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RESEARCH ARTICLE

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THE RELATIONSHIP BETWEEN SOCIAL WORKERS' DISASTER AWARENESS
LEVELS AND SECONDARY TRAUMATIC STRESS:
THE CASE OF THE KAHRAMANMARAŞ EARTHQUAKES

Sosyal Hizmet Uzmanlarının Afet Bilinci Algı Düzeylerinin İkincil Travma ile İlişkisi:
Kahramanmaraş Depremleri Örneği

Bilal YILMAZ¹

Aydın Olcay ÖZKAN²

Ayşe Bedia ŞAHİN³

Gülcan URHAN⁴

¹ Graduate Student, Istanbul University-Cerrahpasa [✉ bill.pagbf@gmail.com](mailto:bill.pagbf@gmail.com) [ID 0009-0002-4017-928X](https://orcid.org/0009-0002-4017-928X)

² Asst Prof, Zonguldak Bülent Ecevit University [✉ aydinolcayozkan@gmail.com](mailto:aydinolcayozkan@gmail.com) [ID 0000-0001-7093-2485](https://orcid.org/0000-0001-7093-2485)

³ Graduate Student, Istanbul University-Cerrahpasa [✉ bediasahin21@gmail.com](mailto:bediasahin21@gmail.com) [ID 0000-0003-0638-874X](https://orcid.org/0000-0003-0638-874X)

⁴ Asst Prof, Istanbul University-Cerrahpasa [✉ gulcan.urhan@iuc.edu.tr](mailto:gulcan.urhan@iuc.edu.tr) [ID 0000-0002-2259-137X](https://orcid.org/0000-0002-2259-137X)

ABSTRACT

Social workers who serve in the field during disaster processes are among the occupational groups at risk for secondary traumatic stress, as they are continuously and indirectly exposed to the traumatic experiences of disaster victims. The aim of this study is to examine the relationship between the disaster awareness levels and secondary traumatic stress levels of social workers who actively served in the disaster area following the earthquakes centered in Kahramanmaraş on February 6, 2023. The study was designed as a descriptive and correlational survey, and was conducted with 101 social workers reached through purposive sampling who declared that they had served in the disaster area. The data were collected online by means of a Personal Information Form, the Disaster Awareness Scale, and the Secondary Traumatic Stress Scale. Descriptive statistics, Pearson and Spearman correlation analyses, and multiple linear regression analysis were used to analyze the data. The findings showed that there was no significant relationship between the total disaster awareness score and the level of secondary traumatic stress. However, a low-level, negative, and statistically significant correlation was found between the false disaster awareness subdimension and secondary traumatic stress. The multiple regression analysis indicated that the model was not statistically significant ($F(4, 96) = 1.403, p = .239, R^2 = .055$), and that the subdimensions of disaster awareness did not significantly predict secondary traumatic stress. These findings suggest that cognitive awareness regarding disasters does not, in itself, serve a directly protective function against secondary



traumatic stress; nevertheless, the correlational relationship found between false disaster awareness and secondary traumatic stress should be re-examined in future studies using larger samples and models that include mediating variables.

Keywords: Disaster awareness, secondary traumatic stress, social work, Kahramanmaraş earthquakes

Öz

Afet sürecinde sahada görev alan sosyal hizmet uzmanları, afetzedelerin travmatik yaşantılarına sürekli ve dolaylı biçimde tanıklık etmeleri nedeniyle ikincil travmatik stres açısından risk altındaki meslek grupları arasında yer almaktadır. Bu araştırmanın amacı, 6 Şubat 2023 Kahramanmaraş merkezli depremler sonrasında afet bölgesinde fiilen görev yapmış sosyal hizmet uzmanlarının afet bilinci algı düzeyleri ile ikincil travmatik stres düzeyleri arasındaki ilişkinin incelenmesidir. Betimsel ve ilişkisel tarama modelinde tasarlanan araştırma, amaçlı örnekleme yöntemiyle ulaşılan ve afet bölgesinde görev aldığını beyan eden 101 sosyal hizmet uzmanıyla yürütülmüştür. Veriler; Kişisel Bilgi Formu, Afet Bilinci Algı Ölçeği ve İkincil Travmatik Stres Ölçeği aracılığıyla çevrim içi ortamda toplanmıştır. Verilerin analizinde betimsel istatistikler, Pearson ve Spearman korelasyon analizleri ile çoklu doğrusal regresyon analizi kullanılmıştır. Bulgular, afet bilinci algısı toplam puanı ile ikincil travmatik stres düzeyi arasında anlamlı bir ilişki bulunmadığını göstermiştir. Bununla birlikte yanlış afet bilinci alt boyutu ile ikincil travmatik stres arasında korelasyon düzeyinde negatif yönlü, düşük düzeyde anlamlı bir ilişki saptanmıştır. Çoklu regresyon analizi sonucunda kurulan modelin istatistiksel olarak anlamlı olmadığı belirlenmiş ($F(4, 96) = 1.403, p = .239, R^2 = .055$) ve afet bilinci alt boyutlarının ikincil travmatik stresi anlamlı düzeyde yordamadığı görülmüştür. Bu bulgular, afet bilincine ilişkin bilişsel farkındalığın tek başına ikincil travmatik strese karşı doğrudan koruyucu bir işlev üstlenmediğine; ancak yanlış afet bilinci ile ikincil travmatik stres arasındaki korelasyon düzeyindeki ilişkinin daha geniş örneklemle ve aracı değişkenleri içeren modellerle yeniden incelenmesi gerektiğine işaret etmektedir.

Anahtar Kelimeler: Afet bilinci, ikincil travmatik stres, sosyal hizmet, Kahramanmaraş depremleri

INTRODUCTION

Disasters are social events that abruptly disrupt the life order of individuals and societies, interrupt the continuity of daily life, and produce long-lasting consequences. Beyond physical destruction and loss of life, disasters can have profound effects on social relationships, psychological well-being, economic security, and societal resilience. For this reason, disasters are considered one of the major sources of social trauma (Smith & Wenger, 2007). The effects of disasters are not limited to the moment of the event itself; rather, they are shaped together with pre-disaster preparedness levels, response capacity during the disaster, and post-disaster recovery processes. These processes determine the resilience of society, while also influencing individuals' coping skills with trauma and the functionality of social systems. Therefore, disasters should not be regarded as short-term crises, but rather as structural problem areas that affect individual and societal life over the long term (Altun, 2018).

In this context, disasters should be addressed alongside phenomena such as grief, uncertainty, displacement, sheltering problems, and the need for social support, in addition to physical destruction and loss of life, and should be evaluated as complex phenomena that leave deep and lasting psychosocial effects on individuals and societies (Şahin & Polat, 2025). The traumatic experiences that emerge in the aftermath of disasters such as earthquakes, floods, fires, and epidemics can significantly affect not only those directly exposed to the disaster but also the occupational groups that intervene during the disaster process (Gülyol, 2024). During this process, social workers often perform their duties under intense stress, uncertainty, and limited institutional resources, and they bear long-term, indirect

witness to the loss, suffering, and traumatic experiences of disaster-affected individuals. Repeated exposure to traumatic narratives and to experiences of loss and suffering is considered a determining risk factor for the emergence of secondary traumatic stress among social workers (Bride et al., 2007; Türk & Kaya, 2023).

In order to understand how social workers are exposed to traumatic experiences during the disaster process, it is necessary first to evaluate the role of the social work profession in disaster and crisis situations. The social work profession is defined as a discipline that is shaped in line with the principles of human rights and social justice, that aims to enhance the quality of life by empowering individuals, families, and communities, and that plays an important role in supporting psychosocial well-being, particularly in crisis situations such as disasters (Zafer, 2024; Artan & Özkan, 2020). This professional framework requires social workers to serve during disaster periods not only as professionals providing individual support, but also as actors who facilitate access to resources, protect vulnerable groups, and support the recovery process. During disasters, social workers undertake duties such as psychosocial support, case management, and working with disadvantaged groups, taking an active role from the initial response phase of the disaster through to the recovery process (Ceyhan, 2023). However, carrying out these duties under intense stress, uncertainty, and limited resources may cause social workers to continually witness traumatic experiences and to encounter professionally challenging experiences.

At this point, the professional roles of social workers during the disaster process become important for understanding the risk of secondary traumatic stress. Long-term and repetitive exposure to traumatic narratives and painful experiences is considered one of the main factors that increase the risk of developing secondary traumatic stress among social workers (Kök, 2023; Gündüz, 2020). Secondary traumatic stress refers to the stress reactions that emerge in individuals who are not directly exposed to a traumatic event but who witness trauma or provide professional support to individuals exposed to trauma, as a result of being indirectly affected by the psychological impact of these experiences (Cieslak et al., 2014). Indirect trauma exposure can develop through social, familial, and especially professional relationships in individuals; this condition may manifest itself with symptoms such as recurrent traumatic images, disturbing thoughts and dreams, hyperarousal, impaired functioning, avoidance behaviors, and emotional exhaustion (Bride & Figley, 2007; Özkök, 2020; Kaya, 2020).

When professional experiences under disaster conditions are taken into consideration, it can be said that social workers are in a high-risk group in terms of secondary trauma due to their work with disadvantaged groups and their witnessing of traumatic life events. However, not every professional working with individuals exposed to trauma experiences secondary trauma; this may vary depending on individual factors such as the person's life history, previous trauma experiences, personality traits, and length of professional experience (Gündüz, 2020). The literature indicates that secondary trauma leads to negative outcomes such as burnout, anxiety, depression, sleep problems, somatization,



decreased control over work, decreased professional satisfaction, the inability to adequately apply professional skills and competencies, and intention to leave the job (Atalay, 2017; Bock et al., 2020; Can, 2020). This situation can directly affect both the mental health of professionals and the quality of the services provided (Büyükbodur Çetinkaya, 2018).

Considering the possible effects of secondary trauma on professionals and on service delivery, examining the individual and professional competencies that may be protective during the disaster process becomes important. As one of these competencies, disaster awareness is closely related to individuals' coping behaviors with unforeseen events such as disasters and to their levels of preparedness for disasters; it is addressed as a multidimensional concept that encompasses the level of knowledge about disasters, risk perception, preparedness behaviors, and attitudes toward the moment of disaster and its aftermath (Ünal et al., 2017). The disaster awareness levels of professionals are highly important for the effectiveness of pre-disaster preparedness, accurate intervention during the disaster, and post-disaster recovery processes (Ünal et al., 2017). It can be considered that professionals with high disaster awareness may manage the disaster process in a more controlled manner, develop stronger skills for coping with difficulties, and have higher psychological resilience. In this context, the possible protective role of disaster awareness against secondary trauma stands out as an important issue that needs to be investigated.

The evaluation of the relationship between disaster awareness and secondary trauma can be addressed in a more concrete way through the experiences of social workers serving in large-scale disasters in particular. The earthquakes centered in Kahramanmaraş on February 6, 2023, are among the largest disasters in Turkey's history in terms of the loss of life, physical destruction, and societal effects they caused. These earthquakes, which affected eleven provinces, caused numerous fatalities, as well as physical destruction and profound psychosocial problems for individuals and society. In the post-disaster period, social workers serving in the field within various public institutions, primarily the relevant ministries, and within non-governmental organizations, carried out intensive work aimed at meeting both the urgent and long-term needs of disaster victims. During this process, social workers witnessed traumatic experiences and were confronted with intense professional demands. These intensive and traumatic working conditions create a work environment that seriously threatens the psychological well-being of social workers (Grant & Kinman, 2020). Within this framework, the Kahramanmaraş-centered earthquakes provide an important research context for examining the relationship between social workers' disaster awareness levels and their secondary traumatic stress experiences.

When studies conducted in the field of disasters and social work in Turkey are examined, it is seen that research focusing on topics such as social workers' disaster experiences, burnout, compassion fatigue, and psychological resilience is limited (Türk & Kaya, 2023). Among the existing studies, the scarcity of empirical research that addresses the relationship between disaster awareness and sec-

ondary trauma in samples of social workers points to a significant gap. This study aims to examine the relationship between social workers' disaster awareness levels and their secondary trauma experiences through the case of the Kahramanmaraş earthquakes. The research is expected to contribute to the development of trauma-sensitive and sustainable psychosocial support practices for professionals by supporting social work education and disaster preparedness processes.

THEORETICAL FRAMEWORK

The present study is grounded in Conservation of Resources (COR) Theory (Hobfoll, 1989) and the Trauma Stewardship framework (van Dernoot Lipsky & Burk, 2009), which together provide a conceptual foundation for understanding how disaster awareness may interact with secondary traumatic stress among helping professionals. COR Theory posits that psychological stress occurs when individuals perceive a threat to their valued resources, lose resources, or fail to gain sufficient resources following resource investment (Hobfoll, 1989). In the context of disaster response, social workers are continuously exposed to conditions that drain personal, social, and professional resources. High levels of disaster awareness, characterized by accurate knowledge and adaptive preparedness behaviors, may function as a cognitive resource that buffers against resource depletion and subsequent stress responses (Hobfoll et al., 2018). Conversely, false or distorted disaster awareness, defined as the endorsement of inaccurate beliefs about disaster risk and appropriate responses, may reduce the individual's sense of cognitive control and increase vulnerability to traumatic stress (Bonanno et al., 2010).

The Trauma Stewardship framework (van Dernoot Lipsky & Burk, 2009) complements COR Theory by emphasizing that professionals who are repeatedly exposed to others' trauma must actively develop awareness of how this exposure affects them. This framework proposes that sustainable helping practice requires not only professional training, but also reflective capacities that allow practitioners to recognize and respond to the psychological consequences of their work. Within this framework, disaster awareness can be understood as a form of professional preparedness that equips social workers with the cognitive and behavioral tools necessary to engage with trauma without being overwhelmed by it. However, as Figley (2013) notes, professional knowledge and awareness alone are insufficient to prevent secondary traumatic stress; the emotional and relational dimensions of helping work also play a critical role. Taken together, these theoretical perspectives suggest that the relationship between disaster awareness and secondary traumatic stress is likely mediated by additional variables such as psychological resilience (Bonanno, 2004), coping strategies (Lazarus & Folkman, 1984), and perceived social support (Cohen & Wills, 1985), rather than operating as a direct protective mechanism.



CONCEPTUAL FRAMEWORK

Disaster Awareness

Disaster awareness is a multidimensional concept that refers to the capacity of individuals and societies to recognize the risks associated with disasters, to understand the possible consequences of these risks, and to develop appropriate behaviors before, during, and after disasters. In contemporary disaster management approaches, disaster awareness is addressed not merely as having information, but as a dynamic process that also encompasses attitudes, awareness, and behavioral preparedness (Paton & Johnston, 2001; Shaw et al., 2011).

This multidimensional structure makes it necessary to explain disaster awareness through different components. In the literature, disaster awareness is generally defined through components such as disaster risk perception, preparedness behaviors, level of knowledge, and protective attitudes. In this context, disaster awareness is a fundamental area of competency that enables individuals to anticipate hazards, adopt risk reduction measures, and make correct decisions during crises (UNDRR, 2015). Various studies have demonstrated that individuals with high levels of disaster awareness are better prepared for disasters and develop more effective coping strategies in post-disaster recovery processes (Paton, 2003).

The development of these components that constitute disaster awareness is related to both the personal characteristics of the individual and the social and institutional environment in which they live. Therefore, individual and environmental factors play a joint role in the formation of disaster awareness. Educational level, past disaster experiences, and the informational activities provided through the media and official institutions are among the determining variables in individuals' development of disaster awareness (Tekeli-Yeşil et al., 2010). Studies conducted in Turkey have shown that the awareness and preparedness levels of individuals who have received disaster education are significantly higher (Şahin et al., 2018; Tercan, 2022).

Disaster awareness developed at the individual level also produces important outcomes in terms of societal preparedness and resilience. For this reason, disaster awareness is not only a level of individual awareness, but also one of the fundamental components of societal resilience. Community-based disaster risk reduction approaches consider the dissemination of disaster awareness as a key element in reducing disaster losses (Shaw et al., 2011). In particular, increasing the level of disaster awareness in local communities strengthens the capacity to act collectively against disasters and supports social solidarity (Gaillard & Mercer, 2013).

The relationship that disaster awareness establishes with preparedness, solidarity, and resilience at the societal level can also be considered as an element that may support individuals' processes of coping with post-disaster stress, anxiety, and uncertainty. It has been reported that individuals with a high level of knowledge and awareness about disasters cope more effectively with disaster-related stress and anxiety, and that their levels of uncertainty and panic are lower (Güldü, 2023). This indi-

cates that disaster awareness serves a function that supports not only physical safety but also psychological well-being.

The fact that disaster awareness has a supportive function at both the individual and societal levels makes the question of how this awareness can be developed through education important. Educational institutions have a strategic role in instilling disaster awareness. It is emphasized that disaster education programs implemented in schools create a process of awareness-raising that spreads from children and young people to families and the wider community (Johnson et al., 2014). Curriculum-based studies conducted in Turkey have also shown that instilling disaster awareness at an early age provides long-term societal benefits (Dere, Çinikaya & Gökçınar, 2024). This general framework demonstrates that disaster awareness is an area of competency that can be developed not only through individual experiences, but also through educational and institutional processes.

Within this framework, disaster awareness stands out as a multidimensional area of competency that is strengthened through educational processes and is associated with individual awareness, societal preparedness, and post-disaster recovery processes. The development of disaster awareness is important in terms of supporting pre-disaster preparedness, the development of correct behavior at the moment of disaster, and post-disaster recovery processes. For this reason, disaster awareness can be considered one of the fundamental competencies that may strengthen the professional preparedness and intervention capacity of social workers serving in the field of disasters.

Secondary Trauma

Secondary trauma is a concept that refers to the psychological effects that emerge as a result of an individual's intense and continuous interaction with people who have experienced trauma, despite the individual not being directly exposed to a traumatic event. Individuals working in the helping professions, in particular, may be indirectly exposed to trauma through listening to narratives of traumatic experiences, witnessing such experiences, or establishing empathic relationships with individuals who have experienced trauma (Figley, 2013; Kahil & Palabıyıkoglu, 2018). This may lead to significant changes in the cognitive, emotional, and behavioral functioning of the individual.

For a better understanding of secondary trauma, it is important to explain the relationship of this concept with secondary traumatic stress and vicarious traumatization. This is because secondary trauma is frequently associated in the literature with the concepts of secondary traumatic stress and vicarious traumatization. Figley (2013) defines secondary traumatic stress as the stress reactions that develop in individuals who help trauma victims as a result of empathic engagement. These stress reactions show significant similarities to the symptoms of post-traumatic stress disorder, and may include symptoms such as re-experiencing, avoidance, hyperarousal, and emotional exhaustion (Bride et al., 2004).

While secondary traumatic stress is mostly addressed through symptoms and stress reactions, vicarious traumatization focuses on changes that occur in the individual's world of meaning and core



beliefs. The concept of vicarious traumatization focuses on the changes that occur in the individual's fundamental belief systems as a result of long-term and intensive engagement with traumatic material. McCann and Pearlman (1990) state that this process may lead to disruptions, particularly in cognitive schemas such as trust, control, meaning, and self-perception. In this respect, secondary trauma can be considered not only as a strain experienced at the symptom level, but also as a broader process that may affect the way the individual perceives themselves, other people, and the world.

The effects on the individual of long-term and intensive engagement with narratives of traumatic experiences make secondary trauma an important issue, particularly for the helping professions. In the literature, secondary trauma is addressed especially in the context of social workers, psychologists, healthcare workers, and post-disaster response teams. Kahil and Palabıyıköğlü (2018) emphasize that secondary trauma emerges as a result of the emotional burden that accumulates over time in professionals working with trauma victims, and that it negatively affects professional functioning. Similarly, Varan and Demirel (2024) state that secondary trauma is an important risk factor that reduces both the individual's psychological well-being and professional satisfaction.

The emergence of secondary trauma cannot be explained solely by witnessing traumatic experiences; individual characteristics, professional conditions, and institutional support mechanisms can also be determining factors in this process. Indeed, research shows that various individual and environmental factors play a role in the emergence of secondary trauma. A high level of empathy, personal traumas experienced in the past, inadequate social support, and a heavy caseload are among the factors that increase the risk of secondary trauma (Bride et al., 2004; Sprang et al., 2011). In contrast, supervisory support, professional resilience, self-care skills, and institutional support mechanisms stand out as protective factors (Sprang et al., 2011).

Secondary trauma is a process that can affect not only individuals who have been directly exposed to traumatic experiences, but also professionals who work in a professional relationship with these individuals. For this reason, it is important to address secondary trauma together with individual symptoms, professional functioning, and institutional support mechanisms. Particularly for social workers serving in the field of disasters, secondary trauma constitutes an important basis for discussing the psychological effects of professional experiences, support needs, and sustainable working conditions.

METHOD

Research Design

This research is a quantitative study aimed at examining the relationship between the disaster awareness levels and secondary traumatic stress levels of social workers who served in the disaster area following the 2023 Kahramanmaraş-centered earthquakes. The research was conducted on the basis of a descriptive and correlational survey model. This model allows for revealing the existing relationships between variables without any intervention (Karasar, 2024).

Research Hypotheses

In this research, the effect of social workers' disaster awareness levels on secondary traumatic stress was tested. Within this scope, the hypotheses of the research are as follows:

H1: There is a significant relationship between social workers' total disaster awareness score and their level of secondary traumatic stress.

H2: Social workers' level of disaster education awareness is a significant predictor of their level of secondary traumatic stress.

H3: Social workers' level of pre-disaster awareness is a significant predictor of their level of secondary traumatic stress.

H4: Social workers' level of false disaster awareness is a significant predictor of their level of secondary traumatic stress.

H5: Social workers' level of after disaster awareness is a significant predictor of their level of secondary traumatic stress.

Population and Sample

The population of the research consists of social workers who actively served in the disaster area following the 2023 Kahramanmaraş earthquakes. In the selection of the sample, the purposive sampling method was used in line with the aim of the research. Within this scope, social workers who had served in the disaster field were reached through online data collection tools. The sample of the research consists of 101 social workers who voluntarily participated in the survey and declared that they had previously served in the disaster area during the disaster period. In order to evaluate which effect sizes the sample size is sensitive to detect, a sensitivity power analysis was conducted using the G*Power 3.1 program. With four predictor variables, $\alpha = .05$, and statistical power $(1-\beta) = .80$, it was determined that the current sample size ($N = 101$) could detect an effect size close to a medium level ($f^2 \approx .14-.15$). This finding indicates that the study has sufficient sensitivity to detect medium and larger effects, but may be limited in detecting small effect sizes.

Data Collection Tools

In the research, data were collected using three different data collection tools:

Personal Information Form

The form developed by the researcher includes questions regarding demographic and professional variables of the participants such as age, gender, length of professional experience, and time spent in the disaster area.



Disaster Awareness Scale (DAS)

In order to measure the disaster awareness levels of the participants, the Disaster Awareness Scale developed by Dikmenli, Yakar, and Konca (2018) was used. The scale consists of four subdimensions: education, pre-disaster awareness, false disaster awareness, and after disaster awareness. The scale consists of 36 items in a 5-point Likert format, of which 27 are positive and 9 (items 12, 22–29) are negative statements. Negative items were reverse-coded prior to analysis. The scale consists of four subdimensions: Disaster Education Awareness (13 items, 13–65 points), Pre-Disaster Awareness (8 items, 8–40 points), False Disaster Awareness (8 items, 8–40 points), and After Disaster Awareness (7 items, 7–35 points). The total score of the scale ranges between 36 and 180, and as the score increases, the level of disaster awareness increases. In the False Disaster Awareness subdimension, however, a high score indicates that the perception of false disaster awareness is low. The Cronbach's alpha reliability coefficients of the scale in this study are as follows: .83 for the overall Disaster Awareness Scale, .79 for Disaster Education Awareness, .73 for Pre-Disaster Awareness, .62 for False Disaster Awareness, and .81 for After Disaster Awareness.

Secondary Traumatic Stress Scale (STSS)

In order to measure secondary traumatic stress levels, the Secondary Traumatic Stress Scale developed by Bride et al. (2004) and adapted into Turkish by Yıldırım et al. (2018) was used. The scale is a 5-point Likert-type measurement tool consisting of 17 items, designed to assess the secondary traumatic stress symptoms of professionals working with trauma victims. Items are scored between "1 = Never" and "5 = Very often." The scale consists of three subdimensions: emotional violation (5 items), avoidance (7 items), and arousal (5 items). The total score that can be obtained from the scale ranges between 17 and 85, with higher scores indicating a higher level of secondary traumatic stress. There are no reverse-coded items in the scale. In the Turkish adaptation study, the Cronbach's alpha coefficient of the scale was found to be 0.91 for the total scale, and between 0.78 and 0.84 for the subdimensions. In this study, the Cronbach's alpha values of the scale were found to be .94 for the total scale, .85 for avoidance, .89 for emotional violation, and .84 for arousal.

Data Collection Process

Before initiating the data collection process, ethics committee approval was obtained from the Istanbul University-Cerrahpaşa Social and Human Sciences Research Ethics Committee, dated 02.12.2025, with decision number 2025/730. Following the receipt of ethics committee approval, the data were collected online via Google Forms between January 2026 and February 2026. The aim of the research was explained to the participants, voluntary participation was taken as the basis, and the principle of anonymity was observed. Throughout the research process, the principles of scientific research and publication ethics were observed. Informed consent was obtained from the participants, the confidentiality of personal data was protected, and the data were used solely for scientific purposes. After the data collection process was completed, the data were transferred to the SPSS 26.0 software package after the necessary coding had been carried out.

Data Analysis

In the data analysis process, missing and erroneous data were first eliminated, reverse-scored items were corrected, and the data set was made suitable for analysis. In order to determine the distribution characteristics of the scale scores, the kurtosis and skewness values were checked to verify whether they fell within the range of -1.5 to +1.5—a criterion widely adopted in social science research (George & Mallery, 2010; Hair et al., 2019)—, and it was observed that all scale scores conformed to a normal distribution, with the exception of the “Disaster Education Awareness” subdimension of the Disaster Awareness Scale.

Within this scope, Pearson correlation analysis was applied to examine the relationships between variables that exhibited a normal distribution. Spearman’s rank-order correlation analysis was used to examine the relationships between variables that did not exhibit a normal distribution. In testing predictive relationships, multiple linear regression analysis was applied in order to evaluate the joint and unique contributions of the four subdimensions of the Disaster Awareness Scale (disaster education awareness, pre-disaster awareness, false disaster awareness, and after disaster awareness) on secondary traumatic stress. The assumptions of multiple regression analysis—normality of residuals, linearity, homogeneity of error variances (through residual scatter plots), independence of residuals (Durbin–Watson statistic), and multicollinearity (tolerance and VIF values)—were examined and found to be met. The significance level was accepted as $p < .05$ in all analyses.

FINDINGS

The demographic and professional characteristics of the research sample were first examined through descriptive statistics, and the findings obtained are presented in Table 1.

Table 1. Demographic and Professional Characteristics of the Participants (N = 101)

Variable	n	%
Gender		
Male	45	44.6
Female	56	55.4
Marital Status		
Married	57	56.4
Single	44	43.6
Educational Level		
Bachelor’s Degree	72	71.3
Master’s Degree	25	24.8
Doctorate	4	4.0
Disaster-Related Education/Course Status		
Yes	59	58.4
No	42	41.6

When Table 1 is examined, it is seen that 55.4% of the participants are female and 44.6% are male; 56.4% are married and 43.6% are single. The majority of the participants hold a bachelor's degree (71.3%), while 24.8% have a master's degree and 4.0% have doctoral-level education. In addition, 58.4% of the participants stated that they had received education or coursework related to disasters, while 41.6% stated that they had not received any education on this subject.

Table 2. Descriptive Statistics of the Participants for Continuous Variables

Variable	n	M	SD	Min	Max
Age	101	32.80	6.29	23	56
Time spent in the disaster area (days)	101	75.11	201.32	2	1095
Length of professional experience (years)	101	8.23	5.59	1	30

Note. M = Mean; SD = Standard deviation. Time spent in the disaster area is given in days, and length of professional experience is given in years.

When Table 2 is examined, it is seen that the mean age of the participants is 32.80 (SD = 6.29) and that their ages range between 23 and 56. The mean time spent by the participants in the disaster area was determined to be 75.11 days (SD = 201.32), with this duration ranging between 2 and 1095 days. In addition, the mean length of professional experience of the participants is 8.23 years (SD = 5.59), with the length of professional experience ranging between 1 and 30 years. The findings indicate that the participants have a relatively young professional profile, and that there are significant differences in terms of the time spent in the disaster field.

Table 3. Pearson Correlation Coefficients Between Disaster Awareness and Secondary Traumatic Stress Variables

Variable	1	2	3	4	5
1. Disaster Awareness Scale	1				
2. Pre-Disaster Awareness	.813**	1			
3. False Disaster Awareness	.573**	.434**	1		
4. After Disaster Awareness	.602**	.327**	.091	1	
5. Secondary Traumatic Stress Scale	-.080	-.121	-.197*	.080	1

Note. Pearson correlation coefficients are reported. * $p < .05$, ** $p < .01$.

When Table 3 is examined, it is seen that there is no significant relationship between disaster awareness and secondary traumatic stress ($r = -.080$, $p > .05$). Similarly, no significant relationship was found between pre-disaster awareness and after disaster awareness with secondary traumatic stress ($p > .05$). In contrast, a low-level, negative, and significant relationship was determined between false disaster awareness and secondary traumatic stress ($r = -.197$, $p < .05$). In addition, it is seen that there are positive and significant relationships among the subdimensions of disaster awareness.

Table 4. Spearman Correlation Coefficients Between Disaster Education Awareness and Other Variables

Variable	rho (ρ)
Disaster Awareness Scale	.749**
Pre-Disaster Awareness	.690**
False Disaster Awareness	.284**
After Disaster Awareness	.098
Secondary Traumatic Stress Scale	-.067

Note. Spearman's rho coefficients are reported. * $p < .05$, ** $p < .01$.

When Table 4 is examined, it is seen that there are positive and significant relationships between disaster education awareness and total disaster awareness ($\rho = .749$, $p < .01$), pre-disaster awareness ($\rho = .690$, $p < .01$), and false disaster awareness ($\rho = .284$, $p < .01$). In contrast, no significant relationship was determined between disaster education awareness and after disaster awareness ($\rho = .098$, $p > .05$) or secondary traumatic stress ($\rho = -.067$, $p > .05$). These findings reveal that disaster education awareness is associated with some dimensions of disaster awareness, but does not show a significant relationship with the level of secondary traumatic stress.

Table 5. Multiple Linear Regression Analysis Results Regarding the Predictive Relationships of the Subdimensions of the Disaster Awareness Scale on Secondary Traumatic Stress

Predictor Variable	B	SE B	β	t	p	95% CI [Lower, Upper]	Tolerance	VIF
Constant	3.578	1.019	—	3.510	.001	[1.554, 5.601]	—	—
Disaster Education Awareness	0.085	0.226	.045	0.375	.709	[-0.363, 0.533]	.669	1.495
Pre-Disaster Awareness	-0.226	0.270	-.116	-0.835	.406	[-0.761, 0.310]	.512	1.952
False Disaster Awareness	-0.270	0.179	-.167	-1.511	.134	[-0.624, 0.085]	.805	1.242
After Disaster Awareness	0.136	0.113	.127	1.205	.231	[-0.088, 0.360]	.882	1.134

Note. N = 101. Dependent variable: Secondary Traumatic Stress Scale total score. $R = .235$, $R^2 = .055$, Adjusted $R^2 = .016$, $F(4, 96) = 1.403$, $p = .239$, Durbin-Watson = 2.036. B = unstandardized regression coefficient; SE B = standard error; β = standardized regression coefficient; CI = confidence interval; VIF = variance inflation factor.

Multiple linear regression analysis was applied in order to examine whether the four subdimensions of the Disaster Awareness Scale (disaster education awareness, pre-disaster awareness, false disaster awareness, and after disaster awareness) jointly predict the level of secondary traumatic stress. It was observed that the assumption of multicollinearity was met (all VIF values < 2.00 ; tolerance values $> .50$). The independence of the residuals was assessed using the Durbin-Watson statistic, and the value was found to be within an acceptable range (DW = 2.04). As a result of the analysis, it was determined that the established model was not statistically significant, $F(4, 96) = 1.403$, $p = .239$, $R^2 = .055$, Adjusted $R^2 = .016$. None of the subdimensions significantly predicted secondary traumatic stress ($p > .05$).



DISCUSSION

This research aimed to examine the relationship between the disaster awareness perceptions and secondary traumatic stress experiences of social workers who served in the disaster area following the Kahramanmaraş-centered earthquakes of February 6, 2023. First, the bivariate relationships between the variables were evaluated through Pearson and Spearman correlation analyses; subsequently, multiple linear regression analysis was applied in order to examine the joint and unique predictive contributions of the four subdimensions of the Disaster Awareness Scale on secondary traumatic stress. The correlation analyses revealed only a low-level, negative, and significant relationship between the false disaster awareness subdimension and secondary traumatic stress ($r = -.197, p < .05$); no significant relationship was determined for the other subdimensions or for the total disaster awareness score. In contrast, the multiple regression model in which all four subdimensions were entered together as predictors was not statistically significant as a whole, $F(4, 96) = 1.403, p = .239, R^2 = .055, \text{Adjusted } R^2 = .016$; none of the subdimensions significantly predicted secondary traumatic stress (all $p > .05$). These results show that the false disaster awareness–secondary traumatic stress relationship observed at the correlation level loses its significance when the shared variance of the other subdimensions is controlled for, and therefore that this relationship cannot be attributed to false disaster awareness alone.

The first hypothesis of the research, “Social workers’ disaster awareness level is a significant predictor of their level of secondary traumatic stress,” was not supported. No significant correlation was determined between the total score obtained from the Disaster Awareness Scale and the Secondary Traumatic Stress Scale scores ($r = -.080, p > .05$); the regression model in which the subdimensions were simultaneously entered as predictors was also not significant ($R^2 = .055, p = .239$). This finding indicates that disaster awareness does not, on its own, exert a direct protective effect on secondary traumatic stress. Nevertheless, it can be considered that the possible functional relationship between the two concepts may operate not directly, but through mediating variables such as coping strategies or psychological resilience. Indeed, Güldü (2023) demonstrated that disaster awareness significantly predicts individuals’ coping styles with traumatic situations; that individuals with high disaster awareness adopt problem-focused coping strategies, whereas individuals with false disaster awareness tend toward denial and avoidance. Similarly, Gökçe and Yılmaz (2017) and Varan and Demirel (2024) state that disaster education and conscious awareness function as protective factors against secondary traumatic stress in helping professionals, but that this effect occurs not directly, but through professional resilience and social support. Within this framework, the fact that a direct predictive relationship could not be revealed in the present study, when considered together with findings indicating that the protective effect becomes particularly evident in the preparation process before fieldwork and may weaken under long-term trauma exposure, raises the possibility that the intense and long-term field experience of the sample may have masked this relationship.

The second hypothesis of the research, "Social workers' level of disaster education awareness is a significant predictor of their level of secondary traumatic stress," was not supported. In the multiple regression analysis, it was observed that the disaster education awareness subdimension did not significantly predict secondary traumatic stress ($\beta = .045$, $p = .709$). The Spearman correlation analysis also did not reveal a significant relationship between disaster education awareness and secondary traumatic stress ($\rho = -.067$, $p > .05$). This finding is consistent with various studies in the literature. Dikmenli and Yakar (2019) demonstrated that, despite the high level of disaster education awareness among teacher candidates, this cognitive awareness was not directly associated with psychosocial outcomes. Similarly, Güldü (2023) found that the predictive power of disaster education awareness on coping styles with stress remained quite limited compared to other subdimensions such as pre-disaster and after disaster awareness. Yıldırım Tutar et al. (2026), on the other hand, emphasized that disaster education awareness is shaped through institutional education and access to information, but that for this awareness to be transformed into psychosocial outcomes, it must be integrated with practical applications and psychosocial support components. Secondary traumatic stress is a multifactorial phenomenon shaped under the influence of many variables such as the intensity of professional contact, the level of empathic engagement, personality traits, and coping skills. Therefore, cognitive awareness related solely to disaster education is insufficient to explain this complex psychological response.

The third hypothesis of the research, "Social workers' level of pre-disaster awareness is a significant predictor of their level of secondary traumatic stress," was not supported. In the multiple regression analysis, the pre-disaster awareness subdimension did not significantly predict secondary traumatic stress when other subdimensions were controlled for ($\beta = -.116$, $p = .406$); similarly, no significant relationship was determined between these two variables in the Pearson correlation analysis ($r = -.121$, $p > .05$). This finding can be evaluated as suggesting that, although disaster awareness is more related to preparedness, risk perception, and protective behaviors, secondary traumatic stress is more shaped by individual and professional risk-protective factors. Varan and Demirel (2024) emphasize that variables such as personal characteristics, past traumatic experiences, and the nature of the profession come to the fore in secondary traumatic stress. Similarly, Alkan and Koçyiğit (2025) demonstrated that some psychosocial variables predict secondary traumatic stress, but that not every dimension of awareness or regulation is a direct predictor. On the other hand, it is observed that studies aimed at increasing disaster education and disaster awareness (Erkin et al., 2023; Yıldırım, 2024) are mostly effective on preparedness and self-efficacy, and that this may not operate directly in line with psychological stress outcomes. Furthermore, Kawasaki et al. (2022) demonstrated that disaster awareness is more associated with anxiety and preparedness regarding disaster preparation; this indirectly supports the present finding. In this respect, the present result indicates that the relationship between pre-disaster awareness and secondary traumatic stress may be shaped not directly, but through more complex mechanisms.



The fourth hypothesis of the research, “Social workers’ level of false disaster awareness is a significant predictor of their level of secondary traumatic stress,” was not supported. In the Pearson correlation analysis, a low-level, negative, and significant relationship was determined between the false disaster awareness subdimension and secondary traumatic stress ($r = -.197, p < .05$). Considering the scoring structure of the scale, it should be remembered that a high score on this subdimension means that the level of false beliefs is lower; therefore, the negative correlation in question indicates that participants with fewer false beliefs also reported lower levels of secondary traumatic stress. However, when the other subdimensions were also included in the model, the unique contribution of the false disaster awareness subdimension lost its significance ($\beta = -.167, p = .134$). This finding indicates that the relationship observed at the correlation level can be largely attributed to the shared variance among the subdimensions, and that false disaster awareness does not undertake a predictive function independent of the other dimensions of disaster awareness. This result is consistent with studies that emphasize that secondary traumatic stress cannot be explained solely by dimensions of cognitive awareness, and that individual and professional variables such as past traumatic experiences, professional exposure, social support, and psychological resilience are stronger determinants (Varan and Demirel, 2024; Sprang et al., 2011).

The fifth hypothesis of the research, “Social workers’ level of after disaster awareness is a significant predictor of their level of secondary traumatic stress,” was not supported. In the multiple regression analysis, it was determined that the after disaster awareness subdimension did not significantly predict secondary traumatic stress ($\beta = .127, p = .231$); no significant relationship was determined between these two variables in the Pearson correlation analysis either ($r = .080, p > .05$). This finding can be explained by the fact that after disaster awareness mostly reflects knowledge and attitudes regarding recovery, intervention, and adaptation processes, whereas secondary traumatic stress is more strongly related to the nature of traumatic exposure, professional burden, and individual risk factors. Studies emphasizing the multidimensional structure of secondary traumatic stress note that this condition cannot be explained solely by the level of knowledge or awareness (Varan and Demirel, 2024). In addition, it has been reported that disaster education and awareness interventions increase disaster preparedness and self-efficacy, but may not show a direct effect on psychological stress outcomes (Erkin et al., 2023). Similarly, studies on disaster awareness and disaster literacy reveal that the level of post-disaster knowledge does not always show a linear relationship with psychosocial outcomes (Farzanegan et al., 2024). In this respect, the present finding indicates that after disaster awareness may function not as a direct predictor for secondary traumatic stress, but rather as an indirect or supportive variable.

CONCLUSION

In this research, the relationship between the disaster awareness levels and secondary traumatic stress experiences of social workers who actively served in the disaster area following the Kahramanmaraş-centered earthquakes of February 6, 2023, was examined. The Pearson and Spearman correlation analyses revealed only a low-level, negative, and significant relationship between the false disaster awareness subdimension and secondary traumatic stress; no significant relationship was determined for the total disaster awareness score and the other three subdimensions. In the multiple linear regression analysis in which the four subdimensions were entered together as predictors, the model as a whole was not found to be statistically significant, and none of the subdimensions significantly predicted secondary traumatic stress. Within this framework, all five hypotheses tested by the research were not supported; the false disaster awareness–secondary traumatic stress relationship observed at the correlation level was found to lose its significance when the shared variance of the subdimensions was controlled for. The findings obtained indicate that cognitive awareness regarding disasters does not, on its own, undertake a directly protective function against secondary traumatic stress, and that secondary traumatic stress is a multidimensional phenomenon shaped by the interaction of different factors. Nevertheless, the significant relationship obtained at the correlation level between the false disaster awareness subdimension and secondary traumatic stress, although it lost its significance at the level of unique contribution in the multiple regression, suggests that distorted beliefs and inadequate levels of knowledge regarding disasters may constitute a domain of monitoring and intervention that should not be overlooked for social workers. Supporting this domain through psychoeducation, cognitive restructuring–based interventions, and evidence-based knowledge transfer may offer a potential contribution in terms of social work education and disaster preparedness processes; however, these recommendations should be evaluated cautiously, taking into consideration the relatively limited explanatory power of the current findings.

This research demonstrates that the secondary traumatic stress levels of social workers cannot be explained solely by variables based on cognitive awareness, such as disaster awareness, and that the issue should be examined through multivariate and longitudinal designs that jointly address variables such as psychological resilience, social support, professional experience patterns, and the intensity of trauma exposure. In this respect, the research both offers a contribution to raising awareness in the literature and provides a methodological and conceptual basis for future research to be conducted in the field of social work in the context of disasters.

Limitations of the Research

This research contains some important limitations. First and foremost, the research was conducted with a sample of 101 individuals reached through the purposive sampling method. This sample size may restrict the level of statistical power required, particularly for the detection of small effect sizes,



and limits the generalizability of the findings. Indeed, the low explained variance obtained in the multiple regression analysis and the non-significance of the model as a whole may be partly related to the limitation of statistical power resulting from the sample size, and whether small-magnitude effects would reach the threshold of significance in larger samples should be tested.

Second, since the research has a cross-sectional design, only relational inferences can be made between the Disaster Awareness Scale and Secondary Traumatic Stress Scale scores, and it is not possible to establish causality between the variables. Furthermore, the data collection process was carried out approximately three years after the Kahramanmaraş earthquakes. Considering that the symptoms of secondary traumatic stress may change over time and may weaken with the length of time elapsed after exposure, this temporal interval may have masked possible relationships between the variables.

The third limitation is that the time spent by the participants in the disaster area was distributed over an extremely wide range (2–1095 days). This suggests that significant individual differences in the intensity of trauma exposure may be confounding the relationships examined.

The fourth limitation concerns the measurement instruments. The internal consistency coefficient of the false disaster awareness subdimension of the Disaster Awareness Scale in this study fell below the generally accepted threshold of .70. The fact that the only relationship found to be significant at the correlation level was obtained precisely through this subdimension necessitates a cautious interpretation regarding the stability of this finding.

In addition, all measurement instruments used in the research are based on self-report, which entails limitations such as social desirability bias and recall bias. Finally, the research did not include variables such as psychological resilience, perceived social support, coping strategies, professional burnout, and caseload, whose strong predictive effects on secondary traumatic stress have been documented in the literature. This makes it difficult to disentangle the independent contribution of the subdimensions of the Disaster Awareness Scale, and does not allow for the testing of possible mediating/moderating mechanisms.

Recommendations for Practice and Research

Although the research findings indicate that disaster awareness does not undertake an independent and strong predictive function on secondary traumatic stress, when evaluated together with the findings obtained at the correlation level and the literature, practice recommendations can be organized at the micro, mezzo, and macro levels (Bronfenbrenner, 1979).

At the micro level (individual social worker), the significant relationship detected between false disaster awareness and secondary traumatic stress at the correlation level indicates that inaccurate beliefs about disaster risk constitute a domain warranting targeted intervention. Individual-focused psychoeducation programs that address cognitive distortions related to disaster response may help reduce

vulnerability to secondary traumatic stress (Cohen & Wills, 1985). Social workers are also encouraged to develop regular self-care routines and reflective practice habits, as these have been shown to moderate the effects of vicarious traumatization (van Dernoot Lipsky & Burk, 2009). Intervention-based research is needed to directly assess whether correcting false disaster beliefs translates into measurable reductions in secondary traumatic stress at the individual level.

At the mezzo level (organizational and team), recognizing the multidimensional structure of secondary traumatic stress documented in the literature, institutional interventions that focus narrowly on awareness training alone are unlikely to be sufficient. Organizations employing social workers in disaster response contexts are encouraged to implement trauma-informed supervision structures, peer support groups, and workload rotation protocols that systematically reduce the intensity and duration of traumatic exposure (Sprang et al., 2011). Embedding disaster-specific mental health monitoring into standard occupational health procedures and routinely assessing secondary traumatic stress symptoms during and after field deployments may serve as a proactive protective mechanism. Organizational support for evidence-based cognitive restructuring and psychoeducation components within in-service training curricula should also be considered, particularly targeting false disaster beliefs.

At the macro level (policy and professional standards), the present findings underscore the need for systemic policy-level action to protect the psychological well-being of social workers deployed in disaster contexts. National disaster management frameworks should formally integrate provisions for the psychosocial care of frontline workers, including social workers, alongside those for disaster victims (UNDRR, 2015). Professional associations and regulatory bodies in social work are encouraged to revise competency standards to include disaster-specific psychological preparedness and secondary trauma literacy as core professional competencies. University social work programs should incorporate trauma-informed disaster practice modules into their curricula, ensuring that future practitioners are equipped not only with cognitive disaster knowledge but also with the emotional and relational skills necessary for sustainable disaster response. At the policy level, multi-agency coordination mechanisms should be established to ensure that mental health support structures are activated for frontline workers in the immediate aftermath of large-scale disasters such as the 2023 Kahramanmaraş earthquakes.

When evaluated in terms of future research, it is recommended that the theoretical expectation that the relationship between disaster awareness and secondary traumatic stress operates not directly, but through mediating and moderating variables, be tested with multivariate models. Within this scope, the mediating or moderating roles of variables such as psychological resilience, perceived social support, coping strategies, professional burnout, empathic engagement, and caseload should be addressed simultaneously. Second, considering the cross-sectional nature of the study, longitudinal designs that will reveal how the relationship between disaster awareness and secondary traumatic



stress is shaped over time are needed. In particular, repeated-measures studies conducted with measurements taken before, during, and after service in the disaster field will allow for causal inferences. Third, testing the effectiveness of psychoeducation and cognitive restructuring interventions targeting false disaster awareness with experimental or quasi-experimental designs is important in terms of revealing whether the relationship observed at the correlation level constitutes a finding that can be translated into practice. Furthermore, studies to be conducted with larger samples drawn from different institutional contexts will contribute to overcoming the limitation of statistical power in the current research and to evaluating the generalizability of the findings. Finally, the in-depth examination of risk and protective factors specific to social workers in large-scale disaster environments such as the Kahramanmaraş earthquakes through qualitative and mixed-methods research may allow for the enrichment of the conceptual framework in contexts where quantitative findings remain limited.

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