

Prevalence of Psychological Problems among Survivors of the Earthquake in Northern Areas of Pakistan

Nasreen Begum¹, Anila Amber Malik², Salman Shahzad³

¹ Area Study Center for Europe, University of Karachi, ² Department of Psychology, University of Karachi, ³ Institute of Clinical Psychology, University of Karachi, PAKISTAN.

ABSTRACT

The purpose of present study is to investigate the prevalence of psychological problems in the earthquake victims in Northern Areas of Pakistan. The sample of the present study consist of 200 earth quake victims (Mean age = 36.20; SD=16.78) from affected areas of northern Pakistan. They were further divide into three groups on the basis of their ages. Among them 49 (24.5%) were adolescents (Mean age = 15.53; SD =2.94), 133 (66.5%) were adults (Mean age = 39.86; SD =10.23) and 18 (9%) were old age people (Mean age = 69.89; SD = 4.61). Each group was further divided into two groups on the basis of gender (Male and Female). Out of 200 majority of victims' 145 (72.5%) monthly income was from 1,000 to 10,000. The qualitative Methodology has been used in this study. Interviews were conducted from victims of targeted areas. In order to get information Semi Structured Questionnaire for was used and also field notes were taken which were based on observation. In order to interpret the data in statistical terminology the descriptive statistics (Means, SD, SEM, percentages) was used for presentation of data effectively. Statistical Package for Social Sciences (SPSS, V 12.0) was applied for calculation of the data. Results showed that majority of them experienced severe psychological problems. Regarding their experiences about the earthquake, majority 61(30.55%) of the victims reported that it was like a doom's day. 139(69.5%) were fearful and 45 (22.5%) reported to be suffered from sadness. Further, 84(42%) victims reported to have high level of heart palpitation. and 67(33.5%) reported to have high level of anxiety. Regarding their level of depression 72(36%) reported to have high level of depression. 107 (53.5%) participants reported to have heart pounding and 143 (71.5%) reported they could not sleep properly., lost interest in activities 171(85.5%), feeling of detached from others 163 (81.5%), feelings of restlessness 188(94%), feelings of worthlessness 138 (69%) and repeated thoughts of death 93 (46.5%) and 167 (81.5%) reported to have suicidal ideations. Possible reasons, implication of these results are discussed and the avenues for future research have also been suggested. It is suggested that the more subsequent research be used to determine the risk factors associated with such kind of disaster so that effective preventive strategies and interventions could be used to overcome the suffering of such vulnerable group.

Keywords: Earthquake, Psychological problems, survivors, victims, Northern areas, Pakistan

INTRODUCTION

Disaster is a condition which reminds us of the hazards that it carry when it occurs and it also extends our understanding of how it effects on the human lives as well as how people cope with risk and actual events when it happens. According to American College of Emergency Medicine (1985), "disaster is a massive and speedy disproportion between hostile elements of any kind and the available survival resources". Later on World Health Organization (1991),

defined "disaster is a severe psychological and psychosocial disruption that largely exceeds the ability to cope of the affected community".

Studies related to the psychological impacts of disasters have been conducted globally. Findings of these researches have shown that there are certain variables such as; gender, level of education (Basoglu, Salcioglu & Livanou, 2002), the perception about the impacts of disaster (Chen et al., 2001), consequence of disaster and coping mechanisms used by the victims (Carr, Lewin, Webster, Kenardy, Hazell, & Carter, 1997) are associated with psychological distress. Keep in mind the research findings researchers (Freedy, Kilpatrick & Resnick, 1993) have suggested a model to determine their level of adjustment to such conditions. This was done to assess both positive and negative consequences after the disaster. In this model Freedy and associates (1993) put forward that to determine the impact of disaster on the psycho-social wellbeing of victims of disaster it is necessary to consider the pre and post-disaster variables.

The impact of an event on a social group is related to the adaptive mechanisms and abilities of the people that they have developed. If they are competent in dealing with its impact then it is called as emergency, and if they are unable to deal with it then it is called as disaster. For example, a traffic accident with ten victims is a disaster in a little village, but not in a city (Quarantelli, 1997). From this perspective Disasters have been defined as an external attack which breaks social systems (Burton & Kates, 1964), and which also exert a disruptive effect on the social structure (Benyakar, 2002). The social, political and economic environment is as determinant as the natural environment: it is what turns an event into a disaster (Blaikie, Cannon, Davis & Wisner, 1994). According to Quarantelli, (1988) social disruption may create more difficulties than the physical consequences of the event. Quarantelli (1988) further pointed out that disaster affects a community and is like a magnifying glass that increases the appreciation of the lack of social justice and equity. From this perspective, disasters are part of a social change; they are more an opportunity than an event; they are social crises which open new perspectives.

As a result of disaster some people experience distress, others develop behavioral changes and some other develops psychiatric problems. Certain problems which are secondary to physical injury such as organic brain disorders, psychological responses to physical illness and acute stress disorder (ASD), posttraumatic stress disorder (PTSD) and depression as a result of trauma (North, Tivis, McMillen, Pfefferbaum, Spitznagel, Cox, et al., 2002). Researchers have found that the extent of the psychiatric morbidity is depend upon numerous factors which includes; type of disaster, exposure, degree of injury and amount of life threat and etc (Foa, Keane, Friedman, 2000). Disaster related trauma and disaster has negatively impact on the community life and also the recovery environment. Studies on the disaster related traumatic experiences have broadened our understanding of the psychiatric and psychological effects on the community (Matussek, 1971).

Researchers have found that children and adolescents are at increased risk for psychiatric problems after the traumatic events. These psychiatric problems including PTSD, depression, and anxiety disorder (Nader & Pynoos, 1992) as well as the changes in (Shaw, 1996) have been observed in who have experienced trauma. The re-experiencing symptoms which include ASD and PTSD may be evident in children as a result of repetitive exposure to trauma themes and nightmares (American Psychiatric Association, 2000). Researchers have also found that children do develop certain avoidant behavior to certain trauma events these events and places includes; children avoid those places where someone has been killed and the try to stay home rather than going outside. The bulk of research on disasters have

increased greatly in recent decades in western hemispheres but in Pakistan there found no such research to identify the risk and vulnerabilities to mitigate such problems proactively. Keeping in mind these issues the current study was conducted to fill the gap in knowledge suggesting future directions for research.

METHOD

Participants

The sample of present study was recruited from different areas (i.e., Abbotabad, Balakot, Mansehra and Muzafarabad) of northern areas of Pakistan. Sample of the present research comprised of 200 (Mean age = 36.20 years, SD = 16.78) participants. The entire sample was divided into two groups. Among them 94 (47%) were males and 106 (53%) were female victims. The males were further divided into three sub group such as; adolescent, adults and old age on the basis of their ages. Among them adolescents were 49 (24.5%) age ranged from 11 to 21 (Mean age = 15.53 years, SD = 2.94), adult were 133(66.5%), age ranged from 22 to 65 (Mean age = 39.86 years, SD = 10.23), and old age people were 18 (9%), age ranged from 66 and older (Mean age = 69.89 years, SD = 4.61). The nature of methodology requires the identification and selection of those participants (victims) who were suffered from the disastrous effects of earthquake.

Inclusion/Exclusion Criteria

In order to avoid sampling error, respondents meeting the criteria for earthquake victims but did not complete the questionnaire for any reason were excluded. These individuals who were suffered from any psychological or physical illness prior to earth quake and their problems were still existed were excluded from the research.

Description of Measures

a) *Personal Information Form*

Personal and socio-demographic information was obtained through items which focused on the participant's name, gender, age, marital status, number of siblings, birth order, residence, number of family members, earning members in family and monthly income of family.

b) *Semi-Structured Interview Questionnaire*

Brief Semi-Structured Interview questionnaire consisted of information related to personal characteristics, academics, family history, and questions related to the effects of the earth quake such as mental social effects of earthquake. This information was obtained through items which focused on the participant's date of birth, age, gender, grade, birth order, family structure, total monthly income of the family

Procedure

For the current investigation, the researcher was on-site to conduct the study. After identification the areas were randomly selected for data collection. To collect the data for this study the participants were approached and were introduced to the objective of study. A letter of consent along with the sample of interview questions were provided. Participants were invited to participate in the study and instructed in detail that if they wish to participate they should sign the consent form. Those participants who didn't want to participate in the study were allowed to do so. Before conducting the interviews the researcher established rapport with the participants individually/group. Participants were briefed about the purpose of the present study and confidentiality was assured. Researcher administered questionnaires

individually. A Semi Structured Interview was conducted to obtain that required information from the participants who met the criteria for participation in the study. At the end of the completion of the interview the examiner said thanks to all the participants. The researcher conducted the research in a manner that respects the dignity, right and welfare of the individuals who participated in this study.

Ethical Consideration

"The researcher conducted the research in a manner that respects the dignity, right and welfare of the individuals who participated in this study. This included ensuring the participants about the objectives of the present study. The participants were reassured that any information revealed on the questions will be kept strictly confidential and they have the right to request full anonymity in the research. They were also informed that they have the right to terminate their participation in this study at any time".

Statistical Analysis

In order to interpret the data in statistical terminology descriptive analysis (Mean, Standard Deviation, Standard Error of Measurement, Percentages, etc.) was done by using Statistical Package for Social Sciences (SPSS:V-12) was used.

RESULTS

Table 1: Summary of Demographic Characteristics of Entire Sample (Frequencies and Percentages)

Variables	Adolescents <i>n</i> =49(24.5%)		Adult <i>n</i> =133(66.5%)		Old Age <i>n</i> = 18(9%)		Total Sample <i>N</i> = 200(100%)	
	<i>n</i>	%	<i>N</i>	%	<i>n</i>	%	<i>N</i>	%
<i>Gender</i>								
Male	21	42.9	62	46.6	11	61.1	94	47.0
Female	28	57.1	71	53.4	7	38.9	106	53.0
<i>Family members</i>								
1-5	11	22.44	13	9.77	2	11.11	28	14
6-10	32	65.30	88	66.16	7	38.88	127	63.5
11-15	4	8.16	28	21.05	8	44.44	38	19
16 and above	2	4.08	4	3.00	1	5.55	7	3.5
<i>Earning members</i>								
1-5	46	93.87	131	98.49	18	100	195	97.5
6-10	1	2.04	0	0	0	0	1	0.5
No one	2	4.08	2	1.503	0	0	4	2

Table 2: Major psychological impacts of earthquake

<i>Variable</i>	<i>Total number of Respondents</i>	<i>Percentage (%)</i>
<i>Experiences</i>		
Doom's day	61	30.5
Fear	29	14.5
Test from God	47	23.5
Numbness	1	0.5
Destruction of universe	37	18.5
Fear of death	25	12.5
<i>Feelings</i>		
Fear	139	69.5
Sadness	45	22.5
Helplessness	16	8
<i>Heart Palpitation</i>		
Low	55	27.5
Moderate	53	26.5
High	84	42
No	8	4
<i>Anxiousness</i>		
Low	86	43
Moderate	47	23.5
High	67	33.5
<i>Depression/hopelessness</i>		
Low	82	41
Moderate	42	21
High	72	36
No	4	2
<i>Crying spells</i>		
Low	65	32.5
Moderate	68	34
High	53	26.5
No	14	7

(continued.....)

<i>Variable</i>	<i>Total number of Respondents</i>	<i>Percentage (%)</i>
Low	107	53.5
Moderate	58	29
High	31	15.5
No	4	2
<i>Sleep pattern</i>		
Can sleep	19	9.5
Can't sleep	143	71.5
Disturb sleep	38	19
<i>Feeling detached from other people</i>		
Yes	163	81.5
No	37	18.5
<i>Restlessness</i>		
Yes	188	94
No	12	6
<i>Lost interest in your activities</i>		
Yes	171	85.5
No	29	14.5
<i>Feel yourself as a worthless everyday</i>		
Yes	138	69
No	40	20
Some times	22	11
<i>Repeated thoughts of death</i>		
Yes	93	46.5
No	24	12
Some times	83	41.5
<i>Any unplanned suicidal ideation</i>		
Yes	167	83.5
No	33	16.5

DISCUSSION

Findings of present study (see Table 2) shows that the majority of victims of earthquake experienced sever level of psychological problems. When asked about the experiences about the earthquake 61 (30.5%) reported that they experienced it as doom's day and 47 (23.5%) reported that it is all about from disappointment from God, many 37 (18.5%) reported that it is destruction of universe, and few 25 (12.5%) reported to have fear of death. Out of 200

victims, 159 (69.5%) reported that they were fearful about the situation, 45 (22.5%) reported have sadness. Majority 84 (42%) of them reported high heart palpitation. When asked then 72 (36%) reported high level of depression, 53 (26.5%) reported excessive crying spells and majority 143 (71.5%) of them reported that they can't sleep.

When asked about their current feelings majority 105 (52.5%) of them reported that they are hopeless about their future, and 34 (17%) reported that they are facing difficulties. Further, when they were asked that if they find any traumatic clue then what kind of experiences that had, then 70 (35%) reported numbness, 85 (42.5%) reported physical pain, few 15 (7.5%) reported to have crying spells and majority 171 (85.5%) of them reported that they lost interest in their activities.

Majority of victims 163 (81.3%) reported that they felt detached from other people. Further, 172 (86%) reported that are the people who takes much effects of things. When asked about their future they 177 (88.5%) mentioned that they feel that their life is not intact. When asked about their sensitivity towards situations majority of victims 183(91.5%) reported that they are very sensitive in nature. After that event of earthquake 188 (94%) reported that they feel restlessness and very few reported that they don't feel restlessness when asked about their anger 183 (91.5%) reported that they have difficulty expressing their emotions (anger) and very few 17 (8.5%) reported that they don't have any difficulty to express their anger. Because of the nature of earthquake people do become fearful and feel insecure within their environment. When asked to victims of earthquake majority 189 (94.5%) of victims reported that they are preoccupied with the fear as a result of disaster (earthquake).

Further, as a result of this disaster they become depressed. these symptoms vary from individual to individual. out of 200, majority 146 (73%) reported that they experienced lack of pleasure in their life. Further, Because people who experience traumatic experiences go through severe level of depression and as a result of this they feel helpless which leads prone those people towards the risk of suicide. 93 (46.5%) victims reported that they had repeated thought of death. In addition to this out of 200 victims, 167 (83.5%) reported unplanned suicidal ideations. There is also research evidence to support the view that people who are exposed to disaster are more vulnerable to develop psychiatric problems. These people experience distress, others have behavioral changes and some develop psychiatric problems after disaster. Such problems include those that are secondary to physical injury as well as specific trauma related psychiatric disorders such as acute stress disorder (ASD), posttraumatic stress disorder (PTSD) and depression related to trauma (North, Tivis, McMillen, Pfefferbaum, Spitznagel, Cox, et al. 2002). These research findings shows that psychiatric responses to disasters is associated with psychiatric, psychological and behavioral consequences. all those assessed were primary victims (Adults, children, and elderly) in particular who were in physical danger and who directly witnessed the events are at risk. There is also research evidence that children and adolescents are at increased risk for psychiatric problems following disaster. Psychiatric disorders including PTSD, depression, and separation anxiety disorder (Nader & Pynoos, 1992). The re-experiencing symptoms common in Acute Stress Disorder and Post Traumatic Stress. Disorder may be evident in children through repetitive play with disaster themes, nightmares, and “trauma-specific reenactment” (American Psychiatric Association, 2000). Children may also develop avoidant behavior to specific reminders of the tragedy (e.g., avoiding areas of the playground where someone has been killed) and the wish to stay home rather than be separated from family and loved ones. All these psychological problems have also been evidenced from current study.

In summary, the rates of psychiatric problems are important variables and affected by the intensity and nature of the disaster. The question of the rates of anxiety and depressive disorders and other disorders after the disasters is an important issue for further investigation and must consider the interaction with the existing morbidity in the community. It is obvious that for mental health professionals and the public a broader understanding about the disaster especially about the earthquake is necessary to put the events in context and to understand the relationship of both short and long-term intervention for the treatment and wellbeing of the community. Findings of current study indicates the catastrophic earthquakes of the kind that occurred in Northern areas of Pakistan, which has long-term psycho-social consequences on the nation, with specifically on the survivors of affected areas. The findings of current study also suggest to the need for long term proactive preventive strategies to save the human lives. Further it also suggest for positive mental health policies for earthquake survivors to deal with trauma related problems which they experienced as a result of catastrophic earthquake.

This study only focuses on the prevalence of psychological problems in earthquake victims. Furthermore, in future additional research in this domain is needed to have extensive evaluation of affected people to describe its effects in order to better understand the phenomena for better preventive strategies which may be helpful to reduce or minimize the risk of damages and losses of human lives. The research on earthquake and disaster in general can further be reviewed for short term and long term perspective. Based on previous knowledge and findings we can establish future strategies that how to face such risk and crises and how to adapt to the risk of recurrence of such disasters.

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