Effectiveness of psychological intervention Approaches in preventing posttraumatic stress disorder among disaster actors in Nairobi county, Kenya.

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Abstract:
The prevention of long-term psychological distress following traumatic events is a major concern for all. Providing early psychological intervention in disaster management is one of the major attempts in preventing Posttraumatic stress symptoms, which may lead to Posttraumatic Stress Disorder (PTSD). Traumatic events can have a significant impact on individuals abilities to cope. Intense effect during a traumatic event and its accompanying psychological arousal have been associated with the development of PTSD. The National Disaster Management Policy, 2012 provides an integrated and coordinated disaster Risk management that focuses on preventing the risk of disasters, mitigating their severity, and effective response to disaster recovery. The policy put in place mechanisms to ensure that there is construction and recovery after a disaster. However emphasis is placed on the physical effect of disasters and very little if any is placed on post-disaster trauma management, counseling services, psychosocial support services, order to ensure that disaster victims do not suffer from permanent or prolonged disaster-related effects. This study, therefore, sought to evaluate the impact of early psychological intervention in preventing PTSD. Research done in the area has focused more on the physical aspects yet the psychological aspect is the premises of vulnerability. The specific objective of this study was to analyze the effectiveness of psychological intervention approaches used to prevent PTSD among disaster actors. The study was guided by two psychological theories; cognitive behavior theory and constructivist self-development theory. The descriptive and correlational survey designs were adopted in the study, and purposive sampling was used to select the disaster actors that comprised of those who provide rescue service, those who provide first aid and those who provide psychosocial support. Directors and deputy directors were also sampled using the same technique. The simple random technique was used to select 400 disaster actors from various disaster response organizations. Purposive sampling was used to select key informants who included directors and deputy directors of disaster operation organizations. Same sampling technique was used in the selection of FGD participants. Data collection employed qualitative and quantitative techniques i.e., questionnaires, interviews, and Focus group discussions. Document analysis guides assisted in gathering secondary data. Reliability of the instruments was done by the test-retest method. The data collected was coded and entered into the computer data sheet using the statistical package for social sciences (SPSS) version 23.0. Descriptive and inferential statistics used in data analysis include frequencies, percentages. A SWOT analysis was also used. Results obtained were presented using tables, graphs, and pie charts. The study then came up with findings which will be significant to the disaster operation organizations in preventing PTSD among disaster actors in the aftermath of disasters in Kenya by giving new insights. The study found out that: the study respondents revealed a leaning towards use of various psychological approaches in prevention of PTSD in disaster management. All categories of actors agreed that the psychological approaches employed in prevention of PTSD are effective. Only a small number of respondents (9.6%) disagreed. However the study established that the approaches were rarely used by disaster response organizations. SWOT analysis revealed that disaster response organizations were rich with varied strengths and opportunities that were not adequately exploited towards prevention of PTSD among disaster actors. The findings of this study are significant in policymaking and mechanisms pertaining psychological support in recovery after the disaster in Kenya emphasis being placed on post-disaster trauma management, counseling and psychosocial support services to ensure that disaster actors do not suffer from permanent or prolonged disaster-related effects.

Effectiveness of psychological intervention approaches used in preventing PTSD among disaster actors

Critical life incidents have existed in the entire human history and such events have always been conceptualized in terms of distress and negative outcomes. The prevention of long-term psychological distress following traumatic events is a major concern for all. Providing psychological intervention in disaster management is one of the major attempts in preventing post-traumatic stress symptoms which may lead to post-traumatic stress disorder (PTSD).

Traumatic events can have a significant impact on individuals' abilities to cope. Intense effect during a traumatic event and its accompanying psychological arousal have been associated with the development of PTSD. Following traumatic events much emphasis has been placed on preventing the physical risk of disasters and mitigating their severity. However very little attention if any has been placed on psychological aspect yet this is the premises of vulnerability. In a situation following a traumatic event, it is important that the individual regains emotional control, restores interpersonal communication and recovers a sense of empowerment which strengthens hope and expectation of recovery.

Kenya like the rest of the world has in the recent past experienced a series of traumatic or stressful events which has inflicted psychological wounds among disaster actors as they respond to disasters. The efficacy of low and medium intensity interventions such as psychological debriefing or first aid skills for psychological recovery and crisis counseling remain unknown. While policies like the national disaster management policy are in place, there is no documented research on the effectiveness of early psychological intervention approaches used to prevent PTSD among disaster actors following disasters in Nairobi county, Kenya. An alternative approach could involve implementation of a disaster management policy proactively ensuring that there is construction and recovery after disaster emphasis being placed on post-disaster trauma management, counseling services and psychosocial support to facilitate psychological wellness in the event of disasters. This will ensure that disaster actors do not suffer from permanent or prolonged disaster related effects like PTSD.

Statement of the problem

Critical life incidents have existed in the entire human history which has been conceptualized in terms of distress. People may or may not experience PTSD after trauma, but they might also experience responses to trauma that are not diagnostically categorized as PTSD. Untreated trauma may lead to acute stress disorder. If this continues for more than three months, it is considered as post-traumatic stress disorder. It is worth noting that if the onset of PTSD symptoms is delayed by six months after a traumatic experience without psychological intervention or support, then the prognosis is likely to be worse.

A Kenya Defense Forces (KDF) psychologist who is a retired major said in an interview by Andrew Renneisien Washington sport, that she has spoken with at least 800 soldiers who suffered from symptoms typical of PTSD who were punished instead of treated. This indicates a knowledge gap on the need for psychological intervention in preventing post-traumatic stress symptoms which may lead to PTSD in disaster management. To contribute towards the closure of this gap, the study attempts to analyze the effectiveness of psychological intervention approaches used to prevent PTSD among disaster actors following disaster.

Literature review

Hogan & Najarian (2007) revealed that trauma and PTSD has been associated with poor early psychological intervention and treatment following traumatic events. Joppe (2000) showed that there is little research to guide mental health practitioners in relation to factors that may be associated with improved treatment outcomes among individuals with PTSD especially with disaster actors' population. Trauma is a wound in the mind and heart caused by a life threatening experience that is characterized by shock, fear or helplessness. Trauma has come to be part our existence (Okpalaenwe,2016). Untreated trauma may lead to acute stress disorder and if the symptoms continue for more than three months, it is considered as post-traumatic stress disorder (Ministry of Health Mental health training manual 1st Ed. (2016).

Post-traumatic stress disorder symptoms may become disabling, particularly if those affected lack adequate psychological intervention to allow them to voice their traumatic experiences. Hidden trauma can ultimately destroy many people including those who respond to disasters. A traumatic event will have many direct and indirect victims. Individuals who are at the scene of horrific event may experience traumatic stress which may also have an impact on many others including disaster actors. In organizations, traumatic stress will lead to communication breakdown, a decrease in morale and group cohesiveness, workplace tension and conflict, excessive absenteeism and ultimately a decrease in productivity (American Psychological Association, 2015).

Efforts to address psychological needs arrive in weeks, months and years following traumatic events after emotional scars have formed and after people are labeled with traumatic stress disorder. Techniques need to be developed to demobilize, defuse and debrief people after disengagement from crisis from a traumatic event. Not withstanding, there is little practical strategies to help disaster actors ventilate emotioms during a traumatic experience a time when these professionals are highly suggestible, impressionable and vulnerable.

Stress reactions to severe events have been recognized for centuries but post-traumatic stress disorder (PTSD) was not accepted as a clinical diagnosis until 1980 (American Psychological Association,2000). As traumatic events continue to be reported across the globe for instance terrorist attacks, governments may be overwhelmed by this growing challenge and may increase funding as a way of mitigating long-term emotional suffering during and in the wake of a traumatic event especially for the actors. There is need for a repertoire of helping approaches beyond the physical and safety needs of people and raise the level of psychological care.

Studies across the world show that psychological casualties following disasters are many. For instance, Rugero & Vos (2013) reported that in the Sarin gas attack in Tokyo 1995, 12 people died, 900 received medical treatment and 900 people presented with psychological complaints ranging from insomnia, anger rage and hyper vigilance. Lopez & Pineda (2011) observed that in Oklahoma city bombing in 1995, there were 168 fatalities but over 8000 individuals sought psychological intervention. In a study conducted on 29,000 individuals who performed rescue work at the World Trade Centre site in New York after the September 11 2001, terrorist attack found that working on the site, working for long period and sustaining an injury increased the risk of having post-traumatic stress disorder 2-3 years later (American Psychological Association,2000). The psychological impact of 11 2001 terrorist attack in New York using a sample of 3271 adults, the inclusion criterion was those who were evacuated from the site of the attack.

Recruitment of the participants was done from the world trade centre health registry using simple random sampling. Those who had direct exposure to the terrorist attack had 1.5 % trauma symptom prevalence 6 months after the attack. The rescue workers had trauma prevalence of 11.1 % eleven months after the attack while the pentagon workers reported trauma prevalence of 14 % seven months after the attack.

At a meeting of the European society for traumatic stress in 2013, a symposium was held that brought together international researchers and clinicians who were involved in psychosocial responses to disaster. A total of six disasters that occurred in five countries were presented and discussed. Lessons learned from these disasters included the need to: tailor psychosocial response to the specific disaster; proactively address barriers in access to psychosocial care especially for those responding to disasters; extend the roles for mental health professionals; efficiently coordinate and integrate disaster response services. Provision of psychological support to disaster affected populations should be recognized as a key strategy in mitigating the adverse mental health effects of disasters such as PTSD.

Atwoli et., (2015) reported comparative findings of trauma prevalence in selected different cultures. The study was conducted in South Africa using a sample of 4315 adults of different nationalities who had experienced different traumatic events like death of loved ones, war trauma, physical violence, sexual violence and accidents. After the analysis, leading was North Ireland with a prevalence of 17.6% followed by Spain 3.3 % , South Africa at 2.5% and Italy 2.5% prevalence. However the study did not sample participants from actors which is the focus of the current study.

In Kenya studies on trauma prevalence have been conducted reporting relatively higher rates of post-traumatic symptoms with focus on events such as grief, rape and violence among many others. (Karsberg& Elklet, 2012 reported trauma symptoms prevalence rate of 34% in a sample of 477 Kenya rural Youth. Astudy on 1565 orphaned children in Uasin Gishu County reported post-traumatic symptoms prevalence at 28% in street children, 15 % among house-holds and 11 % among children in children homes (Atwoli & Braitstein, 2014). Another study in Maseno on 1190 adults with exposure to severe trauma reported 10.6 % trauma symptoms prevalence (Jenkins, Kingora & Ogutu, 2015). A comparative study examining prevalence of psychopathology in workers responding to the 1998 US embassy bombing in Nairobi and 1995 Oklahoma bombing showed 22% prevalence of PTSD and 27% of depression symptoms (Zhang, Narayanan, Lee, Thielman& North, 2016). The study reports that Nairobi disaster rescue workers were 4 times more symptomatic than Oklahoma workers. The high prevalence of trauma among participants in Nairobi has not been explored.

The current study's focus on trauma symptom prevalence is timely in contributing to this discussion. Most of the studies cited focused on prevalence of physical trauma experienced by victims and survivors of traumatic events unlike the current study that has focused on psychological trauma affecting disaster actor and intervention approaches. Although most evident is following east and western world, Kenyan people are expecting more and more psychological support following traumatic events. Disaster actors experience the same psychological symptoms as the survivors as they could be haunted by people they were unable to save, by images of the injured or massive nature of destruction and thus may need as much help and psychological support as the survivors (Hellmich, 2013).

Disasters are numerous and are by their very nature a serious threat to the health and well-being of the people involved. The world disaster report 2001 states that 256 million people were affected by disasters in 2001. The big disasters make the news -papers, but the less well publicized, smaller disasters are just as devastating in their effect on the lives and health of the local population. Critical events such as conflicts, wars, accidents occur with social and psychological consequences that often undermine peoples' ability to carry on with their lives World Disaster Report, (2001). Early and adequate psychological support is a preventive factor and it helps people to cope better with their situations. It enhances the capacity of people to react effectively and to start reorganizing their lives. Neglecting emotional reactions may result in passive victims rather than active survivors and as a result the recovery process will be slow.

PTSD symptoms from any trauma are unlikely to disappear without psychological intervention and can contribute to depression, drug abuse and sleep problems that impede a person's ability to work and interact with others. Early psychological intervention therefore plays a key role in prevention of PTSD. World health organization (WHO) states that it is ethical to ascertain the extent and nature of any unmet psychological need after a disaster for psychological wellness. Cross professional work in mental health care teams for instance psychologists counselors other health care teams need to be based at trauma sites to provide psychological support in the event of traumatic events (Hobfoll et.,2007; Norris & Elrod, 2006; Bonano, 2011; Dukers, 2013). Molika, (2004) concluded that a mental health system of psychological support providers if properly supported can provide cost-effective and good mental health care. The absence of proper psychological intervention following a traumatic event may lead to pathogenic elements in moving from normal reaction to a stressor to PTSD.

The incentive to develop effective interventions for treating posttraumatic stress disorder comes from three sources: first PTSD is a distressing and disabling condition from which a great number of sufferers do not spontaneously recover. Therefore early and effective treatment may reduce the burden of PTSD on the individual. Second, now that studies have identified the post-incident prevalence rates of PTSD from large- scale disasters and combat, there is concern to ameliorate the impact of PTSD by responding in the early days and weeks following such incidents. Third, occupationals such as firefighters have campaigned to have the psychological impact of their work recognized and support services delivered as part of their conditions of employment.

In addition, in military organizations, there exists a specific drive to early interventions that of enabling traumatized combatants to return to front-line duties as soon as possible. However, given that the prevalence of initial distress following a traumatic event is far greater than that of either acute stress disorder or PTSD , the potential exists to deliver interventions to people whose problems would spontaneously remit. Dealing with PTSD symptoms may help individuals from getting worse in future. Early treatment is better that is finding out what treatments work, where to look for help and what kind of questions to ask can make it easier to get help and lead to better outcome.

During treatment like trauma-focused cognitive- behavioral, clients explore their thoughts and feelings of guilt and mistrust, learn how to cope with intrusive memories, and address the problems posttraumatic stress disorder has caused in life and relationships. This is done by use of various types of treatment. The therapy involves gradually exposing oneself to feelings and situations that reminds him or her of trauma and replacing distorted and irrational thoughts about the experience with a more balanced picture. Family therapy can help loved one's understand what the clients are going through and help them work through relationship problems together as a family. Medication is sometimes prescribed to people with PTSD to relief secondary symptoms of depression of anxiety although they do not treat the causes of PTSD. EMDR (Eye movement Desensitization and processing) incorporate elements of cognitive behavioral therapy with eye movements or other forms of rhythmic; left- right stimulation such as hard tapes or sounds. These techniques work by unfreezing the brains information processing system, which is interrupted in times of extreme stress (Melinda, 2019).

Psychological debriefing interventions such as critical incident stress debriefing and critical incident stress management aim to educate victims about normal reactions to trauma and encourage them to share their experiences and emotional experiences to the event. Debriefing is typically offered in single session within hours or days after the event to everyone exposed to the event. Although several variations of these single –session interventions have been tested, the most common form of psychological debriefing is CISD. This is a secondary prevention intervention originally developed for use with individuals indirectly exposed to traumatic events because of their occupation, such as fight fighters, emergency and mental health professions. By design CISD approach is flexible and loosely structured. It was designed to prevent PTSD.

A 2002 update to a previous 1997 Cochrane review assessed the effectiveness of brief-single session psychological debriefing for management of psychological distress after trauma and the prevention of PTSD. CISD has expanded to become CISM, a multicomponent, comprehensive crisis intervention that aims to reduce the severity of and related impairment associated with traumatic stress. CISM incorporates one-on-one individual crisis support demobilizing i.e

information about coping and stress to large groups of emergency workers and defusing small-group interventions during which participants are asked to explore and discuss the incident and their emotional reactions to it.

Methodology

Methodology describes the research design, study area and study population, sampling techniques and sample size, data collection tools and methods, data analysis and presentation. Descriptive survey and correlational designs formed the basis for this study. Kombo & Tromp (2007) contented that descriptive study involve measurement, classification, analysis, comparison and interpretation of data. Through this method, information is obtained using questionnaires and interviews to sample of individuals rather than the entire population. Descriptive survey research design was ideal for the present study because the study endeavored to obtain information on what existed concerning effectiveness of psychological approaches in prevention of PTSD.

Descriptive survey research design formed the basis for constructing research tools to solicit the desired information on the effective of early psychological intervention approaches used to prevent PTSD among disaster actors, identifying individuals to be surveyed and the means to conduct the survey; and forming a basis for summarizing the collected data in a way that was to provide the desired descriptive information. The study also used correlational design that attempts to explore relationships to make predictions using one set of subjects with two or more variables for each. It helped to show the relationships between early psychological intervention and prevention of PTSD in disaster management.

Sampling Techniques and sample size

Sampling is concerned with the selection of a subject of individuals from within a statistical population to estimate characteristics of the whole population. Sampling is necessary where it is not possible to identify and measure every single item in the target study population and include any one of them in the sample. The study developed a sampling frame where a list of all respondents relevant to the study were made. Both probability and non- probability were used in the study. Probability sampling is one in which every unit in the population has a chance to being selected in the sample. Non-probability sampling is any sampling method where some elements of the population have no chance of selection or where the probability of selection cannot be accurately determined.

In the probability method, the stratified random sampling technique was used. This was important in the study to ensure that distinct categories in the sampling frame can be organized into separate strata where each stratum is then sampled as an independent sub- population, out of which individual elements can be randomly selected to classify the respondents. The respondent categories were by area of operation, those who are involved in rescue services, those who provide psychosocial support services and those who provide first aid or paramedics.

Table 3.5: Study population units, sampling techniques and data collection instruments

Study Population (category	population unit	Sampling Technique	Total sample size (N)	No. of study units	Sample size (n)	Data collection instrument
Disaster actors	Rescue service	purposive	65	3	7	Questionnaire
		stratified random	35	2	3	Questionnaire
Paramedics/First Aid	Psychosocial support	Stratified random	20	1	2	Questionnaire
Directors/ Deputy		purposive	6	6		Interview guide

Results of the study

The study sought to establish the effectiveness of early psychological intervention approaches among disaster actors in disaster management. The data was collected through descriptive survey research design and the analysis employed exploratory method. The key respondents for the study were 124 disaster actors drawn from 6 disaster operations

organization in Nairobi County, Kenya. To validate data from the actors, the study involved other stakeholders namely 6 directors and deputy directors. The total number of study respondents was 130.

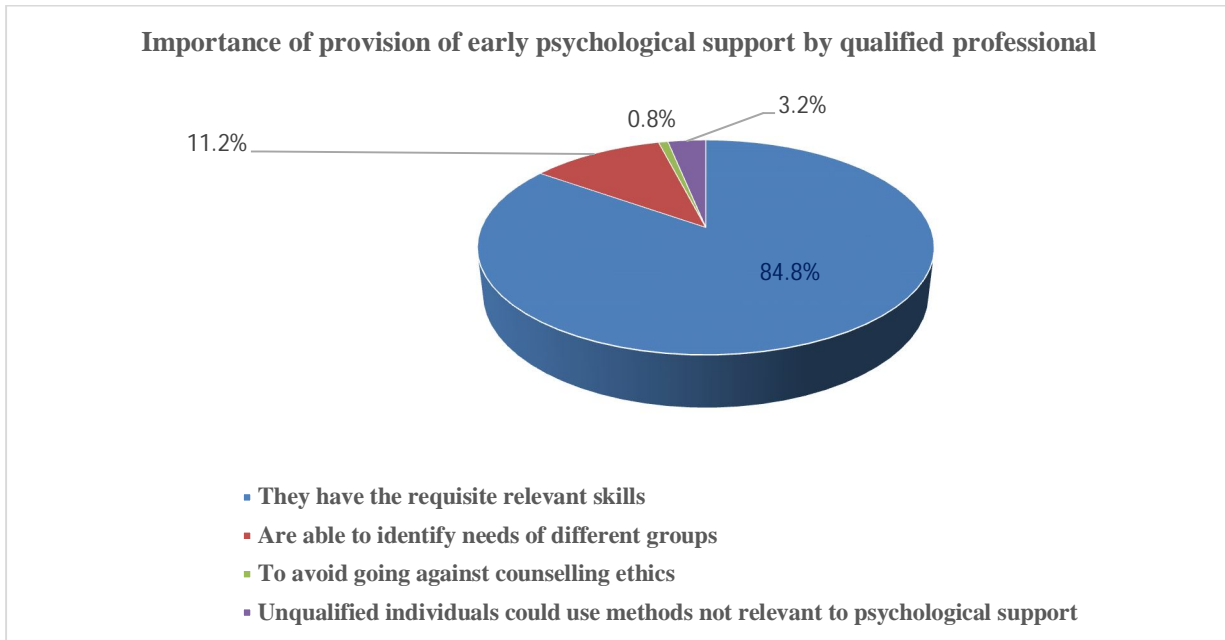**Table 4.0 Showing demographic data of directors and deputy directors.**

Variables	Frequency	Percentage (%)
Gender		
i. Male	6	100%
Position		
i. Director	3	50%
ii. Head of Department/deputy director	3	50%
Occupation		
i. Counseling psychology	2	33.3%
ii. Fire Marshal	1	16.7%
iii. Police Officer	1	16.7%
iv. Security Officer	1	16.7%
v. Head of Training	1	16.7%
Unit/Department		
i. St. Johns' Ambulance (Psychological counseling)	1	16.7%
ii. NFRS (Fire rescue service)	1	16.7%
iii. NDMU (Disaster Management Unit)	2	33.3%
iv. KRCA (training department)	1	16.7%
v. KCPA (counseling)	1	16.7%

Table 4.0 shows that the number of directors and deputy directors who were interviewed was the same (50%) of which all were men. Directors Kenya counselors and psychologists Association (KCPA) were 2 (33.3%), fire marshals, police officers, security officer and head of training each had 1 (16.7%). Disaster Management Unit (NDMU) gave 2 directors which constituted the highest percentage (33.3%) and the rest had 1 (16.7%).

**Table 4.1: Respondents background information by gender, unit/department, academic and work experience**

Variables		Frequency	Percentage (%)
Gender			
i.	Male	84	67.7%
ii.	Female	40	32.3%
Unit/Department			
i.	KRC	11	8.8%
ii.	NDOC	19	15.3%
iii.	NFS & Ambulance	23	18.5%
iv.	NDMU	27	21.8%
v.	KCPA	28	22.6%
vi.	St. Johns' Ambulance	13	10.5%
Age			
i.	18-24 Years		
ii.	25-34 Years	14	11.3%
iii.	35-44 Years	39	31.5%
iv.	45 Years and above	28	22.6%
Occupation		43	34.7%
i.	Driver		
ii.	Police Officer	1	0.8%
iii.	Fire marshal	37	29.8%
iv.	Rescue Service Officer	7	5.6%
v.	Ambulance Attendance	20	16.1%
vi.	Counsellor	9	7.3%
vii.	Social Workers	30	24.2%
viii.	Other	3	2.4%
		17	13.7%

Figure 4.4 Importance of provision of early psychological support by qualified professional

Importance of provision of early psychological support by qualified professional

- They have the requisite relevant skills
- Are able to identify needs of different groups
- To avoid going against counselling ethics
- Unqualified individuals could use methods not relevant to psychological support

From the pie chart figure 4.4 on why the psychological interventions should be provided by the professional personnel, the respondents said that it is because they have the requisite relevant skills which was 84.8%. 0.8% , of the respondents said the professionals avoid going against counseling ethics. 11.2 % argued that professionals are able to identify needs of different groups and 3.2% said that unqualified individuals could use methods not relevant to psychological support.

Figure 4.6 Graph summarizing the findings on access to Psychological Intervention approaches by disaster actors.
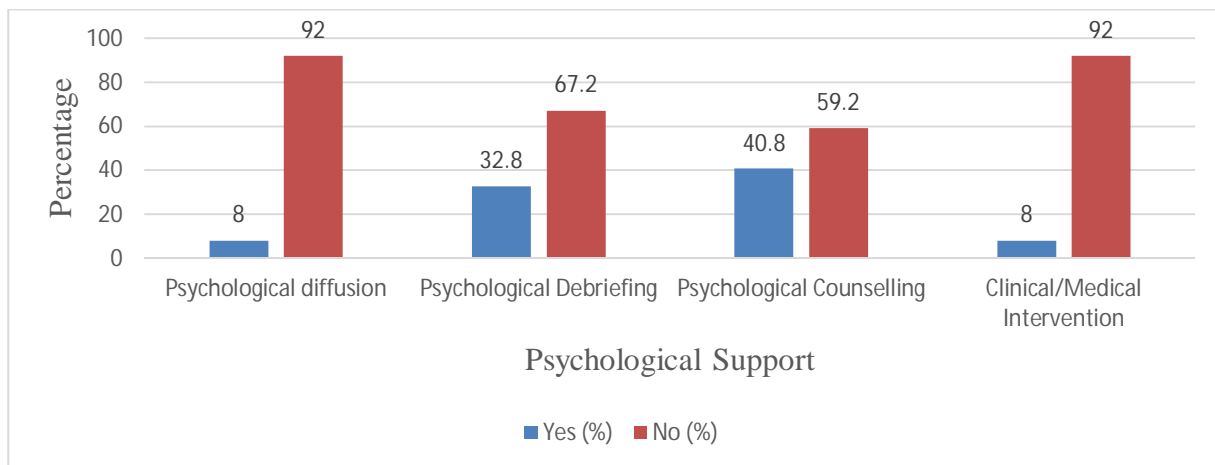
The findings in Figure 4.6 shows that majority of respondents had never received any psychological support following disasters. The lower level of conviction on lack of psychological support following disasters can perhaps be explained by the fact that the organizations don't see it a priority. The researcher hypothesized that providing early psychological intervention in the event of disasters would authenticate the studies argument on the need to prevent posttraumatic stress among disaster actors while lack of intervention may lead to PTSD. These findings relates to that of Norris, 2005 who argued that to efficiently address psychological intervention demands following disasters, it is vital that national framework for every psychological intervention exist that integrate with prevailing health emergency disaster arrangements.

Figure 6.1 showing a summary of rate of effectiveness of the approaches used in providing early psychological intervention in preventing PTSD among disaster actors
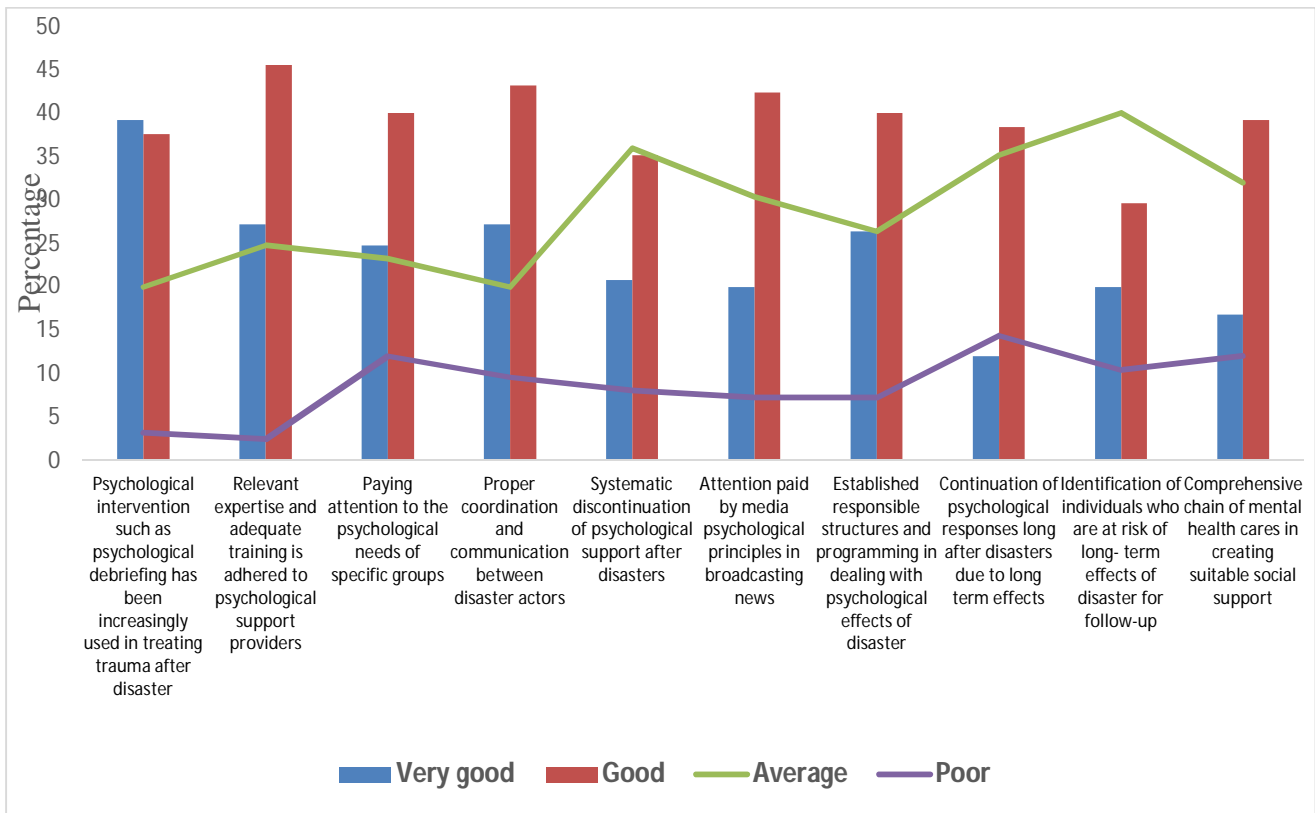
The study made a SWOT analysis of the approaches used in prevention of PTSD. The exploratory and SWOT analysis methods were employed to analyze the collected data. Lipsey, Rossi and Freeman, (2004) define evaluation as a systematic determination of a subject's merit, worth and significance using criteria governed by a set of standards. It can assist an organization to ascertain the degree of achievement or value regarding the aims and objectives as well as the results of any such action that has been undertaken.

From figure 6.1 showing the effectiveness of different psychological approaches used in preventing PTSD, psychological intervention such as debriefing showed very good 40% and 38% good. Paying attention to the psychological needs of specific groups very good was 25% and good was 45%. From the findings, psychological intervention is effective in preventing posttraumatic stress disorder.

Conclusion and recommendation

The data from SPSS was thematically analyzed. Frequencies and percentages of the objective questions were prepared using the four-point likert scale and were analyzed under the rating of effectiveness of different psychological approaches used in providing psychological support for prevention of PTSD. As discussed in the literature review, early psychological support is useful in increasing personal resilient. Early psychological intervention which includes psychological first aid and crisis counseling is recommended as a form of emergency mental health intervention to address the psychological needs for traumatized population in order to reduce adverse outcomes Boscaniro et., (2006).

Early psychological intervention can help to promote a positive recovery environment by working with maslow hierarchy of needs from bottom up, promoting calm, self-efficacy and hope. Variability of types of trauma, contexts in which they occur, and individual differences of those exposed to traumatic events are likely to prohibit a one-on-one size fits all model for preventive intervention. Potential preventive interventions span a variety of psychological and pharmacological domains. These interventions have been used both separately or in combination with one another. The following are therapeutic approaches that can be used successfully to deal with physical, emotional and psychological effects of traumatic symptoms thus treating PTSD. These include: Cognitive behavioral therapy, cognitive processing

therapy, exposure therapy and group therapy and psychotic medication among others The goal of this is to heal through addressing existential questions arising in the aftermath of trauma and discovering meaning in life.

 Psychological support and services should be availed for all those who experience traumatic events including survivors and actors immediately after the disaster. All this is to reduce the mental strain of individuals and should be prioritized in the early help efforts. Boscarino et., 2006 argued that psychological first aid is recommended as a form of emergency mental health intervention to address the psychological needs for traumatized population in order to   reduce advance outcomes. Screening should be undertaken 1-3 months after the disaster to ensure that effective treatment is available for people a risk followed by long-term follow-up for individuals who experience significant mental distress over time as a result of disaster.

This study could thus examine the conditions for effective implementation of early psychological intervention for disaster response services. In other words, future psychological intervention approaches research could seek to establish more knowledge and theories about what works where and how. The study findings revealed that most of the study respondents were positive that early psychological intervention would reduce posttraumatic stress symptoms hence preventing PTSD among disaster actors. The respondents had a view that their respective organizations needed to put in place trauma counseling units and deploy qualified counselors and psychologists to assist them deal with posttraumatic symptoms. The study thus concluded that there is a gap in providing psychological support among disaster actors where the disaster operations organizations appear to have left the actors to manage their stress after disasters without any professional intervention which may lead to PTSD. This was evident from data that showed that larger number of disaster actors never received any form of psychological support after responding to disasters like trauma counseling or psychological debriefing.

  From the interviews, the directors and deputy directors reported that there was need to provide early psychological intervention among disaster actors following traumatic events who may be hidden victims of trauma which may lead to PTSD. Psychological intervention should be provided immediately following disasters to help the actors who respond to the events ventilate out emotions for their psychological wellness. The respondents said that psychological debriefing or psychological first aid in the event of disasters should be provided by qualified personnel like counselors and psychologists because they have the requisite skills.

The respondents had a view that their respective organizations needed to put in place trauma counseling units and deploy qualified mental health professionals to assist them deal with posttraumatic symptoms in order to prevent PTSD. This was evident from data that showed large number of disaster actors never received any form of psychological support after traumatic events. The study thus recommended that there is need to intensify efforts to provide psychological support among disaster actors. This is because over ninety percent of disaster respondents attested the need.

Following disasters, survivors as well as those who respond to the events have the right to access appropriate psychological help and services. To guarantee this, early psychological support has to be integrated in national laws and regulations and be part of all emergency plans. Action plans should be available on national level. This should include coordination of psychological services, designating parties responsible for organizing and delivering psychological intervention in emergency drill and exercises.

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