

The mental health needs of women in natural disasters: A qualitative study with a preventive approach

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ABSTRACT

Context: Considering the importance of psychological issues during disasters and the key role of women in the family and society, a preventive approach toward mental health improvement in women is of great importance. **Aims:** This study aimed to identify the mental health needs of women in natural disasters through a preventive approach. **Settings and Design:** The present qualitative study was conducted through content analysis method and semi-structured interviews with 40 specialists and seven women who had experienced natural disasters. The study participants were selected through snowball and purposive sampling. **Subjects and Methods:** A heterogeneous sample was selected. To ensure the reliability and verifiability of data, the texts of the interviews were approved by each interviewee. **Statistical Analysis Used:** Thematic analysis was used to report findings. **Results:** In this study, two themes, seven main categories, and 21 subcategories and secondary codes were extracted. The themes were internal physical (biological) and external environmental (social, political and legal measures, cultural and spiritual measures, psychology, and lifestyle) factors. **Conclusions:** The dimensions related to the mental health of women are multifactorial and beyond only psychological variables. The improvement of the mental health of women can be achieved through aggregation of perspectives in different organizational, governmental, and political areas in collaboration within the society with a healthy gender perspective free of discrimination, inequality, and injustice.

Keywords: Disasters, Iran, mental health, qualitative research, women

Introduction

Disaster survivors experience a wide range of psychological responses in different aspects.^[1] Previously, it was assumed that disasters affect all individuals similarly in terms of health; however, it has been found that the psychological well-being of women is more at risk during disasters.^[2,3] However, as has been noted in some studies, this subject has not received much attention.^[4,5] Nevertheless, findings in the field of health have emphasized the necessity of attention to psychological issues in natural disasters for situational preparation.^[4] Women are at greater risk of incidents such as violence and sexual abuse,

diseases, and psychological trauma than men in disasters.^[6,7] Thus, the assessment of this issue in women is of greater importance due to the different strategies used for the improvement of their psychological well-being.

In this respect, some studies have reported similar findings. The study by Mahoney *et al.* on psychological well-being requirements during an earthquake in Sri Lanka resulted in a new level of preparation in disasters, national psychological well-being policies, and a proposed scheme for implementation of psychological well-being related regulations.^[8] Susan and Becker, in a study on women who had experienced a tsunami in India, introduced the provision of psychosocial care as an important and effective solution for the psychological well-being of women exposed to

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disasters.^[9] Sezgin and Punamäki, in their study on the outcome of psychological well-being on 1253 women exposed to earthquake, reported that social connections preserve women's psychological well-being against the damages of the earthquake.^[10]

Sohrabizadeh *et al.* in their study reported that the management of health outcomes of natural disasters, such as physical and psychological and emotional outcomes, and pregnancy and environmental health, can reduce the effect of disasters and increase women's psychological well-being.^[11] Parsizade and Eskandari in a study on women's needs during the earthquake of Bam, Iran, noted the importance of factors such as clothing, hygiene, pregnancy and breastfeeding, cosmetics, mental variables, and domestic violence management.^[12]

The literature review of the present study showed that the majority of previous studies have assessed health status and psychological disorders among women. Moreover, in previous studies in Iran, less emphasis has been placed on preventive strategies and female gender-exclusive study.^[13] Nevertheless, prevention is the priority of all programs, and women, as the key members of the family and due to their specific physiological, psychological, and physical characteristics, should be prioritized in studies. Some sources have noted that adopting a preventive approach appropriate to women's mental well-being is the priority of education.^[14-16] Thus, women's needs in different aspects of psychological health during disasters should be recognized and satisfied. To the researcher's knowledge, no previous studies have been conducted in Iran on the psychological health needs of women and their psychological disorders before, during, or after disasters.

The present study was performed as qualitative research. It attempted to find deeper answers to the research questions by producing and explaining relevant content based on interviews with specialists. The aim of the present study was to determine the mental health needs of women during disasters using a preventive approach. Women who had experienced natural disasters were targeted in the present study.

Subjects and Methods

The present qualitative study was conducted through content analysis method. In this method, concepts are directly achieved from data. This study was performed in the cities of Tehran, Isfahan, Mashhad, and Tabriz, which are the most populous cities in Iran, in 2014–2016.

Semi-structured interviews were conducted with specialists in the fields of psychology, psychiatry, psychiatric nursing, social welfare, social medicine, women's studies, and disasters. The participants were selected using snowball sampling and in some cases through purposive sampling. The questionnaire was designed by the researcher who was a psychologist and his/her supervisor. It was then implemented on two individuals, and considering the results and the research questions, it was

modified and completed. Since this was an interdisciplinary study, key interviewees were selected from among women who had the experience of working in disasters and were occupied and employed in a related organizational position or field of study. Sampling was continued until data saturation, i.e., until new data did not describe a new concept and a new category was not formed. Based on this criterion, 33 individuals were interviewed; however, due to the diversity of categories and codes, seven additional interviews were conducted. Thus, a total of 40 interviews with specialists were conducted in the present study. To facilitate the interviewees' attendance of meetings and increase their cooperation, interviews were held in their offices or place of work. The time and date of interviews were coordinated in advance, and a gift was presented to the interviewees to thank them for their cooperation. Only three individuals in Mashhad did not consent to participate in the interviews and were replaced with other participants who had the inclusion criteria.

Moreover, seven interviews were conducted with women who had experienced natural disasters as victims. These interviews were conducted through phone calls due to lack of access to the participants and their unwillingness to attend interviews in person. These women were introduced to the researcher during interviews with disaster managers. The primary duration of each interview was predicted to be 45 min, but the researcher allowed interviews to advance without time limitation. If further meetings were necessary, they were conducted. The duration of interviews ranged between 25 and 65 min.

In the present study, informed written and in some cases, oral (at the request of the interviewees) consents were obtained from all participants. Interviews were recorded after obtaining the interviewee's permission. Participants were ensured of the confidentiality of their information and observance of ethical principles and were informed that >1 interview meeting may be required. They were informed that they could leave the interview process at any time they wished.

A guide which included the main and exploratory questions was used to perform the interviews (e.g., Do you think that women and men differ in terms of mental health status? and what are women's mental health needs during disasters with the aim of preparation for disasters?). To ensure the transferability of findings and obtain different experiences and points of view regarding the subject, heterogeneous participants were selected. To ensure the reliability and verifiability of data, the text of the interview and codes were given to the interviewees to confirm.

To increase reliability, the items were given to the interviewees for approval. Thematic analysis of data was used to report the study findings. Data were analyzed simultaneously to the collection of data. All participants permitted the recording and transcription of the interviews; thus, the verbatim transcription and reviewing of the content of interviews was possible to the extent required. Concepts were extracted from the transcribed data through open, axial, and selective coding with the aim of discovering the main

factors. Coding is the decryption and interpretation of data and includes the naming of concepts and categories and their expansion with additional details. Data were divided into the smallest possible components, and the concepts of their themes were extracted. Each data were compared to other new collected data in terms of differences and similarities, and therefore, their categorization was made possible through continuous review and assimilation of similar data. In this stage, the words used by the participants or their arguments achieved through the processing of implied concepts were utilized. In this method, the primary extracted codes, which were similar in terms of meaning, were assimilated and replaced by a concept which was more abstract in terms of meaning. Then, by correlating subcategories and assimilating similar subcategories, the main categories or axial categories were achieved. Finally, various explanations, which were extracted from the texts and interviews, regarding women's vulnerability in disasters were collected and categorized for use in the next stage.

Results

In the presents study, 1850 codes, 21 subcategories, seven categories (biological, social, political, and legal measures, cultural and spiritual measures, psychology, and lifestyle), and two main themes (internal physical factors and external environmental factors) were extracted from the interviews and are presented in Table 1.

Regarding biological factors [Table 1], an interviewee stated:

“Women’s physiology renders them more vulnerable in some circumstances such as pregnancy, delivery, menstruation..., for example, after pregnancy, a vulnerable being is attached to the

mother... Thus, greater attention should be paid to their mental health needs.”

The following statements of interviewees are related to social factors [Table 1].

Among social factors, various aspects were emphasized by the participants, for example, social interactions, values, and properties.

“A woman who has her real value and status in the family will refine the home and will ensure her own well-being and that of her family.”

“Most often we place extra loads on women. We say she is the light of the house, but turn her into our punching bag and behave any way we want toward her... This threatens women’s mental health.”

“Based on my work experience with women, their work efficiency is higher and better, the effect of training is more lasting in them, and they follow-up better. Women should be empowered in all societies and looked at as social capital.”

Regarding political and legal measures [Table 1], two participants stated:

“Many of the policies which determine mental health are outside the field of psychology and psychiatry, such as educational and occupational regulations, which shouldbe tailored to each gender.”

“The gender differences created by the laws and regulation of the society can be the source of some psychological disorders in women. In this respect, women’s mental health is more at risk in terms of gender.”

Regarding cultural and spiritual measures [Table 1], one of the participants stated:

“Women can be well prepared in terms of religion. An individual with religious beliefs better accepts disasters, but an individual who does not have strong roots may even insult god... This effects the individual’s health and that of others.”

Regarding psychological factors [Table 1], a participant stated: “Unanswered needs can be resolved through face-to-face and group training of problem-solving and life skills, which may be the most efficient and fastest method.”

Regarding lifestyle factors [Table 1], two interviewees stated:

As a rule, several 1000 years ago, human beings were basically identical to human beings today in some issues; they walked with their feet and ate with their mouth and so do we. However, some needs are very different, for example, weight control and fitness are very important to women today.”

Table 1: Women’s mental health needs in disasters from a preventive perspective

Themes	Categories	Subcategories
Internal physical factors	Biological	Genetic predisposition
		Hormones
External environmental factors	Social	Social relationships
		Access to social services and rights
		Social value and standing
		Social responsibilities and roles
		Social properties
	Political and legal measures	Social damages and pressures
		Political participation
		The modification and enforcement of just laws
	Cultural and spiritual measures	Cultural considerations
		Spiritual requirements
Psychology	Psychology	Knowledge and awareness
		Beliefs and attitudes
		Behavior and performance
		Behavioral habits
Lifestyle	Lifestyle	Nutrition and exercise
		Responsibility toward health

“When social harm and antisocial behavior are observed in men, society is less likely to punish or reject them and gives them the opportunity to begin again. However, this is not the case for women, which deepens the damages.”

Discussion

Based on the findings presented in Table 1, the subjects' needs were categorized into two main groups (internal physical and external environmental) in the form of two concentric circles with the behavior of genes and hormones and related human biological factors as the most inner layer and cultural, social, and environmental dimensions as the most outer layer. Based on scientific resources and texts, these two important and essential factors form the physical and psychological aspects of each human being and determine each individual's characteristics in interaction with others.^[17] In this regard, the biological approach approves the role of the internal physical factor and is based on the belief that mental well-being is the product of a balanced physical system that functions well. A previous study has noted the role of environmental factors in the maintenance of physical environmental well-being.^[11] In this respect, specialists in the field of psychiatry revealed the impact of hormones, physical ability, and physical health on a satisfactory psychological status among women.

Regarding social factors, various items were emphasized by the participants, such as social relationships, access to social services and rights, social value and standing, social responsibilities and roles, social properties, and social damages and pressures. In this respect, Masedu *et al.* stated that social media is a criterion for the improvement of mental well-being.^[18] Some studies have noted the beneficial role of relationships,^[10,19,20] mental and social care,^[9] and women in the family.^[21] Other important findings were social rights, access to social services, and social responsibility and commitment. Different studies have disclosed the importance of access to services, the necessity of improvement of resources^[19] and the economic, occupational, and educational status of women,^[21] and the unreasonableness of women's multiple roles.^[22] Social pressures and damages was another factor which was emphasized by the interviewees, and one study has evaluated women's status in terms of damages.^[21,23] These findings are in agreement with the definition of concepts in some perceptions. In psychology, mental health is defined as the result of the compatibility of the individual with himself/herself and the demands and pressures of society. In this perception, healthy individuals are those with no conflict between their wishes and social requirements. Nevertheless, in the social dimension, the majority of interviewees believed that the position of women in the society has not been defined justly and women have not attained their real position in society in terms of economic, occupational, and educational status and different social values, standing, and equality. Moreover, prejudicial attitudes, violence, and social stigma have deprived women of some of their abilities and peace. Interviewees repeatedly emphasized the role of this inequality in women's mental health.

In the policymaking and lawmaking section, interviewees highlighted the fact that policies within the society are not in favor of women.

In the section on political participation and the modification and enforcement of just laws, scientific resources have reported the necessity of capacity building among policymakers and suitable lawmaking,^[24] meaning that lack of regulations or biased regulations can harm women and place pressure on the community of women experiencing discrimination. Under any circumstances and in any society, it is expected that laws and regulations be supportive, compensate for social deficiencies, and be implemented justly. At present, regulations in the field of health and other fields have many deficiencies, and the chief victims of these deficiencies are women.

Many factors were emphasized by the participants in the discussion of the cultural and spiritual aspects of women's mental health. The importance of the consideration of the rituals, traditions, and culture of regions has been noted in some studies,^[24-26] which was in agreement with the findings of the present study. This means that to achieve health aspects, conformity with the cultural background of each society is necessary. The Islamic approach also associates mental health with individuals' social and spiritual status. Nevertheless, the maintenance of balance is of great importance in this respect. If the cultural and spiritual values of society are neglected or develop into superstitions and limitations, they will endanger group rights. This consideration and balance are of greater importance for women who have an unfair and unequal social status.

In the psychological dimension, the extracted factors were related to the three main concepts of knowledge and awareness, beliefs and attitude, and behavior and performance.

Various studies have emphasized the importance of women's awareness and knowledge^[26] and the necessity of psychological measures and the training of related skills,^[19,24,26] which was in agreement with the views of the interviewees. The humanism approach has emphasized individual will, autonomy, capability, and responsibility in health. In this study, various topics were identified in the educational dimension, and it was believed that when women are made aware of the desired topic, they have better mental preparation and greater peace. Furthermore, in addition to greater awareness and knowledge, they should have a correct view of and attitude toward their abilities and inabilities and practice that which they have learned to internalize it for use in the real environment.

Factors related to lifestyle, nutrition, exercise, behavioral habits, and regard for health were also raised in the discussion on mental health.

Some studies have assessed these dimensions.^[19] In this dimension, individual accountability for health is emphasized. The behaviorist approach has defined mental health as an

adaptive behavior through which individuals can achieve their goals. This was in accordance with the views of the interviewees. Recently, women's expectations regarding health, beauty, and self-care have changed. The positive demanding view of women is sometimes accompanied with excess or negligence. However, in this dimension, women's accountability for their health and substitution of damaging behavior with suitable behavior were highlighted by the participants.

The lack of knowledge of the interviewees on all concepts was one of the difficulties of the interviews. Responding to the mental health needs of women, and consequently, that of society with a preventive approach and with the aim of preparation for disasters requires the cooperation of different health, social, cultural, and political groups and women's demands. It requires the development of new policies, and their correct announcement, enforcement, and strict monitoring.

The strengths of the present study were the interdisciplinary approach adopted in the fields of psychology, disasters, and disaster management and the use of the views of experts. However, these strategies have been neglected in Iranian studies, although every preventive program and disaster intervention requires that plans and executive steps be based on documented findings and evidence-based content.

Conclusions

The results of the present study suggest that although mental health is a topic in the science of psychology, responding to its related requirements and preventing mental health issues cannot be limited to psychology. This means that the one-dimensional pattern specific to one science cannot meet the requirements of the field of mental health. To achieve this important goal, in addition to the aggregation of perspectives in different areas, organizational, governmental, and political collaboration within the society with a healthy gender perspective free of discrimination, inequality, and injustice is required. The result of this study can be used by practitioners in fields of health, prevention, women, and disasters, and all community groups. It can also be utilized by researchers, who provide templates and models based on different specializations and fields, to provide a more comprehensive view of mental health.

All 47 women who enrolled in this study had experienced natural disasters as specialists or victims; this was the strength of this study. Nevertheless, only seven participants had experienced the disasters as victims; this is a limitation and it is recommended that future studies be conducted on a larger number of subjects.

Since the findings of the present study are related to the field of health, all personnel and interviewees, who are in some way involved in health planning, measures, and interventions, can use these findings in the provision of services for women. The findings revealed that mental health is correlated with different dimensions and fields, such as physical, social, and cultural

dimensions, and quality of life, and that these factors are also correlated with each other. Thus, health services providers, such as psychologists, psychiatrists, and physicians must consider factors related to mental health in the evaluation of women's health status so that they can obtain better results from education, treatment, and research based on the definition provided by the World Health Organization which uses the biopsychosocial model in health. Moreover, more specifically in the field of medicine, the expenditure of the limited resources on services created due to induced demand and psychosocial factors^[27] can be prevented and investments can be restricted to women's real health needs through understanding the health needs of women, who constitute the majority of medical clients.

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Conflicts of interest

There are no conflicts of interest.

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