International Journal of Arts & Education 2(3): 58-65, 2020

ISSN 2616-1818

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THE MODERATING INFLUENCE OF MANAGEMENT OF SYMPTOMATOLOGY ON THE RELATIONSHIP BETWEEN MANIFESTATION OF SYMPTOMATOLOGY AND PSYCHOLOGICAL ADJUSTMENT OF THE SURVIVORS OF ARSON ATTACK IN HIGH SCHOOLS IN NAIROBI COUNTY

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ABSTRACT

Arson attacks in high schools occur throughout the world. They are traumatic events and leave survivors with trails of psychological trauma, which impair their mental health wellness and functioning. In order for the survivors to return to normalcy, they will need psychological adjustment. The primary objective of the research was to determine the moderating influence of management of symptomatology on the relationship between manifestation of symptomatology and psychological adjustment of the survivors of arson attack in high schools in Nairobi County. This research adopted a descriptive survey design to execute it. Snowball sampling technique was applied. The study population will comprise of high schools including students. The study used self-administered questionnaires for students to collect data. Quantitative data was analyzed by descriptive statistics and inferential statistics then statistical package for social sciences. Hypothesis was analyzed by Pearson product moment, Correlations (r) and step wise regression technique. Qualitative data from open ended questions were read, paying attention to ideas, documents and concepts from respondents. Field notes was edited and written based on content and theme and analyzed accordingly. The study adopted social support theory. The theory states that the support an individual survivor receives from the social networks boosts the individual survivors' resilience and promotes health wellness and psychological adjustment. There is a relationship between social support and individual health. The outcome of the study will have implications on policy and theory. On policy the study helped to identify gaps in the current understanding of arson survivors in schools and will assist education planners, administrators and those responsible for education in formulation of adequate policy framework.

Key Words: Safety Awareness, Preparedness, Management of Symptomatology, Arson Attacks

INTRODUCTION

Arson attacks in Kenya have occurred in high schools since 1908. To date no solution has been found. It has been established that students' use of arson in schools reflects the crisis in the society. In this regard, there may be no end in sight. The researcher recommended reviews of the students living conditions and schools infrastructure (Cooper, 2014) The months of June and July 2016 alone saw unprecedented arson attacks in High Schools. The Country experienced over 130 High Schools set on fire (National Crime Research Center, 2016). Arson is a traumatic event and may precipitate PTSD in survivors. The researchers at NCRC, (2016) noted that viewing images of arson repeatedly will overcome one's nervous system. This will leave one disabled and powerless, especially since the event is caused by human beings and lingers on for a long time, such as, consequences of arson. In spite of known consequences of the punishment such as imprisonment, fine or both in addition to being denied a job by the state through thorough vetting, the arsonists still commit the crime (National Crime Research Center, 2016).Similar studies further established that a relationship existed between

substance abuse amongst the youths and their parents' level of education and socio-economic status (SES) (NACADA, 2004).

Statement of the Problem

High schools in Kenya have continued to experience arson attacks which began at Maseno School in 1908. More than 100 years ago to date, a solution to this scourge is yet to be found. Moreover, nothing is known about several survivors who tried to make their lives sufferable. Arson attacks are traumatic events which leave survivors, most of them youths, to experience manifestation of symptomatology, which is debilitating to an individual survivor. However this, may go away or linger for a long time and It impairs mental health wellness and functioning. Those survivors needed psychological adjustment in order to regain their normal mental health wellbeing and functioning (Seaton, 2009).

This study targets the survivors and the uniqueness of the months of June and July, 2016 when arson attacks were sporadic and unprecedented in the history of Kenya. In two months alone, more than 130 high schools were set on fire .The stakeholders were overwhelmed and shaken. The severity and the frequency of the fires attracted national debates, with local communities and other stakeholders searching for causes of the fires and solution to the menace that left thousands of survivors with psychological trauma. This problem has stained the image and integrity of the entire education sector, by and large, the whole country. Arson attacks cost the economy millions of shillings on repairs, relocation of survivors to other facilities, replacement of destroyed items, insurance costs and reconstruction. During the disturbances, no learning in schools takes place and the schools suffer loss of goodwill. However, the psychological consequences on survivors may not be apparent immediately (Natural Crime Research Center, 2016).

The Goal and Objectives of the Study

The purpose of the study is to determine the moderating influence of management of symptomatology on the relationship between manifestation of symptomatology and psychological adjustment of the survivors of arson attack in high schools in Nairobi County.

LITERATURE REVIEW

Safety awareness and preparedness, management of symptomatology and psychological adjustment

Survivors of traumatic events including arson attacks will be concerned with control of physiological, psychological and behavioural consequences of the traumatic events. This is because the effects are debilitating, may go away or linger for a long time. In addition, they impair mental health well-being and render the individual survivor dysfunctional, such that, the individual cannot cope with the challenges in the environmental context. Studies conducted in high schools in England established that the survivors, among them, students and teachers experienced psychological disorders. They also experienced psychological disorders; thus underscoring the need for management for these experiences in order to return to normalcy (Wade et al, 2007). Sippel et al (2015) agree with studies by De wolf (2004) and Wade et al (2007) on trauma exposed individuals and recommended social support and change which enhance resilience and promote healing. Communities as agents of social support, and change should be included in safety awareness and preparedness programmes that take place in schools. Putman and Kirk Patrick (2005) found that there is a relationship between childhood fire play and fire setting behaviours in communities. Their findings are also corroborated by functional analysis theory which states that childhood fire play may result into adult fire setting behaviours (Jackson et al, 1987). Efforts should, therefore, be made to identify early signs of would be possible arsonists in high

schools and manage them through counselling programs (Mwangi, 2016). Studies recommended programs of integration between teacher/ counsellor and peer counsellor in detecting early warning signs in order to avert looming disaster in schools (Putman and Kirkpatrick, 2005, Mwangi, 2016). Following safety awareness and preparedness measures employed in USA, fires in school buildings did not have any fatalities, yet there were 4000 fires each year from 2009 to 2011.

Theoretical Framework

This study used Stress and Coping Social Support Theory. Stress and Coping Social Support Theory posts that welfare protects individuals from harmful consequences of emotional stress. This will influence the manner the survivors think about the event and how they cope. (Cohen et al 1985). The researchers move that psychosocial resources reduce the impact of stress on psychological well-being. This resource will invariably help survivors of arson attacks to adjust due to manifestation of symptomatology. When the schools install safety awareness and preparedness measures and observe dictates of the standard safety manual for schools requirements, are considered as a social support. This in turn offers a buffer or shield to an individual to remain resilient. Resilience yields psychological adjustment. Studies have documented many benefits of stress coping and social support, such as, improved immune system, reduction of heart diseases, positive adjustment to chronic illnesses, decreased depression and anxiety and the negative effects of stress. However, the stress coping and social support theory will not comprehensively cover the challenges. This is because the higher the buffering, the better the resilience, subsequently psychological adjustment. Conversely, the lower the buffering, the lower the psychological adjustment. The buffering is subject to an individual whose resilience level is not known, therefore, the adequate measure for an individual is in doubt, this is its weakness (Cohen et al, 1985).

Research Hypotheses

The following hypothesis is proposed by the study

H_1 The strength of the relationship between manifestation of symptomatology and psychological adjustment is moderated by the management of symptomatology.

RESEARCH METHODOLOGY

Introduction

This chapter explains the process that was used for conducting the study. The chapter gives a precise description the research design, population Sample, sampling techniques and sample size, the methodology of data collection and analysis and the reliability measures used for the study.

Research Design

This research is a case study and applied a descriptive survey design to execute it. The survey design helped the researcher to meet the study objectives by collecting, measuring and analyzing data. The design used the description to organize data into patterns that emerge during analysis. This analysis is the form of the structure of the research and availability of diverse information (Orodho, 2013). The researcher will conduct a survey to establish the relationship between safety awareness, preparedness and psychological adjustment of the survivors of arson attacks in high schools in Kenya and also determine the influence that manifestation of symptomatology management of symptomatology and psychological adjustment will have on the relationships. The researcher will prepare instruments or tools for collecting, analyzing and interpreting observed information. This process will conform to the exact systematic nature of the work (Mugenda and Mugenda, 2003). Since the survey will ensure

impartial representation of the population of interests, the researcher will not have any control and will not interfere with the result. The researcher will therefore, post only the results of the study.

Population of the study

The population of interest was the form four students who completed their studies towards the end of 2019 in the high schools that experienced arson attacks during the months of June and July, 2016 within Nairobi County. They are a total of 853 students (Table 2.11.2). They were four schools, 2 public boys boarding, 1 private boys boarding and 01 mixed boys and girls public with girls boarding while boys as day students. They were among over 130 secondary schools which experienced arson attacks in Kenya in June and july,2016. They are accessible and can easily be reached. They are in close proximity to each other for easy monitoring and they were the only schools in Nairobi that suffered arson attacks. It is generally accepted that what is approved in Nairobi will be adopted by other counties. Nairobi hosts the headquarters, relevant departments which give authorisation to conduct the study and relevant organisations from which secondary data can be collected. Nairobi is also a host to fire engines from herself and armed forces and the only city in the country mostly affected by fires (Huang, et al, 2009; National Crime Research Centre, 2016)

Table 1: Total Population of Students

Name and Type of School	Number of Students	
	Male	**Female**
Boys High School(Public Boarding)	225	
Boys Boarding (Private Secondary School)	275	
Boys High School(Public Boarding)	185	
Mixed Boys And Girls (Public Girls Boarding And Boys Day)	(168) 114	54
Total	**853**	

Source: Researcher, 2019

Key:

2 public boys' high schools boarding

1 private boy's high school boarding

1 public mixed boys day and girls boarding school

Sample Design

The table in 3.3 shows selection of a sample of representative value from the entire population of interest. This aspect will suffice the need for efficiency, representativeness, reliability and flexibility. The criteria was based on the type of school, whether it's boys, girls or mixed schools. The schools was drawn from this category as shown in table 3.3 however there was no category from girls school (Gay 1902) With this type of population the recommended sample size range is 10-30% (Mugenda and Mugenda, 2003).

The form four students in the four schools completed their studies towards the end of 2019. This is the target population , consequently, their respective sampling venues and their social networks have changed. Their locations, too, remain unknown and they are hard to reach people. Studies refer to them as "hidden populations" or hidden respondents". In this regard, the researcher will enlist teachers as informants from the respective schools who will help by purposively identifying one or two subjects

from each school. The subjects will in turn identify respondents sequentially or in a snowballing fashion. Thus snowballing sampling method was employed for the study. Snowball sampling technique was developed in 1958 (Coleman, 1958-1959;). However, the model is non-randomized and non-probabilistic. It contravenes many of the assumptions that support conventional, methods of selections.

Respondent Driven Sampling technique was developed in 1997 by Heckathorn. The method offers better mathematical model when combined with snowball sampling. This helps to convert chain referral methods with results which can be randomized by keeping track of who referred who in the sample. This creates a model of subjects and respondents, social networks as one component. Resistant respondents are replaced in order to achieve representativeness and reports accurately the number. Subjects recruit respondents as a single source (Heckathorn, 1997). Respondent Driven Sampling also combines with network analyses and creates uniform source. This helps the researcher to achieve high statistical value with samples that are gathered using randomized procedures as demonstrated in tables 3.2 and 3.3 (Heckathorn 1997 and Mugenda and Mugenda, 2003)

Table 2: Sampling matrix for students

Type of School	Number of Students	Sampling %	Sample Size
Public Boarding	225	30	68
Private Boarding	275	30	81
Public Boarding	185	30	56
Mixed Boys and Girls Boarding	168	30	51
Total	**853**	**30**	**256**

Source: Researcher, 2020

The matrix gives a sample size of 256. One Public Boys Boarding High School (sample size 68) will pretest the research instruments, leaving the sample population for the study to be 188. In order to avoid fractions when distributed among schools, the sample population was 189.

Data Collection

Data both primary and secondary was used in the study. Primary data was collected on self-administered questionnaires. A questionnaire will help the respondents to answer questions on safety awareness and preparedness, manifestation of symptomatology management of symptomatology and psychological adjustment which are the variables of the study. In order to explore more unknown thoughts from respondents, the researcher will employ both structured and unstructured questionnaire. For the success of this operation, the researcher will adopt a field study procedure (Mugenda&Mugenda,2003). Questionnaires for data collection are preferred in this type of research due to time saving are easily dispensed to respondents spread across a large area and are easy to handle,. This helps the respondents to attempt to answer every question (Spasford,2006; Phellas,2011).

Data Analysis and Presentation

Analysis of gathered information began with editing the questionnaire for accuracy, cleaning and coding. The information will then be entered on the spread sheet and analysed by using Statistical Package for Social Sciences (SPSS). Quantitative data was analysed by applying descriptive statistics ,such as frequencies ,percentages and measures of central tendency as a technique for closed ended questions. Meanwhile, qualitative data was cleaned and organized into specific codes according to research questions and directives and grouped into various themes from which conclusions was drawn

(Yadutta and Ngao,2006). The researcher applied inference rules to draw out conclusion. For example, the objective was investigated using Pearson product moment correlation(r)

RESULTS AND DISCUSSION

The results were computed to produce percentages, frequencies, mean and standard deviation for efficiency in interpretation. Qualitative analysis was conducted to supplement the quantitative analysis.

Psychological Adjustment

The investigation desired to determine participants views about various declarations about psychological adjustments. The outcome of the investigation and test results are shown in the diagram below.

Table 3: Help in lineage

	N	Minimum	Maximum	Mean	Std. Deviation
I feel contented personally	161	.00	3.00	2.7205	.61452
I am a person of self-respect	161	.00	3.00	2.7578	.53358
I believe I am sometimes useless	159	.00	3.00	.7358	.91716
I get help out of my lineage	161	.00	3.00	2.6646	.66091
I get assistance from comrades	161	.00	3.00	2.4161	.76288
I get aid from teachers	161	.00	3.00	2.0994	.96957
I can start a fire to let out frustration	161	.00	3.00	.5031	.88122

That became determined most participants indicated (m=2.7205. Sd=61.452) that they look firmly satisfied with themselves. Furthermore, observed, originating from respondents, most participants conceded they firmly felt they were people of worth. Clarity was drawn from arithmetic mean computed 2.7578. Normal deviation computed .5336 showed similarity of replies originating from participants. In addition, observed in the findings, most participants dissented they thought they were useless at times. The declaration was drawn from arithmetic mean computed .7358. Normal deviation assessed .9172 showed minimal deviation from arithmetic mean point. Moreover originating from the assessment most participants firmly conformed they received support from family (M=2.864 SD=6609). That declaration out of results stated most participants firmly consented they received support from friends. The assertion was drawn from arithmetic mean assessed 2.4161. Normal deviation computed .76238 proved there was constancy replies originating from participants. The result was credible from arithmetic mean measure 2.094. Normal deviation assessed .96957 showed constancy of answers given by participants. Most participants were, moreover seen to firmly dissent they could start a fire to let out frustration. The assertion was credible from arithmetic mean assessment .5031. Normal deviation assessed .8812 showed most participants were of same view.

Summary of findings

The objective of the study was to find out for moderating influence of management of symptomatology (physiological, psychological behavioural symptoms and signs) on the relationship between manifestation of symptomatology and psychological adjustment of the survivors of arson attacks in Nairobi County. The study employed stepwise regression method to establish the relationship between the variables. The coefficient of determination as measured by the R-square (R^2) (63.0%) shows that

all the three predictor variables explain 63.0% of the total variation in management of symptomatology.

Conclusions

The results of the study revealed that indeed arson attacks in high schools are traumatic events and cause mental health illness. These views affirm what some of the previous researchers (Seaton, 2009, De Wolf 2004 and Vaux 1988) have established. The findings also corroborate the views of other researchers among them (Sipal et al,2015) and (APA, 2018) that social support from social networks enhances individual healing as it builds resilience which leads to psychological adjustment and finally leads to healing.(Seaton, 2009). Moreover, the findings too agreed with the study of (Kipngeno and Kyalo 2009) that safety awareness and preparedness in high schools is key to significantly reducing or mitigating arson attacks. The studies also agreed with the views of (Shibutse et al, 2014) that arson attacks in high schools require all units employed to work harmoniously in order to effectively control fires in high schools. The researcher supported the general system theory of (Von Bertanalfy 1966) which states that a system must have all its integral parts working together harmoniously in order to have an effective and successful operation.

Recommendations

There is need to employ chaplaincy services to enhance religious values, which emphasize non-criminality among communities in which schools are located, may play an important role in cases of arson attacks and should be involved in schools security arrangement. People who observe religious ordinances have strong will to reject evil schemes. Indeed social support (community, church and government and other social networks) enhance healing in trauma exposed individuals. Support may come, for example, in monetary form or in kind. Units like Nyumba Kumi Initiative and Harambees should be encouraged and strengthened.

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