Traumatic Events and Its Effect among Emergency Medical Service Provider

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Abstract *– Disasters, both natural and man-made, often leave a trail of destruction not only on the physical landscape but also on the mental and emotional well-being of those involved. The focus of media and public attention typically centers on the immediate aftermath and the victims, overshadowing the silent struggle of rescuers and first responders who face the daunting task of navigating through traumatic scenes to save lives. This paper examines the psychological impact of disaster-related stress on rescuers, including emergency medical service providers, police officers, firefighters, ambulance personnel, and emergency nurses, and the critical role of psychological debriefing in their mental health management. Drawing from various studies, it highlights the association between posttraumatic stress symptoms (PTSS) and dysfunctional coping strategies, while also underscoring the protective benefits of high levels of self-efficacy. Moreover, it delves into the specific challenges faced by volunteer rescuers in the Philippines, emphasizing the shortage of professional medical and psychological support amidst an overwhelming need. Through an exploration of debriefing as a structured intervention aimed at facilitating the emotional processing and recovery of rescuers, this paper advocates for the normalization and prioritization of psychological debriefing in disaster response protocols. By doing so, it seeks to underscore the necessity of supporting those who serve on the front lines, ensuring their mental welfare and readiness for future deployments, thereby safeguarding a critical component of effective disaster response and management.*

Keywords – Traumatic Events; Emergency; Medical Service Provider

INTRODUCTION

The mind in crisis. To debrief or not to debrief? In times when the mind of the rescuer itself is in disaster, who shall rescue the rescuer? The Emergency Medical Service provider after the disaster stated that it is hard to understand what rescuers really feel after the stressful events brought to them by their jobs because they tend to detach themselves from others and end up bottling their feelings inside. It was reported that people who have been involved in mass killing had difficulty in expressing the details of their experiences to their peers, and even to their closest family and friends as they worry that they may not handle the traumatizing stories that they had. However, despite this, they still felt the need to have someone whom they can freely express to. This is where psychological debriefing enters. Psychological debriefing is a systematic, formal, and structured session, led by trained personnel who aim to help rescuers convey their inner worries and thoughts properly. Without psychological debriefing rescue volunteers may struggle in performing their jobs properly and may even experience mental instability. This may then lead to a bigger problem of losing the capable rescue volunteers available in which are already insufficient in numbers.

It was learned that Posttraumatic Stress Symptoms are most strongly associated to dysfunctional coping strategies and high self-efficacy among police officers and fire fighters, Ambulance personnel and Emergency nurses. Study shows that work-related trauma are risk factors for PTSS and high levels of self-efficacy are protective against PTSS [1]. This is supported by Lee et al. [2] study that says a disaster can trigger critical stress, which can be potentially traumatic to responders who are deployed to the disaster site to undertake rescue operations. Emotional, mental, and physical exhaustion experienced by these responders may result from repeated and prolonged exposure to stressful situations. They include psychologist in rescue team which provide psychological support through three distinct phases: pre, during, and post deployment.

Here in Philippines, majority of the respondents are volunteers who undergone workshop and training and we are lacking in numbers in terms of those who are professionals like medical doctors, nurses and

psychologist. According to Inquirer.net [3], from the Roman Catholic Archdiocese of Lipa, Batangas' priests and church volunteers have attended trainings to be emergency response volunteers in times of local calamities and disasters. In the form of the "Project Batangeños Assistance and Social Involvement during Calamities" (Project BASIC), a multi-sectoral operation in aid of the Governing Council of Batangas, the City Government of Batangas, the Bureau of Fire and Protection (BFP) and Lopez-led First-Generation Corporation, a protocol of negotiation has already been established.

Disasters are events that occur and cause a great amount of damage. They can occur in the form of natural catastrophes like earthquakes, tsunamis, and fires or be deliberate, such as terror attacks, shootings, and bombings. Calamities can cause great damage not only to places, but also people. In the event that a disaster may occur, the news and other media outlets often focus on the actual event itself and the victims of the event. The victims often deal with harmful effects. These effects include psychological effects, physical effects, and even emotional effects [4].

Post-disaster trauma, as defined by Babbel [5] is an "an emotional response to a terrible event like or natural disaster." A particular kind of trauma may be developed from natural disasters like tsunamis, forest fires, hurricanes, earthquakes, landslides, floods, volcanic eruptions, or typhoons. Such experiences oftentimes tend to cause trauma to the victims as well as to rescuers. Moreover, an abiding psychiatric detriment and suffering may be experienced by rescuers and victims as a result from the aftermath of the natural calamity.

Traumatic events are circumstances that causes physical, spiritual, emotional, or mental harm. As a result, anxiety, troubledness, and uneasiness may be felt by people who are experiencing the distress from traumatic incidents. In certain instances, they may not be aware on how to express and respond or be in-denial about the effect of the traumatic experience, i.e., death of a person. The person suffering from a traumatic event must be given enough time and support for them to recover and regain stability, both mentally and emotionally. Debriefing has been seen as a tool to save them from this happening.

Debriefing is an organized intervention constructed to advocate the emotional treatment and handling of traumatic incidents through the ventilation, expression, and normalization of responses, and preparation for future possible events. While it was originally meant for use in communities, it had been used for individuals, couples and families. In attempt to elucidate the consequences of stressful situations on the survivor and on the rescue crews, several experiments have been carried out. Debriefing is relevant especially to humanitarian workers since they do not deliberately seek for therapeutic assistance due to the underlying stigma that people who seek for psychological help are not fit to continue in their job and they might not be chosen anymore in upcoming tasks. But, setting the stigma aside and perceiving debriefing as a normal part of their job enables the workers to mentally prepare themselves and learn what to expect as they set forth to a different setting. Debriefing must not be neglected as it can help ensure the mental welfare and safety of the volunteers and workers who risk their lives to assist others [6].

Rarely do we see reports regarding management did to the rescuers or medical personnel. Although this is the case, health care workers, too, are impacted by such traumatic events. Because disasters cause harm to various individuals, protocols are often taken to manage the effects. Activities such as stress debriefing and psychological debriefing are often done to aid in disaster mental health management.

Rescuers and first responders are the individuals who aid the victims of calamities. They witness first-hand the outcomes of the events and the damage that is done. It is critical to study this research to understand the effects of traumatic events on rescuers and the various management protocols that can be done to aid these individuals.

OBJECTIVE OF THE STUDY

This study aims to determine common traumatic events experienced, witnessed or confronted among emergency medical service provider; secondly to determine the effect of traumatic events among emergency medical service provider and to know the effect of debriefing/ management rendered to emergency medical service provider post disaster period. And Lastly, proposed action plan to enhanced post-disaster debriefing.

MATERIALS AND METHODS

Research design

The study used a descriptive research design. Descriptive since the study was utilized situations that exist at the time the researchers have conducted the survey; and qualitative since documentary and

historical data will be used [7]. Like the traumatic events/ disaster and debriefing management being done before the study.

Respondents of the Study

Participants were from different profession that involved in the same field covered by this study. They are the firefighter, rescue volunteer (red cross) and medical health care practitioner in Batangas province. Participants that are not from the locale but they're assignment/ duty was in Batangas are included in the study. They are active at least having one year service in their respective units and no current illness. Subjects (fifty participants) were conveniently and purposively chosen. The researcher selects the sample based on their knowledge about the debriefing and post traumatic events and they are capable in answering the objective of the study.

Data Instrument

The study utilized self-made questionnaire and guided or structured interview were used in defining the effect of traumatic events and the effect of debriefing being implemented post disaster to emergency medical service provider. The self-made questionnaire was validated by the expert, it is piloted and tested for reliability.

Data Gathering Procedure

A letter of intent to conduct the study in the selected institution (Red Cross Volunteers, Batangas Fire Department and EMT Batangas,) was made address in each institution. The approved questionnaires and structured interview guide were distributed to the above-mentioned participants, some are personally, and others are thru their messenger. They were asked to answer it in their free and convenient time After the retrieval of the questionnaires, it was tallied, analyzed, and interpreted.

Data Analysis

Data gathered was analyzed using descriptive analysis. This described the set of data using percentage and ranking to determine the highest and the lowest value and also used to describe the response of the respondents on the effects of traumatic events and effect of debriefing being implemented during post disaster period.

Ethical Consideration

Primary ethical principles were considered for this study. The respondents' right to freedom from harm and discomfort, and right to protection and exploitation were deliberated. Right to self-determination was considered which includes the respondent's right to raise their queries, right to refuse, right to provide information or withdraw participation from this study. Right to full disclosure was included. With this, the researcher fully discussed the nature of the study, the respondent's right to disapprove participation, and the risks and benefits. Fairness and equity were manifested. Lastly, the right to privacy was exercised. Confidentiality and the respondents' anonymity were secured all throughout the study.

RESULTS AND DISCUSSION

Table 1

Summary of frequency of the common traumatic events experienced, witnessed or confronted among emergency medical service provider

Indicators	RESULT	F	Rank
People died on your hand or under your care	10	20	5
Threat of death to oneself or others	35	70	4
Threat of serious injuries to oneself or others	50	100	1.5
Threat of physical integrity of oneself or others	50	100	1.5
Loss of property	40	2.43	3

The table 1 shows the frequency of the common traumatic events experienced, witness or confronted among emergency medical service provider. Among the top traumatic events that respondents experience, or witness are, threat of serious injuries to oneself or others and threat of physical integrity of oneself or others that ranked 1.5 with a percentage of 100. Loss of property is rank 3 with the percentage of 80, which means, out of 50 participants, 40 of them experience or witness loss of property. Threat of death is rank 4, with the percentage of 70 and the least is, they experience, or witness people died on their hands or under their care.

They said that, seeing people hurt and inflected by injury, losing property or losing love ones because incident or disaster they are also hurt, they can fell the sadness of those affected people. But they need to do their job, so they just continue attending their needs and after that, they fell so drain and exhausted physically and psychologically.

As supported by Makwana [8] the effects can be found everywhere whether it be on an inanimate object or a living being. However, we neglect the fact that it can cause some major psychological and emotional harm. They stated in their book that after disasters male

rescuers have a high chance of developing post-traumatic stress disorder post disaster and developing alcoholism and depression later in their lifetime. Emotionally rescuers are left dumbfounded after these events due to their late realization of events. As written by McCammon, et al. [9], the author of the article "Emergency workers 'cognitive appraisal" is that researchers have reported symptoms clinically significant to a lot of emotional distress orders.

The table 2 shows the frequency of the effect of traumatic events experienced, witness or confronted among emergency medical service provider.

Among the described symptoms of seeing or enduring traumatic events, felling of numbness, ignoring sensations that lead me to recall or re-experience traumatic events such as: individuals, locations, interaction, things, events, emotional responses and difficulty sleeping, the emergency medical service provider, which is 30% of them, has stated to always witness them. But 60% of the respondents experience numbness after the traumatic events and they says that, they cannot control those feelings especially right after the events. 24% of the respondents always mentioned that they became irritable, and 38% experience it often but 20% says sometimes and 20% says never they experience to become irritable after they witness or confronted traumatic events. 100% of emergency medical service provider never experience, derealization, (Which happens whenever my feelings or reactions do not appear genuine), that One or more significant elements of stressful experiences will not be recalled and they never have trouble focusing on my job or everything I do. 80% of respondents never feel detached or emotionally unresponsive and never to have illusions. 78% says they cannot start or complete necessary task and am not the same like what I am before the traumatic events.

Table 2

Summary of frequency count of the effect of traumatic events among emergency medical service provider

Effects	N	%	S	%	O	%	A	%
I…								
1. experience feeling of numbness	–	-	5	10	30	60	15	30
2. feel detached or emotionally unresponsive	40	80	5	10	5	10	-	-
3. have reduce awareness of surrounding	35	70	15	30	-	-	-	-
4. derealization of perception, (which happens whenever my feelings or reactions do not appear genuine)	50	100	-	-	-	-	-	-
5. One or two important elements of stressful experiences cannot be recalled.	50	100	-	-	-	-	-	-
6. have recurring images, thoughts, nightmares.	20	40	10	20	10	20	10	20
7. have illusions	50	100	-	-	-	-	-	-
8. flashbacks (coming back of episodes of what happen during the events)	25	50	10	20	5	10	10	20
9. have feeling of reliving the traumatic event	30	60	20	40	-	-	-	-
10. am feeling distressed when something reminds me of the traumatic events	25	50	10	20	10	20	5	15
11. Ignore sensations that help me recall or re-experience stressful experiences, such as people, environments, interactions, things, movements, feelings and emotions.	20	40	5	10	10	20	15	30
12. am having trouble in sleeping	15	30	5	10	15	30	15	30
13. became irritable	10	20	10	20	18	36	12	24
14. have difficulty in concentrating on my work or anything I am doing.	50	100	-	-	-	-	-	-
15. become hyperactive or unable to sit still	17	34	23	46	6	12	4	8
16. am being constantly tense or on guard	26	52	14	28	5	10	5	10
17. Startled easily or at inappropriate times.	30	60	10	20	5	10	5	10
18. cannot start or complete necessary task	39	78	11	22	-	-	-	-
19. cannot tell to others about the traumatic events	28	56	22	44	-	-	-	-
20.am not the same like what I am before the traumatic events.	39	78	11	22	-	-	-	-

Legend: (N) = Never, (S)= Sometimes, (O) = often, (A) = always

As supported by Cafasso [10] disaster personnel who are exposed are at higher risk of acute distress illness, depression, or PTSD and receive therapy at an accelerating pace for mental difficulties. This also involves suppression of trauma-related emotions, perceptions, or experiences; avoidance of events, locations, or personalities that evoke trauma recollections; inability to remember an essential feature of trauma, disinterest or engagement in actively engaging, isolation from others, reduced array of influence, lack of a sense of the world.

Disruptive impressions of incidents, persistent traumatic nightmares of the experience, behaving or reacting as though the painful trauma is repeated, anxiety from explicit or implicit pain memories, and physiological responses to internal or external notices. It also includes difficulties in falling or remaining asleep, moodiness or rage burst, concentration difficulty, anxiousness, and immediate hypersensitivity reflex. Certain studies indicate escalated PTSD, depression and anxiety symptoms between rescue employees.

CONCLUSION AND RECOMMENDATION

Majority of the respondents are non -medical personnel, they are volunteer that undergone training and workshop and given a certificate after they completed the required hours. They experienced and witness people to get hurt or inflected by injuries and cause alteration of physical and physiological integrity. The respondents experience some of the symptom of acute stress disorder, which can be lessen or avoided somehow if they undergone proper or correct post-disaster debriefing. The proposed action plan which addresses the result of this study will be beneficial to help our emergency medical service provider.

To utilize the propose plan of action which enhances the post-disaster debriefing of emergency medical service provider and manage the physiologic effects of traumatic events. In order to make the employees of the immediate rescue service provider sufficiently conscious in the presence of frequent emergencies and be better in dealing with the psychophysiological in the case of a tragedy, reorganization and preparation should be carried out regularly. The heads of every institution may assign personnel and send for training and certification for debriefer under DSWD Finally, it is important that disaster risk management must include the psychological health issues in the planning process. There is a need to incorporate adolescents in psychological health approaches in disaster preparedness thereby they may not lose hope for positive future. The present study may be replicated using other variables, like impact of disaster to different age group, resiliency and adaptation, or using triangulation approach.

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