
**THE CONCEPTUALISATION OF ‘THE FEAR OF CRIME’
AMONG STUDENTS IN A PERI-URBAN UNIVERSITY IN KENYA****Peterson Mwai Kariuki¹ and Merlyn Barkhuizen²**

ABSTRACT

In Kenya, research on the prevalence and intensity of the fear of crime among university students is limited, and the fear of crime in general is not regarded as an objective of the Kenyan Police Service. Moreover, past research on the fear of crime has been plagued by methodological challenges regarding the conceptualisation and measurement of the ‘fear of crime’ concept. In addition, although fear of crime and perceived risk are conceptually different, scholars often deploy risk-based measures as a surrogate for the fear of crime, to the extent that estimates of the fear of crime, could be misleading. The research approach is quantitative and employed a survey research design. While using emotional-based measures of fear of crime, this exploratory and descriptive study reports on the prevalence and intensity of the fear of crime amongst students enrolled at Masinde Muliro University of Science and Technology (MMUST), a peri-urban university, located in the west of Kenya. More significantly, the study also explores whether the risk of crime and the fear of crime are empirically different.

Keywords: *Fear of crime; perceived risk of crime; conceptualisation of fear of crime; measures of fear of crime; intensity of fear of crime; fear of crime among university students.*

INTRODUCTION

Criminologists usually have a variety of sources from which to evaluate the nature and extent of crime in society. Lab (2014: 2) notes that the magnitude of crime problems in society are usually evaluated from official crime statistics or victimisation surveys. However, we are of the opinion that, official crime statistics only reveal levels of crime, which the criminal justice system (CJS) is mandated to report on, and thus, such statistics do not reveal the ‘true’ levels of crime in society. We observe that, to mitigate this problem, victimisation surveys should be used to reveal more accurate levels of crime in society but are less widely deployed in Kenya. To further compound the problem of ‘true’ levels of crime, one only needs to examine the perceived levels of crime and the resultant fear held by the members of society (Lab, 2014: 9). Fear of crime comprises a form of victimisation that, although merely perceived, forms the basis for daily inactivity and anxiety (Lab, 2014: 10).

Although fear of crime might be beneficial, especially when people take measures to avoid victimisation, it has been shown that it can be damaging if taken to extremes (see Alper & Chappell, 2012: 346-363). For instance, research has shown that fear of crime is linked to poor mental health, such as anxiety, stress and depression (see Grinshteyn, Cunningham, Eisenman, Andersen & Ettner, 2017: 45; Jackson & Stafford, 2009: 838; Macassa, Winersjo, Wijk, McGrath, Ahmadi & Soares, 2017: 172; Stafford, Chandola & Marmot, 2007: 2077-2081); it is associated with reduced physical functioning (see Jackson & Stafford, 2009: 838; Rader, Roger & Cossman, 2019: 10-14; Stafford et al, 2007: 2078) and contributes to low quality of life (see Stafford et al, 2007: 2077).

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Additionally, fear of crime may result in poor health (see Macassa et al, 2017: 172), for instance, a shift in physical functioning, such as an increase in blood pressure and a rapid heartbeat (Lab, 2014: 14). Further, fear of crime has a negative effect on an individual's social well-being, physical health and can contribute to mental illness, which is linked to a variety of diseases, for example, depression and eating disorders (see Lorenc, Petticrew, Whitehead, Neary, Clayton, Wright, Thomson, Cummins, Sowden & Renton, 2014: 17-28). As a result, students might avoid some areas of a town because of safety concerns, females may desist from engaging in flirtatious behaviour due to rape concerns and people may alter their attitudes about walking alone in certain places or avoid various activities altogether (see Brown & Benedict, 2012: 173; Foster & Giles-Conti, 2008: 242-243; Lab, 2014: 11).

Supporting research indicates that fear of crime may result in increased criminal activities as well as enhance the fear of crime in a community. For instance, fear of crime undermines the mutual feeling of trust, cohesion and social control within a neighbourhood, often resulting in increased incidents of crime (Jackson, 2006: 253). Moreover, the fear of crime increases division between the rich and the poor, transforms certain public places into 'danger-zones', leads to increased punitiveness, and can thus increase crime in an area (Hale, 1996: 3-6). Because of the negative implications associated with being fearful of crime, the study of this phenomenon continues to attract attention from many researchers worldwide.

Along with its associated negative health implications, the fear of crime alters behaviour in a substantial way. Cozens (2008: 272), observes that the fear of crime remains largely ignored by the criminal justice system. Literature suggests that few studies have revealed the levels of the fear of crime in Kenya (Sulemana, 2014: 849-872; Pryce, Wilson & Fuller, 2018: 821-840; United Nation Office on Drugs and Crime (UNODC), 2010: 1-10). In addition, the National Police Service (NPS) does not regard the reduction of the fear of crime as one of its functions. Identified functions in the NPS service delivery charter include, amongst others, the provision of assistance to the public when in need, maintenance of law and order, preservation of peace, protection of life and property and investigation of crimes (National Police Service (NPS), 2015: np).

Chacha (2014: np) claims that, given the increased rates of campus crimes in Kenya, students continue to live in fear. It is significant, however, to note that there are limited statistics, if any, available in Kenya, which reveal the extent of fear of crime among students at universities. Although there is a growing concern among citizens about crimes committed against university students, and the resultant fear of crime (as portrayed in the media), scholars and practitioners in Kenya, for the most part, have not shared in this concern. There is also sincere concern that the ongoing public discussion on the extent of crimes committed against university students, and the resultant fear of crime, has not been informed by empirical academic research on the subject. The latter served as the motivation to undertake this study, which will also contribute to the existing body of knowledge by revealing the prevalence and intensity of fear of crime among university students by using emotional-based measures of fear of crime.

There is well developed literature on the fear of crime in other continents such as Asia, America and the West (Alper & Chappell, 2012: 346-363; Brown & Benedict, 2012: 173-187; Chockalingam & Srinivasan, 2009: 89-117; Fox, Nobles & Piquero, 2009: 24-39; Hilinski, 2009: 84-102; Lorenc et al, 2014: 1-101; Yu, 2014: 36-46), but controversy exists in the literature on the fear of crime regarding the conceptual and operational definitions thereof (Alper & Chappell, 2012: 346-348; Ferraro & LaGrange, 1987: 70-81; Lorenc et al, 2014: 11-16). According to Alper and Chappell (2012: 346), fear of crime research is complicated by several methodological shortcomings. Firstly, generalisations about the fear of crime emerging from previous studies are based on research that has examined perceived risk, a cognitive judgement of the likelihood of encountering victimisation in the future, other than emotional

fear or worry (also see Lab, 2014: 12; Ferraro & LaGrange, 1987: 70-81, for a more detailed analysis). Secondly, many existing studies do not operationalise fear in a specific manner, and often the measure is combined into one general index (Alper & Chappell, 2012: 347). The challenge has been that the use of a combined measure of fear, results in shadowing effects, insinuating that there could be one crime which individuals are fearful of, but which is not identified by the aggregated or combined measurement, thus, prematurely concluding that people are fearful about crime in general (Yu, 2014: 37). Consequently, this may obscure important subtleties between fears of different types of crime in the results. Hence, an implication of the methodological concerns would be that the estimates of the fear of crime have been overestimated (Farrall & Gadd, 2004(b): 6; Hinkle, 2014: 147-168).

In this article, an attempt is made to resolve previous methodological concerns by defining fear as a negative emotional reaction to crime or crime symbols, and perceived risk as an evaluation of the likelihood of encountering victimisation; measuring the fear of crime and perceived risk of crime separately, in one study; and operationalising fear in a specific manner. By doing so, we test the assumption that traditional measures of the fear of crime – perceived risk, perceived safety and concerns – overestimate the prevalence of the fear of crime. We also test whether there is any difference in intensity of offence specific fears, and if fear of crime is empirically different from perceived risk of crime.

Therefore, this article sought to find answers to the following questions: What is the prevalence and intensity of the fear of crime among students at MMUST? Is fear of crime empirically different from perceived risk of crime for these students? We do not claim that this article will provide all the necessary answers regarding the extent of the fear of crime among university students, but we hope our illumination of the magnitude of the problem, will spur interest and spark a debate among Kenyan scholars, CJS practitioners and university authorities. In addition, these parties may then seek to develop and deploy genuine methodologies to measure the fear of crime and subsequently design appropriate mitigation measures to deal with the problem in the future.

LITERATURE REVIEW ON THE CONCEPTUALISATION OF FEAR OF CRIME

Extent of fear of crime

Extensive research on the fear of crime indicates that fear of crime is pervasive for many across various modern Western societies (Farall & Gadd, 2004a: 127). For instance, in Australia, Sweeney and Payne (2011: 3-4) found that 30 percent of respondents in their study had an expectation of being physically assaulted, another 15 percent feared being burgled and eight percent expected their motor vehicle to be stolen. Relatedly, in the United Kingdom (UK), Farall and Gadd (2004(a): 128-129), reported that 37 percent of the sample in their study were fearful of crime, with 15 percent of the sample registering high levels of fear of crime. For this reason, a lot is known about the prevalence and intensity of fear of crime among individuals across different societal groups in America, Europe, Australia and Asia. However, although fear of crime research is extensive in extant literature, limited research has been conducted in sub-Saharan Africa (Pryce et al, 2018: 821).

The marginalisation of Africa in the ongoing conversation about fear of crime, contributes immensely to the limited understanding of the extent and predictors of fear of crime. For instance, in Kenya, while considering the general population, two studies have explored fear of crime with the results indicating that fear of crime permeates the lives of most Kenyans. Findings of a victimisation survey done in 2010 in Kenya by the United Nations Office on Drugs and Crime (UNODC, 2010: 5), indicated that, on average, most respondents felt either very safe or fairly safe after dark, either walking in their neighbourhood (61%) or staying at home (76%). Moreover, results from round four of the Afro-barometer surveys

conducted in twenty African countries, indicated that Kenya recorded the highest levels of fear of crime, with about 51 percent of respondents (or their family members) indicating fear of crime over a twelve-month period (Sulemana, 2014: 856). However, there are concerns regarding the ability of national victimisation surveys to capture insights of some elements of the general population, such as students, police detainees and prisoners. For instance, Sweeney and Payne (2011: 1-2) note that the limitation of national victimisation surveys, which target individuals or family households with telephones, means that some of the elements of the general population, without access to telephones, are not usually captured in these surveys. Thus, it is the paucity of data on fear of crime among university students that is of special concern in this study; with a review of literature indicating limited studies in Kenya, with the exception of the study done by Pryce et al (2018: 821-840).

Even with the forementioned studies, we note that the understanding of the extent of fear of crime in Africa, and more so, in Kenya, may be complicated by conceptualisation and measures of the fear of crime. Additionally, a common pattern observed in fear of crime research is a mismatch between levels of fear of crime expressed by respondents and their actual rate of victimisation (Rader, 2017: np) – the paradox of fear of crime. Yet, the paradox of fear of crime may be explained by issues in the conceptualisation and operationalisation of fear of crime. While early research on fear of crime did focus on the conceptualisation and measures of fear of crime, in an effort to determine what fear of crime was and was not, and the appropriate way of measuring fear of crime, more recent research has been carried out to explain the paradox of fear of crime and the predictors of fear of crime (see Rader, 2017: np). We note that while researchers found a goldmine in their paradox of fear of crime research, issues of conceptualisation and operationalisation of fear of crime remain less explored and addressed, in the literature, especially in Africa. A better way to corroborate this depiction is a review of the three studies carried out in Kenya, namely: the United Nations Office on Drugs and Crime (UNODC) (2010); Sulemana (2014); and Pryce et al (2018). Evidently, common conceptual and measurement issues, such as defining fear of crime in an emotional manner and deploying offence specific measures, were partially addressed. This pattern is not uncommon across the globe (Rader, 2004: 689-704) and it is conceivably expected to continue until such a time that there is concurrence on the definition and measures of fear of crime. Thus, it is observed that for several decades, researchers have continued to grapple with the appropriate way to conceptualise and operationalise fear of crime and debate usually revolved around whether to conceptualise fear of crime as an emotion or a risk (Rader, 2017: 2). But, as is evident in the next section, the scope of the debate is more expansive.

There is no doubt that measuring fear is difficult (Daigle, 2018: 88). It is for this reason that we find that previous research on the fear of crime has suffered several methodological shortcomings. How is fear of crime even measured; do you ask whether people are fearful, or base your enquiry on the indicators of fear of crime? (Daigle, 2018: 88). Supposing you decide to ask people how fearful they are – how do you word the question in order to tap into their fear of crime? The three abovementioned studies were dependent on the use of self-report surveys when measuring the fear of crime. The use of a self-report survey requires clarity of questions asked. That is, the questions asked must measure what they claim to measure. However, in previous research there has been an established significant variation in the items used to measure the fear of crime (see Henson, 2011: 163-165 for a more detailed analysis). A variation in the measurement of the fear of crime, signals variations in the results. In fact, some researchers argue that the failure of previous research on fear of crime to yield consistent results is attributable to detectable variations in measures of fear of crime (see Truman, 2007: 15). There are various measurement problems, which have arisen from previous research. These include: failure to actually measure crime; the use of formless measures of fear; the use of context-specific measures; failure to differentiate between perceived risk and fear; and the lack

of measures of fear intensity (Henson, 2011: 14). Although not pointed out by Henson per se, included in these measurement shortcomings of the fear of crime, are the use of safety and the use of aggregated measures.

Throughout the history of fear of crime research, researchers have deployed different items to measure fear of crime. Items used in early research on fear of crime measured perceived safety (Hinkle, 2014: 147-168). Such items asked respondents "How safe would you feel walking alone at night in your neighbourhood?" (Baumer & DuBow, 1976: 6; Hinkle, 2014: 147-168; Karakus, McGarrell & Basibuyuk, 2010: 177). In some studies, perceived risk measures are used as proxies of fear of crime (Gomme, 1986: 254), while others tapped into respondents' future expectations of victimisation by asking, – how likely it is that in the next 12 months they would experience a physical assault, burglary or motor vehicle theft (Sweeney & Payne, 2011: 3). Some studies employ emotional-based items to measure fear of crime by asking respondents how afraid/fearful they were of various crime or crime in general (see Adu-Mireku, 2002: 158; Bedenbaugh, 2003: 51-57; Chockalingam & Srinivasan, 2009: 102-105; Henson, 2011: 60; Pryce et al, 2018: 829; Truman, 2007: 19-20). Others include both risk-based and fear-based measures in the same item by asking, "In the past one year, have you ever felt fearful about the possibility of becoming a victim of crime?" (Farrall & Gadd, 2004(a): 128), although the item was later modified to measure fear of crime alone (see Farrall & Gadd, 2004(b): 10). Additionally, Brown and Benedict (2012: 177) utilised measures of concern, to depict fear, by asking respondents how concerned they were about burglary and home invasion. Furthermore, terms, such as trust, concern, safety, worry and stress have commonly been utilised as proxies for fear (Brown & Benedict, 2012: 176). Although fear of crime literature has developed during the last six decades, it is evident that the concept of fear of crime has been measured in a variety of ways, and for that reason, it is possible that knowledge on fear of crime, remains quite underdeveloped. As Ferraro and LaGrange (1987: 70) have stated, measurement problems beset a wide variety of research issues and hinder the process of the cumulative development of scientific knowledge.

Historically, items that asked, "How safe would you feel walking alone at night in your neighbourhood?" were criticised on the account that they tapped into something else, that is, perceived safety, rather than the fear of crime. Early researchers found that "safety" measures were really tapping into perceived risk (how likely you are to be a victim of crime or your perception of that likelihood) instead of truly measuring fear of crime, how afraid you are of a crime happening to you (Rader, 2017: 3). Conceptually, fear is defined as an emotional response of dread or anxiety to crime or symbols that a person associates with crime (Ferraro, 1995: 8; Ferraro & LaGrange, 1987: 73). On the other hand, risk and safety are judgement evaluations of the likelihood of victimisation, to the individual making the judgements (Ferraro & LaGrange, 1987: 71-72; Hinkle, 2014: 147-168). As a result, it has been established, that to assume, when one measures judgments of risk, that one is measuring fear of crime, is both invalid and obscures the processes that generate these perceptions (Ferraro & LaGrange, 1987: 73). Thus, perceived risk and safety measures are not indicative of being emotionally afraid, fearful or scared of crime (Hinkle, 2014: 147-168). Furthermore, studies on conceptualisation of fear of crime have established that perceived risk, perceived safety and fear of crime are empirically different (Farrall & Gadd, 2004(b): 1-30; Hinkle, 2014: 147-168). Consequently, a distinction has emerged between one's perceived risk, safety, and the fear of crime. Fear is an emotional response, which is conceptually different from cognitive assessment of the likelihood of victimisation (risk). However, this particular narrative is not easy to communicate to research participants (Henson, 2011).

As established earlier, a review of the literature is indicative of several disparities in descriptions of the fear of crime. For instance, Brown and Benedict (2012: 173-187) utilised measures of concerns to depict fear by asking respondents how concerned they were about burglary and home invasion. Asking respondents about their concerns is neither an indicator of their fear of crime, nor their perceived risk of crime. According to Doran and Burgess (2012: 69), concern relates to an individual's state of agitation about the levels of crime in one's environment and a belief that crime is a serious problem. Thus, measures of concern depict the seriousness of crime, rather than the fear of crime. Additionally, Skogan (1999: 37-54) notes that individuals who are concerned about crime believe that they can deal with the problem.

Although measures based on emotion elicit emotional responses rather than judgement evaluations, and are, therefore, considered an improvement over previous measures, they have however, been criticised. According to Doran and Burgess (2012: 76), due to the use of responses, such as moderately fearful and extremely fearful, they contend that emotionally based measures yield subjective responses, as individuals may have differing feelings regarding a concept such as "moderately fearful". To eliminate the subjectivity thereof, behavioural measures are regarded as an alternative. The use of behavioural measures to depict the fear of crime is a factor of the finding that there exists a fear-behaviour correspondence. People react to crime by modifying their behaviour, and, as such, the presence of fear is manifested, through behaviour (Rader & Haynes, 2014: 197-213; Skogan, 1999: 37-54). Thus, by focusing on the fear of crime through behavioural responses, researchers can measure and compare fear more consistently than using other methods (Doran & Burgess, 2012: 76). In addition, by focusing on the defensive and avoidance behaviour that people adopt in order to reduce fear, researchers can reliably measure the fear of crime (Doran & Burgess, 2012: 76).

Even with their ability to overcome subjective responses, behavioural measures are plagued with numerous shortcomings. Firstly, unlike measures based on emotion, which elicit fear of specific crimes, behavioural responses suffer from lack of crime specificity (Doran & Burgess, 2012: 77-78; Rader 2004: 689-704). Hence, when considering how fearful people are of different crimes, it is unlikely that significant information can be obtained with behavioural measures. Secondly, considering that defensive and avoidance behaviours are resource intensive, individuals may lack the adequate resources necessary to engage in such behaviours, especially when they are experiencing fear (Rader, 2004: 689-704; Skogan & Maxfield, 1981: 201). Additionally, according to Skogan and Maxfield (1981: 202), people may also be limited in employing avoidance behaviour due to the nature of the operation of social agencies, for instance, the requirement to attend an evening class amongst students. For this reason, people can be fearful, but are constrained to engage in defensive and avoidance behaviour, and as a result, if employed to indicate how fearful people are, behavioural measures may underestimate fear of crime. Given these limitations, behavioural measures are no-doubt less accurate than emotionally based measures, especially when researchers are keen to measure crime specific fears.

While emotionally based measures hypothetically suffer from what advocates of behaviourally based measures call a comparative analysis problem (due to their hypothetically subjective responses), this study argues that this particular conception is expected. An individual's fear of crime is a factor of the person's perception of the seriousness of the crime, as well as the person's risk sensitivity to the offence in question (Clark, 2003: 267-282; Doran & Burgess, 2012: 75-76; Warr & Stafford, 1983: 1033-1043).

According to Clark (2003: 267-282), when people think about an offence, they subconsciously evaluate the two aspects (seriousness and risk sensitivity), which influence their response to the fear of crime. This study contends that individuals' conception of the seriousness of crime and peoples' risk sensitivity of crime, are uniquely personalised and subjective. It would be unexpected of people to have the same perception regarding their risk sensitivity and seriousness to a particular crime. Given the above conjecture, this study regards that, emotion-based measures are more appropriate than cognitive, concern and behavioural-based measures in depicting how fearful people are. Even though they would be construed as yielding subjective responses with reference to how fearful people are (moderately or extremely fearful), there is no doubt that emotion-based measures reveal the absence or presence of the fear of crime.

In the recent past, scholars have begun to expand the conceptualisation of fear of crime. But it is evident that these attempts are intended to create a new concept, conceptually broader than fear of crime. For instance, Rader (2004: 689-704), called it threat of victimisation, which was a combination of three constructs – fear, risk and behavioural response. Similarly, Jackson (2006: 253-264) also extended fear of crime by including five constructs – worry, likelihood, control, consequence and belief. However, as discussed earlier, it is clear that these constructs are conceptually distinct, and some researchers, such as Farrall and Gadd, (2004(b): 1-30) and Hinkle (2014: 147-168), find that they are empirically different, but related, signifying that fear of crime is not the same as, say for instance, risk, safety or behavioural response.

Thus, by asking respondents regarding their safety, worry, trust and risk, the study submits that previous research on fear of crime did not actually measure the fear of crime. While there is no problem with studying such concepts, according to Hinkle (2014: 147-168), problems arise when these concepts are erroneously labelled “fear of crime” by researchers, because this muddies the waters in understanding emotional fear of crime, as well as limiting direct study of other unique emotional and/or perceptual responses to crime concerns. Thus, the levels of the fear of crime that were detected may be misleading. Therefore, since the concepts are distinct, they should be measured as such. Henson (2011) argues that the most appropriate methodology is one that includes separate measures of both risk and fear in the analysis. In addition, it has been established that, in some instances, respondents redefine concepts used to measure fear of crime (Farrall, Bannister, Ditton & Gilchrist, 1997: 658-679). Thus, it is also appropriate to include measures of fear of crime and perceived risk to deal with this shortcoming. In this way, it is believed, that respondents will link their responses to appropriate concepts. Hence, we attempt to address the failure to differentiate between perceived risk and fear by deploying separate measures of perceived risk of crime and the fear of crime in the same study. In line with the theoretical interpretation of fear of crime, studies that include both perceived risk and fear of crime measures in one study find that the concepts are empirically distinct (Farrall & Gadd, 2004(b): 1-30; Hinkle, 2014: 147-168).

Besides conceptual issues, another methodological concern revolves around the operationalisation of fear of crime. One aspect of operational issues involves the use of generalised measures of fear of crime. It commonly involves asking respondents whether they are fearful of crime in general (see Farrall & Gadd, 2004(a): 127-132; Hinkle, 2014: 147-168; Pryce et al, 2018; Rader & Haynes, 2014: 197-213). Others employ a typology of the fear of crime by posing questions that ask respondents regarding fear of property crime and fear of violent crime (Alper & Chappell, 2012: 346-363; Liu, Messner, Zhang & Zhuo, 2009: 93-108). The former represents a formless measure, while the latter represents an aggregated measure. Yu (2014: 36-46), observed that a common challenge of using a combined measurement or formless measurement of the fear of crime is that it results in shadowing effects. The significance is that, among many crimes, there could be one particular crime that individuals

fear, but which is not identified by the formless or aggregate measure. This means that in the results, important subtleties between fears of different types of crime could be obscured.

Additionally, failure to incorporate specific crime type questions in the fear of crime research may leave the respondents with a wide range of options to choose from. Consequently, selecting the one that is aroused first in their memory. This means that different crimes are selected and referenced by different respondents. For instance, when asked about their fear of crime, respondents may be thinking of different crimes, such as murder, robbery, assault, burglary, and there is the possibility that they could be thinking of civil wrongs. As a result, there are chances of creating systematic errors because the crimes that are selected and referenced are not random (Ferraro & LaGrange, 1987: 70-97). In summary, there are benefits that accrue with the use of specific fear of crime measures. According to Henson (2011), the benefits are twofold. It provides respondents with a clear reference to help them better describe their own level of fear, and it may decrease the likelihood of measurement error by ensuring that all respondents report their level of fear of the same type of crime. Thus, we argue that using crime-specific fear would yield a more valid and reliable measure of the fear of crime. Another operational issue entails the lack of measures of fear intensity or magnitude. Early research on fear of crime asked respondents whether they were fearful of crime, instead of giving them an opportunity to respond on a scale of intensity (Rader, 2017: np). Thus, for this study we employed a five-point Likert-like scale to measure fear of crime.

The implications for the continued use of different measures of fear of crime across studies are twofold. First, our findings of the prevalence, intensity and frequency of fear of crime may be misleading because of the use of perceived safety, risk, concern and other concepts as proxies for emotional fear of crime (Hinkle, 2014: 147-168). For instance, researchers observe that perceived risk and safety measures overestimate intensity of fear of crime (see Farrall & Gadd, 2004(b): 12-19 for detailed analysis). In brief, of those who reported being fearful in the last year, 15 percent reported high levels of fear compared to 33 percent as established when using perceived safety measures (Farrall & Gadd, 2004(b): 14). However, Hinkle (2014: 149-150) found that only 1.2 percent of respondents selected the highest intensity response for the perceived risk measure, while 11.0 and 13.2 percent selected the highest intensity response for safety and emotional fear respectively. The finding implied that perceived risk measures underestimate the intensity of fear of crime. Although there is no clear evidence on whether the use of proxies for fear of crime underestimate or overestimate the intensity of fear of crime, available evidence suggests that past studies that used perceived risk, safety, concern and other proxies for fear of crime, may have biased our understanding of the extent of fear of crime. Thus, it appears that the best methodology is the one that taps into respondents' emotional fear of crime, rather than their probability of experiencing victimisation (denoted as risk or safety) or concern about crime. In addition, to ensure that respondents clearly reference their fear of crime, researchers are encouraged to deploy risk, safety and emotional fear measures separately, in the same study.

Second, the use of different measures as proxies for fear of crime may have created a bias on the association between fear of crime and other variables, such as victimisation and disorder (Hinkle, 2014: 147-168). Such a conclusion is understandable, more so when considering that researchers have deployed varied measures of fear of crime and obtained mixed and inconsistent findings regarding the association between fear of crime and prior victimisation and perceived disorder. For, emotional fear, perceived safety and perceived risk may all be different constructs, and the fact that many past studies have labelled them all "fear of crime", can perhaps partly explain the mixed findings in the literature (Hinkle, 2014: 147-168). While the subject of correlates of fear of crime is undeniably outside the radius of this study, it has been noted that most studies focus on correlates of fear of crime (Rader, 2004: 692; Rader, 2017: 2), and it is probable that in such studies, issues of conceptualisation and

operationalisation have received less attention. In studies where methodological concerns have been addressed, the use of emotional fear items, cast some doubt on the general findings on the association between vulnerability and fear of crime. For instance, no relationship was detected between fear of crime and age, household size, presence of children and geographical variations, while social class and gender were related to fear of crime (Farrall & Gadd, 2004(b): 15-19). Clearly, finding a relationship between various independent variables and the fear of crime, seems to be a factor in the question design employed in a study.

In general, an analysis depicting how previous researchers conceptualised and measured fear of crime, as gleaned from the questions deployed in their studies, reveals variations regarding conceptual and measures of fear of crime. We make the case that the problem of measuring fear of crime along various dimensions persists to date and may contribute to the lack of understanding of the 'actual' nature and extent of fear of crime.

Considering the above discussion, the appropriate methodology in fear of crime research would be the one that employs items that define fear of crime in an emotional manner, operationalises fear in a crime specific manner, employs multiple items to measure fear of crime, deploys emotional fear and perceived risk measures separately in one study and employs a scale of intensity to measure fear of crime.

RESEARCH METHODOLOGY

Participants and procedures

The cross-sectional data for the present study came from a victimisation and fear of crime survey conducted in April of 2017. Utilising a survey research design, a sample size of 1 717 respondents were randomly computed from a population of 17 167 individuals at a peri-urban university (MMUST). Immediately after class sessions ended, paper questionnaires were administered to the sampled students. In addition, each respondent signed a Letter of Informed Consent in which the purpose and benefit of the research was explained. It also stated that their anonymity would be protected, and confidentiality ensured. The questionnaire for the study contained closed-ended questions. Respondents took approximately fifteen minutes to complete the survey. A total of 997 respondents participated in the study, representing a response rate of 58.07 percent. We used frequencies and means to determine the prevalence and intensity of fear of crime. In addition, a correlated t-test was used to determine the difference between fear of crime and perceived risk of crime. Data was analysed using the Statistical Package for Social Sciences (SPSS) computer program for Windows 22.0.

Sample

The sample was made up of more male respondents (55.7%) compared to their female counterparts (44.3%). Most respondents (73%) in the study were aged 24 years and below, while 27 percent of respondents were aged 25 years and above. Most respondents (58.1%) resided in off-campus housing, 27.8 percent on campus, while 13.9 percent lived at home with their parents. A large proportion of respondents (32%) were first year undergraduate students, 26.5 percent third year undergraduate students, 19.1 percent of the respondents were fourth year undergraduate students, 18.5 percent second year undergraduate and four percent of the respondents were from other academic standings.

More than half of the respondents (53.4 %) were not in employment, 32 percent were in part-time employment and 14.6 percent of the respondents were in full-time employment. Most respondents (44.6 %) were single, 28.9 percent were cohabitating, and 22.1 percent of respondents were married, while 4.4 percent were either divorced or separated. The sample distribution regarding key socio-demographic variables is representative of the population at MMUST and general trends in Kenyan universities.

Measures

Defined in an emotional manner, fear of crime was coded on a five-point Likert-type scale, namely: (0) = not fearful at all, to (4) = extremely fearful. The survey item asked respondents to rate how fearful they were of nine different types of crime – being physically assaulted; having someone break into one's house while present or away; being raped or sexually assaulted; being cheated, conned, defrauded; being murdered, being attacked by someone with a weapon; being robbed or mugged on the street; having a computer virus infect one's files and/or being kidnapped. On the other hand, perceived risk of crime was defined as the likelihood of encountering future victimisation and was coded on a five-point Likert-type scale – (0) not at all likely to (4) very likely. The item asked respondents to rate the chance that in the next six-month period they would encounter each of the nine types of crime. A fear of crime and perceived risk of crime index was obtained by combining crime specific fears and risks. Victimisations were disintegrated into direct and indirect victimisation and measured in a dichotomous manner: (0) No and (1) Yes. The items asked whether, in the last six months, they had been a victim of crime or criminally offended – direct victimisation. Also, whether in the last six months a relative, colleague or a close friend had been a victim of crime or criminally offended – indirect victimisation. Categorical scales were used to measure respondents' socio-demographic characteristics.

FINDINGS

Prevalence of fear of crime among victimised students at MMUST

Findings in Table 1 reveal the extent of fear of crime among direct victims of crime. More than a third of respondents were direct victims of crime in the six months preceding the study, while 61.78 percent of respondents indicated that they were not direct victims of crime in the six months preceding the study. The findings suggest that direct criminal victimisation is not a common occurrence at MMUST. However, concerns were raised regarding the levels of victimisation, given that more than a third of respondents experienced direct victimisation. Among the direct victims of crime, further analysis revealed that 90 percent were fearful of crime with a majority slightly fearful. Taking the frequently deployed dichotomy of 'very' and 'extremely' as a proxy for high levels of fear of crime, we do not just find that 90.02 percent of direct victims in the sample were fearful, but also that a revelation was made regarding just how fearful they were – it appears that most direct victims were less fearful of crime given that almost 64 percent were slightly and moderately fearful of crime.

Table 1: Prevalence of fear of crime from direct victims

Prevalence of victimisation	Percentage
No (0)	61.73%
Yes (1)	38.27%
Prevalence of fear of crime	
Not fearful at all	9.98%
Slightly fearful	42.04%
Moderately fearful	21.55%
Very fearful	17.83%
Extremely fearful	8.60%

Table 2 shows that 18.55 percent of respondents knew someone who had been a victim of crime, that is, they were indirect victims of crime in the six months preceding the study. However, 81.45 percent of the respondents had not experienced indirect victimisation of crime in the six months preceding the study. Of the indirect victims, almost three-quarter expressed fear of crime, with more than half slightly fearful. Again, if we consider the frequently used dichotomy of 'very' and 'extremely' as surrogates of high levels of fear of crime, it appears that most indirect victims were less fearful of crime given that 67 percent expressed being slightly and moderately fearful of crime. When we compare direct victims, who were not fearful of crime (9.98 percent) and indirect victims who reported being not fearful at all (17.13 percent), it appears that direct victims expressed somewhat higher levels of fear of crime, suggesting personal criminal victimisation is associated with high levels of the fear of crime.

Table 2: Prevalence of fear of crime from indirect victims

Prevalence of victimisation	Percentage
No (0)	81.45%
Yes (1)	18.55%
Prevalence of fear of crime	
Not fearful at all	17.13%
Slightly fearful	51.77%
Moderately fearful	15.67%
Very fearful	11.41%
Extremely fearful	4.02%

The intensity of crime specific fears among respondents

The results in Table 3 show that the mean rate of the fear of house break-in was the highest (2.58), followed by fear of having a computer virus attack (2.24). This means that the fear of house break-in was the highest among respondents. Given the scale employed to measure fear of crime, it appears that on average, respondents were moderately fearful of house break-in, computer virus attack and being cheated/conned/defrauded. In addition, on average, respondents were slightly fearful of robbery, weapon attack and kidnapping. The fear of being physically assaulted, murdered and being raped or sexually assaulted posted the least fears, with means of 0.69, 0.59 and 0.48 respectively. This finding suggested that most respondents, were not fearful of these crimes.

Table 3: Intensity of crime specific fears among respondents

Fear type	Mean	Standard error of mean
House break-in	2.58	.037
Computer virus attack	2.24	.032
Cheated, conned or defrauded	2.02	.045
Robbery/mugging	1.66	.038
Weapon attack	1.36	.040
Being kidnapped	1.00	.045
Physical assault	.69	.032
Being murdered	.59	.025
Rape or sexual assaulted	.48	.023

Perceived risk of crime and the fear of crime

Consistent with the interpretation of fear of crime, we measured fear of crime as an emotional response to crime, while perceived risk of crime was measured as an evaluation of the possibility of encountering future victimisation. A correlated t-test, conducted to compare levels of perceived risk of crime and the fear of crime, revealed that there was a significant difference in levels of perceived risk of crime ($M=1.288$, $SD=0.3259$) and the fear of crime ($M=1.542$, $SD=0.4517$); $t(917) = 14.402$, $P=0.000$. This signifies that, indeed, the two concepts are dissimilar, although related. A separate paired sample correlation revealed a strong significant relationship between the risk of crime and the fear of crime ($r=0.80$; $P<0.05$). This indicates that perceived risk of crime may have influenced and predicted the fear of crime among students at MMUST.

Table 4: Correlated t-test for the fear of crime and the risk of crime

	Paired differences				T	df	Sig. (2-tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower				Upper
Fear-Risk	2.545	5.353	.0177	2.198	2.891	14.402	917	.000

DISCUSSION

The purpose of this study was to find the extent (prevalence and intensity) of the fear of crime among university students, while utilising offence specific and emotional fear of crime measures. Another purpose, and more significantly, was to find out whether there is an empirical difference between fear of crime and perceived risk of crime. A growing concern in the fear of crime literature is the idea that the continued use of risk measures as a proxy for the fear of crime overestimates the extent of the fear of crime (Farrall & Gadd, 2004(b): 6; Hinkle, 2014: 147-168). So, when we explicitly measure the fear of crime by deploying emotional fear of crime measures, overall, we find that the majority (more than two-thirds) of the sample were fearful of crime. Although, of the fearful, the majority were only less fearful of crime, indicating that the intensity of the fear of crime among the students is relatively low. A large proportion of direct and indirect victims were fearful of crime, with the majority being less fearful.

However, direct victims were more fearful compared to indirect victims, an indication that encountering personal victimisation is associated with the fear of crime in comparison to experiencing indirect victimisation. This may be true considering that there is a victimisation – fear correspondence. In a comparative study conducted between Indian and Japanese students, it was found that in the Indian sample, 32.41 percent of respondents were not fearful at all, while in the Japanese sample, 26.43 percent of the respondents were not fearful at all (Chockalingam & Srinivasan, 2009: 100). In drawing a comparison with the current study, it appears that the fear of crime at MMUST is more pronounced, given that on average, only 13.56 percent of the respondents were not fearful at all. The finding that most students at MMUST experienced the fear of crime, more than the victimisation itself, is in consonance with the theoretical interpretation of the concept of the fear of crime and the paradox of the fear of crime. When we consider that about half of the respondents in Kenya were fearful of crime (Sulemana, 2014: 856), and that more than two-thirds of the study sample were fearful of crime, it appears that the fear of crime is widespread, given that it also affects university students.

Having used items that tap into respondents' fear of crime, other than perceived risk of crime or perhaps something else, let us suppose that our items did measure fear of crime. When we reflect on the concern that traditional measures of fear of crime (which measure perceived risk, safety and concerns and then generalise to fear) overestimates the levels of fear of crime, our findings do not support this proposition. Our estimates of fear of crime (that more than three-quarters of the respondents were fearful of crime, with a majority slightly fearful) are somewhat analogous to the estimates obtained when traditional measures are used. Some may even contend that our measures overestimate the levels of fear of crime, when compared to the traditional measures of fear of crime, given that more than 80 percent of respondents were fearful of crime.

Compared to our estimates, studies that deployed new measures of fear of crime found low prevalence of fear of crime, about a quarter of respondents were fearful of crime (Hinkle, 2014: 147-168), slightly more than a third of respondents were fearful of crime (Farrall & Gadd, 2004(b): 14). Thus, it appears that our items overestimate the fear of crime. It is possible that the tendency of our items to overestimate the fear of crime may be linked to their failure to include a time-frame reference. In this case, our items asked whether respondents were fearful of crime, while those of Farrall and Gadd (2004(b): 10) and Hinkle (2014: 147-168) asked whether respondents were fearful of crime in the last one year. In our case, worded in that manner, it is reasonable to expect that respondents referred to how fearful they were preceding several years, as such the prevalence rates obtained in the present study are understandable.

If we veer off somewhat regarding victimisation, contrary to the common notion that universities are safe havens, it is evident that students at MMUST were not protected against victimisation as they encountered it similarly to other individuals in the general population. However, direct victimisation among students at MMUST was more prevalent (38.27%) than indirect victimisation (18.55%). Indirect victimisation among students is not overly pronounced. However, the finding that more than a third of the respondents had experienced direct victimisation, should raise concerns.

Another salient finding revealed that the intensity of crime specific fears among students at MMUST was different. The fear of house break-in was the highest, while the fear of rape or sexual assault was the lowest among the sampled students. Global measures of the fear of crime concealed the above findings, by asking respondents how afraid they were in their neighbourhood. Such measures were vague and made no specific reference to crime.

Even when efforts were made to refer to crime by asking respondents how fearful they were of crime, the apparent lack of a specific crime meant that respondents would pick and reference any crime of their choice. Even though regarded as an improvement over the global measures, those measures remained vague.

Furthermore, Doran and Burgess (2012: 71) identified two aspects of the fear of crime, one aspect regards the type of victimisation – whether personal or property, while the other aspect concerns the subject of victimisation – altruistic or personal. The difference between the fear of property and personal crime arises from the recognition that variations in the levels of fear, as well as the response to fear, are a product of whether the anticipated threat targets an individual or the individual's property (Garofalo, 1981: 840). As such, Doran and Burgess (2012: 71) contend that in research on the fear of crime, it is important to specify the type of victimisation – property or personal. Additionally, the authors underscore the significance of measures that elicit personal fear of crime, rather than altruistic fear of crime. While individuals may be personally fearful of crime (personal fear), they may also be fearful that their close family members may be victimised (altruistic fear), (Warr, 2000: 455). Contrary to Garofalo's (1981: 840) idea, this study's findings indicate that levels of the fear of crime, as well as the response to fear, may be subject to the specific anticipated threat of crimes listed under the criminal code, rather than the type of victimisation experienced by respondents – property or personal crimes. The findings are, therefore, a result of the effect of the use of the crime specific measures of fear. From the findings of this study, it is apparent that delving deeper to reveal how personally fearful people are of different crimes, can yield detailed findings.

In addition, the role of the use of crime specific measures in eliciting the fear of crime through tapping into peoples' perceived seriousness of the crime in question, and their risk sensitivity to the crime in question, may be used to explain the differences in the intensity of the fear of different crimes among MMUST students. According to Clark (2003: 274), when people think about an offence, they subconsciously evaluate the two aspects (seriousness of the crime and their risk sensitivity to the crime in question), which influences their response to the fear of crime. As a possible interpretation, this implies that, if students perceived a particular offence as serious and their risk sensitivity to that particular crime was high, the more likely their levels of fear of that crime was enhanced – the contrary may also hold true.

Knowledge on behavioural response to crime may also be used to explain the differences in fear of different crimes. It is also imperative to imagine the role that guardianship capabilities may have on the differences in the intensity of the fear of different crimes. Conceptualised as encompassing defensive and avoidance behaviour, guardianship activities are linked to a decline in the fear of crime, if adopted when one is fearful. However, some factors restrain individuals from adopting such behaviour, among these are a lack of adequate resources and the operations of social institutions – especially if there is a requirement to behave in a particular way (see Doran & Burgess, 2012: 78-79). To explain why the fear of house break-in had the highest intensity among students at MMUST, a consideration is made regarding the routine of students that may require them to be away from their homes, whilst attending classes, as well as the lack of adequate resources (social and financial resources) to adopt guardianship measures. For instance, when students are required to attend classes, the need to leave their property unattended without the benefit of guardianship, may elevate their fear of house break-in more than fear of being kidnapped. There exists differences in the intensity of fear of different crimes in harmony with the hypothesis of this study, as well as the interpretation of the conceptualisation of the fear of crime.

One aspect that is linked to the extent of the fear of crime among students, which deserved special consideration in the analysis and discussion, entails the conceptual and empirical interpretation of the fear of crime. Fear of crime research is saturated with confusion and debate, concerning the definition of the fear of crime, which is a factor in the failure to make a distinction between what people feel (emotion) and what people think (cognition) (Hinkle 2014: 147-168; Warr, 2000: 454). Thus, the recognition that the fear of crime is an emotional response to crime or crime symbols, while a person's assessment of the likelihood of being victimised, constitutes the perceived risk of crime. Making this fundamental distinction in the fear of crime research is essential. It ensures respondents' responses are effectively linked to their fear of crime and perceived risk independently. Thus, conceptually, the fear of crime and the perceived risk of crime are dissimilar. As such, to avoid confusion in measuring the fear of crime that has characterised past research on the fear of crime, the difference must emerge (see Doran & Burgess, 2012: 78-79). The distinction between the fear of crime and the perceived risk of crime underscored a serious consideration regarding the impact of the measures adopted in the study to reveal the extent of the fear of crime amongst students. To qualify that indeed the extent of the fear of crime among students was measured, the study sought to determine whether the two concepts (the fear of crime and the perceived risk) were significantly different, and whether perceived risk of crime influenced the fear of crime among students.

Thus, in another finding, perceived risk was positively correlated to the fear of crime, although related (as hypothesised); the fear of crime and the perceived risk of crime were significantly different, indicating that the two concepts are not entirely the same. This finding may be a product of the inclusion of separate measures of the two concepts in the study, which allowed the respondents to accurately link their responses to the two concepts. Consequently, a distinction was made between the fear of crime and the perceived risk of crime. The finding also supports other assertions that have claimed differences between the two concepts (see Doran & Burgess, 2012: 67-79; Farrall & Gadd, 2004(b): 19; Henson, 2011: 73-131; Hinkle, 2014: 147-168; Warr, 2000: 454).

The finding, that perceived risk is significantly different from the fear of crime, is in congruence with the theoretical interpretation of the concept of the fear of crime, that portends fear as an emotional response to evaluations of a situation, rather than the evaluation of a specific situation. Other than measure the risk of victimisation, and claim to have measured the fear of crime, this study deviated from previous research on the fear of crime (see Sulemana, 2014: 849-872; UNODC, 2010: 5-6) by exploring and examining the two concepts separately. By measuring the two concepts separately, there was an assurance that the responses derived from respondents were clearly linked to the fear of crime and the risk of crime, hence, the analysis of either may be considered as appropriate.

The finding that perceived risk was strongly and positively correlated to the fear of crime, is in line with the theoretical interpretation of the concept of the fear of crime. The fear of crime is regarded as an emotional response to crime or crime symbols; thus, it would be expected that the perceived risk of crime should be positively correlated to the fear of crime. According to Ferraro (1995: 8), any scientific approach to understanding the fear of crime should pay close attention to the risk interpretation processes. The finding is also in line with previous research findings of Bedenbaugh (2003: 40).

This study may be faulted for several reasons. Our items addressed only a few concerns (defining fear in an emotional manner and using multiple crime fears) out of the numerous methodological issues. For instance, our items did not ask about the temporal, spatial and social contexts in which fear of crime occurs. Ours, was an attempt to extend on the previous literature of fear of crime in Kenya by using more accurate measures to reveal the extent of fear of crime among students in the Kenyan context, and to determine whether fear of crime

and risk of crime are empirically different. This was all dependent on the accessible data. Thus, we acknowledge that other concerns in question wording in fear of crime that were not addressed in the current study are equally important and deserve a consideration in the future. In measuring the extent of fear of crime, the frequency of fear of crime and perceived risk was not identified by our items. As has been noted, it is imperative to understand details, such as: how often people are fearful of crime in order to design appropriate intervention for reduction of fear of crime (Hinkle, 2014: 147-168). It is reasonable to speculate why insights on the frequency of fear of crime may be associated with fear of crime reduction efforts. With the foregoing consideration, assuming that residents are differentiated regarding how often they experience fear, namely: on a daily basis, weekly and monthly, to Hinkle (2014: 147-168), fear of crime efforts would be more impactful if efforts targeted neighbourhoods where residents lived in constant fear. Earlier, we noted that the inclination of our items to overestimate fear of crime may be traced to their failure to include a time-frame reference when wording fear of crime questions. So, instead of asking, for instance, whether respondents were fearful of crime in the last six months, the items deployed in the study asked whether respondents were fearful of crime, giving them an unlimited timeframe to refer to. We also employed a survey research design, and it is widely acknowledged in the fear of crime research that surveys are beset by various problems, such as misinterpretation of questions by respondents as hypothetical rather than referring to actuality. Although we did attempt to resolve this concern by including fear of crime and risk measures in the same study, given the cross-sectional nature of our data, it is not apparent whether it yielded the intended results. In conclusion, these limitations underscore that our interpretations be approached in a cautious manner. More research is still needed to determine the most appropriate methodology that can explicitly measure fear of crime and reveal more accurate levels of fear of crime.

RECOMMENDATIONS

Our recommendations are in line with the limitations noted above and the limited scope of the study, in which we intended to determine the extent of fear of crime among MMUST students and to determine whether fear of crime and perceived risk of crime are conceptually distinct. Researchers, such as: Brown and Benedict (2012: 173-187); Chockalingam & Srinivasan (2009: 89-117); and Warr, (2000: 479-483); have noted that the fear of crime negatively affects one's quality of life, as it is associated with negative health consequences, leads to adverse emotional consequences, results in physiological, psychological and behavioural changes and augments feelings of personal vulnerability. Given the negative consequences related to the fear of crime and the high levels of the fear of crime detected in the present study, reduction of the fear of crime may be regarded as a primary objective by the MMUST authorities, as well as the NPS. Reducing fear of crime is not only important because it alleviates the negative implications of fear of crime, but it is also regarded as an important performance indicator, both for law enforcement and crime reduction partnerships (Farrall & Gadd, 2004(a): 131).

The paucity of studies that have explored the phenomenon of the fear of crime in Kenya; failure of the NPS to include the reduction of the fear of crime as one of its functions; the apparent negative implications of the fear of crime, as well as the revelation that the fear of crime permeates the lives of university students, should raise concerns for university administrators at MMUST, scholars and policy makers in the Kenyan CJS. Fear of crime is an area that deserves greater attention than it has received thus far. Given the above concerns, for university administrators at MMUST, there is a need for campus surveys, which could generate accurate data on the levels of the fear of crime, as well as predictors of fear of crime among students at MMUST. More importantly, universities should undertake to record the levels of the fear of crime among students periodically, as well as make the statistics public. In deciding

on which university to attend, potential students, their parents and guardians should find such information very helpful. The Kenyan criminal justice policy-makers need to consider the fear of crime as a social problem that requires their immediate attention. Likewise, scholars need to consider the fear of crime as an opportunity for research that may have a significant impact on criminal justice policies. The NPS service delivery charter needs to provide a clear avenue through which reduction of the fear of crime may be considered as a key function of the NPS. This may be done, if the NPS performs its other duties as prescribed by written law from time to time (NPS, 2015: np). In doing so, the study regards that scholars and policymakers have, therefore, been handed a lifeline to escalate and advance the fear of crime research, with the aim of elevating the status of the reduction of the fear of crime to the core of the NPS mandate.

While escalating the fear of crime research, it would be important to note that measurements of the fear of crime in the past have been varied. To encourage comparative research across the world, and to tap into the appropriate construct, researchers may need to continue defining fear as an emotional response, rather than as an evaluation of the possibilities of victimisation. In doing so, the fear of crime would acquire a universal definition. However, previous literature argues that conveying such a distinction to research participants is not easy (Henson, 2011: 13). Thus, in researching the fear of crime, researchers may consider the inclusion of measures of the fear of crime and the risk of crime separately. It would enable respondents to reference their responses accurately. In return, researchers would be confident they are measuring the fear of crime itself. Although related, the two constructs were found to be significantly different and, should thus, be measured separately. Hence, it is imperative for future researchers to measure the two concepts separately to avoid production of inappropriate models on the fear of crime. Even more appealing for future researchers, would be to employ cognitive, concern, behaviour and emotion-based measures in an effort to unmask any differences and similarities thereof. Future researchers should also utilise continuous or Likert scale measures of the fear of crime. In doing so, they will be able to reveal how fearful the respondents are, and this would encourage comparative research globally.

Previous studies employed formless or aggregated measures of the fear of crime. To encourage accurate measurements of the fear of crime, crime-specific fears may require a special consideration in future studies. It would reduce the chance of errors occurring by making sure respondents refer to the same crime and, hence, report levels of fear of the same types of crime. Future researchers may also need to consider inclusion of crime specific measures in their study in order to reveal the differences in intensity among fear of different crimes, and, as a result, enhance comparability. By ranking the fear of different crimes, policymakers are provided with a framework for responding to the fear of crime, by considering which fears of crime to prioritise relative to the available resources. However, it appears that using nine crime-specific fears is not adequate. Surely, other crime specific fears exist that were otherwise not incorporated into the current study. Future studies should benefit from more inclusion of crime-specific fears. In particular, the context in which crimes are committed is changing. Increasingly, crimes are being committed in cyberspace, thus future studies should benefit by including more cybercrime specific fears.

In resolving the limitations of the present study, and depending on their research questions, future researchers should consider the use of items that account for the temporal, spatial and social context in which fear of crime manifests. Additionally, items that include a time-frame reference, such as asking whether respondents are fearful of crime in the past six months, should improve the validity of future research items. Finally, going ahead to reveal how often fearful people are of crime has both theoretical and practical implications. As noted earlier, if details of frequency of fear of crime are captured, the prospects of designing appropriate fear reduction initiatives are enhanced.

CONCLUSION

Although there are a variety of issues that warrant attention, the most important, in our view was ‘what is the extent of the fear of crime among students at MMUST, while using fear of crime measures’, and ‘whether fear of crime is distinct from perceived risk of crime’. These questions may appear to be straightforward, but previously, there have been no empirical attempts to reveal the levels of the fear of crime at MMUST, given the notion that universities are protected against social ills and, therefore, impervious to such social ills. Revealing the levels of fear of crime, as well as how fearful students are at MMUST, may draw the attention of university administrators, as well as criminal justice personnel to the magnitude of the phenomenon. It would also encourage mitigation strategies by way of designing appropriate programmes to scale down the phenomenon, given that prior research has found the fear of crime to be associated with negative consequences – which include both financial and emotional consequences (see Brown & Benedict, 2012: 173; Foster & Giles-Conti, 2008: 242-248; Lab, 2014: 11; Lorenc et al, 2014: 17-28; Stafford et al, 2007: 2077-2081).

Additionally, there are concerns that the estimates of the levels of fear of crime emanating from previous studies on fear of crime may be overestimated, since researchers employed surrogates of fear of crime – perceived risk, safety, concerns, amongst others – and generalised these to fear of crime. As a result, deploying both fear of crime and perceived measures in the same study is touted as the best approach, this way, respondents can clearly link their responses to both concepts, which eliminates the chance of overestimating fear of crime. Relatedly, researchers can determine whether the two concepts are empirically distinct.

As far as the extent of the fear of crime is concerned, study findings revealed significant levels of the fear of crime among students at MMUST, although most students were only slightly fearful. Even with shortcomings, assuming that the items did tap into emotional reactions to crime or crime symbols, our estimates of levels of fear of crime are analogous to those obtained when surrogate measures of fear of crime are used and generalised to fear of crime. However, this conclusion should be approached cautiously, especially given that our items addressed only a fraction of an array of methodological concerns in the fear of crime literature. Regarding crime-specific fears, the intensity of crime specific fears was different, indicating that the levels of crime specific fears among students at MMUST are independent of each other. Although perceived risk and the fear of crime were related, significant differences were obtained regarding the perceived risk of crime and the fear of crime, indicating that the two concepts are dissimilar. Based on findings regarding the extent of the fear of crime, it can be concluded that there were significant levels of the fear of crime in general, including crime specific fears among students at MMUST. Additionally, since special reference was made to the difference between risk of crime and the fear of crime in the survey instrument, and significant differences emerged between the two constructs, a conclusion can be drawn that the study effectively measured (specifically) the fear of crime amongst students at MMUST.

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