

"Experience has shown me that the key to solving any problem or crisis is to have resilience. It means to be patient, to endure hardships and help yourself to get back to normal" (P.13, mother).

3-2-2. Spirituality: the secret of resilience

Some participants, especially teachers and mothers, who were older at the time of the earthquake, pointed to the effect of religious beliefs in increasing resilience, trusting in God to correct all problems, the effect of reciting the Qur'an, saying prayers, and sending Salavat on prophet (Peace be upon the Prophet Muhammad and her family, which is common among Muslims) in times of crisis to increase resilience and peace of mind. Others had a spiritual view of the crisis, and after experiencing the earthquake, they came to believe that a disaster is a cause of purification from sin, it awakes misguided and ignorant people, or it is a divine test.

"Unfortunately, the children's faith has weakened now; otherwise, I remember, sir, my grandmother in those days continuously said prayers as well as salavat and peace on the prophet or studied the Qur'an specially Ayat Al-Kursi for a hundred times. These will undoubtedly make a miracle for the individual's calming" (PN.23, mother).

3-2-3. Emotion control: the cause of resilience in disasters

Several participants, especially fathers, after experiencing the Bam earthquake concluded that emotion control was necessary to maintain the calming of others, to gradually resolve problems, to find appropriate solutions, and to maintain family peace.

"My experiences have made me believe that when a problem, crisis, or disaster occurs, it is important to control your emotions to think better and find a solution" (PN.25, father).

3-3. Beliefs about enhancing resilience

Many participants believed that awareness, skillfulness, and family efficiency are the factors which make individuals more resilient.

3-3-1. Skillfulness and awareness affect resilience

Participants stated that the earthquake made them accept that higher education, physical ability, mental ability, self-control skills, social skills, and crisis resolution skills, along with learning first aid and flexibility in coping with problems during life can enhance peoples' resilience.

"After the earthquake, people who survived healthy returned to normal life faster than those who experienced physical or mental diseases, like spinal cord amputation (After a second) Indeed, some of them have not yet adapted to these conditions" (PN.3, teacher).

3-3-2. Family efficiency and resilience

Some participants believed in the effect of family performance on resilience. They mentioned the ability to trust in parents for properly managing a crisis and the presence of the family as a supporter of members' mental conditions in crisis as factors influencing the children's resilience.

"I lost my family in the earthquake, but this experience proved it to me that having a family is a great blessing. The family is the biggest supporter of a person" (PN.12, mother).

3-4. Factors affecting resilience

Many participants suggested that several factors affect resilience, including previous experience, parents' gentility, and social status of the family, place of residence, personality, gender, age, and extent of the damage.

3-4-1. Previous experience

Almost all the participants asserted that previous experiences can help one in being prepared to deal with predictable disasters. They pointed to conditions such as finding appropriate solutions by reviewing previous experiences of dealing with a similar disaster in themselves, family, friends, or relatives; and emphasized on the impact of counseling with survivors of any crisis.

"Nothing replaces the experience. I remember our neighbor had already experienced the earthquake in their village in the north of the country, she was telling us what to do, how to help others, how to share supplies and food" (PN. 22, mother).

3-4-2. Parents' gentility

In this regard, the participants believed that parents have a major influence on their children's resilience. In fact, they can raise independent children with high decision-making power, or dependent and weak-minded children with low tolerance.

"In the Bam earthquake, children who had been trained independently and firmly could endure hardship, malnutrition and cold weather. But dependent and spoiled children had no endurance. They bothered both themselves and others very much" (PN. 25, father).

3-4-3. Social status of the family

Some noted that living in less affluent families or lower socioeconomic status and large families increased resilience.

"I was almost an adult when the earthquake occurred, and I really found out there that my friends and those around me who had grown up in deprived families were more tolerant. They had learned to adapt the situation without grumbling" (PN. 9, teacher).

3-4-4. place of residence

Participants believed that living in less privileged, small, and accident-prone areas

can have positive impacts on resilience enhancement.

"Two of our neighbors, who lived in the village until a few years ago and had once experienced a flood, coped much better with the situation" (PN. 27, father).

3-4-5. Personality

It was manifested to some participants that being extrovert and cool would increase resilience, while being sensitive or introvert may reduce resilience.

"My husband and I are both introverts. Introverted people adapt too late because they do not express their feelings and hide everything from others or do not seek help from anyone, like us after the earthquake", said a teacher of a females' school with 20 years of experience" (PN. 8, teacher).

3-4-6. Intelligence

Some believed that high intelligence would reduce disaster risk and help to adapt to the effects of a crisis by strengthening the ability to find various solutions.

"Actually, sir, what we see in working with children and our experience during the earthquake is that those who are smarter can solve problems much more easily, or at least, cope with them" (PN.4, teacher).

3-4-7. Age

Participants had different experiences of this subcategory. A number of them believed in higher levels of resilience in older people due to their stronger ability to analyze problems, higher tolerance, and more experiences but they thought that resilience may decrease in the elderly.

"Adults are more tolerant. My cousin, who was 18 years old at the time of the earthquake and lost three of her sisters or my sister, who was 17 years old at that time and lost her best friend, better adjusted and returned to normal life sooner than the younger people I knew, who had lost a loved one " (P.20, mother).

3-4-8. Gender

Participants also had different ideas about the effect of gender on resilience. Some pointed to higher resilience in girls due to greater adaptability, and some to higher resilience in boys due to greater physical strength and a more rational approach to issues.

"People's endurance depends on their gender. Can men and women alike endure hardships? Certainly not. Men are more tolerant because they have more physical strength" (PN. 7, teacher).

"It is true that men have more physical strength, but women, especially women of this area, are very tolerable. During the earthquake, many families, especially children, would be exhausted if women were not there to manage the situation" (PN. 28, father).

3-4-9. Extent of the damage

Participants in different groups stated that resilience depends on the severity of physical injuries, financial losses, disruptions of everyday life activities, injuries of loved ones.

"In the earthquake, those who did not lose a loved one returned to their previous life much faster. On the contrary, some hot-eyed people are still afraid of the name of the earthquake" (PN.13, mother).

3-5. Reaction to disasters

In this category, there were six subcategories, including the hope to solve problems, taking action for solving problems, keeping calm as the key to control critical situations, being passive and waiting, denying and escaping from the reality, and vain belief in patience.

3-5-1. Hope to solve problems

Most participants hoped to solve the problems after the crisis. In other words, they believed in the effectiveness of resilience; and had positive thoughts about situation amendment, correcting problems

over time, human hope to live, having patience and enduring problems, helping others to solve problems, temporal difficulties, and the emergence of peace after every hardship. A number of participants believed that by thinking about worse situations, focusing on resources, believing in amendments, and gradual improvement of the situation after each crisis, one can hope to solve problems.

"Humans are alive with hope. Life has proven to me that when an earthquake, a flood, or any other problem occurs, we must hope and wait" (PN. 6, teacher).

"It is mentioned in the Quran that after every difficulty, there is ease. Whenever I experience a problem, I repeat this verse with myself" (PN. 30, father).

3-5-2. Taking action for solving problems

A number of participants expressed issues such as trying to find solutions for potential problems, consulting with experienced people, consulting with experts of crisis management or psychologists (if available) and relying on their talents and creativity to solve the problem.

"After the earthquake, I came to the conclusion that there is a solution to every problem. You have to look and find a solution, no matter if this is a low score on the exam or loss of property after an earthquake" (PN. 27, father).

3-5-3. Keep calm: the key to controlling critical situations

A number of participants emphasized keeping calm to control critical situations, especially in disasters, and concluded that calmness helps to make wise decisions, control situations, and prevent others from panic.

"I try to keep calm in order to make a wise decision in unusual circumstances.

Confusion and haste are the devil's actions and will not have a positive result" (PN. 31, father).

3-5-4. Being passive and waiting

In particular, the women mentioned sitting down and asking for help from those around them, waiting for others to find a solution, waiting for the arrival of the first responders, asking for help from God, and the holy people (Imams) as coping strategies.

"Whenever I have a problem, I only mention God, I call Hazrat Fatima and wait for help" (PN. 3, teacher).

3-5-5. deny and scape from the reality

Escaping from current problems, denying reality, being careless, and not thinking about the future were ways to react to the consequences of the disaster.

3-5-6. Patience without any attempts

Some participants mentioned the effectiveness of patience, not rushing to improve the situation, patience and composure without any special action, solving problems over time, the temporary nature of the problems, and the lack of need to do anything.

"Patience is very important. Sometimes struggling makes things worse. I am especially careless in the face of unbearable problems and just wait" (PN. 16, mother).

3-6. The necessity preparedness is disasters

In this category, issues such as the need to teach proper interactions during a crisis and to obtain information about disasters from various sources were expressed.

3-6-1. Teaching the proper interactions in a crisis

Some participants pointed out that students should learn necessary skills during a crisis including individual and social skills related to fostering creativity and problem-

solving skills. They also referred to the need to strengthen students' spirit of altruism and cooperation in critical situations, the importance of self-devotion, recognizing and improving individual abilities, positive thinking along with increasing self-confidence and self-reliance; and they should be informed about the immoral nature of taking pictures and videos in critical situations instead of helping.

"People should be trained about dealing with critical situations, for example, they should know that taking photos and videos instead of helping the sufferers is completely immoral" (PN. 4, teacher).

3-6-2. Obtaining information about disasters from various sources

Some of the participants proposed that having general information about disasters and ways to reduce the risk, watching videos with a crisis theme, and interacting with earthquake-stricken families will have a positive effect on resilience and learning ways to reinforce it.

"Some movies have crisis related themes. I watch such movies a lot. For example, there is an earthquake and the whole movie shows how people adapt to the conditions and continue their lives" (PN. 32, father).

4- DISCUSSION

The present study explored the experiences of the Bam earthquake survivors who were in their adolescence at that time and their perceptions towards resilience against disasters using the content analysis method. We summarized our findings into 6 categories: disaster consequences, beliefs about resilience, beliefs about enhancing resilience, factors affecting resilience, consequences of facing disasters, the necessity of preparedness for disasters.

They pointed to different positive and negative experiences from mental

evolution to extinction in life after the disaster. Similar studies have reported different results. Some studies have defined "disaster" as a tragic event that threatens human life and causes physical harm and mental stress and reported that people after experiencing a disaster may experience depression, death anxiety, panic disorder, and phobias (25). But several studies look at disaster and crisis as an evolutionary factor and have emphasized positive changes such as valuing life, improving interpersonal relationships, improving performance, and deepening the meaning of life after a crisis (26). Thus, the participants' expressed experiences have been influenced by their attitudes, the effects of the disaster, and their coping skills.

Most participants signified the emotional control and spirituality as effective factors in resilience reinforcement. Similar studies have identified resilience as controlling negative emotions; and have suggested methods such as drawing, writing, thinking aloud, and talking to experts as ways to increase resilience (27).

Others have emphasized the role of spirituality in supporting resilience by modulating stress, promoting health (28-31), and the concept of self-worth (32), creating peace (33), and a way to adapt to adversities after the disaster, and it is confirmed that it promotes the older adults' strength, and helps them in redirecting their lives via a connection with the divine (28).

Many participants after the Bam earthquake realized some important factors affecting people's resilience in difficult conditions. Similar studies have verified several of these factors such as having social support (28, 34), warm and supportive family (35- 37), high individual and family education (38), former awareness and preparedness for predictable disasters like earthquakes (39), high intelligence (40, 41, 42), the internal

control center, personality traits such as extroversion (31, 37) and knowing communication skills (37, 43) and life skills (37, 44).

One of the factors abstracted in this study, which according to the participants had a significant effect on resilience, was the severity of human and financial losses of the victims. In fact, it was mentioned that those who were more physically and financially injured in the Bam earthquake, could later commence normal life. Some scholars have confirmed this by reporting that victims who lost their families, relatives, or friends returned to natural every-day life later and had weaker adaptations compared to those who just suffered financially (45). It can be attributed to the fact that financial loss is compensable but lost ones never come back to life.

Many participants acknowledged the significant impact of the experience on dealing with crisis and resilient coping, calling it (28, 36, 41) as the key to disaster preparedness (46). Numerous studies have emphasized this point and even Rafiey's theory of inoculation shows that previous experience with one type of disaster strengthens resistance against other hardships and reduces the negative effects of the disaster in life (47). Experience manifests a tested solution, saves the individual's time and energy to adapt, and assures him/her that the crisis is temporary.

Resilience, then, is a person's confidence in his ability to overcome stress and to cope (14, 37). It has been mentioned as one of the protective factors against future risk factors (48).

In the category of "Necessity of preparedness for disasters", especially the parent participants emphasized the impact of education. Previous research has confirmed this finding and pointed to the role of developing communication and

social skills in enhancing the self-efficacy in adaptive strength (44). On the other hand, participation in training courses or crisis maneuvers increases preparedness for crisis management (49). Also, training about disaster bolsters readiness by correcting perceptions of risk and developing a social capital (46). The Hyogo' framework for Action (2005-2015) emphasizes readiness and training to create resilience and a culture of safety at all levels, (50,51) while the Sendai Framework DRR (2015-2030) focuses on youth participation in risk reduction and considers it as an important resource (52).

In the category of "Response to a crisis", participants' experiences ranged from tolerance and resilience against the disaster to crisis denial, helplessness, anger, and fear, which was acknowledged by previous scholars. Denial means not accepting the danger and its possible consequences (27) and given some pieces of evidence, it is the first reaction of a person to a disaster that does not allow anxiety to reach the level of consciousness (26).

Timalsina and Songwathana consider fear, anxiety, and panic to be the usual emotions in response to ambiguous and potentially dangerous situations (28). Numerous studies report that various factors affect responses to a crisis, including individual factors like age, gender, education, race, social factors, access to resources (16,36), and the social culture and level of education in relation to some coping strategies (53).

4-1. Limitations of the study

The most important limitation of this study was its subject, which was reminiscent of the hard days of the earthquake for the participants. In fact, it sometimes diverted the participants from the interview and wasted time since the researcher had to use communication skills to adapt to the atmosphere and help the participants to continue the interview.

5- CONCLUSION

In the present study, we interviewed the Bam earthquake survivors who were in their adolescence at that time and we were informed from their opinions and experiences about their resilience strategies against disasters. These experiences were divided into 25 sub categories and 6 categories as follows: disaster consequences, beliefs about resilience, beliefs about enhancing resilience, factors affecting resilience, consequences of facing disasters, the necessity of preparedness for disasters. In this study, they shared numerous experiences about the individual, family, and social effects of earthquakes on their lives. They also talked about beliefs they developed about resilience and the factors that enhanced or reduced it, and in particular, experiences that emphasized the necessity of preparedness for coping with disasters. In this study, the survivors of the Bam earthquake expressed different positive and negative experiences, which on the one hand, indicated their bitter experience; and on the other hand, it showed that the main focus of the government and policymakers in natural disasters, including earthquakes, is to solve problems during a crisis. While it is suggested that crisis management officials, on the one hand, should take measures to prepare people for a disaster before its occurrence, such as public education on crisis management, disaster risk reduction, ways to deal with stress, increase adaptation, the introduction of various sources of information, showing relevant videos, and making interviews with consultants and experienced people to reduce problems in the case of crisis and to reinforce survivors' adaptability and resilience. On the other hand, after a major disaster like the Bam earthquake, it is necessary for the victims to have governmental support for at least several years to strengthen their physical and

mental conditions and to learn how to deal with problems, since it helps them to begin their normal lives faster.

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