

The Feminine and Masculine Dimensions of Earthquakes: A Gender-focused Sociological Research on the Victims of the 2023 Kahramanmaraş / Türkiye Earthquakes



Depreme Bağlı Etkilerin Toplumsal Cinsiyet Sosyolojisi Odaklı Analizi:
2023 Kahramanmaraş / Türkiye Depremlerinin Dişil ve Eril Boyutu

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Abstract

Objective: The current study aims to make sociological inferences on the victims of the 2023 Kahramanmaraş / Türkiye earthquakes in terms of gender.

Method: The participants of the study are 36 (19 women, 17 men) Kahramanmaraş / Türkiye earthquake doublet victims who were older than 18 and who settled to Samsun province of Türkiye after the disaster. The qualitative data were collected through in-depth interview technique and were analyzed through content analysis by using MAXQDA 2022 qualitative data analysis computer aided program to make contribution for increasing the reliability of the research.

Findings: The findings of the study, which were compatible with those of the former disaster literature, indicated that the earthquake doublet occurred consecutively rocking 11 provinces of Türkiye had effects on each and every resident living in those area regardless as their genders.

Conclusion: As women had already been vulnerable with pre-existing inequalities, this vulnerability further exacerbated and deepened, and a secondary disadvantage as being earthquake victims with more mortality rates make them experience multi-crisis.

Keywords: earthquake; gender; vulnerable populations

Özet

Amaç: Çalışma, 2023 Kahramanmaraş/Türkiye depremlerinin kurbanları hakkında toplumsal cinsiyet açısından sosyolojik çıkarımlarda bulunmayı amaçlamaktadır.

Yöntem: Araştırmanın katılımcılarını, afet sonrası Türkiye'nin Samsun iline yerleşen 18 yaşından büyük 36 (19 kadın, 17 erkek) Kahramanmaraş/Türkiye deprem mağduru oluşturmaktadır. Derinlemesine görüşme tekniği ile toplanan nitel veriler, araştırmanın güvenilirliğinin artırılmasına katkı sağlamak amacıyla MAXQDA 2022 bilgisayar destekli nitel veri analizi programı kullanılarak içerik analizi yoluyla çözümlenmiştir.

Bulgular: Araştırmanın, önceki afet literatürüyle uyumlu bulguları, Türkiye'nin 11 ilinde peş peşe meydana gelen deprem ikilisinin, o bölgede yaşayan, cinsiyet ayrımı gözetmeksizin her bir bireyi etkilediğini göstermiştir.

Sonuç: Kadınlar önceden var olan eşitsizliklerden ötürü zaten dezavantajlı ve kırılgan gruplarda olduklarından, bu kırılganlığın daha da şiddetlendiği ve derinleştiği; daha fazla ölüm oranıyla depremzede olmalarının ikincil bir dezavantaj olarak çoklu kriz yaşamalarına neden olduğu tespit edilmiştir.

Anahtar Sözcükler: deprem; toplumsal cinsiyet; kırılgan gruplar

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Introduction

Named as “the largest disaster of this century”, the 2023 Kahramanmaraş / Türkiye earthquakes, both of which occurred consecutively on February 6, 2023 on the same day, rocked 11 provinces of Türkiye and some regions in Syria. Around 14 million residents - constituting 16 percent of Türkiye's population - were affected from the disaster. Tens of thousands of people were injured (1) and around 2.7 million people were evacuated from quake-hit areas (2). The current statement by the Ministry of Interior states that 50 thousand 399 people lost their lives (3), and over 107,000 were injured making it the deadliest such worldwide during this century.

Among the studies reviewed, there seems to be some definitions of “disaster” made solely on the basis of its physical effects (4). However, as a result of disasters, the combination of natural hazards and human vulnerabilities make the disasters turn into more devastating phenomena (5), addressing to social welfare, developmental issues and social disruption (6). More specifically, disadvantaged/vulnerable groups are considered to be affected more deeply and dramatically by disasters (7).

From a sociological standpoint, the social vulnerability approach indicates that disasters socially distribute the risk according to the divisions that already exist in society; the people who had already experienced social and economic inequalities and vulnerabilities before the disasters were affected more due to their lack of access to the resources. In a similar manner, Cannon states that the effects of disasters show an unbalanced and disproportionate distribution between men and women (8). The way men and women experience disasters and the way they are protected from disasters are different seem to be different as women are more affected by disasters due to gender inequality (9-11). International Federation Red Cross and Red Crescent (IFRC) also underlines that women are even excluded from disaster planning processes, despite the disaster policies taken by the Turkish government (12) in line with those of Sustainable Development Goals. In the Rapid Gender Analysis Policy Brief (13), Cooperative for Assistance and Relief Everywhere (CARE International) highlighted that among those pre-existing

vulnerabilities, women, pregnant women and women refugees (including unregistered refugees and migrants in transit across the Türkiye/Syria border) came across with heightened levels of risk and vulnerability in the crisis. The international meetings on disasters such as Yokohama Strategy and Plan of Action for a Safer World (14), Hyogo Framework for Action 2005-2015 (15), United Nations International Strategy for Disaster Reduction (UNISDR) Terminology on Disaster Risk Reduction (16) and Sendai Framework for Disaster Risk Reduction 2015-2030 (17) emphasize that women should be included to effective participation in disaster management processes, should take part in decision-making mechanisms and gendered approach should be added to all stages of development.

At this point, a factor indicating the status of both genders is that women are underrepresented in political decision making in the affected provinces – only 2 out of 135 mayors (11 provincial and 124 district) are women. The ratio of women municipal councilors is around 10% (18).

Constituting one of the main factors of gender inequality, according to the official data on domestic violence against women, available from prior to the earthquakes, the affected regions have a relatively lower rate of reporting to authorities and higher level of acceptance in case of violence (19).

With all the aforementioned literature frame drawn above, it is clear that disaster literature provides many research conducted to discuss the status of women during and post-disaster periods (9- 20). However, it should be noted that the research documenting the comparison of feminine and masculine gender roles are limited. Hence, it is thought that to shed light on both feminine and masculine dimensions of the earthquakes is essential and this kind of a research will have a contribution to the literature with essential information from the largest disaster of the century. From this point of view, the aim of this study is to make sociological inferences on the victims of the 2023 Kahramanmaraş / Türkiye earthquake doublets in terms of gender.

The research questions that are sought to be replied are:

RQ1. How did the participants experience the earthquake sequences?

RQ2. Are there any feminine and masculine gender role differences between the participants before and after the earthquake doublets process?

RQ3. What kind of affects do the earthquake experiences of the female and male participants provide us with sociological inferences in terms of gender? Are there any differences between genders?

Methodology

This research was conducted through qualitative research paradigm, as it was regarded as the most suitable way to reveal the experiences of the participants and understand the phenomenon (21).

Research Design

Grounded theory was selected as the research design of this research as it is directly related to the research questions.

Participants

To strengthen the research, two sampling techniques were conducted. Firstly, purposeful sampling was used to choose the participants who are the right people to have knowledge and experience about the phenomenon that is being studied (22). It was considered that selecting adults (older than 18) would be adequate for making comparison between pre and post disaster periods. Moreover, in order to reach more participants, snowball sampling was also used to provide referrals to recruit samples required for this study.

The participants of the study are 36 Kahramanmaraş/Türkiye earthquake doublets victims who were older than 18 and who settled to Samsun province of Türkiye after the disaster (53.0%, n= 19 women; 47.0% -n=17 men). Samsun was chosen purposefully as to reach and to pursue the research would be cheaper and easier. The mean age of the participants was identified to be 47.3. Of all the participants living in those 11 provinces, 12 of the participants were in Kahramanmaraş; 6 were in Hatay; 4 were in Osmaniye; 3 were in Malatya and Adıyaman; 2 were in Gaziantep and Şanlıurfa, 1 was (one for each) in Diyarbakır, Adana, Kilis and Elazığ. To provide the validity of the study, it was

considered to include as many participants as having been experienced the disaster in those provinces. So that the participants were from all those 11 provinces affected by the disaster.

Data Collection

The data were collected through in-depth interview technique by using semi-structured interview form including socio-demographic and open-ended questions.

The socio-demographic questions that the participants were asked were their gender, age. They were also asked some other questions to gain information about their earthquake experiences: the province and places they experienced the earthquakes; how their house, occupation and economic status were affected from the disaster, if they or any of their family members stayed under the debris and/or got injured and/or lost their lives; the place (the form of temporary accommodation type) they stay in Samsun now.

Procedure

The major question to create a scientific database was how to apply the interviews to the participants who have been in significant pain immediately after their traumatic experiences. As to the literature, the main principles of the psycho-social approach in the early post-traumatic period are sharing, empathy and giving the traumatized opportunity to share their experiences (23). Following this evidence from literature, this study was also conducted within the following three months of the devastating 7.7 and 7.6 magnitude earthquake sequences. Before the interviews were fulfilled, a psychologist and a social worker who were working on the same faculty with the researcher were consulted to manage the interview process in the most suitable way.

The interviews were conducted face-to-face by the researcher between 31 March- 17 April 2023. The dialogues lasted 60–80 minutes each; and were done, recorded and transcribed verbatim by the researcher herself.

Data Analysis

In order to analyze the answers of the research questions, content analysis was used and the analyzes were conducted via MAXQDA 2022 qualitative data analysis computer aided

program to make contribution for increasing the reliability of the research. This analysis was done via content analyze technique. Within this technique, firstly the data set was read by the researcher three times on different days. There had been no preliminary codes (indexes) before the analysis, which means that the analysis was conducted during and after the content analysis to see the whole analysis frame. Then, the coding or indexing, the process of dividing and naming the data into meaningful units called codes, was started. By this way, using a constant comparative method made the analysis be away from too many repetitions. In other words, after this stage, by re-reading all the data coded in the same way as the data had been coded, it was primarily tried to find out what the core of that code was (24). When the researcher was sure that all the codes were repetitive (on 32th participant) and there was no new code, it meant that the study reached to a saturation.

Another way that the researcher applied to ensure the reliability and accuracy of the coding was to consult three different academicians who are experts in the field of qualitative research and gender. As a result of this consultancy, the academics reached to a consensus that all the coding was appropriate.

Ethical Issues

The ethical approval of this study was taken from Ondokuz Mayıs University Ethical Committee on 2023, 29th March with the number of 2023-144.

Assumptions and Limitations

Even though the 11 provinces in Türkiye and some regions in Syria were affected from the earthquakes, this study was conducted with the earthquake victims who settled to Samsun province of Türkiye and who were adults -older than 18-.

Findings and Discussions

The Earthquake Experiences of the Participants

The earthquake experiences of the participants is shown in the Table 1. As a result of the interviews, it was found out that 34 of the participants were at their home and 2 were at their relative's home; while at the second earthquake 20 were at an outdoor field; 8 were at home; 7 were at hospital and 1 was in his car. The houses of the 16 participants

were completely collapsed (2 in the first, 14 in the second earthquake); 12 of their houses were heavily damaged; 7 of them were simply damaged and the state of 1 was not certain yet. Regarding their physical status, 6 participants (4 women, 2 men) stayed under the debris and got injured; 21 participants got simply injured (12 women, 9 men) and 9 participants (8 men, 1 woman) had no physical injuries.

As to the physical status of the participants, 3 participants lost their fathers, 3 lost their mothers, 2 lost parents, 1 lost nephew, 2 lost sisters, 1 lost sister and brother-in-law, 3 lost aunts, 5 lost cousins (3 female, 2 male), 1 lost grandparent, 1 lost his wife. It means that from the total family members of the participants, totally 26 people lost their lives, 16 of which were female and 10 of which were male. Moreover, all of the participants lost their friends, 26 of the participants lost some of their friends and/or relatives (12 men, 14 women), and 10 participants (5 women, 5 men) lost most of their relatives. Regarding their current economic status, 79.0 % (n=15) of the women did not have an income while 21.0 % (n=4) had a monthly salary. Regarding men, 35.0 % (n=6) did not have an income whereas 65 of them (n=11) had a monthly salary. As to the place they were staying in Samsun province of Türkiye now, 23 of the participants were staying at dormitory, 7 were staying at home (5 at home given by AFAD, 2 rented themselves), and 6 were staying at hotel.

It can be inferred from the above mentioned earthquake experiences that comparing women and men, women were more dramatically affected from the earthquake sequences by considering the following three factors: The first factor is their physical status. This finding is similar to those in literature stating that women face with more health problems during disasters (9-2-25). The second factor may be regarded as the economic status and occupational conditions of women. The concrete evidence supporting this finding from the literature is the current data gathered from Turkish Statistical Institute (26). This knowledge demonstrates that women's labor force participation rate in the affected region is lower than the rate in Türkiye as a whole, and there is a significant gender gap between women and men in labour force participation and

Table 1. The Earthquake Experiences of the Participants	
The Socio-Demographic Questions	The Number of the Participants Who Experienced
The places the participants experienced the first earthquake	34 of the participants were at their home, 2 were at their relative's home
The places the participants experienced the second earthquake	20 were at an outdoor field; 8 were at home; 7 were at hospital; 1 was in his car
How their house was affected from the disaster	16 houses were completely collapsed (2 in the first, 14 in the second earthquake); 12 houses were heavily damaged; 7 were simply damaged; the state of 1 is not certain yet
Their physical status during the earthquakes	6 participants stayed under the debris and got injured (4 women, 2 men); 21 got simply injured (12 women, 9 men); 9 (8 men, 1 woman) had no physical injuries
Loss of family members	3 participants lost their fathers, 3 lost their mothers, 2 lost parents, 1 lost nephew, 2 lost sisters, 1 lost sister and brother-in-law, 3 lost aunts, 5 lost cousins (3 female, 2 male), 1 lost grandparents, 1 lost his wife
Loss of relatives and/or friends	All of the participants lost their friends, 23 lost some of their relatives, 10 lost most of their relatives
Their economic status now	21 have no income (8 lost their jobs or workplaces, 12 were housewives, 1 does not want to work for now); 6 started a new job in Samsun; 7 have retired and monthly income; 2 were government officials and have monthly income;
The place they are staying in Samsun province of Türkiye now	23 were staying at dormitory, 7 were staying at home (5 at home given by AFAD (Türkiye Ministry of Interior, Disaster and Emergency Management Presidency), 2 rented themselves), 6 were staying at hotel

employment. Six of the 11 affected provinces were among the lowest female employment rated provinces across Türkiye. As a result of this gender gap at world of work, more men are active at labour market than women. These two features of the participants are the gender-biased indicators of inequality between men and women in labour market (27) and at accessing to educational opportunities (28-29). Additionally, together with disproportionate losses of economic opportunities (11), at post-disaster conditions, women with low-income are affected worse than those of men in terms of private and public spheres and social circumstances by spatial processes through their gender-based roles and relationships (30). The third factor that is compatible with former literature is the higher mortality rate of women. Hemachandra, Amaratunga, and Haigh underlined that women are at higher risk of dying than men (31); and Neumayer and Plümper reports that this rate is 14 times higher in women than men (32).

Are there any feminine and masculine

gender role differences before and after the earthquake doublets process?

The socially constructed expectations and roles that differ between man and woman and from culture to culture are called gender roles which are an individual's feminine or masculine psychological traits. Developed by Sandra Bem, Bem Sex-Role Inventory is one of the widely used tools for those femininity and masculinity traits. Some of the masculine traits that are stereotypically associated with men are independent, ambitious, analytic, assertive, risk taker, leader, competitive, dominant, adventurous, forceful, aggressive; etc., and some of the feminine traits are gentle, gullible, warm, affectionate, yielding, emotional, submissive, softhearted, dependent, etc (33). In 1987, Kavuncu adapted this inventory to Turkish society. She puts forward similar traits and underlined that according to the traditional gender roles, women take place in the domestic sphere while men take place at public sphere (34). Laska et al. also notes that at disaster conditions, women are said to be more vulnerable than men because of

feminine gender roles such as care roles, unequal work and income status (35). Because of their gender roles, women tend to acquire behavioral patterns such as expressing their feelings and asking for psycho-social support in the process of socialization; while most of the men are prevented from acquiring these behaviors (36).

From a sociological point of view, in disaster process, both men and women are affected due to their gender roles. Taking the issue from men, being the head of the household, keeping the family together, generating income, providing shelter and security for family members can be considered within these roles and expectations of the society from men even after the disaster. These roles and responsibilities cause social pressure on men. Especially in disaster situations, men who cannot meet these roles may face serious problems (37). In addition to this, women have less income-generating opportunities and thus experience poverty. Because this unemployment problem prior to the earthquake, majority of women have to rely on men's income and social security status and perform unpaid house- and care-work activities (2).

Another research conducted with earthquake male victims reveals that the budgets, their savings all affected negatively from the disaster. Moreover, the "rescuer" and "forceful" roles assigned to men is thought to be effective in men's demands and attempts to participate in search and rescue activities (36).

The findings of this research yielded similar results with former studies (33-34) indicating that men carry masculine gender roles both before and after earthquake periods and these traits are forceful, risk taker, leader -head of the household-, and breadwinning:

"I am the youngest child of my family. My elder sisters and brothers live in the city center. I live in this village with my parents and my aunt. Our house is simply affected, however, we are afraid of the aftershocks. We found a solution: We keep on duty one by one, and whenever we hear a strange noise or feel the aftershock, we call the other members of the house to get out of the house. In the daytime, my father stays outside, it is not difficult for him. But, as the only young and male

member of our house, I stay out of the house waiting for them at nights. And in daytime, I participate to the rescue teams." (MP2, 22, student, Osmaniye).

"What if I weren't a government official and hadn't got a permanent monthly income even I'm not working now as an earthquake victim? I am the father of my home, I must earn money and meet their necessities. I pray for this night and day, pray for God for this opportunity." (MP13, 53, government official, Elazığ).

Likewise, feminine gender roles have also reinforced dramatically because of the increase in care and domestic work. For instance, due to the demand for care of children, elderly and disabled people (injured and newly disabled people) and domestic work (already disproportionately performed by women prior to the disaster) as well as decrease on the educational institutions, care services and the limitations in equipment and facilities needed to perform household tasks (such as laundry machines and cooking equipment) (2).

In addition to the above mentioned ones, another indicator of the gender roles of the earthquake victims were found when the participants were asked which gender was mostly affected by earthquakes; as a (wo) man, the most important negativity they have experienced during the earthquakes; and a sample situation they witnessed and only (wo) men were affected negatively during the earthquake sequences, some of the participants answered that the other gender was mostly affected from the earthquakes. Nevertheless, more men stated that women were influenced more negatively than men:

"Men; I witnessed from my husband, dad and uncle. They could not experience the pain of their loss because they both cannot express their feelings and they had no time as they participated in search and rescue efforts." (WP9, 33, housewife, Malatya)

"Men. My uncle's (the participant's aunt's husband) workplace was collapsed, many of his relatives were dead. My aunt has been disabled for 3 years, she cannot walk properly. In order not to make her more depressive, he hid many of his loss from his

wife. He was really desperate waiting in front of his workplace.” (WP13, 27, housewife, Adiyaman)

“Women were more hopeless than us. During the earthquakes, I witnessed that my father and me were able to maintain our acumen, but my mother was very worried and cried.” (MP2, 22, student, Osmaniye).

“I hopelessly witnessed that women who were mothers were the ones who were mostly affected from the disaster. Our upstairs neighbor’s baby was 3 months-old. From sadness and shock, the puerperant women could not breastfeed. Since there was no additional food, we all tried to find them some nutrition to survive.” (MP14, 47, driver, Şanlıurfa)

“Of course mothers. If they cannot feed their babies or give food to their family members, they would get affected psychologically.” (MP16, 56, cook, Hatay)

“Beyond any doubt, women.” (MP9, 33, worker, Kahramanmaraş)

What kinds of affects do the earthquake experiences of the participants provide us with sociological inferences in terms of gender? Is there any difference between genders?

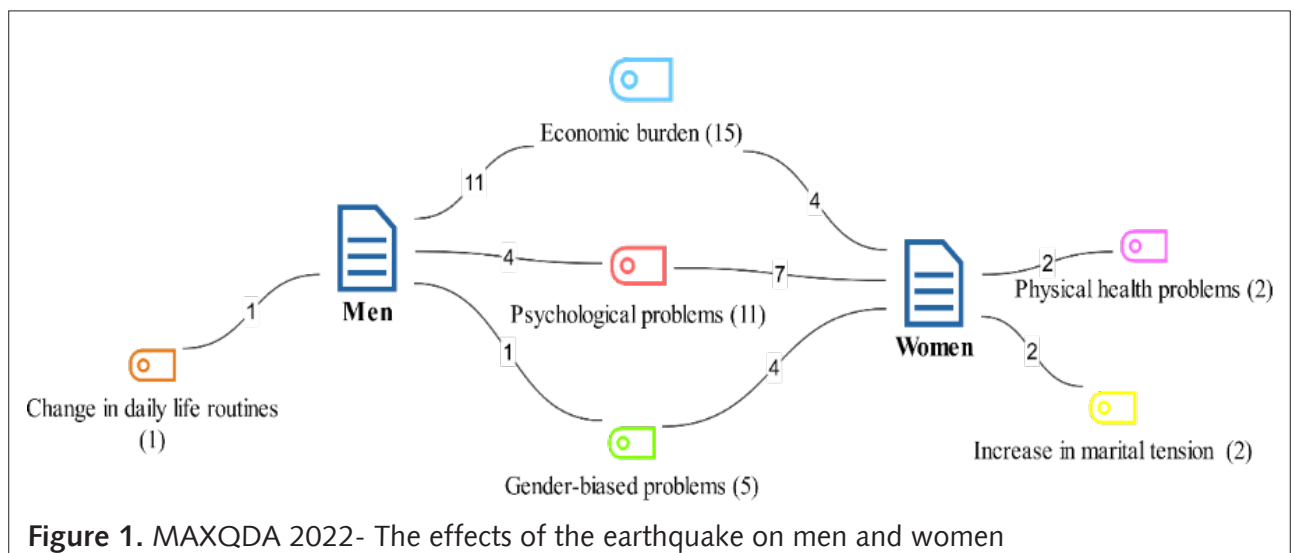
Figure 1 demonstrates the most important effects of the earthquake sequences on men. These effects can be categorized into four: 11 men (65.0%) indicated that they have faced with economic burden, while 4 of them (24.0%)

stated that they have regarded their psychological problems as the most important effects. One man (5.5%) said that change in daily life routines has been the most important effect while the other man (5.5%) noted that they have faced with a problem that could be handled as a gender-biased problem.

What Figure 1 also shows that the most important effects of the earthquake sequences for women can be grouped into six: 7 women (37.0%) stated that they have faced with some psychological problems, 4 (21.0%) told that they have faced with economic burden and 4 (21.0%) stated other problems that could be handled as gender-biased problems. On the other hand, two women (10.5%) stated that they have experienced an increase in marital tension; and two women (10.5%) indicated that they had physical health problems.

The point, then, is that these two tables reveal the influences of the earthquake experiences of the participants which provide us with sociological inferences in terms of gender.

As to the economic burden, men tended to mention this problem more than women. (MP 2-6, 8, 9, 11, 13-16; WP 7, 9, 13, 15). This tendency seems to resemble the previous research in literature underlining that at post-disaster conditions, women with low-income are affected worse than those of men in terms of private and public spheres and social circumstances by spatial processes through their gender-based roles and relationships (30).



In contrast, more women stated that psychological problems were the most important effects of the earthquakes than men. This finding is also in parallel to the literature indicating that after natural disasters, psychological problems, discomfort and complaints are more common in women than in men (38). Similarly, Alkan states that coping strategies with earthquake stress differ according to gender (39), whereas Bacanlı and Ercan underline that there is no difference (40).

“Just think that you were waken up by a very strong shaking, you cannot even move or walk. After this big shock, I started to experience panic attack and eating disorders first time in my life”. (WP18, 62, housewife, Adiyaman)

Besides, other six women participants stated that they have big trouble in sleeping even for three hours (WP2, 4, 10, 14, 16, 19).

“It’s so hard to be a father rather than a man. I have never felt like this in my life, I am mentally depressed. I’m feeling a heavy burden on my responsibility for the safety of my house (he intended to say the physical condition of the house) and the safety of my wife and children in the household. Because it was me who bought this house for them, if it had been collapsed, I would have caused their death.” (MP7, 62, retired, Diyarbakır).

Another factor that both men and women stated they experienced during the disaster period was gender-biased problems. When the statements of both women and men is observed, it can be concluded that more women tended to mention gender-biased problems. These results yielded the same with those who state that women are one of the groups who are mostly affected by the disaster because of gender inequality (13-38).

“I witnessed the shock of my life! On the third day of the earthquake, my husband came to our tent with a woman and two children. That was the time I learnt that my husband has another wife! What can be worse than this situation for a woman? (she cries). If I can find a permanent work and house for my family, I will get divorced with him. But now it is impossible to live with my three children without an income. I wish I

had lost my husband in the earthquake than facing with such a family disaster”. (WP1, 46, housewife, Kahramanmaraş). This is an instance for polygyny which is an indicator of the gender inequality.

The literature states that at post-disaster period, because of safety factors, women are more victims of violence and harassment than men (31):

“We were in Kilis during the earthquakes, but are from Kahramanmaraş, our relatives were there. After the disaster, seeing that we all survived, my father left us at a shelter of our friends in the village and went to Kahramanmaraş to participate to the rescue activities. We were 5 women: my grandmother, my mum, me and my two sisters. It was very hard to be there for 9 days women by women. We were very afraid, because the people there were very rude despite our disaster problem. I will never forget those nine horrible nights all my life!” (WP17, 21, Kilis).

“Millions of my siblings were affected from this disaster. I still cannot believe what we witnessed. It is the end of the world, most of my relatives, friends, neighbours, everyone around me died (cries). But we must eat, we must sleep, life goes on even if we are staying in a temporary dormitory now. I have four children; the babies are twins. My husband started to work at a factory, but he says he cannot bear the noise in the factory. This started after the earthquake, he started to feel some psychological problems. I need to take care of my family, clean the dormitory room, look after children. When I have time, I knit some sweaters and jumpers to sell and earn money. It is the woman who affect negatively from this disaster. Men can say that “I cannot stand the noise”. But we, women, cannot. This is the summary of all this disaster.” (WP11, 39, housewife, Adana).

Another gender-biased statement of one of the women participants witnessed is the female poverty providing similar results with the earlier studies. During the disaster process, the resilience of women decreases. As a matter of fact, women experience serious grievances because even

the post-disaster aids are made from a male perspective. It is seen that the special needs of women are ignored in the distribution of health aid materials (41). This lack of access to vital relief items are their basic needs for appropriate shelter, hygiene and sanitation, healthcare equipment.

"I am grateful for everyone who sent us our necessities. After I retired, I started to work for women and children charities for 5 years. My house was simply destroyed at the earthquakes. So I immediately started to participate to the charity activities. To my great regret, what I witnessed was very sorrowful: The people who sent us supplies and equipment were very considerate and kind except from the hygiene supplies of women. They sent every simple equipment for men and children, even the razor blades of men. We had serious difficulties in supplying menstrual pads." (WP5, 68, retired teacher).

One man stated that because of the masculine gender roles, he faced with a gender-biased problem: "I was urged to give support to research and rescue teams despite my psychological problems. It was my friends and neighbours who urged me, they said that I am a male and I must help them. I saw three dead body, and until that day, I cannot sleep well." (MP17, 22, lost his work, Adiyaman)

Regarding the increase in marital tension, two of the women participants reported that both of them (WP3 and 8) felt changes in their family relations and their husbands changed to nervous men. This finding is the same as Lebni et al. (25) stating that earthquakes may lead a disruption of marital relations, even the sexual relations between the couples.

Physical health problems are another finding that women underlined (WP6, 12). They told that they started to have some physical health problems as they cannot breathe well and cough every time. This finding is also compatible with those of Lebni (25).

There is one influence that men stated and women did not. This is the integration difficulty to new life conditions. MP12 mentioned that as his life completely changed, he cannot get accustomed to the new life conditions as there is no place for him to get socialized with friends.

This is like Rendell states that certain places are explicitly gendered as reserved for men and women, or gendered according to feminine and masculine codes (42). The kitchen of the house or the coffee houses are the most used examples in this sense.

Last but not the least, the findings of the studies are found to be compatible with the comprehensive research of Paksoy-Erbaydar, İnal and Kaya (43) who carefully examined the 17 basic legislation documents of the Republic of Türkiye in terms of disaster from a gender perspective. Such as the results of this current study, they also underlined that only the 23.5% (n=4) of these documents include national security perspective, whereas the rate of those of the social perspective is 5.9% (n=1). Besides, when the 17 legislations reviewed in terms of gender, 88.2% (n=15) of them are gender-blind, 5.9% (n=1) is gender-neutral, and 5.9% (n=1) is equal; which reveals a great deal of deficiency in disaster legislation.

Results

Generally, the gender-neutral earthquake doublets occurred consecutively rocking 11 provinces of Türkiye had effects on each and every resident living in those area regardless as their genders. Specifically, however, the experiences of the participants stricken by those out-of-control and unpredictable earthquake doublets revealed that recognizing that women had already been vulnerable with pre-existing inequalities, this vulnerability further deepened, and a secondary disadvantage as being earthquake victims with more mortality rates make them experience multi-crisis.

As to the earthquake experiences of the participants, as a reply to the first research question, comparing women and men, women were more dramatically affected from the earthquake sequences by considering the following three factors: their physical status, their economic status and occupational conditions, and their higher mortality rates.

Based on the findings regarding the gender roles of the participants, that is, an answer to the second research question, it can be concluded that both men and women had behaved in accordance with the gender roles that society

expected from them before the disaster period. Likewise, after the disaster period, there has been no change in their roles in domestic and public sphere. Besides, when the participants were asked which gender was mostly affected by earthquakes; some of the participants answered that the other gender was mostly affected from the earthquakes. Nevertheless, more men stated that women were influenced more negatively than men.

Lastly, according to men, the most important effects of the earthquake sequences on men were economic burden, psychological problems, change in daily life routines and a gender-biased problem respectively. As to women, the most important effects of the earthquake sequences on women were psychological problems, economic burden, gender-biased problems, increase in marital tension, and physical health problems. When the statements of both women and men is observed, it can be added to previous studies that more women tended to mention gender-biased problems (household burden, female poverty, gender roles, polygyny, violence). The findings of this research demonstrated that the earthquake experiences of the participants provide us with sociological inferences in terms of gender.

These findings, therefore, add to the already strong body of evidence showing that vulnerability of women stemming from gender inequalities has doubled, deepened and further exacerbated as a result of the earthquakes.

Lastly, the findings of this study being compatible with those in the previous disaster literature can be interpreted as an indication that the necessary precautions and recommendations are still not taken into account and there is a pressing need for focus on the gender-biased effects of the disasters.

There are several limitations in this research. Firstly, this study was conducted with the earthquake victims who settled to Samsun province of Türkiye and who were adults -older than 18-. The reason for this was being easier to reach the participants who were in Samsun and the reason for excluding Syrian people was because of language barriers. Further research may be conducted with those with children and/or living in other provinces of Türkiye; or with the

earthquake victims who did not leave the quake-hit areas.

Conflicts of Interest

I declare that I have no conflict of interest.

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I declare that I did not get any financial support from any institution or person.

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