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SOUTH AFRICAN POLICE SERVICE MEMBERS' PERCEPTIONS OF THE IMPACT OF WEATHER PATTERNS ON THE RESIDENTIAL BURGLARY PHENOMENON IN THE NEWLANDS EAST POLICING AREA, DURBAN

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ABSTRACT: It is in the best interest of society, policy makers and law enforcement agencies to understand the factors that influence crime in South Africa in order to implement effective crime prevention strategies. The study from which this paper is an excerpt aimed to explore the perceptions of members of the South African Police Service (SAPS) on weather patterns as a contributory factor to the phenomenon of residential burglary in the Newlands East Policing Area in Durban. This was deemed necessary because residential burglary was the highest reported property-related crime in the area for a period of five years (2015-2019). A qualitative research approach was employed which enabled the researchers to explore the attitudes, opinions, perceptions and views of selected SAPS officials on weather patterns as a contributory factor to burglary in a residential setting. Data collection was based on semi-structured interviews conducted on an individual basis with purposively selected participants. The findings revealed that burglaries at residential premises increase during hot weather conditions and decrease during rainy as well as cold weather conditions. The predominant reason is that capable guardianship is absent during hot summer conditions and this causes a lack of witnesses of the crime of burglary during such periods. The analysis of the data and the resultant findings were adequately supported by the propositions of the routine activities theory. It is envisaged that the findings will not only enhance research in Criminological Sciences, but will also give SAPS planners and society a better understanding of how weather patterns affect the residential burglary phenomenon. After the findings have been appropriately disseminated to community leaders and residents through information seminars and by means of flyers, pamphlets and the social media, society will be better informed to exercise caution during weather conditions that present opportunities for the occurrence of this particular form of crime.

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

I. INTRODUCTION

Researchers frequently work towards comprehending the causes of crime, and one of the numerous factors that have been exposed is weather patterns. Investigations into the impact of weather patterns on crime date back to the work of Quetelet (1842) in the 18th century. Using data obtained in France for the period 1826-1829, Quetelet noticed that crimes involving property were greater during the cold winter months whereas crimes against persons peaked in the summer months. Quetelet (1842) contended that this pattern could be because cold winter months produce challenging circumstances, therefore evoking criminality (such as burglaries at residential premises). However, he believed that during the summer month's crimes against persons were precipitated by higher temperatures that led to increased discomfort and aggression as well as increased "collisions" with other people (Quetelet, 1842, p. 56). These findings were later corroborated by Sutherland (1947), who also discovered peaks in crimes against property during the cold winter months and an increase in crimes against persons in the hot summer months. Over the years, as additional crime records as well as weather data have become more accessible, the connection between crime and the weather has been extensively studied (Collings, 2008; Ranson, 2014; Linning, 2015; Hird & Ruparel, 2007; Breetzke, 2016; Masuku, 2002). However, over time studies have presented varying outcomes with only some investigators discovering results in support of an increase in property crime during the cold winter months (Farrell & Pease, 1994; Landau & Fridman, 1993;

Van Koppen & Jansen, 1999), whereas others discovered peaks of this crime in the summer months (Horrocks & Menclova, 2011; Field, 1992; Cohn & Rotton, 2000). With reference to crimes against persons, some researchers discovered no connection between weather and crime (Hipp, Bauer, Curran, & Bollen, 2004; Landau & Fridman, 1993; Jacob, Lefgren, & Moretti, 2007). Conversely, some scholars found substantial evidence of a connection between weather and crime against persons (Hird & Ruparel, 2007; Breetzke & Cohn, 2012; Anderson & Mallerson, 2013). Breetzke (2016) analysed statistics provided by the South African Police Service (SAPS) for the City of Tshwane for the years 2001 to 2006 and discovered that there was no clear periodic fluctuation for property crimes in Tshwane during the investigation period. In fact, property crimes were found to be constantly higher throughout the summer months, with peaks in October and March. These months are effectively the start and end of the warm weather month's respectively. However, with reference to violent crimes, a slight seasonal trend was found with violent crimes increasing marginally in summer. The summer month of December was found to be the highest month for violent crimes, whilst the lowest incidences of violence were evident in the colder winter months of June and July.

In an attempt to theorise this relationship between crime and the weather, researchers have referred to the routine activities theory (Cohen & Felson, 1979; Cohen, Felson, & Land, 1980). The routine activities theory proposes that "crime is the result of the convergence in time and in space of motivated offenders, suitable targets, and the absence of capable guardians" (Cohen & Felson, 1979:589). The contention that weather patterns are associated with crime resonates with the routine activities theory because weather conditions are cyclic according to seasons (i.e., hot or cold, wet or dry, calm or stormy, clear or cloudy) and create environmental conditions that can impact humans' routine activities. Thus modifications to routine activities may contribute to changes in human behaviour and, in turn, changes in weather conditions will impact the activities that people engage in (Landau & Fridman, 1993). Sutherland and Cressey (1978) emphasise that weather conditions "provide the habitat for human life and consequently may facilitate or impede contacts among human beings and perhaps, in that sense, be related to opportunities for criminal behaviour". Furthermore, Cohn (1990:52) states that the theory "calls attention to how weather helps structure individuals' behaviour, most obviously through changes in the physical environment". For instance, during the hot summer month's people are more likely to spend time outdoors, and this places them at high risk of being exposed to violent crimes. At the same time they leave their houses unguarded, which offers an opportunity for burglars to strike (Schmallager, 1997; Collings, 2008). Based on the perspective of the routine activities theory, it could be predicted that property related crimes as well as crimes against persons would:

- Decrease during the cold winter months as few individuals are outside, which means there are fewer potential targets. This makes it more difficult to burglarise properties (Collings, 2008).
- Increase during the hot summer months, as individuals are more likely to venture from their homes. This means they are more exposed and are thus potential targets while they also leave their properties unattended (Collings, 2008; Horrocks & Menclova, 2011).

Value of the study

This paper aims to offer new insights into the association between weather patterns and property crime, with specific reference to the Newlands East Policing Area in Durban. The focus of the larger study was confined to property crime (i.e., housebreaking/burglary at residential premises). The rationale for exploring this specific form of crime was to enhance the safety of the targeted community by offering insights into what they can do to feel safe in their homes. Table 1 indicates that burglary at residential premises in the Newlands East Policing Area was consistently one of the highest reported property crimes from 2015 to 2019.

Table 1.1: Comparison of burglary at residential premises with other property-related crimes in the Newland East Policing Precinct of Durban over a five-year period

Nature of Property related Crime	2015	2016	2017	2018	2019
Burglary at Residential premises	380	310	407	325	394
Burglary at Non-residential premises	38	48	42	37	52
Theft of motor vehicle and motorcycle	112	107	99	101	142
Theft out of or from motor vehicle	103	151	171	168	136

Source: Crime Statistics South Africa, 2019

From the above available statistics on reported burglaries at residential premises revealed that this crime remained relatively high over the five-year period from 2015 to 2019, although it peaked in 2017 and had its lowest level in 2016. The reasons for this decline were beyond the scope of the study, nonetheless it is undeniable that so many residential burglaries in the Newlands East Policing area have impacted this community negatively. As Burglary does not only have financial implications for innocent and particularly poor residents, but victims may be harmed psychologically and emotionally.

In the light of the nature and extent of burglary at residential premises has evidently become a global and growing problem that is more complex in nature than other property-related crimes (Mbonambi, 2018). In the 2017/18 financial year, the Victims of Crime survey report (2018) stated that residential burglary was the most feared crime in South Africa. This is not surprising as, according to Africacheck.com (2019) in 2018/19 no fewer than 228094 house burglaries were recorded— this translates to an average of 625 house burglaries per day. The same survey also revealed that an estimated 52.8% of households did not report the crime they experienced because they thought the police would not do anything about it.

Against this backdrop, it is imperative to understand the impact of weather patterns on crime in order to implement effective crime prevention strategies. Crime is a social conduct, and almost all human behaviour is affected in minor or major ways by the weather and changing seasons (Cheatwood, 2009). In light of the above, this paper explores SAPS members' perceptions of the impact of weather patterns on the phenomenon of residential burglary in the Newlands East Policing Area of Durban.

II. METHODOLOGY

The researchers adopted a qualitative research design that enabled them to explore the attitudes, opinions, perceptions and views of SAPS officials on the manner in which weather patterns contribute to property crimes in the study area. The qualitative design was suitable to elicit the SAPS participants' views and perceptions regarding the association between crime and weather patterns and it facilitated a setting in which they could frankly explain and describe their feelings and experiences. SAPS officials are usually the first people to respond to crime scenes and often witness the role weather patterns play in residential burglary occurrences, hence the choice of a qualitative design. However, the impact of weather patterns on crime may also be investigated quantitatively by studying and associating crime with weather data and making assumptions based on these data. Moreover, by employing a mixed methods approach (i.e., obtaining both qualitative and quantitative data), a study may reveal additional insights into the link between weather patterns and residential burglary. However, such a mixed-methods approach was beyond the scope of the current study.

Study population

Qualitative research data collection methods are time consuming, therefore data are usually collected from a smaller sample than would be the case in quantitative study. Some benefits of the qualitative approach are that the information is rich and authentic and reveal participants' lived experiences, and this allows deep insight into the phenomenon under study. The study population was thus small and comprised ten (10) SAPS Social Crime Prevention Unit officials located at the Newlands East police station.

Sampling procedure

Upon authorisation, the Social Crime Prevention Unit management purposively identified specific group of participants who were well known and who could provide detailed information on the topic under investigation. Ten of these identified officers were successfully recruited for the study according to ethical procedures. An unthreatening environment was created where these participants were interviewed. The purposive sampling technique is also referred to as judgment sampling (Etikan, Musa, & Alkasim, 2016). This type of sampling uses purposeful selection of participants because of the attributes the participants have. The researcher thus decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of their knowledge and/or experiences (Bernard, 2002). The knowledge and experiences required to address the research questions had been gained by the participants when they responded to reports of crime in the study area, and many of these crimes were residential burglaries. In brief, the participants offered mostly corroborating points of view based on their personal work experiences.

Data collection techniques

The principle researcher conducted one-on-one interviews to collect relevant and rich data that would answer the study's key research questions. These face-to-face in-depth interviews were "designed to elicit a vivid picture of the participants' perspectives on the research topic" (Mack, Macqueen, & Guest, 2015:29). A semi-structured interview schedule was used to ensure that the same questions were posed to all the participants. The

interview schedule was generated after a thorough literature review to establish gaps in this research field that needed to be filled. These in-depth interviews permitted an exploration of “people’s views, perceptions and understanding of an area” (i.e., the association between weather patterns and residential burglary) and “provided...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 participant’s beliefs, perceptions and accounts of the phenomenon under investigation. Additionally, Taylor (1994:208) states that interviews permit the researcher to gain an understanding of the real experiences of the interviewees, and this allows giving insight to “outsiders and readers”. This method also gave the researchers and the participants some flexibility as these semi-structured one-on-one interviews allowed the participants to tell their story in their own words, as proposed by Lichtman (2014).

III. METHODS OF DATA ANALYSIS

To analyse the data, the thematic analysis method was used. Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data and allows the organisation and description of data in detail (Braun & Clarke, 2006). Thematic analysis thus facilitated in sourcing out helpful data from all the aggregate data that had been gathered and illuminated patterns of importance in the information that seemed to respond to the research questions and objectives of the study. According to Braun and Clarke (2006), this method comprises six stages, namely: becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and finally producing the report. First the audio recorded interviews were read and listened to multiple times to become acquainted with the content and to ensure reliability in decoding the information and initial comprehension of the information. During the second stage, vital components and topics that were applicable to the problem, questions and objectives of the study were distinguished. Vital components and topics of information that emerged from the data were examined, and this included both similar and contradictory information. These bits of information were examined according to their relevance to the objectives of the study. During the third stage, common denominators and differences within and across the material were identified as themes. Those themes that were not relevant were discarded and relevant themes were compared with findings of earlier studies that had been traced during the literature review. During stage four, the themes were again perused to ascertain that they were logical and adequately fitted amongst the coded information. The fifth stage involved defining all the themes, which enabled the writing of the final report.

IV. FINDINGS AND DISCUSSION

The data were interpreted with the purpose of understanding the SAPS members’ perceptions of weather patterns as a contributing factor to the phenomenon of residential burglary in their area of policing. Based on the question *whether they consider burglary at residential premises increasing due to change in weather patterns for the last five years (2016-2019) in the Newlands East Policing Area* their responses indicated that these members shared common perceptions concerning the impact of weather patterns on residential burglary in the study area. In essence, they were in agreement that burglaries at residential premises increased and decreased as the weather patterns changed. In particular, there was agreement that it was a growing phenomenon and that the SAPS got more calls to respond to residential burglaries that were reported during the warm weather days and summer holidays. Some participants’ responses are recorded verbatim to underscore this finding:

“I would say yes; as there are a lot of incidences being reported in the hot nights.” (IDI - P 1)

“Yes, we get more calls for service during the summer holidays.” (IDI - P 4)

“I would say yes I do believe so. Reasoning being during the summer seasons we get more cases.” (IDI - P 10)

The officials were evidently knowledgeable and experienced as they all perceived the hot summer months as contributory factors to residential burglary. Although some of the participant’s responses were expressed in terms of seasonality, it must be noted that seasonality is one of the meteorological conditions and aspects of weather which is studied in the field of Criminology.

In order to understand the contributing factors of weather patterns in the occurrence of residential burglary, the officials were asked the question: *How do weather patterns contribute to the occurrences of burglary at residential premises in Newlands East Policing Area?* An analysis of the data revealed the following themes:

1. Hot summer nights

The SAPS officials shared the perception that the hot weather conditions during the night impacted the occurrences of burglary at residential premises and this was mostly due to people's negligence during this time. They expressed that people living in the Newlands East Policing Area have a habit of leaving their doors and windows open during hot temperatures which results in break-ins during this time. Their responses resonated with the routine activities theory as they highlighted the association between increasing residential burglaries and hot weather conditions. Some participants' responses are recorded verbatim to underscore this finding:

"Simply because when it is hot people do not secure their houses and these unsecured houses require no effort whatsoever to get entrance into. People must remember that when it's hot criminals are also walking around and seeing these unsecured houses. (IDI - P 3)

"The hot weather conditions provide opportunities which criminals can exploit. For some reason, people do not close their doors and windows when it is hot. You arrive at the scene and discover that there was no forced entry, the residences left it open because it was hot". (IDI - P 2)

"There is just no safety at people's homes, which is due to the same people just being negligent when it's hot. When we are patrolling at night we see houses with windows open which results in them being targets of residential burglary." (IDI - P 6)

From the above responses, 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 routine 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 their entrance will go unheard since they do not have to use force to enter the house.

What is intriguing from the responses is the fact that weather patterns actually give 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).

2. Hot Summer Holidays/Weekends

The hot summer holidays and weekends was also mentioned as a key factor that contributes to residential burglary. The officials explained that during the hot summer holidays and weekend's people are more likely to spend time away from their properties which gives the opportunity for burglary to occur. For common practices, this increases the number of empty houses, and decreases the likelihood of a "capable guardian". Below are responses that highlight this theme:

"Generally, during the summer holidays in Newlands people are usually away from their homes as they go to beaches and other places of entertainment and this absence from their houses increases the likelihood of their property being burglarized." (IDI - P 7)

"During hot weekends people may decide to have more than one drink (alcohol) from the numerous taverns 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)

"When its hot people are mostly active outside, especially during the holidays and weekends this will increase burglary. So basically, in summer we have a lot of housebreakings because people are away from their homes." (IDI - P 9)

3. Cold winter days and rainy days

In an attempt to ascertain if there is a link between changes in weather patterns and the causation of residential burglary in Newlands East Policing Area, the researcher posed the question *is there a link between a change in weather patterns and causation of residential burglary in the Newlands East Policing Area*. The responses received limited attention, as the participants mostly referred to the responses which they had given to the previous questions, however it is worth noting that the officials even compared the general patterns of the community of Newlands during favourable weather conditions (hot) with those of inclement weather (such as cold and rain). Below is an excerpt that exemplifies their responses:

“Well, the fact is that during cold winter seasons people are normally in their house with their heaters on. In general, most people who commit burglaries try not to come into contact with their victims, so them being insides prevents the burglary from occurring.” (IDI - P 7)

“Certainly, I would say there is a link because people’s activities are mostly impinged by different weather patterns. If it is cold or raining people prefer to stay indoors and they are most likely to witness a burgling occurring which means they see everything and that deters criminals from committing burglaries.” (IDI - P 10)

“Indeed, fundamentally during cold and maybe rainy days you don't have individuals all over the place or out and about in their ordinary activities, if individuals aren't out, and inside their homes this prevents the burglary from occurring.” (IDI - P 3)

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”. The officials clearly explained that the owners/guardians are more likely to be present and guarding their properties during inclement weather conditions such as cold or rain and thus deterring break-ins or burglaries. As the Routine activities theory suggests that the likelihood of crime increases as guardianship decreases, in this case this increase of “capable guardianship” makes it different for criminals to burglaries as there are high chances of being caught committing the crime.

V. CONCLUSION AND RECOMMENDATIONS

Overall, it is evident that favourable weather conditions (hot and sunny) in the Newlands East Policing Area of Durban are a major contributory factor to burglary at residential premises. This understanding was shared by all the participants without contradiction. They had also observed that people’s routines changed during different seasons and weather conditions and that their awareness of danger was negligent, particularly during favourable weather conditions.

In conclusion, it is evident that the qualitative data collection methodology elicited new insights into the association between weather patterns and the phenomenon of residential burglary. The study corroborated many of the assumptions made by previous researchers. In this context, the authenticity of the current study’s findings cannot be ignored as they were elicited from the real-life experiences of SAPS officers.

Recommendations

It is the intention of the researchers to inform the Newlands East community of the findings by means of a burglary awareness campaign that will include meetings with community leaders as well as the distribution of flyers and information on social media. The findings may thus encourage community members to understand the threat and identify weather patterns that will contribute to residential burglaries. It is also envisaged that a joint effort by the community and the SAPS will be launched to combat the perpetration of this crime during favourable weather conditions.

It is therefore recommended that community members be educated on how favourable weather presents opportunities for residential burglaries. This could encourage the community to be extra vigilant during favourable weather conditions. Furthermore, the information that will be disseminated by means of seminars and this academic article will help law enforcement to be in a high state of preparedness for service calls during hot weather conditions. Thus SAPS management and operational planners should incorporate weather as a decisional variable when deciding on the level and intensity of their policing activities. In conclusion, further research is required to enhance the accuracy of this study in the broader South African context and to explore how other property-related crimes are affected by weather patterns.

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