

Safety Rule Breaking in Disasters: A Qualitative Analysis on Disaster Volunteers

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Abstract

Volunteers are considerable human source in disasters. The stress, pressure and difficult conditions of disasters can lead to breaking of safety rules by employees, especially young people. Safety breakings may lead to stoppage or failure of the activities. This research focus on the young volunteers' safety rule breaking behavior in disasters. Based on job demands-resources (JD-R) theory, data were gathered through semi-structured interviews from individuals working in the regions affected by the 6 February 2023 Kahramanmaraş earthquake. The research sample consisted of 17 young disaster volunteers between the ages of 18-26 who were eligible for criterion sampling. The data were analysed thematically, theory-oriented and deductively. As a result of the thematic analysis, 3 themes, namely job demands, job resources and breaking of safety rules, and 16 categories under these themes were discovered. Results implied that young volunteers use work resources against intense work demands. Although studies in the field of organisational safety suggest that job resources increase safe behaviour, this study indicates that the job resources of volunteers in disasters may increase breaking of safety rules.

Keywords: Disaster, Job Demands, Job Resources, Safety Rule Breaking, Volunteering, Volunteering in Disaster

1. INTRODUCTION

Disasters affect millions of people every year and cause billions of dollars in losses (Maurice, 2013). They can occur in different ways depending on the location of countries and the vulnerabilities of societies. Floods in some regions, storms or earthquakes in others can deeply affect societies (CRED, 2022). Earthquakes are the disasters that have caused the most loss of life and property in Türkiye from past to present. The earthquakes that occurred in Pazarcık and Elbistan districts of Kahramanmaraş on 06 February 2023 with a magnitude of Mw: 7.7 and Mw: 7.5, respectively, directly affected 11 provinces and nearly 14 million people.

After the large-scale disaster, volunteers from many regions of the country and the world have travelled to the region to participate in intervention and relief activities. Contributions of volunteers are of great importance in disasters (İskender and Erdoğan, 2007). Volunteers stay in disaster areas for long periods and try to support many activities (Heidarpoor et al., 2021). Volunteers' activities can be effective in reducing the workload and pressure on official institutions and professional workers (Whittaker et al., 2015). However, volunteers can be a major problem in

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disasters besides their potential to make a multifaceted and great contribution. The point of distinction here depends on the compliance of volunteers with safety rules and their management in effective coordination (Heidarpour et al., 2021; Whittaker et al., 2015). Although the participation of volunteers in disaster operations is critical (Paret et al., 2021), many researchers emphasise that disaster volunteers emerging in crisis situations are seen as a problem and a liability by professional responders (Barsky et al., 2007; Strandh and Eklund, 2018; Harris et al., 2017; Carlton et al., 2022). When volunteers do not comply with security procedures, they can also hinder search and rescue activities (Sauer et al., 2014). Inadequate security makes emergency humanitarian aid operations more challenging (Hazeldine and Baillie Smith 2015). While unprepared crisis volunteers can make an important contribution to humanitarian action, they are used ineffectively as they create health, safety and security concerns (Paret et al., 2021). The devastating Kahramanmaraş earthquake in Türkiye provided a unique and real-world angle to explore the intensive use of volunteers in the field and the safety rule-breaking behaviours of volunteers.

Although volunteering in disasters is valuable for disaster victims, institutions, organisations and administrations, it is a difficult volunteering activity due to the nature of disasters. Volunteering in disasters generally involves heavy physical conditions, high stress and an unhealthy working environment (Demirbilek and Öztürk, 2023). Due to these conditions, it is important that the volunteers who will work in the disaster area should be strong, have no health problems and be resistant to severe conditions. These conditions show that young people are one of the most proper groups for disasters volunteering (Erdoğan et al., 2020; Fothergill et al., 2005; Carlton and Mills, 2017). In fact, young people are the group that most intensively encouraged to volunteer (Yönten Balaban and Çoban İnce, 2015; Kesgin, 2016). However, the behaviour of young individuals to comply with safety rules is considerably lower than other groups (Nivette et al., 2021). Therefore, young volunteers tend to be disregarded in disaster response (Maharjan, 2022; Fothergill, 2017). However, young people can be involved and contribute to both internal and external units for various reasons such as sacrifice, service, training and advancement (Ho et al. 2015). If we accept that young people anticipate their efforts, it can be said that it can be greatly beneficial for young people to participate in community programmes for social development and transformation (Naeem et al. 2021).

Rule-breaking studies has mostly focused on the hospitality sector (Gong et al., 2022; Gazzoli et al., 2022), but young volunteers may exhibit safety rule-breaking behaviour in disaster studies, focusing on the impact of various resources and demands. Although theories of social exchange, social information processing, leader-membership exchange, social cognitive and social identity are mostly used to understand rule-breaking behaviour (Malik & Mishra, 2023), the JD-R used in organisational psychology in this study is different from other studies. The JD-R (Bakker & Demerouti, 2007) formed the theoretical basis of this study as it offers a major expansion in behavioural reasoning in the safety literature. The model offers an extensive basis for researching psychosocial aspects of the workplace, such that demands and resources, which have a positive and negative impact on workers' well-being and, consequently, safety-related behaviours and outcomes.

Most of the rule-breaking research has been conducted in the USA (Malik and Mishra, 2023), but since the importance of safety in disaster work is clear, it is worth investigating safety rule-breaking behaviour in the context of disaster volunteering and with dynamics specific to the Turkish context. Several theories have been conceptualised by safety experts to understand safety behaviour (Hofmann et al., 2017; Beus et al., 2016). However, we aimed to advance the safety literature in the earthquake field and facilitate a systematic process of exploration. Although safety is particularly important in disaster areas, little has been done in the literature to understand the safety behaviours of volunteers. The main purpose of this study is to explore the

behaviours of volunteers working in the disaster area to break safety rules in the context of demands and resources. In this study, we extend the Job Demands-Resources (JD-R) model, which is mostly discussed in organisational studies, by including the safety rule-breaking behaviour of disaster volunteers.

2. MATERIAL AND METHOD

2.1. Design

In this research, phenomenological design was preferred as it was aimed to explore the motivations and sources that cause rule breaking behaviours of volunteer individuals in disasters (Patton, 2015). The research focused on young volunteers who are reported to be more prone to break safety rules in the literature. With the research, it was aimed to discover the reasons that make young volunteers break or comply with safety rules during volunteering activities in disasters.

2.2. Study Group

In the research, criterion sampling was adopted within the scope of purposive sampling. In this context, the criteria sought for the people to be included in the study are as follows;

- Working in any city affected by the Kahramanmaraş earthquake
- Being between the ages of 18-25
- Working in the field for at least 3 days
- Conducting activities with any institution or organisation (the aim here was to distinguish between spontaneous volunteers and organisational volunteers)
- Volunteering to participate in the study.

Interviews were conducted with individuals with different age, gender and city characteristics as much as possible within the scope of maximum diversity. To reach the participants in the study, invitation e-mails were sent from the relevant institutions and associations through the information obtained from the individuals suitable for the study group. Interviews were conducted with volunteers who accepted the study and reached the researchers. Individuals who provided remote support to earthquake studies and individuals who did not meet the specified criteria of the study were not included.

This study was conducted with young volunteers who volunteered in the Kahramanmaraş earthquake. A total of 17 participants (7 males, 10 females) aged between 18 and 25 (mean: 21,7; SD: 2,21) participated in the study. Most of the participants participated in volunteering activities in Adıyaman, Malatya, Kahramanmaraş and Hatay during the earthquake covering 11 provinces. Twelve of the participants had previously participated in volunteering activities. In the Kahramanmaraş earthquake, the volunteer who volunteered the least was 3 days and the volunteer who volunteered the most was 9 days (Mean: 5.8, SD: 1.7). Eight of the participants were volunteers affiliated to official institutions and the other nine were volunteers affiliated to non-governmental organisations. Individual characteristics of the participants and information about their volunteering activities are presented in Table 1.

2.3. Ethical Considerations

Necessary ethical permissions were obtained for this study. The interviewees were asked for permission to record their voices, and the purpose of the study, how it was conducted, and the data collection method were explained to them before the interviews were conducted to ensure the confidentiality of their information and participation. The participants were then assured that the interview would be kept confidential and kept in a safe place with the research team and that they would have the right to leave the study at any time. Informed consent was obtained from the

participants for the study, and the confidentiality and privacy of the participants' information was protected as the ethical issue of this research.

Table 1. Demographic and individual characteristics of the study group.

No	Age	Gender	City	Education Status	Duty Period (Days)	Day Of Participation in The Work	Organisation Type	Volunteering Experience
1	19	F	Adıyaman	Associate degree	7	2	Public Institution	Yes
2	22	M	Kahramanmaraş	Associate degree	5	2	NGO	Yes
3	23	F	Hatay	Bachelor's	8	1	NGO	No
4	18	M	Hatay	High School	3	3	NGO	Yes
5	24	M	Malatya	Bachelor's	6	2	Public Institution	No
6	25	M	Kahramanmaraş	Associate degree	4	1	NGO	Yes
7	21	F	Malatya	Associate degree	6	2	Public Institution	Yes
8	23	F	Adıyaman	Bachelor's	5	1	Public Institution	Yes
9	22	M	Adıyaman	Associate degree	9	2	Public Institution	Yes
10	19	M	Hatay	High School	5	2	NGO	No
11	20	F	Kahramanmaraş	Bachelor's	7	3	NGO	No
12	18	F	Malatya	High School	7	1	Public Institution	Yes
13	23	F	Adıyaman	Bachelor's	6	5	NGO	Yes
14	21	F	Hatay	Associate degree	4	4	Public Institution	Yes
15	24	M	Hatay	Bachelor's	5	1	Public Institution	Yes
16	25	F	Kahramanmaraş	Bachelor's	9	3	NGO	No
17	22	F	Malatya	Associate degree	3	1	NGO	Yes

2.4. Data Collection

Semi-structured interviews were conducted separately for each participant. The interviews were conducted without any guidance to the participants and by preventing too much distraction of the subject. Two main questions were sought to be answered in the interviews.

1. What are the job demands and resources related to safety rule breaking in disaster volunteers? What is their content?

2. How is the structure of safety rule breaking behaviour conceptually shaped in disaster volunteers?

The interviews followed a semi-structured interview guide developed to answer the above two questions about safety rule breaking behaviour in disaster field work (Table 2). Before the interview, we explained the purpose of the study to each participant and obtained their consent to record the interviews. The interviews were recorded using a mobile phone mobile recording application. Participants were not offered any cash or in-kind compensation. From March 2023 to

May 2023, individual interviews were conducted with the participants face-to-face with those who could be reached and online platforms with those who were in another city, without anyone other than the interviewer and the participant, and each interview lasted approximately 30 minutes on average, with a minimum of 23 minutes and a maximum of 39 minutes until data saturation. 14 participants were interviewed online, and 3 participants were interviewed face-to-face. The sample size continued until the data saturation stage when the data started to repeat itself. After the 15th participant, who started to hear similar expressions repeatedly and did not receive any new information, the researchers conducted 2 more interviews to confirm the situation and ended the interviews. All interviews were audio recorded and transcribed verbatim. The transcribed data and the notes taken were combined to reach the whole picture.

Table 2. Interview Schedule Depicting Safety Rule Breaking

1. Could you talk about your working conditions and working environment?
2. Were there any incidents that endangered your safety during your field work? What do you think was the reason for these?
3. What kind of safety procedures and rules did the officials of your institution apply for safe working in the field?
4. If the institution/organization you are affiliated with did not care about your safety, why do you think that might be the reason?
5. When faced with a situation that endangered your safety, how did you act to solve it?
6. Have you thought about your safety during the working? Why?
7. Have you had to break the rules about safety? Why?

2.5. Data Analysis

Following the idea that themes are "meaningful entities constructed from codes that unify disparate data and capture the essence of meaning that recurs to some degree in a data set" (Braun & Clarke, 2006), we created our themes by applying theory-driven (deductive) processes. While analysing the data, we focused on the direct, superficial and explicit meaning of the participant statements rather than interpretive. Theoretical approaches were used in naming the themes. In the process of coding the data, the apparent meaning in the sociocultural context and structural conditions was taken as a criterion.

In the analysis of the data, firstly, the qualitative data were read repeatedly by three researchers until the familiarity with the data was ensured and the first ideas were formed. Then, the interview transcripts were extracted and categorised into meaningful units and important statements related to the subject were extracted. After three transcripts, the researchers came together to discuss the appropriateness of the coding. Then, coding was continued separately by all authors until the transcript was completed. The researchers continued to code the rest of the transcripts, and the process of abstraction continued. These codes were then read repeatedly and similar codes dealing with a single topic were placed in a class and the codes were checked continuously, so that this coding was conducted at the same axial level. The data started to show a distinct pattern at this point, so the codes were moved and put into preliminary categories. In the next step, the categories were compared, and similar categories were combined to form larger and more abstract themes. This process was managed through frequent mutual agreements between the researchers to ensure consensus. Then, similar codes that the researchers agreed on were brought together to form categories and then themes. The themes were reviewed again and differentiated from each other.

The main themes were finally categorised under job demands and resources according to construct definitions. When deciding what to be a theme, attention was paid to the frequency of the relevant codes, the relevant theoretical basis and the fact that it provides an important answer to the research question. To increase the validity of the study, a professor from the field of

psychology who is an expert in qualitative studies and experts with a PhD degree in Emergency and Disaster Management were asked to review the study at every stage of the coding and thematization process.

2.6. Validity and reliability

To ensure validity and reliability in this study, the data obtained, and the analysis conducted were presented to different experts in qualitative analysis. In addition, for validity and reliability, the "Validity Tests: A Checklist" developed by Maxwell (2018) was used. In this context, eight different steps were followed.

1. Intensive and long-term involvement: The participants were interviewed several times before the interviews to determine the topics related to the interview and to get acquainted.
2. Rich data: We tried to obtain as rich data as possible with different methods such as flexibility, information about the environment, the status of the participant, voice recording.
3. Participant confirmation: In the interview, each subject was confirmed by the participant again. This situation prevented misunderstanding and wrong data.
4. Intervention: Participants were given flexibility in all matters and intervention was avoided as much as possible.
5. Searching for inconsistent evidence and contradictory situations: Although inconsistent and contrary data were obtained in the study, they were not ignored. All data were treated equally.
6. Diversification: In the study, it was tried to reach people with different characteristics as much as possible.
7. Numbers: It was aimed to facilitate the understanding of the subject by quantifying the necessary parts of the data obtained within the scope of the study.
8. Comparison: The data obtained were compared with different studies.

3. FINDINGS

The categories obtained in this study, which was implemented to uncover the structure of safety rule breaking and related variables, were classified under the themes of job demands, job resources and safety rule breaking. Coding is an especially important work in analysis and summarization. It includes labelling the responses of the interviewees and selecting, distinguishing and categorizing the qualitative data. The findings of this study were summarized under themes and categories. Related themes, categories and participant quotes were given below.

3.1. Antecedents of Safety Rule Breaking

In this study, the variables that may be the antecedents of the safety rule breaking behaviour of disaster volunteers are gathered under the themes of job demands and resources based on the JD-R model.

3.1.1. Job Demands

The findings obtained in this study showed that disaster volunteers were faced with many jobs' demands related to safety rule breaking. The highest priority in disaster works was to heal the wounds of the people who were seriously damaged (badly effected) in the earthquake as soon as possible. This situation requires the volunteers to intervene intensively and quickly. Although the process started to improve over time, volunteers faced intense job demands, especially at the beginning of the process. Themes, categories and participant quotes related to job demands were given in Table 3.

Volunteer team members must fulfil their job despite job demands and therefore they can show safety rule breaking behaviour. Disasters occur instantly and unexpectedly, so volunteers are sent

to the region to respond to disasters as soon as possible. In this earthquake, volunteers went to the disaster area psychologically and physically unprepared (Unpreparedness: *"I went to help in a hurry, but I didn't think if I was ready physically and psychologically"*). As a result of the impact of disasters, access to needs such as shelter, nutrition and hygiene is restricted. After arriving at the disaster area, the volunteers faced difficulties in accessing basic needs such as hygiene, shelter and nutrition. (Difficulties in Accessing Basic Needs: *"I had a hard time meeting my basic needs"*). Considering the effect size of the earthquake, it was not possible to provide enough resources and equipment to the volunteers. Volunteers experienced difficulties in accessing resources such as personal protective equipment (Lack of Equipment/Resources: *"Equipment and resources were insufficient"*). Although they used limited resources alternately and shared within the team, this was not enough.

Participants also faced various job demands in terms of job design. When the moment of disaster and its immediate aftermath are evaluated, it is not easy for the volunteers who come to the region to be placed in the right job according to their competencies. Tasks assigned to volunteers in the field were given according to needs, not areas of expertise or competence (Role Ambiguity: *"We didn't have a clear job description, we tried to catch up wherever there was a need"*). Due to the inadequacy of proper task distribution, work follow-up and time planning, the participants were faced with excessive workload in a working environment without a clear work level and task sharing (Work Overload: *"The heavy workload and the cycle of working without rest was tiring me physically"*). Team leaders have acted focused on the fulfilment of the work to be done, not individual oriented. Volunteers found the support of the team leader insufficient. According to them, the team leaders did not guide the team sufficiently (Lack of Direction: *"I was not sufficiently guided by the team leader"*). Although the volunteers could not be fully integrated into the authorized institution, there was a serious need for volunteers in various tasks in the disaster area. Volunteers were expected to make an intense effort, especially in the background work (Work Expectation: *"I was expected to do a lot of work"*).

Finally, the volunteers were encounter negative reactions from the victims, considering that the volunteers were late and did not provide enough support during the disaster studies (Negative Reactions from Victims: *"I faced the negative reaction of earthquake victims"*).

Table 3. Themes, categories and participant quotes related to job demands

Theme	Category	Participant quotes	Frequency (N: 17)	Response %
Job Demands	Unpreparedness	<i>I went to help in a hurry, but I did not think if I was ready physically and psychologically.</i>	9	53
	Role Ambiguity	<i>We did not have a clear job description; we tried to catch up wherever there was a need.</i>	12	71
	Work Overload	<i>The heavy workload and the cycle of working without rest was tiring me physically.</i>	8	47
	Lack of Direction	<i>I was not sufficiently guided by the team leader.</i>	11	65
	Negative Reactions from Victims	<i>I faced the negative reaction of earthquake victims.</i>	8	47
	Difficulties in Accessing Basic Needs	<i>I had a hard time meeting my basic needs.</i>	9	53
	Lack of Equipment/Resources	<i>Equipment and resources were insufficient.</i>	11	65
	Work Expectation	<i>I was expected to do a lot of work.</i>	6	35

3.1.2. Job Resources

Although the disaster volunteers faced the above-mentioned job demands, they continued their work by buffering the job demands with their job resources. Themes, categories and participant quotes related to job resources were given in Table 4. Based on frequencies, the most important of these source was the empathy with the earthquake victims.

After the earthquake, earthquake survivors expect volunteers to assist them in various tasks. Participants focused on helping individuals in case of disaster by putting aside the problems in their inner world. Volunteers see the suffering of the victims and meet them. Practice theory suggests that human interactions result in increasing/decreasing transaction values (Shum, Ghosh, & Garlington, 2020). A greater understanding and empathy for others' perspectives is reflected in the volunteers' concern for their well-being. Participants expressed this situation as *"While I was working, I empathized with the earthquake victims by saying that we could have been in this situation."*

One of the resources that volunteers had in disaster work is support. The participants stated that they did not receive the support they expected from the authorities. Thus, they acted with their individual efforts. The presence of the support of their teammates and earthquake victims was striking. Participants stated that when they encountered a safety problem, they tried to solve it individually and then they tried to solve it through cooperation with their teammates (*"While working in the field, I felt the support of my colleagues with whom I worked"*). On the other hand, the participants shared that the earthquake victims in the disaster area approached them with support. In this regard, earthquake survivors knew volunteers came for remote assistance and especially helped their nutritional needs. Volunteers also perceived the positive feedback of earthquake survivors themselves as support (*"You see that their eyes are smiling when you do something, meet their needs, they pray for you, that's enough for me"*).

The findings obtained in this research showed that another source related to safety rule breaking is autonomy. Researchers consider autonomy as one of the important job resources (Hobfoll, Halbesleben, Neveu, & Westman, 2018; Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). Autonomy means individuals have more resources to freely choose various working methods and autonomously control the work process; this enables volunteers to respond to the complex needs of earthquake survivors. In case of disaster, relevant authorities are immediately assigned for coordination at local and regional level. As the earthquake affected a very wide area, the authorities had difficulty in coordinating the volunteers. Many volunteers went to the earthquake area with national and international calls to help the disaster area quickly. However, according to the participants, the fact that the number of volunteers in the region was more than it should have caused the volunteers to move freely and autonomously in the area. One of the reasons why the volunteers acted autonomously was seen as the authorities did not have time to coordinate the volunteers and focused on the work to be done rather than the volunteers (*"We were not the priority of the authorities; it was the work that mattered to them"*). According to the participants, the authorities took quick decisions with constant phone calls and meetings and acted towards the applications. For this reason, the volunteers mostly acted autonomously by working in the fields and tasks they wanted according to the needs and demands, rather than fixed tasks. On the other hand, they were able to access various areas by using their corporate identity. Autonomy has also emerged through volunteers developing individual solutions to emerging problems. One participant expressed this situation as *"When a safety problem arose, I tried to solve it myself or asked my friends for help, the authorities were already too busy, I did not want to give them a job."*

Table 4. Themes, categories and participant quotes related to job resources

Theme	Category	Participant quotes	Frequency (N: 17)	Response %
Job Resources	Empathy	<i>While I was working, I empathized with the earthquake victims by saying that we could have been in this situation.</i>	13	76
	Support (Earthquake Victims)	<i>While working in the field, I felt the support of earthquake victims.</i>	13	76
	Support (Coworker)	<i>I felt the support of my colleagues with whom I worked.</i>	12	71
	Autonomy	<i>I was able to work freely as I wanted.</i>	6	35

3.1.3. Structure of Safety Rule Breaking

The results regarding the safety rule breaking behaviour showed that this behaviour was themed as working with insufficient PPE (Personal Protective Equipment), service orientation, lack of voicing, and being dangerous areas without permission. The theme, category and participant quotes regarding the structure of safety rule breaking behaviour were given in Table 5. Participants stated that they work in hazardous areas with insufficient and unsuitable personal protective equipment (Working with insufficient PPE: *"I continued to work with insufficient personal protective equipment"*). In fact, they stated that they often use personal protective equipment alternately with their teammates. On the other hand, although the volunteers believed that safety was necessary for them to help others in a healthier way, they focused more on the service they provided to earthquake victims than on safety (Service Orientation: *"Even when I felt that I was psychologically or physically worn out, I continued to work"*). Volunteers stated that when they encounter a safety problem, they try to solve it themselves rather than reporting it to the team leader (Lack of Safety Voicing: *"I did not notify the team leader when I encountered the safety issue"*). Volunteers stated that they were able to work in potentially dangerous areas without the knowledge of the authorities to further assist earthquake victims. They stated that they were able to work close to dangerous construction machines and pass through buildings that could collapse without informing the authorities. (Being dangerous areas without notifying authorities: *"Even without professional teams, I entered the dangerous areas"*).

The findings showed that although the rule-breaking behaviour of volunteers in disaster studies are consistent with existing research in other sectors, the unique nature of disaster studies shapes the nature of rule-breaking behaviour. This study has similar results with qualitative study on rule breaking of Ghosh and Shum (2019). They classified rule breaking into self-interest, unintentional, helping coworkers, increasing work efficiency and promoting guest service in hospitality organizations. The found most frequent typologies as self-interest (39.58%), promoting guest service (25%) and increasing work efficiency (14.58%). Although the content of our findings is similar, the emergence, presentation, and context of the rule breaking differ from their study. While their study focused more on the motivational aspect of safety rule breaking, this study explored the behavioural nature of safety rule breaking and its associated variables in terms of job demands and resources.

Table 5. Themes, categories and participant quotes related to safety rule breaking

Theme	Category	Participant quotes	Frequency (N: 17)	Response %
Safety Rule Breaking	Working with inadequate PPE	<i>I continued to work with inadequate personal protective equipment.</i>	9	53
	Service Orientation	<i>Even when I was psychologically or physically exhausted, I continued to work.</i>	11	65
	Lack of Safety Voice	<i>When I ran into a safety related issue, I tried to fix it myself.</i>	7	41
	Being dangerous areas without notifying authorities	<i>Even without professional teams, I entered the dangerous areas.</i>	6	35

4. DISCUSSION

This study explored the safety rule breaking behaviour in earthquake area in the context of JD-R theory. Results indicated that disaster volunteers use some resources to buffer various job demands, as supported by the literature, and that even if this reflects positively on their well-being, it has a negative effect on safety rule breaking. It has been observed that volunteers buffer their job demands with few resources. As mentioned above, existing research showed that the job demands obtained in this study increase safety rule breaking in a way that supports the studies conducted in the context of JD-R theory. However, although studies in the field of organizational safety indicate that job resources increase safe behaviour, the findings in this study suggest that, the resources that volunteers have in disaster works increase safety rule breaking. Marcus and Schuler (2004) argue that job demands increase rule breaking behaviour by consuming job resources. However, the results of this study indicated that beyond the consuming job demands of volunteers in disaster studies, job resources may buffer job demands and both job demands, and job resources can increase safety rule breaking. In this study, it was discovered how the relationships between the job demands, resources and safety rule breaking behaviour of disaster volunteers were shaped and discussed in the light of the relevant literature.

Research showed that increased job demands lead to burnout, which in turn negatively affects safety behaviour. Job demands drain employees' mental and physical resources and that lead to burnout. Evidence from numerous empirical studies across a variety of context confirms this positive relationship (A.B. Bakker and Demerouti, 2007; Crawford, Lepine, and Rich, 2010). As the JD-R model posits, a stressful work environment can indirectly lead to unsafe behaviour. Job demands, including emotional and physical demands, have been shown to increase employees' workloads prevent employees from focusing on safety behaviour (Niu, Li, Li, & Liu, 2022). Hansez and Chmiel (2010) found that the effect of job demands on safety behaviour was mediated by job strain. Similarly, perceptions of general stress, job strain, job burnout, and job uncertainty are negatively related to safety (Hofmann and Stetzer, 1996). People who experience high work pressure are less likely to use safety equipment (physical safety) or initiate procedures for reporting anger and violent incidents (Bronkhorst, 2015). Bronkhorst (2015) found that high levels of job stress have a negative impact on safe working. Jung, Lim, and Chi (2020) confirmed this by finding that job stress affects construction workers' safety behaviour. Studies also have shown that occupational stress is associated with an increase in work accidents (Stenfors, Magnusson Hanson, Oxenstierna, Theorell, and Nilsson, 2013; Vecchio, Suffham, Hilton, and Whiteford, 2011; Vestly Bergh, Hinna, Leka, and Jain, 2011). 2014). Additionally, studies have shown that work stress has a negative relationship with safety practices and increases the risk of work accidents (Hilton and Whiteford, 2010; Nahrgang, Morgeson and Hofmann, 2011). Current evidence shows that work-related stress is associated with many health-related behavioural problems (Nomura, Yano, and Fukui, 2010; Silva and Barreto, 2012; Tsai, 2012). In terms of safety rule breaking, employees break work rules to achieve performance goals due to overwork and inadequate resources (Ghosh and Shum, 2019).

Despite the negative impact of job demands on people's well-being and safety, job resources can counteract the impact of job demands, promote extrinsic motivation, and motivate the individual (A. B. Bakker & Demerouti, 2007; Q. Hu, Schaufeli, & Taris, 2011). There is little need for change by taking other jobs and labor resources (A. Bakker, Demerouti, and Schaufeli, 2003; Schaufeli and Bakker, 2004) and organizational commitment (Hakanen, Schaufeli, and Ahola, 2008). There is evidence to support the negative relationship between job resources and burnout because most job resources help employees meet job demands and protect them from the stress of resource depletion (A.B. Bakker and Demerouti, 2007; Crawford et al., 2010; Nahrgang et al., 2011). For example, when autonomy is increased, employees can decide for themselves when and how to respond to job demands, which reduces stress. Many studies on volunteering, healthcare

professionals and education in Australia, Belgium and China have shown that individuals remain motivated despite high job demands and can avoid the negative effects of job demands by improving their autonomy and discipline (Q. Hu et al., 2011).

Job resources of disaster volunteers revealed in this study are positively related to work engagement and negatively correlated to burnout and stress as literature points. However, although studies in the field of organizational safety indicate that job resources reduce unsafe behaviours (Ortiz-Gómez, Molina-Sánchez, Ariza-Montes, & Los Ríos-Berjillos, 2022), our findings indicated that the job resources revealed in this study can increase the safety rule breaking of disaster volunteers. Studies have found that empathy is negatively associated with fatigue (Gamble, Henry, & Vanman, 2023) and burnout (Walocha, Tomaszewski, Wilczek-Ruzyczka, & Walocha, 2013). It has been suggested that better understanding of others' perspectives increases one's concerns about their well-being (Caputi, Lecce, Pagnin, & Banerjee, 2012; Yu, Zhu, & Leslie, 2016). Empathy leads to positive social choices that share another person's negative emotions as a result, which will also reduce one's own negative emotions (Klimecki, 2019). Empathy promotion leads to more pro-social decisions (Lehmann, Böckler, Klimecki, Müller-Liebmann, & Kanske, 2022). Farboudi-Jahromi, Tasci, and Sönmez (2023) found that empathizing with victims is a major antecedent to the likelihood of employees helping victims. Explaining this result, Mazraeh et al. (2023), they found that people who tend to help have more social interest, a tendency to be affected by the negative emotional experiences of others, and their desire to be in contact with others. According to the study of Borry and Henderson (2020), empathy is not related to rule breaking behaviour, but rule breaking behaviour occurs when breaking the rules for a customer is compatible with organizational goals. There is also evidence that autonomy (Gray & Silbey, 2014; J. Hu, Xiong, Zhang, & Chen, 2023), courage (Chen et al., 2018) and psychological safety (Khan, Zada, & Estay, 2023), which are among the job resources of disaster volunteers, increase rule breaking.

5. CONCLUSION AND LIMITATIONS

In this article, safety rule breaking behaviour and related demands and resources are explored in the context of disaster volunteering. The JD-R model, which is mostly used in the field of organizational psychology, has been expanded by moving to the disaster area. Research shows that helping or being other oriented has a positive effect on people's well-being. However, since the resources and demands obtained in this study will have a negative impact on safety in the disaster area, it would be beneficial to at least take restrictive measures on safety and implement individual awareness-raising interventions. Situations such as obeying the rules and responsibility can be a factor that reduces the participation of young people in volunteering activities. According to Whittaker et al. (2015), corporate culture, risks and responsibilities are important barriers to volunteers' greater participation in emergency and disaster management. However, failure to comply with safety rules puts both the person and the earthquake victim in danger. Research support the notion that rule breaking behaviours performed with other oriented motivations have a negative effect on both the person himself and the other party. (Li et al., 2013; Shum et al., 2020).

This study has some limitations and guiding aspects for future researchers. Firstly, this article includes only young volunteers participating in disaster operations. Therefore, there may be differences between different age groups in volunteers' behaviours of breaking safety rules. The volunteers participating in this study mostly consisted of those who participated in the debris field works from the first day of the earthquake when it was the hottest. However, it would be useful to investigate the behaviours of volunteers breaking safety rules, especially those who worked in tent cities in the post-earthquake period. Finally, although this study is supported by theory, qualitative evidence from other studies and frequencies, it is specific to the context of the Kahramanmaraş earthquake and cannot be generalised. Quantitative evaluation of the relationships between job

demands resources and safety rule breaking behaviour obtained in this study will contribute greatly to the understanding and development of the subject.

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

We would like to thank all the participants who participated in the study and the valuable researchers who contributed to the study process.

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