.

Figure 3.1: Map of Newlands East Police Station



Source: Google maps

3.7 Data collection

Qualitative research data collection methods are time consuming, therefore data is usually collected from a smaller sample than would be the case in quantitative approaches; therefore this makes qualitative research more time consuming and expensive. The benefits of the qualitative approach is that the information is richer and has a deeper insight into the phenomenon under study. Below, the method of data collection used in this study is discussed, along with the method used for data analysis.

3.7.1 In-depth interviews

The researcher conducted interviews to collect relevant and rich data. According to the Centre for Civil Society (2003:73) an interview “refers to any person-to-person interaction between two or more individuals with a specific purpose in mind”. This data collection method is the most frequently used to gather data from individuals in studies using a qualitative approach. There are different types of interviews which include telephone, email and face-to-face. The purpose of this particular interview was to elicit rich empirical data to answer the study’s key research questions hence the researcher conducted face-to-face in-depth interviews, which are a “technique designed to elicit a vivid picture of the participant’s perspective on the research topic” (Mack, Macqueen, & Guest, 2015:29) with the aid of a semi-structured interview schedule. The interview schedule was generated after a thorough literature search was conducted to establish the research gap. In-depth interviews were deemed suitable for this study because they permitted the researcher “to explore people’s views, perceptions and understanding of an area [weather patterns and residential burglary], providing the researcher with rich and sensitive material” (Seale, 2012:163).

De Vos et al. (2011) explain that researchers who use semi-structured interviews will gain a detailed picture of a participants’ beliefs about, or perceptions or accounts of the phenomenon under investigation. Additionally, Taylor (1994:208) states that interviews permits the researcher to gain an understanding of the real experiences of the interviewees, consequently giving insight to “outsiders and readers”. This method gave the researcher and participant much more flexibility in terms of asking and answering questions since, semi-structured one-on-one interviews allow participants to tell their story in their own words (Lichtman, 2014). Furthermore, it permitted for a free and open discussion between the researcher and the participants. Overall, in-depth interviews also aided an active, value loaded and limitation free discussion. In addition to this, it allowed the researcher to gain in depth information about SAPS officials’ perceptions of weather patterns on residential burglary.

The researcher followed the guidelines suggested by Leedy and Ormrod (2014) for conducting productive interviews. These authors suggest that, the researcher considers only the questions related to the topic at hand. In this study, the researcher focused on an assessment of weather patterns on property crime (burglary in residential premises) in the Newlands East policing area. The researcher interviewed SAPS officials with in-depth knowledge of responding to burglary at residential premises on different weather patterns. The researcher interviewed these SAPS officials in the local police station offices (Social Crime Prevention Unit), in what can be describe as a natural setting. This is in

tandem with the qualitative design and interpretivist paradigm adopted for purposes of the current study.

The data generated through the face-to-face interviews were recorded using a voice recorder, and that information was transcribed for purposes of data analysis. One of the advantages of using a voice recorder is that “it allows the researcher the opportunity to listen to the flow of discussion and the exact vocabulary used by informants” (Activist Guide to Research and Advocacy, 2003:74). Voice recording the interviews permitted the researcher to capture all the essential data that was applicable to this research. When all the interviews were recorded, the researcher transcribed them to enable data analysis.

3.7.2 Data analysis

Marshall and Rossman (1999:150) define data analysis as the “process of bringing order, structure and meaning to the mass of collected data”. They describe this process as messy, ambiguous, time-consuming, creative, as well as fascinating, which does not progress in a linear fashion and is not neat. To analyse the data that was provided by the SAPS officials in this study, the researcher used a data analysis method suitable for qualitative research which is thematic analysis. Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data as it organises and describes data in detail (Braun & Clarke, 2006).

Steyn (2013) suggests that one may start with a set of possible themes that the researcher expect to emerge and the researcher would include these possible themes maybe in the interview questions. Thematic analysis helped the researcher in sourcing out helpful data from all the aggregate data that was gathered and to recognise patterns of importance over the information that gave a response to the research questions and objectives of this study. This method comprises six stages. Braun and Clarke provide a guide in doing the six stages, which includes becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and lastly producing the report.

In the first stage, the researcher read and listened to the audio recorded interviews multiple times, more especially the unanalysed ones in order to become acquainted with its content and to ensure reliability in decoding the information from the audio recordings of the in-depth interviews. Familiarisation with the data also enabled the researcher to acquire an initial comprehension of the information. By doing such, it enabled the researcher in the second stage to be able to distinguish vital components and topics that were applicable in answering the problem, questions and objectives of this study. The vital components and topics of information that emerged from the participants were examined, and this included both the similar and contradictory ones, which were examined according to their relevance to the objectives of the study. During the third stage, the researcher looked for common denominators and differences within and across the material and these common denominators and differences formed themes. The researcher divided the information into themes, in which the themes that were not applicable were discarded, and relevant themes were compared with the findings obtained from the literature review. The researcher could then in stage four review the themes to be certain that the themes are logical and that they can adequately fit amongst the coded information and the themes. In the fifth stage, the researcher defined all of the themes, which enabled the researcher to do the final stage of writing the final report.

3.8. Ethical considerations

The importance of good research ethics is growing both locally and internationally, to promote the application of ethical standards to human beings, animals and the environment. The National Committee for Research Ethics in Science and Technology [NENT] (2007) highlights that whereas ethics is about a vision of the good life, research ethics is about a vision of good knowledge. The term “research ethics” refers to a diverse set of values, norms and institutional regulations that help constitute and regulate scientific activity. Ethics may be operationalised as good research practice, which entails that the aims of research do not violate common morality, ethics and respect for human dignity.

Good research practice entails that the researcher respects current regulations and principles of research ethics. Both the researcher and the research institution are responsible for promoting and exercising good research practice. Research has a fundamental ethos, namely the search for truth. At the same time, research ethics emphasizes that research has a more general responsibility to society. Therefore, the researcher must attempt to cover all the critical elements for the benefit of everyone

who is involved in the study. Furthermore, when conducting research with human beings it is vital to be ethical as well as to do no harm (Gray, 2009). As stated by Bless et al. (2006:99), the term “ethics” was initially derived from the Greek term “ethos” which denotes to somebody’s character. Ethical considerations are related with conformity to a set of rules by the researcher. Conformity to research ethics assist researchers to comprehend their accountabilities as ethical researchers and prevents research abuses.

The researcher safeguarded that this research is ethically directed. Leedy and Ormrod (2001:101-103) give the ethical considerations that must be followed when conducting a research, which the researcher followed. They are as follows:

- **Protection from harm:** For the duration of the study, the researcher did not cause any harm to the participants which were selected and there was no negative effect on the participants. The participants were not subjected to any physical, psychological, illegal or act affecting the individual’s career or job. In essence, no potential risks were expected for participants in this study. Furthermore, the participants were not humiliated or else made to feel uncomfortable in any way. The participants were also not asked any questions that would put them in embarrassing situation and the interview schedule was translated into the local language (*IsiZulu*) to cater for the SAPS officials who were not comfortable with speaking English language. It was clearly stated to them that at any time during the interview session, the selected participants will be allowed to terminate their participation if they feel uncomfortable to proceed. However, it was emphasised to the participants that if they chose to continue, the information provided during interviews would be used only for academic purposes that is for the current studies and perhaps publication in accredited journals. Participants were told that the data collected would be stored in a storage safe with a pin code known only by the researcher and study supervisor.

- **Informed consent:** Babbie (2004) defines informed consent as a standard wherein participants ascertain their voluntary involvement in a study, fully comprehending probable risks included. This is prepared as a document that requires to be completed. Informed consent also refers to voluntary participation.

In this study, the researcher firstly applied to the University of KwaZulu-Natal’s (UKZN) Humanities and Social Sciences Research Ethics Committee (HSSREC) for approval to conduct this study in line

with the “General Guidelines for the Ethics Review Processes of 2014”. Upon approval to conduct this study, an application was made to the SAPS. Written consent to conduct the study in Newlands East SAPS was obtained from the SAPS Head Office in Pretoria in terms of the National Instructions of 2006. When the participants were selected, each of them was given an informed consent form that they had to read and sign if they agreed to participate in this study. The consent form informed the participants about their right; it was clearly stated that no one was forced to participate and they could withdraw from the study at any time. The consent form also informed the participants of the timeline of the interviews to be conducted which was approximately 30-60 minutes. Furthermore, the participants were knowledgeable with regards to the nature as well as the aim of the research, and were given a choice to be partake in the study or not.

The participant’s consent was obtained in writing and the SAPS National Instruction 1 / 2006: research in the service was adhered to. The application to conduct research in SAPS is guided by National Instruction 1/2006. The purpose of this instruction is to regulate requests to conduct research in the Service by persons from outside the Service or by employees who wish to conduct research for private purposes (such as for the purpose of their studies. The researcher adhered to the sections (1-6) of the said document and fully understood the instructions in their capacity as an applicant, and undertook the submission of indemnity and declaration documents (SAPS, 2006).

- **Right of privacy:** Sieber (as cited by Strydom in De Vos 2002:67) explains privacy as “that which normally is not intended for others to observe or analyse”. Singleton, Straits and McAllister (1988:454) additionally clarify that “the right to privacy is the individual’s right to decide when, where, to whom and to what extent his or her attitudes, beliefs and behaviour will be revealed”. As a result, data collected by the researcher from the research participants ought to be safeguarded as well as made inaccessible to any person additional to the researcher.

The researcher valued all the participants’ right to privacy. Confidentiality is assured by allowing the participants to remain anonymous. Participant’s names were not used when writing the final report of this study, instead, their particulars were coded. Furthermore, the nature as well as quality of the participant’s responses were kept firmly confidential.

- **Honesty with professional colleagues:** The researcher made certain that every source which was used in this study was acknowledged. This was ensured by naming the sources throughout the study

as well as listing the references cited at the end of the dissertation. The researcher strived to report every single finding completely and truthfully. Not any data was falsified and the researcher desisted from plagiarism.

3.9 Methods to ensure trustworthiness

Merriam (2009:213) stresses that “one of the assumptions underlying qualitative research is that reality is holistic, multidimensional, and ever-changing; it is not a single, fixed, objective phenomenon waiting to be discovered, observed, and measured. What is being investigated are people’s constructions of reality - how they understand the world”. Therefore, the trustworthiness of qualitative research requires assessment through its credibility, transferability, dependability as well as confirmability (Babbie & Mouton, 2001; Fossey, Harvey, McDermott & Davidson, 2002), which are the four indicators that are utilised to reflect validity and reliability in this study.

3.9.1 Credibility

According to Trochim and Donnelley (S.a) (in Kumar, 2011:185) credibility in a qualitative research consists of determining that the outcomes of the research are credible from the viewpoint of the research participants. Given that qualitative research explores individual’s perceptions, experiences, feelings as well as beliefs, for that reason it is supposed that the research participants are most suitable to assess if or not the study outcomes were efficient in reflecting their opinions and feelings properly. Schurink, Fouché and De Vos (in De Vos et al., 2011:419) further clarify that credibility is the substitute for internal validity, which has an objective of demonstrating that the study was performed in a way that safeguards that the participants have been correctly recognised as well as described.

Credibility in this study was assured by making this study findings available to the SAPS officials who participated in the study to examine their overall accuracy. Secondly peer debriefing, which the researcher asked a few colleagues to review the dissertation and determine if the findings seemed to align with what they contributed. Most importantly, the researcher interpreted the data received from the participants in a correct and exact manner. Furthermore, the researcher spent long periods with the participants, which helped to get a better understanding of the participant’s insight into this problem

(weather patterns and property-related crime in Newlands East Policing area). To enhance the credibility of this study the findings are believable from the participants' viewpoints.

3.9.2 Transferability

Trochim and Donnelley (S.a) (in Kumar, 2011:185) refer to transferability as the degree to which the outcomes of a qualitative study may possibly be widely applicable or else transferred to another context. Sandelowski (S.a) (in Liamputtong, 2013:26) further explains that transferability suggests that, "theoretical knowledge obtained from qualitative research can be applied to other similar individuals, groups, or situations". Of which, Schurink, Fouché and De Vos (S.a) (in De Vos, *et al.* 2011:420) emphasize that it ought to be plausible to transfer the outcomes of the research from a particular context to another.

The researcher trusts that the data, along with the knowledge attained from the research participants and the outcomes can be applied to other alike groups of individuals, contexts and subjects. Consequently, the researcher outlined comprehensively the explanation of the assessment area, the participants as well as the methods used to gather information. This was done in order for future researchers to evaluate whether or not the study findings make sense to transfer to other settings facing similar study problem. In summation, it is envisaged that if another researcher will subject the findings of this study to similar circumstances, and apply the same research design and methodology, the same results will be obtained.

3.9.3 Dependability

Dependability in a qualitative research is very similar to the concept of reliability used in quantitative research. As stated by Trochim and Donnelley (S.a) (in Kumar, 2011: 185), dependability is related to whether a researcher could get the similar outcomes if the researcher studies similar thing two times.

To ensure dependability, the researcher made sure that the information transcribed in the literature as well as the views of the authors were correctly stated by the researcher. Furthermore, the researcher correctly transcribed the responses of the research participants who were interviewed. Furthermore,

the researcher further took care to not manipulate the data to fit a certain viewpoint. The participants were not influenced by the researcher by any means for the duration of the interviews and their replies are not altered. The researcher was very cautious and did not make any deductions or suggestions to direct the viewpoint of the participants. For that reason, the researcher is certain that if a similar research is conducted by a different researcher, similar outcomes will be generated.

In addition to this, the researcher has explained in detail the specific methodologies that were used to gather information, analyse as well as interpret the findings. This study can be auditable to describe the situation, and for another researcher to make a follow-up. Furthermore, the steps contained in the thematic analysis were used to analyse the data in this study, which helped by preventing the researcher from making the wrong deductions and interpretations.

3.9.4 Conformability

Conformability in a qualitative study is also comparable to reliability in quantitative research. According to Trochim and Donnelley (S.a) (in Kumar, 2011:185), conformability denotes to “the degree to which the results could be confirmed or corroborated by others”. This is solely achievable when both researchers follow the same procedure in the same way, in order for the outcomes to be compared (Kumar, 2011:185). For this study, the literature that was referred to was precisely recorded in a comprehensive way and the replies from the research participants are all substantiated. Furthermore, the detailed explanation of how the data was collected and analysed support confirmability. It will also enable other researchers to scrutinise the research design and if they investigate the data collected, they will come to similar reached conclusions. This is so because the researcher was able to remain objective during the course of the study. Therefore, if a different researcher were to conduct this study in a similar way to that by the current researcher, the outcomes will be identical.

3.10 Limitations and challenges experienced in conducting the study

As apparent in all studies, limitations are certain and this study is no exception. One of the limitations to this research was that it did not aim to offer final and conclusive solutions to the existing problem.

The aim was merely to explore the research questions, as it is an exploratory study. Further limitations of this study are outlined and summarised below:

3.10.1 Conceptual demarcation

The scope of this research does not reach all forms of property-related-crimes. This study was limited to burglary at residential premises only. The reasoning behind the particular demarcation is that burglary at residential areas has consistently been one of the highest reported property related crime according to the SAPS crime statistics in the Newlands Area. Furthermore, undertaking all property related crimes would demand additional time as well as costs, which is beyond the researcher's capacity.

3.10.2 Financial constraints and travelling distances

The other challenge experienced by the researcher was that the study did not obtain funding, which resulted in the study being very costly for the researcher and caused an increased monetary burden. The researcher had to travel between home, the Police Station and the University as well as purchase stationary for the research, make telephone calls and pay for a language editor. Furthermore, printing of material for the research was more expensive than what the researcher had anticipated.

3.10.3 Geographic delimitation

Regarding the geographical delimitation this study was limited to the area of Newlands in Durban. In particular terms this affects the generalisation of the study findings.

3.10.4 Limited previous research in South Africa on the linkage of weather patterns and burglary at residential premises

There is a lack of literature in the South African context concerning the linkage of weather patterns to burglary at residential premises, and as a result it was challenging to compile a literature review on the linkage focusing it on South African context. The researcher perceived this as a serious limitation because every country is unique. However, for that reason, the researcher depended greatly on international studies to give an understanding as well as knowledge on the subject being studied.

3.10.5 Permission to conduct the current study

One of the first and most frustrating challenges that the researcher experienced was obtaining ethical clearance from the University to conduct the study, which took a long daunting four months. In addition to this obtaining, gatekeeper's permission letter from SAPS was also not easy, which took approximately five months.

3.10.6 The study participants

Initially the researcher had hoped to interview seven (7) SAPS officials from the Newlands East Police Station. A sample of ten participants was generated using purposive sampling as mentioned in 3.5.2. However, only seven (7) of those participants agreed to participate in the study. Reasons for not participating ranged from them feeling that they were not suitable to be interviewed hence some just mentioned individuals whom they thought were more suitable. In addition, some felt that they could not trust the researcher, and did not want to be recorded. Some even made suggestions that the researcher could conduct interviews but should not audio record the interviews. Furthermore, the relatively one-sided sample was a limitation that impacted a more balanced view on weather patterns on residential burglary. The SAPS held relatively similar views on weather patterns on residential burglary. Additionally, another limitation is the fact that the sample size was small, and for that reason the outcomes from this sample cannot be considered as a representation of the large South African population. However, representativeness is not a priority in qualitative research.

3.10.7 Time delimitation (setting dates for the interviews)

Hectic day-to-day work demands caused delays in setting dates for interviews, as well as honouring those dates selected. At times appointments were cancelled on the last minutes because of other emergencies that would arise. Owing to the fact that the participants were interviewed at their work place such challenges were difficult to control. Nonetheless, this challenge encountered by the researcher did not hinder the researcher from accomplishing the research objectives of the current study.

3.11 Summary

This chapter presented an overview of the methodology that was employed in the study. The nature of the study, its setting, ethical considerations, and limitations were discussed. Despite the limitation of a small sample size and the fact that that results cannot be generalised to the South African context at large, it is argued that the study holds value as a means for further research into weather patterns and their impact on residential burglary and the findings can be transferred to other settings facing similar research problems.

With the information presented above, it can be concluded that the current study has been executed within the framework of a sound and appropriate methodology to fulfil the aims and objectives of the study. The next chapter presents the findings of this study in relation to the aims and objectives postulated in Chapter One based on the data captured from the selected participants, as guided by the designed measuring instrument (interview schedule guide).

CHAPTER FOUR: DATA PRESENTATION AND INTERPRETATION OF FINDINGS

“My mom says that when it rains you never feel like you should be anywhere but home.” Elise Broach (2005)

4.1. Introduction

This chapter presents the findings elicited from the participants through in-depth interviews. The findings are discussed considering the relevant literature. The chapter also provides an explanation for the conclusions drawn from the data. It ought to be noticed that all the word for word quotes from the participants are written in italics. The participants were not acknowledged through their names in compliance with the ethical considerations explained in the preceding chapter. While the themes overlay, the analysis has been done in relation to the aims and objectives discussed in Chapter One. For purpose of this particular segment of data presentation and interpretation of findings, the questions below (represented in italics) were raised by the researcher in the interviews. Their responses were recorded by means of a voice recorder and presented as ‘IDI P 1-7’ in sequence, which refers to In-Depth Interview Participant 1.

4.2. Summary of the research

The present study focused on assessing weather patterns on property related crime “burglary at residential premises” in the Newlands East Policing Area of Durban. The study aimed at exploring and understanding the SAPS members’ perceptions of weather patterns as a contributing factor on residential burglary in their area of policing. The study objectives included (1) exploring the SAPS perceptions of weather patterns on residential burglary (2) understanding the contributing factors of weather patterns in the occurrences of residential burglary (3) exploring the current strategies employed by the Newlands SAPS in response to weather patterns on residential burglary (4) evaluating the challenges that may exist between the local SAPS and residents in responding to burglary at residential premises during unfavourable weather conditions (5) identifying community engagement in addressing burglary at residential premises during weather patterns changes.

The consulted literature presented in the literature review section which have studied weather patterns on burglary at residential premises show evidence of a positive relationship between the two. This was done by gathering quantitative data (statistics) and employing it to analyse for relationships and trends between weather patterns and property crime and making assumptions based on it. However, the present study took a different form, it took the form of a case study amongst the SAPS and conducted qualitatively. The researcher interviewed seven SAPS officials on their perceptions of weather patterns on residential burglary.

This study brought on different trends of discussions, which brought about new insight on the causal link between weather patterns and residential burglary. Since the officials could explain, describe their feelings, experiences and give real life examples on the contributory factors of weather patterns on residential burglary. As a result, the findings of this study will not only enhance the research of Criminology but will also give the community a better understanding of how the weather affects residential burglary and will be able to exercise caution during weather conditions that present opportunities for the occurrences of this crime. This will also aid in the achievement of the National Development Plan of building safer communities by 2030.

4.3. Discussion of the findings

- **Objective 1: To explore the SAPS perceptions on weather patterns on residential burglary in Newlands East Policing Area**

4.3.1 Question 1:

In your view, do you consider burglary at residential areas increasing due to change in weather patterns for the last five years (2012-2016) in the Newlands East Policing Area?

From the responses presented below, it is evident that the SAPS share very common perceptions with regards to weather patterns on residential burglary in Newlands East Policing Area of Durban. That is, burglary at residential premises do increase due to changes in weather patterns. They stated the following,

Hmm weather patterns, to be honest with you it is difficult to say weather patterns but if we look at the seasons, I would say that the cold winter season is a problem. It causes an increase in burglary at residential premises”. (IDI - P 1)

Not really the weather but if we are talking about seasons I would say yes. The winter season causes the increase seen in residential burglary since there’s a lot of incidences being reported in that season”. (IDI - P 2)

Yes, we get more calls for service during cold and rainy days”. (IDI - P 3)

I would say yes I do believe so. Reasoning being during raining seasons and winter we get more cases. (IDI - P 4)

You know there are so many factors which can contribute to the increase in residential burglary, I’d just say it’s mostly opportunistic. But to answer your question precisely, yes changing weather patterns could be the cause of the increasing statistics on residential burglary. (IDI - P 5)

The participants’ responses on burglary at residential premises increasing due to changes in weather patterns indicate that this is a common and growing phenomenon as they referred to the fact that they get more calls for service, more cases, incidences reported. Although some of the participants indicated that it is not really the weather that causes an increase, it emerged that it is mostly the cold winter season that. It must be noted that seasonality is one of the meteorological conditions and aspects of weather which are studied in the field of Criminology.

Objective 2: To identify and understand the contributing factors of weather patterns in the occurrences of residential burglary in the Newlands East Policing Area.

4.3.2 Question 2:

What is your understanding, regarding the following statement: How do weather patterns contribute to the occurrences of burglary at residential premises in Newlands East Policing Area? (Elaborate your answer).

The replies to the question regarding *weather patterns and their contributions to the occurrence of burglary at residential premises in Newlands East Policing Area*, in general gave a similar understanding amongst the SAPS officials. Evidently, the officials are knowledgeable and experienced

as they all perceived weather patterns as a contributory factor and demonstrated a very clear understanding of how weather patterns contribute. The responses which they provided can be best understood using the Routines Activities Theory and Rational Choice Theory respectively. The responses are presented below,

Yes, they do contribute, during the cold winter people tend to go to sleep early, they sleep longer and get up later. When they are sleeping, burglars break into the houses and have more time to take whatever they can access. As individuals, we have a tendency of not wanting to get out of bed if it is extremely cold, and this includes even going to the toilet. When people hear a sound, they hesitate to get up and go and check it out and when they come in the morning to report they actually do mention that they did hear sounds in the early morning for example, but were just too lazy to wake up and check it out or else just mention that they heard it in their sleep.
(IDI - P 1)

The above comments enlighten that the routine of people going to sleep earlier in winter creates opportunities for the occurrence of burglary at residential premises to occur since they sleep longer and get too comfortable in bed, due to warmth and become hesitate to get up even if they hear suspicious sounds. This was also evident in a response given by one officer who said,

Yes, during cold nights when people are sleeping, it happens that if it's too cold people will not go outside. Therefore, criminals know that it's cold, and most people won't be on the street to witness the burglary occurring and in that way, are able to target houses. Even if we refer to neighbourhood watches in the area, it is not effective during cold winter nights because people want to sleep when it's cold. However, in terms of neighbourhood, when it's hot people are mostly active outside, and this will decrease burglary. So basically, in winter we have a lot of housebreakings because people are inside, and are not visible outside
(IDI - P 2)

The above response gives a clear indication that the routine activities of people living in Newlands are modified during different weather conditions and the modification has an impact on one of the elements of the routine activities theory namely capable guardianship, or in their terms “witnesses” and creates “suitable targets”. Furthermore, the officials gave a clear picture that residential burglary has the tendency to occur during the night in cold winter and it is highest during winter. These findings conform to those of the VOCS conducted in 2011, 2014/2015 and 2015/2016, which gave a clear indication that the night periods were the most preferable for residential burglary. Interestingly this is contrary to the findings by Horrocks and Menclova (2010) that during cold winter criminals might be less driven to commit property crimes because people tend to stay indoors because being outside is relatively uncomfortable, which then increases the likelihood of a “capable guardian” and being caught and makes property crime or burglary more difficult since individuals are inside their homes. In

Newlands the fact that it is uncomfortable being outside creates the opportunities since being in bed is more comfortable and reduces the eye witnesses outside. In support of the responses above the one official expressed their view as follows:

Yes, when it is raining people tend to stay inside their houses, particularly in bed. So even if there are suspicions vehicles or people around residents never notice them, in that way cannot notify the police of them and prevent the burglary from occurring. Furthermore, the rain has a sound that it makes, so when people do hear something once during the night, probably a door opening or a window being broken, they often convince themselves in they sleep that it is the rain and nothing else. Even if they do try to listen attentively, the sound might have stopped and they would be just hearing the rain. Furthermore, the winter season contributes because it's darker in winter as compared to summer and darkness offers a cover for criminals as well as the fact that people tend to sleep early during winter. What I am trying to explain to you is that criminals know that people sleep longer in winter and the longer nights offer them more cover of darkness since there are extra hours of darkness.

(IDI - P 3)

Contrary to the comments herewith, gives an indication that burglary at residential premises tends to be a nocturnal occurrence during the cold winter time. The explanation that the official gave is in harmony with the previous police officials mentioned above. Furthermore, also alludes to the rationality of criminals knowing that they will not be capable guardianship to witness the crime during cold winter nights as compared to summer nights. On the other hand, this official also includes the issue of darkness in the cold winter being a contributory factor. This agrees with the findings of Rotton and Kelly (1985) which emphasised that “darkness affords offenders the advantageous conditions of anonymity; darkness is “de-individuating”. Henceforth darkness may be “thought of as a key inhibitor to capable guardianship” during winter which is mentioned in the routines activities theory. Furthermore, rainy weather was mentioned and a key factor contributing to residential burglary. Due to the sound which the rain makes, it is difficult to hear the breaking of windows or doors. Van Zyl (2003) also found that rain during the night-time may facilitate residential burglary occurrences since it can go unobserved, due to the noise made by the rains. Furthermore, Letkemann (1973) agrees by stating, “Rain may facilitate crime directly, as in the muffling of noise or in directly”.

As mentioned previously the officials seem to share very common perceptions with regards to weather patterns on residential burglaries. This response is repetitive of what the previous three officials had said, which is:

Yes, people tend not to look after each other's houses because during cold and rainy seasons they will just be in their houses and criminals take advantage of that because they know that

people are not observant with their heaters on sleeping and they will sleep early during such times. Furthermore, when it's too cold, they also take advantage because people sleep a lot, and are often in deep sleep, unlike in summer where people sleep late in the night, sometimes you will see them at 23:00, 00:00 pm sitting outside enjoying themselves. Other than that, they just take chances when they know that houses are vacant. (IDI - P 4)

It is worth noticing that in the above response, the official mentions an interesting point that was not mentioned by the previous officials above that residents do not look out for each other's houses during unfavourable weather conditions and criminals take advantage of such. From the analysis above, it is evident that unfavourable weather patterns are a major contributory factor to burglary at residential premises. However, it was also expressed that hot weather conditions have also impacted on the occurrences of burglary at residential premises, which is mostly due to people's negligence during this time:

I would say that changing weather patterns provide opportunities which criminals can exploit. I say this because there are individuals who just don't lock their gates and doors on a hot day, of which I do not understand why really. Secondly, people in the Newlands area have a tendency of leaving their clothing on the washing line to dry overnight when it is hot, which attracts offenders. They then look for opportunities to burglarize the house. Thirdly, people do not close their windows when it is hot and you arrive at the scene ask them why and they just say, "it was hot". An example of this is a lady who caught a criminal inside her house around 3am. The intruder had already stolen a laptop and some handheld staff, after gaining entry to the house through her bedroom window which she left open because it was hot that night. Lastly, during a typical hot day people may decide to have more than one drink (alcohol) from the numerous bars around and get drunk. When entering their homes, they forget to lock up and maybe just close their door which leads to burglary. (IDI - P 5)

From the above response, it is clear that hot weather conditions provide opportunities which criminals can exploit, like open window break-ins. A general assumption can be made with reference to the findings of Hamilton-Smith and Kent (2005), which provides that is due the lack of air conditioning in during hot days which facilitates such. The authors indicate that one of the utmost efficient crime deterrence methods for burglary is to lock the doors and windows of one's home. However, people are likely to not close their windows and doors in summer because of high temperatures, which then provides criminals with easy access to their homes. With reference to the routines activities theory, this open window provides a suitable target. In addition, using the rational choice theory, it could be deduced that criminals conclude that they will not get caught since they entrance will go unheard since they do not have to use force to enter the house.

Some officials shared the perception that doors and windows which are left open are the reason for the break-in during hot temperatures. It is worth noticing that, contrary to unfavorable weather conditions impacting residential burglary generally during the night. The hot weather condition can impact residential burglary at any given time of the day if the opportunity is there, which is expressed in the following:

Yes, the reason I say this is because there is no safety at people's homes, which is due to the same people just tending to be negligent when it's hot. You'll find that sometimes when we are patrolling around 10 pm, people still have their doors and burglar gates open. I think when it's hot you can always close your burglar gates and leave your door open, but people are just negligent. We had one incidence where this family left their burglars gates and door open during a hot day; the lady had also left her phone charging whilst she slept on the floor to cool off. She reports that someone got into the house and stole her cell phone. When we get there, it looked like there was no forced entry. So, it became clear to us that someone had come there to probably talk or get something but seeing that she was asleep and had easier access, the person then used the opportunity and took the cell phone. Well, honestly weather patterns really do contribute in more ways than one. For example when it rains, most people don't go outside and there is just a tendency of people not taking note of things happening outside, this becomes worse when it's rainy and windy at the same time. So, in this bad weather, most people report on residential burglary and it's extreme that they even say they have removed the gate motor or cut through burglar gates with a hacksaw. This is difficult to hear because of the noise the rain and wind make in peoples' sleep and because the criminals know that it's very unlikely that people will bother themselves to take note of things happening outside during such weather conditions.

(IDI - P 6)

On the same note of windows and doors being left open and the community not looking out for each during raining seasons the last police official expressed the following:

Yes, you see the main factor when it comes to weather patterns on burglary at residential premises, it is the windows and doors that people often leave either widely or slightly open during hot days. An example that I am going to give you, myself and another female constable were patrolling and we saw this house in a hot day, both the gate and the house door were open. We knocked on the door, the female was in the bathroom from the passage she screams come in, and so we enter. You cannot leave your house like that, it is no excuse that it is hot, it could've been a criminal that she was screaming come in to from the passage and could have gotten her house burglarized. Yes, it's hot, and criminals are also walking by during the day and seeing these open houses. Also, it is during raining seasons as well, the community is very much led back when it rains, they are not alert and can't inform us of suspicious vehicles and all. They are just in their homes and are not looking out for each other.

(IDI - P 7)

From the above analysis it is evident that the participants shared the same perceptions that weather patterns do contribute to the occurrences of residential burglary, even thou it was expressed differently

in terms of seasonality, darkness and temperature. Furthermore, a very clear understanding of how weather conditions contribute to residential burglary was indicated. Such an understanding included participants mentioning that is because people's routines change in different seasons/weather conditions, people negligence during different weather conditions, the sound the weather makes, and their habit of not looking out for each during unfavourable weather conditions.

What was intriguing from the responses is the fact that weather patterns actually gives an idea of the circumstances which lead to the occurrence of residential burglary. For example, the method of entry, which is mainly windows and doors is found in previous studies (Curtin, Liz, Tilley, Owen & Pease, 2001) (VOCS, 2012-2014) and the SAPS Annual Crime Report for 2015/2016. Secondly, time of the day which is mainly the night evident in previous researchers (Rengert & Wasilchick, 2000). Thirdly, selection of suitable targets in terms of vulnerability and security (windows and doors unclosed), which lead to effortless entrance agreed with previous research studies (Van Zyl, 2002; Weisel, 2012).

4.3.3 Question 3: *In your own opinion, is there a link between a change in weather patterns and causation of residential burglary in the Newlands East Policing Area?*

In attempting to ascertain if there a link between a change in weather patterns and causation of residential burglary in Newlands East Policing Area, the researcher posed the above question. The responses received limited attention, as the participants mostly referred to the responses which they had given to question 2, the responses are presented below:

Yes, there is a link, weather patterns impact on peoples sleeping patterns as I had mentioned that they sleep longer in during cold winter nights. In general, most people who commit burglaries try not to come into contact with their victims, so this sleeping longer gives them the opportunity to burglarize. (IDI - P 1)

Certainly, I would say there is a link because people's activities are mostly impinged by different weather patterns. If it cold people prefer staying indoors and they would not see or witness burgling occurring and if it's hot they are visible which means they see everything and that deters criminals from committing burglaries. (IDI - P 2)

Indeed, fundamentally during cold and rainy days you don't have individuals all over the place or out and about in their ordinary activities, if individuals aren't out, they won't be eyewitnesses to in fact witness the burglary occurring . (IDI - P 4)

Yes, simply when it is hot people do not secure their houses and these unsecured houses require no effort whatsoever to get entrance into. The heavy rain is also connected in more ways than one now that I think of it. It gives rise to poor lighting, so you cannot see probably outside, okay well that's if you're not like the 99, 99% who are just not bothered with what's going on outside during such times.
(IDI - P 6)

The responses above affirm the findings of Cromwell and Olson (2006) that burglary at residential premises is frequently opportunistic. These opportunities are created by people's activities and behaviour changing due to the changing weather patterns. The responses provided above also indicate that the Newlands Officials have already observed the link between changing weather patterns and the occurrences of burglary at residential premises. Of which also gives the impression that they prepare for service calls depending on bad or good weather conditions. It is against the above background that questions regarding available strategies are available to respond the occurrence of burglary emerge.

- **Objective 3: To explore the current strategies employed by the Newlands East SAPS in response to weather patterns on residential burglary**

4.3.4 Question 4:

*What are the current strategies you are aware of that the local South African Police Service in the Newlands East Policing Area against weather patterns on burglary at residential premises?
(Elaborate your answer)*

The impact of weather patterns on burglary at residential premises in the Newlands East Policing Area suggest that this crime is prevalent in this area and it does not only hold financial implications but can harm its victims both psychologically and emotionally. Therefore, there is a need for strategies to be formulated against it, hence the officials were asked if there were any strategies which they were implementing. They stated the following,

Yes, we have two most important strategies for weather patterns on burglary at residential premises in Newlands. Firstly, we have a lot of these high intensity patrols and street patrols during the day and night. Furthermore, there is stop and searches of vehicles, we also stop individuals, especially those walking around odd times of the night and early morning during winter especially because it will still be dark, and so we stop and search them. We also engage in partnership with local stakeholders like security companies, they help us in doing these patrols.
(IDI - P 1)

Yes, we as a station have increased patrols for police vehicles to be visible in the community. We are aware that community members tend to not be observant during unfavourable weather patterns and not look out for each other, so police visibility in the community chases offenders away. What we have started doing is, when we start work at 3am now we do patrols, stop and searcher of suspicions vehicles here at Newlands. Even foot patrols at about 3:30 in the morning throughout the neighbourhoods. Moreover, we have street commuters which are established to assistant in terms of preventing residential burglaries.

(IDI - P 2)

Yes, we allocate cars to patrol around, at least different vans being in different locations at the same time. We are engaged in partnership with local stakeholders in the community, namely securities and the metro police. They assist us in terms of intensifying police visibility through random/ targeted patrols, these patrols start very early in the morning and they change shifts throughout the day. The best way to prevent this crime is by increasing visibility of the police, because if they are numerous police in the area the more the criminals will run away.

(IDI - P 4)

Yes, we do community crime awareness programs whereby we go out to educate the community about crimes, including burglary at residential premises. During those community crime awareness programs, we distribute pamphlets which educate the community about ways in which they can prevent burglary at residential, to mention a few we overemphasis the issue of having the windows, gates and doors locked and secured always because such creates opportunities which criminals can exploit during hot temperatures. Furthermore, it's written if they are taking summer vacations to inform their neighbours to at least remove their mail, so criminals won't notice if there's no one at home for a period. Moreover, we have a crime prevention unit here that deals with the crimes especially before it happens, residential burglary included. They go out and collect information for us to prevent this burglary at residential premises from occurring. Furthermore, we make drug arrests because it has an effect especially those who are addicted to Whoonga. We find that they commit housebreakings more because this drug cost like R20 and even less at times. Unemployment as well is a problem, not just in the Newlands area but also neighbouring because they boarded by KwaMashu, INanda. We do these drug arrest particularly because we find that these are the same guys that loiter around during odd hours of the night and the same ones which often find open windows during hot seasons to take advantage of.

(IDI - P 5)

Yes, well as a station we do foot patrols around the neighbourhood and patrol around with the van. Whilst patrolling we take the time to communicate with the residents and tell them to inform the police station if they happen to take vacation during the summer vacs, for us to do patrols in certain roads during those times and we also monitor the houses as well to make sure that there are no suspicion activities going on during unfavourable weather conditions and whilst residents are sleeping. We also advise them to involve their neighbours, tell them I am taking vac or going out for the day, some people just live the middle and don't worry about their neighbours. So, when their houses get broken into, they will say that the neighbours just live right here and they did not see anything. But if you get everyone involved around you it helps, as people need to be the eyes of their neighbours, in that way burglary at residential

premises can be prevented in all weather conditions, including unfavourable ones.

(IDI - P 6)

Yes, we actively partake in street patrols, to the extent that we even use people who are office based to go out and physically fight crime in the community. Well basically street patrols, relying on informers as well as stop and searches of people which is very effective. At times you find people walking with property that they cannot tell you where they got it from and where are they going with it, in that way you are able to catch a criminal even before residents notice that they have been burglarised. We simply check them and insist on knowing where did they get this property from, they will end up telling you. And if they can't account for it, that's an offence on its own. Another thing that has helped us is the fact that we have a cluster office which handles about 5 officers in this cluster. So, they often come this side to help, we also get assistance from other units such as the dog squads, flying squads etc. from the province.

(IDI - P 7)

From all the above responses, it is clear that there are current strategies which have been put in place by the local South African Police Service in the Newlands East Policing Area against weather patterns on burglary at residential premises. Such strategies include; high police visibility, stop and searches, patrol by foot and car, drug arrests, community crime awareness programmes, partnership with local stakeholders and relying on informers.

However, with all the strategies put in place for weather patterns on burglary at residential premises in the Newlands East Policing Area of Durban, this type of crime continues to be a problem, leading to the question whether the strategies were adequate. The SAPS officials were asked the following question,

4.3.5 Question 5: *Are the current strategies that are used by the local SAPS effective in responding to the challenges brought about by change in weather patterns on burglary at residential premises in the Newlands East Policing Area? Why do you think so?*

The question relating to effectiveness of current strategies in the Newlands East Policing Area was posed with the intention of assess the effectiveness of the current strategies in order to address this problem more effectively in the future. The participants had the following to say,

Well, I wouldn't really say it's adequate because I think if it was than we wouldn't be having such a high burglary rate in the area, there's just a lot that still needs to be done and some of those things are beyond the control of the police. For example, creation of employment

therefore the government should assist, any projects that people can do like car washes for them to get food and therefore there can be less of burglaries. (IDI-P1)

Yes, we have found that these three strategies combined throughout changing weather patterns has an impact on the reduction of burglary at residential premises. The only problem is that we cannot be everywhere at the same time in Newlands but given the manpower we would. (IDI - P 2)

We are basically doing a lot to prevent residential burglary, there's just a little issue with co-operation of the community, you see us as police cannot be everywhere at the same time, I do understand that we do get the good and bad in every organisation but some of us really do try but the community just does not assist us. (IDI - P 3)

I must say this would be more effective, if we had more vehicles allocated to the station. (IDI - P 4)

Hmm, let me just say that we as a station have a lot of work to do but its effective just that more awareness talks amongst the community can be helpful. (IDI - P 5)

Summarily, the participants felt that the strategies were effective. However, they also felt that with the assistance of the community, creation of employment, more community awareness programmes and more manpower it would be more effective. This raises questions regarding the challenges which may exist between them and the community in responding effectively to residential burglary.

Objective 4: To evaluate the challenges that may exist between the local SAPS and residents in responding to burglary at residential premises during unfavourable weather patterns

4.3.6 Question 6:

What are the challenges that you are aware of that exist between the local SAPS and the residents of Newlands Policing Area in responding to burglary at residential premises during unfavourable weather patterns?

With the many strategies that the SAPS mentioned against weather patterns on residential burglary, this question attempts to highlight the challenges that may exist between local SAPS and the residents to respond to burglary at residential premises during unfavourable weather patterns. The SAPS participants' voiced very similar challenges that hindered them in responding effectively to this crime,

Well challenges you get that in some places there is no street lights and the community takes its time to report that in our area there is no street lights in our area to the to us and the

municipality. Obviously, criminals will target those places more and this becomes worse when it's raining, you literally cannot see anything in heavy rain and darkness but if they told us we would patrol more there until the issue is sorted. So, another challenge will be trying to get urgent help from the municipality and sometimes they are not quick to assist us and we as the police alone can't do much because we need other organisations to assist us.

(IDI-P1)

Our biggest challenge is manpower, we cannot cover the whole area on our own and the community is mostly reluctant to assist us in terms of community policing. In fact, I think all police stations have the same problem, you are just chasing after crime without the assistance of the community. You will focus on a certain area, crime will be done there and increase in another area but we cannot keep it down all the time. It is tough here because you will find that we will be patrolling a certain area throughout the whole day, but when it comes towards the evening when people come from work, then you'll hear that that specific area or road was broken into it. And then we be like, hawu but we were there patrolling the houses, but did not see anything however we were driving slowly and looking at the houses and they looked normal to us on the outside. But at the end of the day houses still got broken into, then you see that the major parties are the people that stay there and the community around the house as well. Given the manpower however, I think we would be able to respond effectively to residential burglary because we will be able to allocate more vans there for example and more community members in different areas.

(IDI - P 2)

Challenges, challenges, challenge; well, one of the challenges that we are experiencing is that sometimes community members do not want to work with us the police. So, it happens that if they have information, they do not want to share the information with us, especially if that housebreaker or criminal is a member of the family, they tend to protect their own and do not want to give out information. So, it becomes very different for us to effectively respond to burglary at any given time without the assistance of the community. Another thing in my opinion the effective way in responding to burglary at residential premises is through community policing but mostly in Newlands people do not participate in community policing. Furthermore, people do get arrested for residential burglaries but once the community gets back their properties, people are not interested in court processes but the state should act as a recovery agent.

(IDI - P 3)

You know, the biggest challenge is establishing a relationship between the police and community members and even amongst the community members themselves. People do not have a relationship with their neighbours and do not work with their neighbours', so it becomes difficult for us to respond to crime effectively. They only start establishing relationships when a crime has occurred, which would have been prevented if such was established initially. For example, when you have established a relationship with your neighbour you tell them I am going somewhere, when suspicious persons approaches the neighbour's house or gate which you know are not there, the neighbour can come and ask, "who are you and what you are doing there?", for instance and you inform the police for instance. That person won't come back again to that same house because they know that people have prioritised safety in that area and the crime will shift to people who are less vigilant.

(IDI - P 5)

Hehehe that's a very good question. Well, one of our challenges is communication, people are reluctant to give you information or become registered informers. You see we have a CPF-Community Policing Forum, and we have meetings but it is only when crime affects them then they want to come, complain and assist in responding to burglary at residential premises even during unfavourable weather conditions. Furthermore, community members are not vigilant, when I say vigilant, as for me I know who my neighbour is. So, if my neighbour is going for their summer vacation they tell me, we are going and no one will be home. Just simple communication, so if I see someone coming with a strange car I know no-one is supposed to be at home and I can call the police. It's just community working with us but they refuse to work with us, I do not know for what reason honestly.

You see, the police are a mandate in terms of the constitution to prevent crime but we can only prevent it to a certain extent. Take one road in the area, let's say Earlsfield Drive, the number of people that live in that road, I would say are two times more than the police man we have in the station. And that's just one road, if you look at it. That's the thing, so we encourage them to do neighbour watches and street patrols during unfavourable weather conditions because on our own it's a problem. On our own it's difficult, just to be vigilante, I'm not saying that they should perform our duties but to a certain extent help us. Because criminals or let's say people who commit these residential burglaries have parents, family and friends as well they know who is doing it. You know we are all different but without the community unfortunately I'd say we're fighting a losing battle when it comes to responding to crime.

(IDI - P 6)

In light of the provided responses, it is evident that there are challenges that exist which are hindering the local SAPS and the residents to respond to burglary at residential premises during unfavourable weather patterns, these are varied. The challenges range from the community not wanting to work with the police, in terms of community policing, as there is not enough manpower within the SAPS to do so alone to the community not giving information to the SAPS. The mentioned challenge points to a great tolerance of crime in the community and it is worth noting that the response of family members, friends as well as acquaintances in the community being aware of criminals who engage in criminal activities in the community is in harmony which the findings of Zinn's (2010) study. These mentioned challenges are once again echoed by the police officials when asked about their views regarding the communication and co-operation with the community in the next theme.

- **Objective 5: Identification of community’s engagement in addressing burglary at residential premises during weather patterns changes**

4.3.7 Question 7:

What is your view regarding the level of communication between the communities and the local SAPS to address burglary at residential premises during weather patterns changes in the Newlands East Policing Area? (Please, elaborate)

4.3.8 Question 8:

What is your view regarding the level of co-operation between the communities and the local SAPS in terms of burglary at residential premises prevention during weather patterns changes in the Newlands East Policing Area?

To be effective, policing in the community there must be a relationship between the police officials and community members, particularly in terms of communication and co-operation. When asked about their view regarding the communication and co-operation, their responses served to show that there is some level of communication between the local SAPS and community members to address burglary at residential premises during weather changes. However, this crime continues to be a problem since there is not much co-operation between the communities and the local SAPS in terms of preventing residential burglaries during weather changes in the Newlands East Policing Area. Their comments emphasized the fact that there is no single entity that can effectively deal with burglary at residential premises during weather changes, however, it is a responsibility of every individual within the community and without its co-operation they are basically fighting a losing battle.

The efforts which were highlighted to communicate with community members included the media (radio, local newspapers and pamphlets), and the establishment of Community Policing Forums (CPFs), which in short is “partnership between the police and the Community to solve safety problems” (Dlamini, 2017), this structure includes neighbourhood watches, street patrollers etc. The challenge lies in co-operation in terms of compliance, responding and listening to what is being communicated with the communities, with no corrections made on the language, the police officials’ responses are as follow,

Well, the communication is not entirely bad, although when it comes to the detectives sometimes when they are working and doing their investigations some people just do not want

to communicate especially if they are not affected by the crime. They only want to start communicating when they are affected by it, or let me say when they become victims of crime but if they are not victims, they do not want to be witnesses of it even if they have seen something. When people do not want to be witnesses, criminality will continue.

(IDI-P1)

Well, from my opinion the communication between us and the community members needs some improvement. I say this because there are community members who are very involved in strategies to prevent residential burglary and there are some who are just not bothered. You see, we have Community Police Forums (CPF's) here, and this establishment gives the community the chance to communicate with us frequently but some community members are not involved in such establishments. We have meetings with them and they inform us of things that are going on in the community, they suggest how we can improve our service delivery to them. We also identify problems and solve them in these forums. So, we communicate that people mostly want to sleep during winter, we need to be active and patrolling around. These forums include a whole bunch of sub-forums and neighbourhood watches, so they also go out at night and patrol the area even in unfavourable weather conditions. Just imagine how our community would be if everyone was involved in such medium of communication.

(IDI - P 2)

I can say that the communication is fair. We have CPF's in Newlands and every week we have CPF meetings with the management of the station. In those meetings, they inform us of crimes happening in their area and we in turn explain to them this is what we plan on doing.

(IDI - P 3)

We communicate with community using varies media platforms, like Facebook, radio and newspapers. The problem is with them communicating with us because not all of them are involved in the communication structures which we must use for the exchange of information such as CPF's. We only see them when they have problems but besides that there is effort to communicate.

(IDI - P 4)

Honestly, communication is okay. We communicate with the community through the usage of pamphlets via our communication officer, in which we give them strategies in which they can prevent residential burglary in all weather conditions. We also have sector commanders who deal with CPF's, which are forums we have in the community for the purposes of liaison between Police Officials and the community members. We have public meetings with them in which we make them aware in terms of burglaries occurring in the area, during the times which they are occurring and how they can protect themselves.

(IDI - P 5)

The communication is alright, we communicate with the community by means of local newspapers and local radio stations such as Inanda Radio station and we also go to the communities physically to communicate with them. We also have a CPF here, CPF is a Community Policing Forum, a structure that we work with and underneath that structure there are sub-structures which include neighbour watches and street communities. Well, this helps us a lot because we have individuals who are our eyes and ears on the ground, in all corners. We attend community meetings with the CPF and communicate with them. We are really trying

to drive this but hey not everyone is co-operative because we haven't covered the whole community since people do not all respond at the same time. It's happening at a very slow pace. On the other hand, you find that when you call meetings with the CPF, people will come up with excuses, saying I am busy, I won't be able to make it, this and that and you find that the meetings end up not sitting. (IDI - P 6)

There is a lot of communication between us and specific community members who have interest in joining our fight against crime. We hold meetings with them once or twice a week. We have also have a Community Crime Prevention Association, which is a voluntary association that includes neighbourhood watches, and these neighbourhood watches come from different sectors in the community. So, we meet with the community and the different sectors for us to work together, we engage in crime prevention activities including hot-spot patrols during times in which residential burglary is the affected the most. In general, we also have a Facebook page which we post and alert residents in, also going around giving out pamphlets as means of communication. (IDI - P 7)

On the level of co-operation, the participants expressed the following,

When it comes to co-operation, there is not much co-operation, because people just usually co-operate in different circumstances and others they don't. For example, if you're looking for information, there is no co-operation. People just report they burglary incidences, other than that there is just not much you can get out of the community. (IDI-P1)

Just like every other community, some co-operate while others do not. (IDI - P 2)

When it comes to co-operation, some do co-operate and others do not, it depends on areas because the areas are not the same. The reason that some do not co-operate is that you will find that in a certain area the community members fear that certain criminals and so they do not come out and talk about these things because they have this perception that we go back and tell the criminals who gave us the information, which is not true, we do not work like that. At the same time, they must understand our frustration and we also understand there's because at the end of the day we must communicate and co-operate with each other if we want to protect our area. (IDI - P 3)

Well, the co-operation is very slow, as some places are co-operating and others not. We just need to work hard to get all of them to co-operate with us. (IDI - P 4)

When it comes to co-operation, some do co-operate, listen and comply with what is requested and to those that listen and comply, the residential burglary goes down. For example in Hopedale, they have street patrollers, they listen to us and patrol at times which we advise them to and obviously residential burglary decreases there. But some of them just don't listen, if we make them aware, they are not complying and crime increases e.g. in Westrich, they are not willing to participate in crime prevention activities and assist us. The community should always remember that our work as the police will only have a better influence on crime statistics with their assistance. (IDI - P 5)

Co-operation is really a problem hey, there are just those that do not listen when we give them tips of things that they should look out for, e.g. make sure that your house is locked, talk to your neighbours things like that, check if your security system is working, if it's not working check for alternatives which you can use because we do give out tips as mentioned via the media. But the response to the things we tell them is not so good, so it's the co-operation which is a problem. For example, other places which have established neighbourhood watches and street communities you see that crime has decreased, especially this housebreaking. But in places which we've been there and they haven't started these things, residential burglary is a problem. It's so simple, all we ask is for them to organise themselves, you see a street may have 15 houses and they agree that people must patrol at certain times and look after those houses, obviously not all but maybe 10 for incidence. Some even put boom gates and securities for incidence if it's a one-way street, it's easier to monitor cars and people that get into that area. And that keeps criminals away because they become aware that the people living in this area are observant and looking out and there's no way they can rob here. We do not even ask them to do these things alone, we tell them set up meetings with CPF, so we can communicate how we can assist them, so we can work together and the work can be easier. This is imperative to avoid vigilantism we must work together with those structures and guide them, know who they are, what are they doing and when so we can able to monitor them and explain to them that this is what they do to stay aligned to the law.

(IDI - P 6)

Well, some of the community members do co-operate with us because at times when we are patrolling we will meet up with them and see that they are working and going up and down on the road. Some of them even have lights in their cars and you can see that they are working, well can't say much about others.

(IDI - P 7)

The general conclusion that can be drawn from these responses is that the police officials are clear that if all the community members would co-operate in terms of compliance with what is being communicated, house burglaries could be prevented. This general conclusion regarding CPFs structures such as neighbourhood watches being effective is in harmony with one of the preventative measures mentioned in the literature review for residential burglary during different weather patterns by (Kesteren, John van, Mayhew, and Nieuwbeerta, 2000; Zinn, 2010).

In general, that neighbourhood watch can prevent burglary at residential premises for example if people are away in the hot summer months for extended hours or on vacation, the community may know and able to keep a watch on the house. Furthermore, during unfavourable weather conditions that criminal take advantage of, the community members can patrol to see if there are no suspicious activities happening. As this program normally goes together with the presence of prominently placed

signs indicating the active existence of a Neighbourhood Watch program in the community, this can both deter burglary, by increasing an offender's perception of associated risk, and to aid in the detection and apprehension of suspicious persons.

4.3.9 Question 9:

Any other comments you would like to make, regarding the link of weather patterns and burglary at residential premises in the Newlands East Policing Area?

The participants were also afforded the opportunity to offer responses outside the frame of the interview schedule. This open-ended question was included to ensure that the data would be enriched as the responses might point to themes or a direction in the investigation that the researcher had not foreseen. The SAPS participants offered the following responses,

With regards to housebreaking, the community should take this and listen. If they are purchasing a brand-new TV or microwave, most of the time they leave those boxes outside their gates and whoever is walking past will know that that house bought a new TV and they will know what inch, whether it's a curve, big screen etc. they will know. Try as much as possible to destroy that box in your yard, the government is giving those plastic bags, tear the box up and put in in there. They leave that whole big box outside there, which also invites criminals and given the opportunity that the weather presents, they will come after those things because they saw it. Furthermore, the community members should insure their household content, so if there is an unfortunate incident, they can claim it from the insurance. There is no sense in having expensive things and not insuring them, it is impossible to replace things you have worked for, for 10 years within a time frame of a year.

(IDI - P 1)

The community should listen to us when we advise them and come up with plans and let us know. Furthermore, if there is suspicious movement and suspicious people around them, they should inform the police immediately. If there are going for their summer vacations or visiting somewhere, they should inform their neighbours that they must look over their houses. Moreover, when it comes to housebreaking, it is the crime which is highest in the Newlands area and the best way to prevent it is by increasing police visibility. So, we need to get more police officials as in more manpower around.

(IDI - P 2)

Eish... Okay as I had mentioned before that we do stop and searches of vehicles during raining weather, to see if people are not transporting stolen goods. I'd say that people should get into the habit of recording stuff. If you buy a TV it comes with a serial number. And then when you have bought it after 2 years it loses its warrant. But it still has a serial number, you should know it so you will know it's yours after it has been taken in a housebreaking. So, when people get arrested for suspected stolen property you will be able recover it. Furthermore, community members should stop buying things on black market, because this is more like contributing to residential burglary since there are buyers.

You see this juvenile act is a problem, because you see anyone who is under the age of 16 years is regarded as a juvenile by law and we are not allowed as police officials to arrest and detain those people. So, criminals take advantage of that, they use these juveniles to commit these housebreakings because they know we are not allowed as police officials to detain them. These juveniles are tiny that they can enter through burglar guards in windows, and when found there we can't do much. So, you see the justice system needs to come up with more strategies to deter burglary at residential premises. (IDI - P 4)

Well, let the community know that there is Bab'Zikhali here at the police station who is willing to come at any time to help, mobilise the community and give them tips on how they can protect themselves from residential burglary during all weather conditions. Furthermore, they must communicate with their neighbours. You know that it really helps, let's say for example you are going out for your summer vacation, let your neighbour know because criminals somehow have a way of picking that up. So, if you have a relationship with your neighbour, they will know that the Mbatha's are not there, so who this person is walking around there, what are they doing? In that way, they can now call the police and inform them of such, and we as the police really appreciate it when people give us calls when they see suspicious vehicles around, with four people and you have never seen this vehicle before in this neighbourhood and this people. We quickly come to the area in to do a check up on these people, what they are doing here, check the car etc. And if there's something suspicious we act on it, and what was going to happen will be easily prevented.

(IDI - P 5)

Basically, when people leave the house they must make sure that the house is secured at the best they can. Do not leave windows open just because it is hot. Furthermore, they must inform their neighbours that they are leaving the house for the day. Because a lot of those residential burglaries happen when people are absent from their houses. So, if my neighbour knows they can keep a look out for strange people in the area and strange people entering your yard. This is actually a good idea and one of the ways in which we can combat the crime.

(IDI - P 6)

I can say that parents should assist in terms of making sure that their children don't loiter around until late in the night. That will help because there will be fewer people being on the road, you find that even at 2am you will find children on the road and those are the same children which often find open windows. Furthermore, the community can help by getting more people to do community policing, and neighbourhood watches that will help a lot in preventing this crime even during unfavourable weather conditions. (IDI - P 7)

The responses brought no new information to light in terms of weather patterns on residential burglary but served to strengthen the importance of community members and police officials working together to effectively prevent this crime. Furthermore, they emphasised the importance of community

members securing their household contents as well as to stop contributing to this crime by buying stolen property.

4.4. Summary

From the above analysis it is evident that the SAPS personnel's do have perceptions concerning weather patterns on residential burglary in the Newlands East Policing Area of Durban. It emerged that weather patterns do contribute to the occurrence of residential burglary. The findings revealed that even though the police officials do have strategies against weather patterns on residential burglary, they are not entirely effective because of the lack of communication and co-operation with the community and as a result this type of crime continues to prevail. The next chapter provides a conclusion to and the recommendations based on this study.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

“When all is said and done, the weather and love are the two elements about which one can never be sure.” — Alice Hoffman (1997)

5.1. Introduction

Considering the analysis of the data presented in Chapter Four, pertaining to the attitude and perception of the participants associated with weather patterns on burglary at residential premises, the extent to which the aims of the study (see Chapter One) have been achieved can now be discussed. Recommendations for future research pertaining to weather patterns and crime and associated factors based on the findings of the current study are presented in this chapter.

5.2. Conclusions relating to the achievement of the objectives of the study

The following discussion relates to the conclusions derived from the results of the study based on the objectives developed in Chapter One with the express purpose to consider the achievement of the aims of this research.

5.2.1 Exploring the SAPS perceptions on weather patterns on residential burglary in Newlands East Policing Area, Durban

The first aim of the study refers to exploring the SAPS perceptions of weather patterns on residential burglary in Newlands East Policing Area of Durban. This was accomplished using a semi-structured interview schedule (See Appendix one). From the analysis of data, it was evident that SAPS officials do have perceptions concerning weather patterns on residential burglary in Newlands East Area. That is, there is a link between changing weather patterns and the occurrences of residential burglary. The responses clearly demonstrated that residential burglary increase and decrease in relation to different weather conditions within the location of this study and as a result it can be concluded that weather patterns are indeed a contributory factor to residential burglary.

5.2.2 To understand the contributing factors of weather patterns in the occurrences of residential burglary in the Newlands East Policing Area

To achieve this objective, the participants were asked to share their own understanding if weather patterns contribute to the occurrences of burglary at residential premises in Newlands East Policing Area. This objective was also accomplished, and the contributing factors are identified and summarised in the following table below:

Table 5.1: Contributing factors of weather patterns on residential burglary

Identified factors by the SAPS officials	Understanding of how the cited factor contributes
1. Cold winter nights	<ul style="list-style-type: none"> - Makes individuals to go to bed early, sleep longer and as result hesitate to get out of bed even if they hear a sound of a burglary occurring. Even neighbourhood watches which are established to prevent residential burglary are not effective when it is cold since people want to sleep during such times. - The long winter nights give criminals more time to commit crime and the darkness in winter offers extra cover for them. - Removes eye witnesses since people will not go outside and as a result it creates suitable targets.
2. Rainy seasons	<p>The sound of the rain makes residential burglary go unobserved (can't hear windows and doors breaking or opening)</p> <ul style="list-style-type: none"> - No neighbours/onlookers in sight since people are not out and about their ordinary activities and people cannot notice suspicious vehicles because they will just be in their houses. - Poor lighting caused by the rain. - People are unobservant, much led back, not alert as well as do not look out for each other during rainy days. They are largely not bothered to take note of things happening outside.
3. Hot temperatures	<p>One of the most effective strategies against burglary at residential premises is to lock the doors, windows and gates of one's home, however this is neglected during hot temperatures.</p> <ul style="list-style-type: none"> - People tend to be negligent in more ways than one, during such weather conditions as they even leave clothes outside to dry.

Source: Researcher's analysis

From the above table, it is evident that the qualitative methodology brought about new insight on the casual link between weather patterns and the occurrences of burglary at residential premises. Even

though much of the discoveries are repetitive of the assumptions made in previous research, the understanding that the police officials gave cannot be ignored. They provided real life experiences and examples to the assumptions which were previously made. In addition, they pointed to additional contributing factors which were not provided in previous research (1) people's sleeping patterns during winter (2) the long winter nights (3) people being unobservant, (4) not looking out for each other as well as (5) not being able to take note of things happening outside if it's raining. Overall, the primary aim of this study has been accomplished.

5.2.3 Explore the current strategies employed by the Newlands East SAPS in response to weather patterns and residential burglary

The analysis revealed that there are strategies that have been put in place to respond to weather patterns on residential burglary Newlands East. The strategies include: High police visibility, stop and searches, patrols (on foot and by car), drug arrests, community crime awareness programmes, partnership with local stakeholders and relying on informers. The police officials felt that these strategies were effective, however they added that they could be even more effective given the manpower, since they currently do not have enough vehicles at the station and people working there to cover the whole of Newlands. This shortage of resources within the police station was expressed as a source of frustration for the police officials. Additionally, participants felt that they could be more effective if there was creation of employment, more community awareness programmes and assistance from the community in the fight against crime.

5.2.4 To evaluate the challenges that may exist between the local SAPS and residents in responding to burglary at residential premises during unfavourable weather patterns

The analysis highlighted that there are challenges which exist that hindered them in responding to this crime. The challenges included the community members not wanting to work with the police especially in terms of community policing and giving information. This revealed that there is an element of criminal protection by some community members. This challenge also highlighted a lack of trust that the community members have for the police officials. This is an issue of concern because in order to be effective policing, the police officials cannot be isolated from the community they are serving.

5.2.5 Identification of community's engagement in addressing burglary at residential premises during weather patterns changes

It is evident from the analysis that not all community members are engaged in addressing this crime and that the structures which are established to address the crime together with the community are not implemented with immediate success in the community. A central and well-articulated gap relates to co-operation with the community in responding and preventing burglary at residential premises, this gap relates to the mentioned of the community members not taking an active part in the community forums which are established in the community to communicate and co-operate and address this crime together.

5.3. Recommendations for the attention of SAPS and community members

The findings from this study may be used as a guide by the community members in terms of identifying and understanding weather patterns as a contributing factor to residential burglary and the importance of a joint effort between the community and the police to fight this crime during unfavourable weather conditions. In addition, the police to recognize issues which affect the co-operation of the community. In this section the recommendations are made and summarised below,

- **Knowledge is power:** The community members must be educated on how changing/different weather patterns present opportunities for residential burglary and as a result contribute to its occurrence. This could lead to a community which is extra vigilant during unfavourable weather conditions and less negligent during favourable weather patterns.
- **Government intervention:** It is recommended that the government should assist the station by allocating more vehicles to help increase police visibility in the area as well as employ more officials in the station for more manpower.
- **Trust building:** Trust amongst the SAPS officials and the community must be established. It is envisaged that this will enable the officials to get important information from the community which may lead to a joint effort in fighting burglary at residential premises during unfavourable weather conditions. This may be established by organising activities such as sporting events, since

these help in bringing individuals closer together as well as give the youth something to do and as a result discourage them from participating in illegal activities or use illegal substances.

- **Cooperation will bring us together:** Community members are urged to take responsibility for their own safety, as there is no single entity that can effectively deal with burglary at residential premises during weather changes. They should be taught that fighting crime is a responsibility of every individual within the community. It is recommended that community members be part of the CPFs or Neighbourhood Watches, which are established in the community and take an active part in establishing them in areas which have not been established. By taking an active part in the mentioned organisations, community members can be mindful of their roles and responsibilities, as well as the challenges that the SAPS encounter in trying to respond to residential burglary during changing weather patterns. It is imperative that every person views themselves as role players in the fight against crime and a joint effort to policing is the only avenue for taking responsibility towards building safer community. Furthermore, it is recommended that SAPS management and the CPF executive management should encourage their members to attend all the meetings organised to address crime in the communities. Active participation in these meetings ensures the effectiveness of partnerships in policing.

5.4. Recommendations for future research

It emerged that the police are unable to deal with weather patterns on residential burglary alone, but rather they need the support of the community. It is therefore recommended that future research should focus on the perceptions of community members on the SAPS, and how does this hinder effective implementation of community policing initiatives which help fight burglary at residential premises during unfavourable weather pattern changes.

Furthermore, more research is needed to further enhance the accuracy of this study in the South African context as well as exploring into how other property-related crimes are affected by weather patterns.

5.5. Conclusion

With hope, this study has made numerous empirical as well as valid contributions by exploring the SAPS perceptions on weather patterns on residential burglary and explaining the contributing factors associated with it. The discussion of literature surrounding weather patterns on residential burglary and the theoretical framework was of the essence.

REFERENCES

- Aantjes, F. 2012. *Residential burglaries: a comparison between self-report studies of burglars and observational data from Enschede*. Masters Thesis, University of Twente.
- Abend, G. 2008. The Meaning of Theory. In: Swason, R. A. (ed.) *Theory Building in Applied Disciplines*. San Francisco, CA: Berrett-Koehler Publishers.
- Africacheck.Com. 2017. *Factsheet: South Africa's 2015/16 crime statistics* [Online]. Available:<https://africacheck.org/factsheets/factsheet-south-africas-201516-crime-statistics/>. [Accessed 19 June 2017].
- Ahmadi, M. 2003. *Crime mapping and spatial analysis*: The International Institute for Geo-information Science and Earth Observation.
- American Meteorological Society. 2015. *Climatology: Glossary of Meteorology* [Online]. Available: <http://glossary.ametsoc.org/wiki/climatology>.
- Andresen, M. A. & Malleson, N. 2013. Crime seasonality and its variations across space. *Applied Geography*, 43, 25-35.
- Babbie, E. R. 2004. *The practice of social research*, 10th ed. Belmont: Wadsworth.
- Baumgartner, T. A. & Strong, C. H. 1998. *Conducting and reading research in health and human performance*, Boston, Mass.: WCB/McGraw-Hill.
- Baxter, L.A. and Babbie, E.R., 2003. *The basics of communication research*. Cengage Learning.
- Becker, G. S. 1968. Crime and punishment: An economic approach. *The economic dimensions of crime*. London: Palgrave Macmillan.
- Bernard, H. R. 2002. *Research methods in anthropology: Qualitative and quantitative approaches*, Walnut Creek, CA: Alta Mira Press. .
- Bernasco, W. & Block, R. 2009. Where offenders choose to attack: A discrete choice model of robberies in Chicago. *Criminology*, 47 (1), 93-130.
- Blakeslee, D. & Fishman, R. 2014. Weather shocks, crime, and agriculture: evidence from India. *Social Science Research Network*.
- Bless, C., Higson-Smith, C. & Kagee, A. 2006. *Fundamentals of social research methods: An African perspective*, Cape Town: Juta and Company Ltd.
- Brantingham, P. L. & Brantingham, P. J. 1993. Nodes, paths and edges: Considerations on the complexity of crime and the physical environment. *Journal of Environmental Psychology*, 13 (1), 3-28.

- Braun, V. & Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative research in psychology*, 3 (2), 77-101.
- Breetzke, G. D. 2016. Examining the spatial periodicity of crime in South Africa using Fourier analysis. *South African Geographical Journal*, 98 (2), 275-288.
- Breetzke, G. D. & Cohn, E. G. 2012. Seasonal assault and neighborhood deprivation in South Africa: Some preliminary findings. *Environment and Behavior*, 44 (5), 641-667.
- Breetzke, G. D. & Cohn, E. G. 2013. Burglary in gated communities: An empirical analysis using routine activities theory. *International Criminal Justice Review*, 23 (1), 56-74.
- Brink, H. 1996. *Fundamentals of research methodology for health care professionals*, Kenwyn: Juta and Company Ltd.
- Brunsdon, C., Corcoran, J., Higgs, G. & Ware, A. 2009. The influence of weather on local geographical patterns of police calls for service. *Environment and Planning B: Planning and Design*, 36 (5), 906-926.
- Bryman, A. 2004. *Social research methods*, New York: Oxford university press.
- Budd, T. 1999. Burglary of domestic dwellings: Findings from the British Crime Survey. *National Crime Justice Reference Services*.
- Carter, S.M. and Little, M., 2007. Justifying knowledge, justifying method, taking action: Epistemologies, methodologies, and methods in qualitative research. *Qualitative health research*, 17(10), pp.1316-1328.
- Cantrell, N. (2001). *Research Methodology and Design*. Retrieved from: <http://uir.unisa.ac.za/bitstream/handle/...logy%2520and%2520design.pdf> (Accessed: 15 June 2018)
- Ceccato, V. 2005. Homicide in Sao Paulo, Brazil: Assessing spatial-temporal and weather variations. *Journal of Environmental Psychology*, 25 (3), 307-321.
- Cheatwood, D. 1988. Is there a season for homicide? *Criminology*, 26 (2), 287-306.
- Cheatwood, D. 2009. *Weather and crime: 21st century criminology: a reference handbook*, Thousand Oaks: Sage.
- Center for Civil Society. 2003. *Activist Guide to Research and Advocacy*. Durban: University of KwaZulu-Natal.
- Chimbos, P. D. 1973. A Study of Breaking and Entering Offences in Norther City, Ontario. *Canadian J. Criminology & Corrections*, 15, 316.
- Chunderduri, N. 2013. *Young Indian women's construction of sexuality and risky sexual behaviour in a Newlands school*. Masters Thesis, University of KwaZulu-Natal.
- City of Tshwane Metropolitan Municipality. 2008. *City of Tshwane Municipality Household Survey, 2008*. Pretoria: City of Tshwane Municipality. Retrieved from:

<http://www.tshwane.gov.za/sites/Departments/City-Planning-anddevelopment/related%20documents/cothousholdsurvey2008.pdf>

- Clarke, R. V. G. (ed.) 1997. *Situational crime prevention*, New York: Criminal Justice Press Monsey.
- Cohen, L. E. & Felson, M. 2016. Social Change and Crime Rate Trends: A Routine Activity Approach. *American sociological review*, 588-608.
- Cohn, E.G., 1990. Weather and crime. *The British Journal of Criminology*, 30(1), pp.51-64.
- Cohn, E. G. & Rotton, J. 2003. Even criminals take a holiday: Instrumental and expressive crimes on major and minor holidays. *Journal of Criminal Justice*, 31 (4), 351-360.
- Cornish, D. B. & Clarke, R. V. 1987. Understanding crime displacement: An application of rational choice theory. *Criminology*, 25 (4), 933-948.
- Coupe, T. & Blake, L. 2006. Daylight and darkness targeting strategies and the risks of being seen at residential burglaries. *Criminology*, 44 (2), 431-464.
- Crank, J. P. & Jacoby, L. S. 2015. *Crime, violence, and global warming*, London: Routledge.
- Creswell, J. W. 2014. *A concise introduction to mixed methods research*, Los Angeles: Sage Publications.
- Cromwell, P. & Olson, J. N. 2005. The reasoning burglar: Motives and decision-making strategies. *Their own words: Criminals on crime (an anthology)*, 42-56.
- Crime Statistics South Africa. 2015. *Property-related crimes - Burglary at residential premises* [Online]. Crime Statistics South Africa [Accessed 19 June 2017].
- Curtin, L., Tilley, N., Owen, M. & Pease, K. 2001. Developing crime reduction plans: Some examples from the reducing burglary initiative. *Crime Reduction Research Series Paper 7*. London: Home Office.
- David, M. & Sutton, C. D. 2011. *Social research: An introduction*, London: Sage.
- De Kock, C., Kriegler, A. & Shaw, M. 2015. A citizen's guide to SAPS crime statistics: 1994 to 2015. *Centre of Criminology, University of Cape Town*.
- De Vaus, D. A. 2006. *Research design in social research*, London; Thousand Oaks, Calif.: Sage.
- De Vos, A. S., Delpont, C. S. L., Fouché, C. B. & Strydom, H. 2011. *Research at grass roots : a primer for the caring professions*, Pretoria: J.L. van Schaik : Academic.
- Denscombe, M. 1998. *The good research guide for small-scale social science projects*, Buckingham: Open University Press.
- Denscombe, M. 2002. *Ground rules for good research: a 10 point guide for social researchers*, Philadelphia: Open University Press.
- Denzin, N. K. & Lincoln, Y. S. 2000. *The Sage handbook of qualitative research*, Thousand Oaks: Sage.

- Dlamini, S., 2017. *A Criminological Exploration of the Effectiveness of Community Policing Forums in Durban, South Africa: A Study Based on Glenwood Suburbs and Cator Manor Township*. Unpublished thesis (P.H.D) University of KwaZulu Natal.
- Du Plooy, G. M. 1995. *Introduction to communication, course book 2, course book*, Kenwyn: Juta.
- Eisenhardt, K. M. 2002. Building theories from case study research *In: Huberman, A. & MILES, M. (eds.) The qualitative researcher's companion*, London: Sage.
- Ellis, L., Beaver, K., & Wright, J. (2009). *Handbook of crime correlates*. New York, NY: Elsevier.
- Etikan, I., Musa, S.A. and Alkassim, R.S., 2016. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), pp.1-4.
- EThekweni Municipality. 2006. EThekweni Municipality integrated development plan. Durban: EThekweni Municipality.
- Felson, M. 2013. Routine activity approach. *Environmental criminology and crime analysis*, 92-99.
- Fitzgerald, J. & Poynton, S. 2011. The changing nature of objects stolen in household burglaries. *Crime and Justice Statistics: Bureau Brief*, 62, 1-12.
- Fossey, E., Harvey, C., Mcdermott, F. & Davidson, L. 2002. Understanding and evaluating qualitative research. *Australian and New Zealand journal of psychiatry*, 36 (6), 717-732.
- Fouche, C. & Delport, C. (eds.) 2002. *Research at grass roots: for the social sciences and human service professions*, 3rd ed. Pretoria: VanSchaik Publishers.
- Gaynor, R. 2006. *Winter Prompts heightened risk of property theft*, Accuweather.com. Received from: <https://www.accuweather.com/en/weather-news/winter-weather-crime-property-theft/41085183>. (Accessed : 20 June 2017)
- Grant, C. & Osanloo, A. 2014. Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your “house”. *Administrative Issues Journal*, 4 (2), 4.
- Gray, D. E. 2009. *Doing Research in the Real World*, Thousand Oaks, CA: Sage.
- Gray, D. E. 2013. *Doing research in the real world*, Thousand Oaks, CA: Sage.
- Grix, J. 2004. *The foundations of research*, New York: Palgrave Macmillan.
- Hamilton-Smith, N. & Kent, A. 2005. The prevention of domestic burglary. *Handbook of crime prevention and community safety*, 417-457.
- Hennick, M., Hutter, I. & Bailey, A. (2011). *Qualitative Research Methods*. New Delhi: Sage Publishers.
- Henning, E., Van Rensburg, W. and Smit, B., 2004. *Finding your way in qualitative research* (pp. 19-22). Pretoria: Van Schaik.

- Higgins, G. E. 2009. Quantitative versus Qualitative Methods: Understanding Why Quantitative Methods are Predominant in Criminology and Criminal Justice. *Journal of Theoretical & Philosophical Criminology*, 1 (1).
- Hird, C. & Ruparel, C. 2007. *Seasonality in recorded crime: Preliminary findings*, London: Home Office. Retrieved from: <http://webarchive.nationalarchives.gov.uk/20101208185817/http://rds.homeoffice.gov.uk/rds/pdfs07/rdsolr0207.pdf> (Accessed on 30 March 2017)
- Horrocks, J. & Menclova, A. K. 2011. The effects of weather on crime. *New Zealand Economic Papers*, 45 (3), 231-254.
- Hughes, G. 1998. *Understanding crime prevention*, London: McGraw-Hill Education (UK).
- Iacono, J., Brown, A. & Holtham, C. 2009. Research Methods--a Case Example of Participant Observation. *Electronic Journal of Business Research Methods*, 7 (1).
- Jacob, B., Lefgren, L. & Moretti, E. 2007. The dynamics of criminal behavior evidence from weather shocks. *Journal of Human resources*, 42 (3), 489-527.
- Jerome, J. K. 2010. *Three men in a boat*, Italy: Giunti Editore.
- Kassem, S. 2011. *Rise up and salute the sun : the writings of Suzy Kassem*, Boston: Awakened Press.
- Kesteren, J. V., Mayhew, P. & Nieuwebeerta, P. 2000. *Criminal victimization in seventeen industrialized countries*, Netherlands: WODC.
- Killias, M. 1993. International correlations between gun ownership and rates of homicide and suicide. *CMAJ: Canadian Medical Association Journal*, 148 (10), 1721.
- Kumar, R. 2011. *Research methodology : a step-by-step guide for beginners*, London; Thousand Oaks, Calif: Sage.
- Landau, S. F. & Fridman, D. 1993. The seasonality of violent crime: The case of robbery and homicide in Israel. *Journal of research in crime and delinquency*, 30 (2), 163-191.
- Lebeau, J. L. & Corcoran, W. T. 1990. Changes in calls for police service with changes in routine activities and the arrival and passage of weather fronts. *Journal of Quantitative Criminology*, 6 (3), 269-291.
- Lebeau, J. L. & Langworthy, R. H. 1986. The linkages between routine activities, weather, and calls for police services. *Journal of Police Science & Administration*, 14(2), 137-145.
- Leedy, P. D. 1985. *Practical research : planning and design*, 4th ed. New York: Macmillan.
- Leedy, P. D. & Ormrod, J. E. 2001. *Practical research : planning and design*, Upper Saddle River, N.J.: Merrill Prentice Hall.

- Leedy, P. D. & Ormrod, J. E. 2013. *Practical research : planning and design*, Upper Saddle River, New Jersey: Pearson.
- Leedy, P. D. & Ormrod, J. E. 2014. *Practical research : planning and design*, Edinburgh, England: Pearson Education Limited.
- Letkemann, P. 1973. *Crime as work*, Englewood Cliffs, N.J: Prentice-Hall.
- Liamputtong, P. 2009. *Qualitative research methods*, 3rd ed. New York: Oxford University Press.
- Lichtman, M. 2014. *Qualitative Research for Social Science*, London: Sage.
- Linning, S. J. 2015. Crime seasonality and the micro-spatial patterns of property crime in Vancouver, BC and Ottawa, ON. *Journal of Criminal Justice*, 43 (6), 544-555.
- Mack, N., Woodsong, C., Macqueen, K. M., Guest, G. & Namey, E. 2005. Qualitative research methods: a data collectors field guide. *Popline*.
- Mamayek, C. M. 2013. *Examining the relationship between weather and homicide*, USA: Michigan State University.
- Marshall, C. & Rossman, G. B. 1999. *Designing qualitative research*, 5th ed. Thousand Oaks, Calif.: Sage Publications.
- Maxfield, G. & Babbie, E.R. 2018. *Research methods for criminal justice and criminology*. (8th Edition). Boston: CENGAGE.
- McGrath, R. J., Lasher, M. P., & Cumming, G. F. (2011). *A model of static and dynamic sex offender risk assessment*. Washington, DC: Department of Justice
- Merriam, S. 2009. *Qualitative research: A guide to design and implementation*, San Francisco: Jossey-Bass.
- Myers, M.D., 2013. *Qualitative research in business and management*. Sage.
- Merriam, S. B. 1998. *Qualitative Research and Case Study Applications in Education. Revised and Expanded from" Case Study Research in Education."*, San Francisco, CA Jossey-Bass Publishers.
- Miethe, T. & Mccorkle, R. 2006. *Crime Profiles: The Anatomy of Dangerous Persons, Places, and Situations*, 3rd ed. Los Angeles: CA: Roxb.
- Miller, J. M. (ed.) 2009. *21st Century criminology: A reference handbook*, London: Sage.
- Morris, A. 1998. Continuity or rupture: The city, post-apartheid. *Social Research*, 759-775.
- Morrison, S. & O'donnell, I. 1994. *Armed robbery: a study in London*, Oxford: Centre for Criminological Research
- Mouton, J. 1996. *Understanding social research*, Pretoria: Van Schaik Publishers.

- Mouton, J. & Babbie, E. 2001. *The practice of social research*, Cape Town: Wadsworth.
- Muncie, J. & Mclaughlin, E. (eds.) 2001. *The problem of crime*, London: Sage.
- Naidoo, S. 2015. *The use of body language (behaviour pattern recognition) in forensic interviewing*.
 Doctoral dissertation, University of South Africa.
- National Planning Commission. 2011. National Planning Commission Diagnostic Report. Pretoria:
 National Planning Commission.
- Nee, C. 2003. Research on burglary at the end of the millennium: A grounded approach to
 understanding crime. *Security Journal*, 16 (3), 37-44.
- Nelson, D. L. & Quick, J. C. 1997. *Organisational behaviour: Foundations, realities and challenges*,
 New York: West Publishing Company.
- Neuman, W. L. 2011. *Social research methods: Qualitative and quantitative approaches*, Boston,
 MA: Allyn and Bacon.
- Noaks, L. & Wincup, E. 2004. *Criminological research: Understanding qualitative methods*, 7th ed.
 London: Sage.
- Olckers, C. 2009. *An examination of the impact of residential security measures on the incidence of
 residential burglary in two selected northern suburbs of Johannesburg: A security risk
 management approach*. Doctoral Thesis, University of South Africa.
- Picciano, A. 2004. *Educational research primer*, London: Continuum.
- Polit, D. F. & Hungler, B. 1995. *Nursing Research: Principles and Methods*, 6th ed. Philadelphia:
 J.B. Lippincott.
- Quetelet, L.A.J., 1973. A treatise on man and the development of his faculties. Edinburgh, United
 Kingdom: William and Robert Chambers, 1842. *Comparative statistics in the 19th century*.
 Farnborough, United Kingdom: Gregg International Publishers.
- Ranson, M. 2014. Crime, weather, and climate change. *Journal of environmental economics and
 management*, 67 (3), 274-302.
- Rengert, G. F. & John, W. C. 2000. *Suburban Burglary: A Tale of Two Suburbs*, 2nd ed. Springfield,
 IL: Charles C. Thomas.
- Rengert, G. F., Piquero, A. R. & Jones, P. R. 1999. Distance decay reexamined. *Criminology*, 37 (2),
 427-446.
- Reynald, D. M. & Elffers, H. 2009. The future of Newman's defensible space theory: Linking
 defensible space and the routine activities of place. *European Journal of Criminology*, 6 (1),
 25-46.
- Robinson, M. & Davidson, G. W. 2008. *Chambers 21st century dictionary*, Edinburgh: Chambers.

- Rotton, J. & Cohn, E. G. 2000. Weather, disorderly conduct, and assaults: From social contact to social avoidance. *Environment and Behavior*, 32 (5), 651-673.
- Rotton, J. & Kelly, I. W. 1985. Much ado about the full moon: A meta-analysis of lunar-lunacy research. *Psychological Bulletin*, 97 (2), 286.
- Seale, C. ed., 2004. *Researching society and culture*. Sage.
- Seidman, J. (2006). *Interviewing as qualitative research*. (3rd ed.). New York: Teachers College Press.
- South African Police Services. 2006. National Instruction 1/2006 - Research in the Service. Strategic Management: Management Services. Issues by Consolidation Notice 2/2006. Pretoria: South African Police Services.
- Schmallegger, F. 1997. *Criminology Today on the Worldwide Web: A Step-By-Step Tutorial*, Upper Saddle River: Prentice Hall.
- Schurink, W., Fouché, C. B. & De Vos, A. S. 2014. Qualitative data analysis and interpretation. In: De Vos, A. S., Strydom, H., Fouché, C. B. & Delpont, C. S. L. (eds.) *Research at grass roots: For the social sciences and human service professions*. 4th ed. Pretoria: Van Schaik.
- Shank, G. D. 2002. *Qualitative research: A personal skills approach*, Upper Saddle River: Prentice Hall.
- Sieber, J. E. 1982. *The ethics of social research: Surveys and experiments*, New York: Springer
- Singleton Jr, R. & Straits, B. C. 1999. *Approaches to social research*, New York: Oxford University Press.
- Singleton Jr, R., Straits, B. C., Straits, M. M. & Mcallister, R. J. 1988. *Approaches to social research*, New York: Oxford University Press.
- Sjoquist, D. L. 1973. Property crime and economic behavior: Some empirical results. *The American Economic Review*, 63 (3), 439-446.
- Sorensen, D. W. M. 2003. The nature and prevention of residential burglary: A review of the international literature with an eye toward prevention in Denmark.
- South African Police Services Strategic Management. 2014. An Analysis of the National Crime Statistics 2013/14 Pretoria: SAPS Strategic Management.
- Stan, S. 2005. *The History of Westrich (Personal knowledge)* [Online]. Durban: eThekweni Health Department, Community Social Work Section.
- Statistics South Africa. 2016. Victims of Crime Survey (2015/15) - Statistics South Africa Release P0341. Pretoria: Statistics South Africa
- Steyn, J. 2018. *Advanced research methodology in criminology*. Cape Town: Oxford University Press.
- Steyn, J. 2013. *Assignment Writing.*, Pretoria: Van Schaik Publishers.

- Strydom, H. & Venter, L. 2002. Sampling and sampling methods. In De Vos, A.S. (Editor), Strydom, H., Fouché, C.B. And Delpont, C.S.L. *Research at Grass Roots for the social sciences and human science professions*. Pretoria: Van Schaik
- Sutherland, E. & Cressey, D. 1978. *Criminology*, 10th ed. Philadelphia: Lippincotts.
- Taylor, R. B. 1994. *Research methods in criminal justice*, Sydney: McGraw-Hill.
- Thompson, D. (ed.) 1995. *The Concise Oxford Dictionary of Current English*, 9th ed. Oxford: Oxford University Press.
- Tiesdell, S. & Oc, T. 1998. Beyond 'fortress' and 'panoptic' cities—Towards a safer urban public realm. *Environment and Planning B: Planning and Design*, 25 (5), 639-655.
- The National Committee for Research Ethics in Science and Technology. 2007. Guidelines for Research Ethics in Science and Technology. Norway: National Committee for Research. Available from: <https://www.etikkom.no/globalassets/documents/english-publications/1/guidelines-for-research-ethics-in-science-and-technology-2008.pdf>. [Accessed: 2018/05/11].
- Tsakani, L. R., Davhana-Maselesele, M. & Obi, L. C. 2011. Teenagers' experiences of sexual health dialogue in the rural villages of the Vhembe District, Limpopo Province. *Health SA Gesondheid*, 16 (1).
- Van Zyl, G. S. 2002. *Residential burglary in South Africa : a geographical perspective*. Doctoral Thesis, University of Pretoria.
- Vishnevsky, Tanya, and Heather Beanlands. "Qualitative Research." *Nephrology Nursing Journal* 31.2 (2004): 234-8. ProQuest. Web. 30 May 2016.
- Warden, B.A. and Wong, S., 2007. *Introduction to qualitative data analysis*. New York: Constella Group.
- Weisel, D. L. 2002. *Burglary of single-family houses*, Washington, D.C: U.S. Department of Justice, Office of Community Oriented Policing Services.
- Welman, C., Kruger, F. & Mitchell, B. 2005. *Research Methodology*, 3rd ed. Cape Town: Oxford University Press.
- Welman, J. C. & Kruger, F. 2001. *Research methodology for the business and administrative sciences*, Cape Town: Oxford University Press.
- Wright, R. T. & Decker, S. H. 1996. *Burglars on the job: Streetlife and residential break-ins*, Boston, MA: Northeastern University Press.
- Zinn, R. 2010a. *Home Invasion: Robbers disclose what you should know*, Cape Town: Tafelberg.
- Zinn, R. 2010b. Inside information: Sourcing crime intelligence from incarcerated house robbers. *SA Crime Quarterly*, 2010 (32), 27-35.

ANNEXURE A: Interview Schedule Guide:

AN ASSESSMENT OF WEATHER PATTERNS ON PROPERTY CRIMES IN NEWLANDS EAST POLICING AREA, DURBAN

1. In your view, do you consider burglary at residential areas increasing due to change in weather patterns for the last five years (2012-2016) in the Newlands East Policing Area?
2. What is your own understanding, regarding the following statement: Do weather patterns contribute to the occurrences of burglary at residential premises in Newlands East Policing Area? (Elaborate your answer)
3. In your own opinion, is there a link between a change in weather patterns and causation of residential burglary in Newlands East Policing Area?
4. Are there any current strategies you are aware of that the local South African Police Service in the Newlands East Policing Area against weather patterns on burglary at residential premises? (Elaborate your answer)
5. Are the current strategies that are used by the local SAPS effective in responding to the challenges brought about by change in weather patterns on burglary at residential premises in the Newlands East Policing Area? Why do you think so?
6. Any challenges that you are aware of that exist between the local SAPS and the residents of Newlands Policing Area in responding to burglary at residential premises during unfavourable weather patterns.
7. What is your view, regarding the level of communication between the communities and the local SAPS to address burglary at residential premises during weather patterns changes in the Newlands East Policing Area? (Please, elaborate)
8. What is your view, regarding the level of co-operation between the communities and the local SAPS in terms of burglary at residential premises prevention during weather patterns changes in the Newlands East Policing Area?
9. Any other comments you would like to make, regarding the link of weather patterns and burglary at residential premises in the Newlands East Policing Area.

ANNEXURE B: Interview Schedule Guide in IsiZulu:

AN ASSESSMENT OF WEATHER PATTERNS ON PROPERTY CRIMES IN NEWLANDS EAST POLICING AREA, DURBAN

1. Ngombono wakho ubona ukuthi ukugqokezelwa kwabahlali bunyuswa izimo zezulu emnyakeni ewusukha (2012 – 2016) eNewlands?
2. Kungabe isimo sokuguquka kwezulu kunomthelela yini ekwandeni okuholela ukugqokezelwa kwabahlali? (Enaba kwiphendulo yakho)
3. Ngombono wakho kunobudlelwano phakathi kwesimo sezulu nokudala ukugqokezelwa kwabahlali?
4. Zikhona yini ezinye izindlela ozaziyo zeSAPS eNewlands ezingeziwa ekumaleni nesimo sokushintsha kwezulu mayelana nokugqokezelwa kwabahlali? (Chaza kabanzi)
5. Zikhona yini ezinye izinselelo ozaziyo ezikhona phakathi kwamaphoyisa nabahlali mayelana nokugqokezelwa ngesikhathi sesimo sezulu esingamukelekile esiguqukayo?
6. Kungabe umbutho wamaphoyisa unazo yini izindlela eziqavile zokuthi zokuthi zibhekane nezinselelo ezilethwa isimo sezulu esiguquguqukayo nokugqokezelwa kwabahlali eNewlands?
7. Uthini umbono wakho mayelana nezinga lokuxhumana emphakathini nabezokuphepha SAPS ukubheka isimo sobugebengu bokugqokezelwa komphakathi ngesimo sokushintsha kwezulu eNewlands?
8. Uthini umbono wakho mayelana nezinga lokubambisana phakathi komphakathi nabezokuphepha ngesimo sobugebengu kubuhlali ukuqeda ubugebengu ngesikhathi sokushintsha kwezulu?
9. Kukhona ongakuphawula mayelana nokuxhumana kwesimo sezulu nobugebengu emphakathini kubahlali eNewlands?

ANNEXURE C: University Of KwaZulu-Natal Full Approval Letter



1 November 2017

Ms Nokukhanya Neptune Mbonambi 216074348
School of Applied Human Sciences
Howard College Campus

Dear Ms Mbonambi

Protocol reference number: **HSS/0336/017D**
Project title: **An assessment of weather patterns on crime in Newlands West, Durban**

Full Approval – Expedited Application

In response to your application received on 7 April 2017, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and **FULL APPROVAL** for the protocol has been granted.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....
Dr Shamila Naidoo (Deputy Chair)
Humanities & Social Sciences Research Ethics Committee

/pm

cc: Supervisor: Mr Siyanda Dlamini
cc: Academic Leader Research: Dr Jean Steyn
cc: School Administrator: Ms Ayanda Ntuli

Humanities & Social Sciences Research Ethics Committee

Dr Shenika Singh (Chair)

Westville Campus, Govan Mbeki Building

Postal Address: Private Bag 254001, Durban 4001

Telephone: +27 (0) 31 260 3587/0350/4687 Facsimile: +27 (0) 31 260 4608 Email: hrm@ukzn.ac.za / hrm@ukzn.ac.za / hrm@ukzn.ac.za

Website: www.ukzn.ac.za



100 YEARS OF ACADEMIC EXCELLENCE

Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

ANNEXURE D: South African Police Service Provisional and Full Approval Letters

South African Police Service



South African Police Service

Prinsesek Private Bag X94 Pretoria 0001 Faks No. (012) 393 2128
Fax No.

Your reference/Ur verwysing:

My reference/My verwysing: **334/2**

THE DIVISIONAL COMMISSIONER: RESEARCH
SOUTH AFRICAN POLICE SERVICE
PRETORIA
0001

Enquiries/Navrae: Lt Col Joubert
 Intern Thenga
Tel: (012) 393 3118
Email: JoubertG@saps.gov.za

Ms NN Mbonambi
UNIVERSITY OF KWAZULU-NATAL

RE: PERMISSION TO CONDUCT RESEARCH IN SAPS: AN ASSESSMENT OF WEATHER PATTERNS ON CRIME IN NEWLANDS WEST, DURBAN: MASTERS STUDY: UNIVERSITY OF KWAZULU-NATAL: RESEARCHER: NN MBONAMBI

The above subject matter refers.

You are hereby granted approval for your research study on the above mentioned topic in terms of National Instruction 1 of 2006.

Further arrangements regarding the research study may be made with the following offices:

The Provincial Commissioner: KwaZulu-Natal:

- **Contact Person:** Col Van der Linde
- **Contact Details:** (031) 325 4841/ 082 496 1142

The Divisional Commissioner: Visible Policing:

- **Contact Person:** Lt Gen Masiye
- **Contact Details:** (012) 421 8011

Kindly adhere to paragraph 6 of our Attached letter signed on the **2017-06-03** with the same above reference number.


LIEUTENANT GENERAL
DIVISIONAL COMMISSIONER: RESEARCH
DR BM ZULU

DATE: 2017/10/26

ANNEXURE E: Gatekeeper Permission Letter



Dear Sir/Madam

I am Nokukhanya Neptune Mbonambi, a Masters student from the Department of Criminology and Forensic Studies at the University of KwaZulu-Natal. In order to complete, this degree I am conducting research on the assessment of weather patterns on property-related crimes in Newlands East Policing Area, Durban. The main aim of this study is to explore the South Africa Police Service (SAPS) perceptions of weather patterns on residential burglary, in order to understand whether different weather conditions contribute to its occurrences.

The interaction or co-operation of the members of the SAPS will assist me in reaching my aims. Furthermore, the knowledge and information gained will assist in formulating recommendation for the attention of the local SAPS in the Newlands East Policing Area, as a closer scrutiny of crime trends will be evaluated to enable the SAPS official to make effective decisions and interventions regarding this selected crime of this study. Moreover, it will enable residents to protect themselves against property crimes in different weather conditions. In completing these interviews, the confidentiality of your organisation participants and strata that you work with will be ensured anonymity.

Should you require further clarity you can contact my supervisor **Dr S. Dlamini on this number 031-260 2460 or email him: Dlamini16@ukzn.ac.za .**

You may also contact the Research Office through: P. Mohun HSSREC Research Office,
Tel: 031 260 4557 E-mail: mohunp@ukzn.ac.za

Your cooperation will be greatly appreciated.

Yours sincerely

Nokukhanya Mbonambi
Masters Criminology and Forensic Studies

ANNEXURE E: Informed Consent Letter



Dear Participant

I am **Nokukhanya Mbonambi**, Masters Student from the Department of Criminology and Forensic Studies at the University of KwaZulu-Natal. In order to complete, this degree I am conducting research on “An assessment of weather patterns on property-related crimes in Newlands East Policing Area, Durban. **The main aim of this study is to explore the South Africa Police Service (SAPS) perceptions of weather patterns on residential burglary, in order to understand whether different weather conditions contribute to its occurrences.**

Your co-operation will assist me in reaching my aims. Furthermore, the knowledge and information gained will assist me to formulate recommendations towards the prevention or else reduction of crime in different weather conditions. To gather the information, I am interested in asking you some questions.

Please note that:

- Your confidentiality is guaranteed as your inputs will not be attributed to you in person, but reported only as a population member opinion.
- The interview may last for about 30-60 minutes
- Any information given by you cannot be used against, and the collected data will be used for purposes of this research only.
- Data will be stored in secure storage and destroyed after 5 years.
- You have a choice to participate, not participate or stop participating in the research. You will not be penalised for taking such an action.
- Your involvement is purely for academic purposes only, and there are no financial benefits involved.
- If you are willing to be interviewed, please indicate (by ticking as applicable) whether or not you are willing to allow the interview to be recorded by the following equipment:

	Willing	Not willing
Audio equipment		
Photographic equipment		
Video equipment		

I can be contacted at **0730931875** or 216074348@stu.ukzn.ac.za

Should you require further clarity you can contact my supervisor **Dr. S. Dlamini on this number 031-260 2460 or email Dlamini16@ukzn.ac.za.**

You may also contact the Research Office through: P. Mohun Humanities and Social Sciences Research Ethics Committee (HSSREC) Research Office.

Tel: 031 260 4557 E-mail: mohunp@ukzn.ac.za.

DECLARATION

I (Full names of participant)
hereby confirm that I understand the contents of this document and the nature of the research project;
I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNITURE OF PARTICIPANT

DATE

.....

.....