A SURVEY OF PERSONAL PHYSICAL SECURITY AWARENESS IN STUDENTS IN SELECTED UNIVERSITIES IN KENYA 1990-2019

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The end of the Cold War brought with it changes in the international security, with an escalation in intra-state conflicts, characterized with violence perpetuated by discernable and not so discrete foes. This challenge broadens dimensions of security to include human, social, economic, political, and environmental aspects which provide referent objects which are securitized. In line with securitization, a response to the asymmetric wars configured in terrorism whose preference is to attack "soft targets" such as people on holiday, revelers, shoppers, worshippers, and of particular concern to this study, university students. Unlike critical infrastructures which are well guarded by armed personnel, universities are core soft targets made of intellectuals and their trainees, who have bare military training and any inkling on how to respond in case of a terrorist attack. This makes such institutions susceptible as they hold tens of thousands of persons at any given time, making them a strategic attraction and target for terrorist aimed at causing maximum damage and fear among civilian populations. Granted the high risk area that universities are, the study aimed to establish the level of physical security awareness and subsequent preparedness to deal with such issues among students in selected universities in Kenya. Findings showed 89.4% of the respondents considered physical security as a personal responsibility. Only a paltry 7.5 % of respondents had received some form of personal security training yet extant literature suggests that security awareness training is proportional to improved security awareness. The universities surveyed had emergency response instructions in the students' handbooks detailing how to respond to emergencies such as fire, which is in consistency with international best practices. Students covered in this survey had practical ideas of what can be done to improve their physical security. We conclude that learning to live with the threat can be enhanced through training and conduct of drills to acquaint students with martial arts and self-defense skills. Students as a corporate body are an agency with capacity to be tapped by university management in planning and execution of physical security best practices.

Key words: terrorism, soft targets, securitization, personal safety, training, agency.

1. INTRODUCTION

Unlike critical infrastructures, universities which are core soft targets made of intellectuals and their trainees, who have bare military training and any inkling on how to respond in case of an attack. May be now owing to the steady rise in attacks on universities they are adjusting but have learnt it the hard way. Bradford (2013), indicated that the attacks on educational institutions had increased from 41 incidences in the 1980s to 48 in the 1990s and finally to 57 between 2000 and 2010. This denotes a 39% increase in the number of terror attacks targeting educational institutions from the 1980s to 2010.

Kenyan society has been on the receiving end of acts of global terror. In April 2015 a projection made by Otiso in 2009 that Kenya would become a partner in global terror came for fulfilment, when the gruesome murder and heart -rendering Garissa University terrorist attack sent shock waves across the region following the heinous killing of 148 students. Within an interval of ten days, after the Garissa University terror attack, a stampede at Nairobi University's Kikuyu Campus happened. Students jumped from the five-storey Kimberly and three-storey Hall 1 Hostels, 141 were injured and one fatality was reported. The pandemonium was prompted by an electric fault in the hostels' main supply station caused several "gunshot-like" explosions that were mistaken by the students to be another terror attack. The students further indicated that they had been informed to be vigilant through a campus memo but were never taken through a security brief on what to do or not do in case of an emergency. In a press statement, the institution that supplies power in the state, one Kenya Power Company admitted that an overloaded underground cable caused the explosion (*Reuters*, 12 April 2015). Interviewed by Reuters, Thomas Mukoya a student admitted that he felt 100% unsafe on campus.

This incident points to a lack of self-efficacy of the university students required to respond to such incidents. His fears represented many other students on Kenyan campuses. Further effects of terror fear stalking students in higher learning became apparent a year after. On 25 March 2016 several students at Kenyatta University were injured after what they thought was a terror attack in the institution caused a rampage. Initial reports indicated that the in Post Modern Library which is a five-storey building, many students studying for Continuous Assessment Tests (CATs due the following week, there was pandemonium caused by a duel between students. Later it was clarified that screams and shouts ensued forcing students to scamper for their safety as there were fears

that the noise followed a blast from a terror attack. It was reported that some students jumped from the third floor of the Post Modern Library for their personal safety. At least 38 students sustained minor injuries. Indeed the students have not been spared of the menace but have borne the brunt of these attacks. Obstinate terror attacks on universities call for concern on why these are a strategic target for the terrorists and the extent to which these institutions are prepared to deal with this imminent threat on university communities. It is therefore urgent that we understand how the students and their institutions are prepared to deal with this magnitude of security and safety threat.

2. CONFLICTS, SOFT TARGETS AND UNIVERSITIES IN CONTEXT

With the end of the Cold War in the 1990s, the understanding of security shifted from traditional state-centric orientation to the more encompassing human security spectrum. According to the Copenhagen School of Security Studies (CSSS) 1983, security ought to be seen in a 'wider' and 'deeper' sense. The CSSS argues 'security is not a preserve of the military alone, but finds its way into political, economic, societal and environmental sectors. Perpendicularly, security covers various antecedent objects other than the state to encompass people, social groups, and humanity as a whole'. With the current conflict environment dominated mainly by asymmetric wars, the predominant security concern of this century has been terrorism. The UNDP in its 1994 report became a leading advocate of human security. UNDP horizontally expanded security to include economic, food, environmental, health, personal, community and political threats (UNDP Human Development Report 1994). Though several criticisms have been leveled against human security as being fluid and unfocused we observe that it introduces newness that remains relevant in the 21st century security arena. The Iranian Revolution of 1979 set forth the mostly Muslim in origin third wave of terrorism that is still ongoing. Shughart observes that the current wave is "inspired by the Pan-Islamic dreams of uniting fundamentalist Muslim states, freed from western cultural contamination under Caliphate hegemony and Sharia law". It is in the last wave terrorists' proclivity attack on "soft targets" among them universities and shopping malls dominated by unnamed civilian populations. Otiso is succinct that "Kenya became a major partner in the Global War on Terror (GWOT) in the aftermath of September 11, 2001" (Otiso, 2009). It bears to mention attacks on tourists on holiday, places of worship, shopping malls and

institutions of higher education. Such attacks inspire a different level of fear and convey a different ideological and political message, gaining popularity among perpetrators for they have high pay-off in heavy casualties, a wider publicity and fear mongering, considered quite invaluable for the terrorists whose main objective is to instill fear. Some non-military targets, such as government, diplomatic facilities and key infrastructure such as power generating facilities and communication facilities have some basic personal physical security training and are vigilant (Asal *et al*, 2009). In the ensuing developments, a new form of terrorism has developed that has demonstrated its ability and preference for "soft targets" under which Kenyan universities are studied. This is not to suggest that terrorism is new but it has deep-seated roots in human history.

Although there has been a noteworthy increase in the number of terror-related attacks on schools and institutions of higher education worldwide, most efforts at addressing this situation have been aimed at increasing the physical strength of these institutions. The shift in targeting calls for basic personal physical refuge skills to be inculcated in the university students who were the subject of this research. In the Kenyan education system, there is no prospect of students to be imparted with the basic services that would help save lives. Kenya has borne the brunt of terrorist attacks in the last two decades. The focus of the attacks has been on civilians who have experienced untoward suffering. University students in particular constitute 'soft targets' in the country. However, there is no study that has addressed the capability of university students to counter such attacks. In the recent past, the general targeting criteria of most terrorist organization has shifted from "hard" well protected military and government installations and locations to "soft" targets that are vulnerable and have a high social impact and which draw a lot of media coverage and compassion.

3. METHODS

The study adopted a descriptive design to analyze the personal physical security awareness and safety of students in selected universities in Kenya. Purposive sampling was used to select Egerton, Kabarak and Kenyatta Universities. These represent both public and private universities as well as taking care of urban and rural settings in order to take care of the different locations. Simple random sampling technique on the 284 respondents in the study out of the 300 questionnaires distributed. Semi-structured interviews, focus group discussions, and participant observation techniques of data collection were employed. These quantitative and qualitative approaches

were used to triangulate data and narratives explain personal physical security awareness among university students in the selected universities. Extant secondary sources were used to corroborate empirical data.

4. RESULTS

4.1. Enrolment of Students in Kenyan Public Universities 2007-2013

The choice of universities as targets for terror attacks has been increasing over the years. Attacks on educational institutions had increased from 41 incidences in the 1980s to 48 in the 1990s and finally to 57 between 2000 and 2010 (Bradford 2013). The choice of university is because of the high number concentrated in one place in case of heinous acts of terror. Institutions of higher education are areas of high population concentration at any given time which to the terrorist eye is considered a strategic target to cause fear, harm and panic. Table 1 shows student numbers in Kenyan public universities.

Table 1. Enrolment of Students in Kenyan Public Universities 2016-2018 Source: Statista 2019

Year	Enrolment
2016	537, 689
2017	522,059
2018	519,500
2019	509,400

With populations of half a million concentrated in a single place at any given time universities remain strategic targets. On average there are at least 20,000 students in a given semester and in peak times such as examination periods, campus become an easy target because of its high concentration of people.

There were more male (69.6%) than female (30.4 %) respondents in the sample as presented in Table 2.

Table 2. Gender of Respondents Source: Survey Data 2019

	Frequency	Percent (%)
Male	198	69.6
Female	86	30.4
Total	284	100.0

Slightly more than half (57.3%) of the respondents were in their third-year of study. This can be explained by the changing perceptions of university students, notably as student progress in their studies they appreciate the importance of understanding and connecting learning to themselves and learning for life rather than for a short period of time for the purpose of passing the examinations. Eklund-Myrskog (1998), indicated that students approaching the end of their under graduate studies are likely to use a qualitative and analytical approach to learning - better relating to the nature or standard of education and its relevance to current situations; whereas students in the beginning of

their studies apply a qualitative and surface approach to learning. The literature suggests that the first-year of study is full of emerging concerns such as the transition from high school to university, familiarization and socialization with new people and a new environment, first-year students have a tendency to view education and learning as secondary to the social issues, which many considered more pressing amidst newly acquired freedom.

An interesting finding was that of a lack of awareness is replicated in how the students casually interact with their campus environment; further reinforcing the need for training that could reverse the of a culture of security of keen interest rampant in the student body as represented in Table 3.

Table 3. Year of Study of the Respondents
Source: Survey Data 2019

Year of Study	Frequency	Percent (%)
First	48	16.5
Second	50	17.2
Third	157	57.3
Fourth	30	9.0
Total	284	100

Source: Survey Data 2019

Only 16.5% and 17.2% of the respondents were in their first and second year of study respectively.

Theoretically we relate that to first-and second-years students' superficial interest in their studies as seen above and their preoccupation with the external stimuli of their new environment in campus, these cohorts are the best bet for training on the personal physical security awareness training through classical training (Kendra, 2019) which tremendously influences behaviorism. On the contrary students who are about to complete their university education value high-quality assessment and good grades (Bryson & Hand 2007). With this in mind, this renders valid the observation that only a few respondents participating in this study were in the first-and second-year of study. Fourth-year students had the lowest response rate among the respondents at 9%; lower than either the first-or second-year students. This statistic can be explained by the fact that the fourth-year students were more forward looking to their imminent transition to life beyond university and consequently were not enthusiastic in participating in a study that was primarily concerned in the environment from which they were at the exit point.

With this low rate of awareness, the study sought to explore the interventions to enhance the capability of students to respond to such threats. Clearly from the responses elicited students were more troubled about the physical security measures - or the lack

of them - that their institutions had in place and their apparent effectiveness. Their understanding seemed to be informed of the securitization of the fight against terror that was prevalent in the period before and after the launch of *Operation Linda Nchi* in October 2011. This military intervention by Kenya into Somalia to secure her borders from the Al Shabab insurgents was followed by an upsurge in measures employed to control access to all public places such as malls and places of worship. 30% of the respondents proposed installation of biometric systems at their university campuses that suggests that the students perceive the current manual screening as ineffective and potentially a compromised way to control entry into universities of persons with bad intentions.

In this inquiry on level of awareness of physical security among university students, respondents were asked to state whether they had received training on personal physical security awareness. This training would have been targeted in trainees' ability to detect, deter, report and respond to security threats. To this end various security awareness indicators were evaluated namely awareness of the location of the fire alarm in the halls of residence, the willingness to report unattended luggage and the regard of personal physical security as an individual responsibility.

4.2. Physical Security as a Personal Responsibility

Physical security has been perceived to be a personal responsibility and as such the students were asked whether they consider physical security as their responsibility. 89.4% of the respondents consider physical security as a personal responsibility as shown in Table 4.

Table 4. Proportion of Students Who View Individual Physical Security as Personal Responsibility
Source: Survey Data 2019

	Frequency	Percent (%)
Yes	245	89.4
No	39	10.6
Total	263	100.0

Source: Survey Data 2019

Yet another nerve-wracking finding in this study was that only a paltry 2% of the respondents proposed personal physical security training awareness as a way of enhancing their preparedness in case of attacks. This is disturbing taking into account the Garissa University terrorist attack of 2 April 2015, which left 148 students dead and 79 injured as students could barely respond by camouflaging for personal safety. An interrogation of this finding perhaps could be explained in the fact that university students' security

perception is shaped primarily by the prevailing securitization efforts in the mainstream media, which is not grounded in professional discourse. It further serves to explain the universal security indifference among university students in Kenya and their inability to understand how training that improves their personal physical security awareness could "harden" them and their institutions against attacks. It is ostensible from the same statistic that the students do not realize their level of response ability to an attack to be critical to their own survival in case of an attack; in contrast though they seem to be reliant on the security efforts that their institutions' put in place to safeguard them. Evidently students believe that their personal physical security is domiciled in the mandate of their institutions.

Patton (2019) director of security and operations for the University of Regina (Canada), avers that even though campus security teams are adopting new security tools and systems, students also need to do their part to help keep themselves and their college mates safe. He elaborates further that during students' security orientation, they are always advised to lock up the door to their room of residence, not to walk alone at odd hours, to learn where the emergency escape routes are and that they have a level of responsibility in keeping themselves safe. The

challenge of engaging students on security according to Patton is that "they are busy young people, with a lot going on in their lives so they do not engage the same way you would do with a working professional." We argue that recently have embarked on that collectively the hardened security in the universities ought to be complemented with an empowered student population that will not lie helpless in case of attack, a few terrorists with IEDs are frightening but lessons from survivors of the 2015 Garissa University terrorist attack confirms that basic survival soldierly skills come are central and could save lives.

4.3. Personal physical security awareness training

The respondents were also asked if they had attended any personal physical security awareness training, responses elicited are captured in Table 5.

Table 5. Respondents with Personal Physical Security Awareness Training
Source: Survey Data 2019

	Frequency	Percent
Yes	29	7.5
No	255	92.5
Total	284	100.0

Personal physical security awareness training is often used by the military and law enforcement

personnel. Literally situational awareness is a frame of mind in which the individual is relaxed yet aware of the surroundings and also aware of whom or what could be of help if a security situation arose and what is likely to pose a threat. It is a continuous process of scanning your immediate environment and analyzing all its aspects in terms of what threat or opportunity they pose. The students were surveyed about aspects of their campus environment and their responses used to gauge their general situational awareness towards conditions/situations that may be a source of threats or opportunities. One of the predictable outcomes of personal physical security awareness training is the development and improvement of the situational awareness of the student. The outcome from the measure of these indicators is also useful in the assessment of the level of security indifference prevalent among the university student body. Students who are indifferent of their personal physical security are unlikely to take notice of and/or remember the location of firefighting equipment in the halls of residence nor are they likely to take notice of unattended luggage let alone report the same to the security agencies.

This study sought to establish how the students had acquired physical training and the responses are presented in Table 6:

Table 6. Proportion of Voluntary Trainees
Source: Survey Data 2019

	Frequency	Percent (%)
Yes	24	78.9
No	5	21.1
Total	29	100.0

Out of the 29% who had received training in personal physical security as seen in Table 8, 78.9% (24) indicated that they actively sought to be trained out of their own volition while 21.1% (5) attended the training by chance. This indicates that out of the proportion of students who had any personal physical security training 7.5% (29) of all the respondents, a majority at 78.9% had actively sought to improve their personal physical security awareness by pursuing training. This represents a very small percentage of the respondents - 0.084% and supports the argument that not only do the students lack awareness on the need for improving their personal physical security, only a minority actually attempt to pursue such training.

A majority of university students lack in personal physical security awareness training. From qualitative questions it was established that the few students who had received physical training had done so in martial arts such as

Karate and Tae-Kwondo. Experts are of the opinion that such warlike hardening arts have potential to impart personal physical security awareness. Ron Amram (2018) of Combat Arts Institute of Australia avers that martial arts training improves the recipients' intuition and ability to recognize potentially dangerous situations quicker in addition to being an important self-defense tool. Further martial arts training is effective in ensuring a well-rounded individual in terms of security awareness. Martial arts exert probable in the application of training in combat sport as a tool of alleviating the personal physical security awareness of university students; even though from the results above the current level of voluntary participation is wanted. This gap exposes the university students who are stalked by fear of imminent and almost real threats while on campus. With the training we went on to inquire if the students were aware of the location of tools to use in case of an unfortunate incident of a fire emergency.

4.4. Awareness of the Location of the Fire Alarm

For an empowered physically aware person the study further asked the students were aware of where the fire alarm was located. The responses are captured in Table 7.

Table 7. Awareness of the Location of the Fire Alarm
Source: Survey Data 2019

	Frequency	Percent
Yes	134	47.0
No	150	53.0
Total	284	100.0

The universities surveyed in this study had fire response instructions in their students' handbook that guides them on how to respond in case of a fire incident. These instructions are consistent with the accepted international best practices. Egerton University's student handbook instructs them to know the location of at least two emergency exists from their halls of residence, classroom and/or offices. Additionally, universities advise that students get acquainted with the fire emergency plans posted on the notice boards and to practice taking the evacuation route. The university has provided the students with an emergency number to call in case of a fire; the able-bodied students are encouraged to remain calm and assist their disabled colleagues (Egerton University; Fire and Security, 2015). Randal writing on the Campus Fire Safety based in Columbus Ohio underlines the importance of ability to use exits as a critical capability in enhancing one's survival in case of a fire incident while corridors are kept clear of flammable materials to prevent rapid-fire spread.

The degree to which these best practices are implemented in the universities under study remains low and therefore we concluded that the students are exposed. It is therefore clear that fire is one of the major potential threats to the personal physical security of university students and the awareness thereof can be used as a good indicator of the general personal physical security awareness of the university students. It was apparent that the various university administrations had provided necessary information that is required for the students for them to be able to react to fire emergencies. The data collected though, indicated that 47% of the respondents were aware of the location of the fire alarm in their halls of residence. With the affirmation from FEMA, that most campus fires can be prevented by awareness training and education, it is safe to deduce that Kenyan university students' personal physical security awareness can be improved through continued education and training and to all freshmen during orientation. We finally tested the hypothesis on how training relates to awareness.

4.5. Association between security awareness training and level of awareness on security

To test the hypothesis on the association between security awareness training and level of awareness on security chi-square test was conducted and results are captured in Table 8.

Table 8. Chi Square Test of Association Results
Source: Survey Data 2019

Variable	Categories	Trained (yes) n (%)	Untrained (no) n (%)	Total	x^2	Df	p-value
Location of Fire alarm	Yes	16 (80%)	105 (44.5%)	111	9.963	1	0.002
	No	4 (20%)	137 (56.5%)	141			
Reporting unattended Luggage	Yes	15 (78.9%)	187 (77.6%)	202	0.19	1	0.891
	No	4 (21.1%)	54 (22.4%)	58			
Personal awareness	Yes	17 (89.5%)	214(89.2%)	231	0.002	1	0.967
	No	2 (10.5%)	26 (10.8%)	28			

Our analysis was done using the concept of Extended Parallel Process Model (EPPM) Theory by Kim Witte (1994). The EPPM model defines four key factors to anticipate the likely outcome of communications which involve a fear appeal; that is: self-efficacy, response-efficacy, susceptibility and severity. The EPPM model portends two conceivable outcomes; the first being Danger Control that is, when an individual anticipates that the severity and susceptibility are high and also recognizes that they are competent to take mitigation action then they are likely to act to control the danger. Secondly, Fear Control, the model predicts that if a person perceives their ability to manage a risk as low, even if the severity and susceptibility is perceived as high, then they are likely to take steps to control their fear instead. This change is maladaptive or counter-productive behavior.

This theory helps to explain the fear control adaptive behavior that the students might be using to adopt to their university environments because even though the threat posed by terrorist attacks targeting such institutions is apparent, the students lack the requisite skills to make them self-efficient in responding to such threats. The theory also helps to indicate the need to provide personal physical security training to these students so as to increase their ability to respond to such threats. With the right information, the students can be more resilient and can be able to take risks that can save their lives or that of fellow students in case of a terror attack in their campus. Theoretically, this is consistent with the EPPM theory that the students can be able to develop danger control as a result of security efficacy achieved through training and education on personal physical security awareness. Their ability to detect, deter, respond and report a terror related security threat is a desired outcome of such training which we therefore recommend.

4.6. Way Forward for Secure University Campuses in Kenya

The greatest personal physical security concern expressed by the students is the installation of biometric security system at the entrances of all universities, as was voiced by 30% of all the students who took part in the survey. According to Trader (2018), biometrics are unique traits or behavioral characteristics that can be captured and used for individual identification through different biometric modalities such as fingerprint, finger vein, palm vein, iris, facial, or voice recognition. Biometric identification in its infancy has had applications in mainly law enforcement and government agencies as an accurate and secure way of controlling access to high security installations. The advantages

of such systems and their potential of improving the physical security of the university students cannot be over emphasized. Biometric systems are capable of indicating when and where a security breach has occurred and in the identification of the perpetrators. These systems are however limited in their ability to preempt an insider threat which indicates that its preventive capabilities can be limited. Interestingly 12% of the respondents in this study revealed that an increased presence of armed security personnel could help alleviate their personal physical security concerns in the university.

Yet "the weakest link in the security chain is the human element." Mitnick contends that in the people-process-technology triad, the weakest link is are the people of that organization. He explains that the negligence of security practices by employees of that organization is mostly responsible for the end-point security lapses. It is with this recognition that this study seeks to indicate that, the "hardening" of the human element in the security chain in universities will offer the greatest dividends as far as ensuring the personal physical security of university students is concerned. If humans impact security and are the weakest link in a security circuit it follows that integrity should be upheld by those charged with ensuring security on campus.

5. CONCLUSIONS

The agenda of this research was to establish the level of physical security awareness among students in selected universities in Kenya which are a clear soft target for terror activities. The study established that currently, there is no specific tailor-made training being offered to enhance the students' preparedness to adequately respond to this imminent threat. The universities surveyed had fire response instructions in the students' handbooks detailing how to respond to emergencies such as fire, which portrays consistency with the accepted international best practices. Students covered in this survey are aware of their environment, they possess pragmatic ideas of what can be done to improve their physical security in their universities. Our findings revealed that security awareness training is proportional to improved security awareness. We argue that learning to live with the threat can be enhanced through training and conduct of drills for students to acquire martial arts and self-defense skills. Students as a corporate are an agency with potential capacity to be tapped by university management in planning and execution of physical security awareness and best practices in the elusive security realm of the 21st century.

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