

Canan ÇİTİL AKYOL <a>©



Sivas Cumhurivet Üniversitesi. Edebivat Fakültesi, Psikoloji Bölümü, Sivas, Türkiye

Sivas Cumhuriyet University, Faculty of Literature, Department of Psychology, Sivas,

canancitilakyol@cumhuriyet.edu.tr

(Sorumlu Yazar-Corresponding Author)

Ezgi SUMBAS 🕑



İnönü Üniversitesi, Eğitim Fakültesi, Rehberlik ve Psikolojik Danışmanlık Bölümü, Malatya,

İnönü University, Education Faculty, Department of Guidance and Psychological Counseling, Malatya, Türkiye ezgi.sumbas@inonu.edu.tr

Geliş Tarihi/Received 23 04 2024 Kabul Tarihi/Accepted 04.09.2024 Yayın Tarihi/Publication Date 20.03.2025

Cite this article as: Çitil-Akyol, C. & Sumbas, E. (2025). Exploring the Relationship Between Secondary Trauma, Compassion Fatigue, and Early Maladaptive Schemas in Mental Health Professionals Engaged in Post-Earthquake Interventions in Türkiye. Current Perspectives in Social Sciences, 29



Content of this journal is licensed under a Creative Commons Attribution-Noncommercial 4.0 International License.

Exploring the Relationship Between Secondary Trauma, Compassion Fatigue, and Early Maladaptive Schemas in Mental Health Professionals Engaged in Post-Earthquake Interventions in Türkiye

Türkiye'de Deprem Sonrası Müdahalelerde Yer Alan Ruh Sağlığı Profesyonellerinde İkincil Travma, Şefkat Yorgunluğu ve Erken Uyumsuz Şemalar Arasındaki İlişkinin Araştırılması

Earthquakes are a type of trauma that directly and indirectly affect people, as experts involved in postearthquake efforts not only work with trauma victims but also face the responsibility of safeguarding their psychological well-being. Mental health professionals, even if they have not directly experienced a traumatic event, may still exhibit symptoms of Post-Traumatic Stress Disorder (PTSD) due to indirect exposure, such as witnessing the event or listening to the accounts of those affected. This condition, known as secondary trauma, encompasses the psychological effects experienced by individuals who work with trauma victims but have not directly experienced the traumatic event. Professionals involved in post-earthquake efforts are in contact with individuals who must cope with the consequences of earthquake, including those who have lost loved ones, been trapped under debris, have to undergo amputations, or have been displaced from disaster-stricken areas. Mental health experts in earthquake response can provide psychological assistance to these individuals. Each person has a unique trauma story that is worth listening to and understanding, and over time, mental health professionals may experience emotions, such as compassion fatigue, in addition to secondary trauma, which can make it challenging to perform their roles. This research in Türkiye explored the link between secondary trauma, compassion fatigue, and early maladaptive schemas among mental health professionals providing in-person and online support. Using a relational survey model, it was revealed that compassion fatigue and early maladaptive schemas jointly contributed to 49.7% of the secondary trauma variance. In addition, compassion fatigue predicted the secondary theme. Further studies should examine specific factors such as education, field of study, and professional experience of secondary trauma. The findings underscore the importance of creating tailored support programs and training for healthcare and mental health professionals to prevent or address compassion fatigue.

Keywords: mental health professionals, secondary trauma, compassion fatigue, early maladaptive schemas

Öz

Depremler, insanları doğrudan ve dolaylı olarak etkileyen bir travma türüdür, çünkü deprem sonrası çalışmalarda yer alan uzmanlar yalnızca travma mağdurlarıyla çalışmakla kalmaz, aynı zamanda kendi psikolojik iyilik hallerini koruma sorumluluğuyla da karşı karşıya kalırlar. Ruh sağlığı profesyonelleri, travmatik bir olayı doğrudan yaşamamış olsalar bile, olaya tanık olmak veya etkilenenlerin anlattıklarını dinlemek gibi dolaylı maruziyet nedeniyle Travma Sonrası Stres Bozukluğu (TSSB) belirtileri gösterebilirler. İkincil travma olarak bilinen bu durum, travma mağdurlarıyla çalışan ancak travmatik olayı doğrudan yaşamamış olan bireylerin yaşadığı psikolojik etkileri kapsar. Deprem sonrası çalışmalarda yer alan profesyoneller, sevdiklerini kaybedenler, enkaz altında kalanlar, ampütasyon geçirenler veya afetten etkilenen bölgelerde yerlerinden edilenler de dahil olmak üzere depremin sonuçlarıyla başa çıkmak zorunda olan bireylerle temas halindedir. Deprem müdahalesinde görev alan ruh sağlığı uzmanları bu kişilere psikolojik yardım sağlayabilir. Her bireyin dinlemeye ve anlamaya değer benzersiz bir travma hikayesi vardır ve zaman içinde ruh sağlığı uzmanları ikincil travmaya ek olarak merhamet yorgunluğu gibi duygular yaşayabilir ve bu da rollerini yerine getirmelerini zorlaştırabilir. Türkiye'deki bu araştırma, yüz yüze ve çevrimiçi destek sağlayan ruh sağlığı uzmanları arasında ikincil travma, merhamet yorgunluğu ve erken dönem uyumsuz şemalar arasındaki bağlantıyı araştırmaktadır. İlişkisel bir araştırma modeli kullanılarak, merhamet yorgunluğunun ve erken dönem uyumsuz şemaların ikincil travma varyansının %49,7'sine ortaklaşa katkıda bulunduğu ortaya çıkmaktadır. Ve merhamet yorgunluğunun ikincil temayı yordamaktadır. Daha ileri çalışmalar, ikincil travma konusunda eğitim, çalışma alanı ve mesleki deneyim gibi spesifik faktörleri incelemelidir. Bulgular, merhamet yorgunluğunu önlemek veya ele almak için sağlık ve ruh sağlığı profesyonellerine yönelik özel destek programları ve eğitimler oluşturmanın önemini vurguluyor.

Anahtar Kelimeler: ruh sağlığı çalışanları, ikincil travma, merhamet yorgunluğu, erken dönem uyumsuz şemalar

Introduction

Natural disasters are extraordinary and devastating events that have occurred throughout human history in every era. Earthquakes, with their sudden and violent tremors, stand out as one of the most destructive types of disasters, causing significant loss of life, property damage, and physical destruction (Beaglehole et al., 2019). However, the effects of earthquakes not only shake the physical world but can also deeply impact the mental health of individuals. Therefore, numerous challenges arise that necessitate immediate assistance and crisis intervention following an earthquake (Akasaka & Kawashima, 2019; Bhusal & Machamasi, 2019).

Mental health experts involved in post-earthquake efforts play a crucial role in mitigating the psychological consequences of trauma experienced in the aftermath of such natural disasters. These professionals work to provide psychological support to those who have experienced trauma and assist them in coping with trauma-related stress disorders (e.g., post-traumatic stress disorder or PTSD) and other emotional difficulties (El-Khani et al., 2023; Hadi et al., 2020; Pathwary et al., 2023).

Traumatic experiences can threaten both the physiological integrity of the body and mental well-being. Individuals who have experienced trauma often struggle with cognitive processes, leaving memory effect. Simultaneously, it can disrupt a person's sense of safety and give rise to emotions such as a loss of control, helplessness, and hopelessness (Boals & Banks, 2020; Li et al., 2020). Earthquakes are a type of trauma that directly and indirectly affect people, as experts involved in post-earthquake efforts not only work with trauma victims but also face the responsibility of safeguarding their psychological well-being (Harmanci-Seren & Dikeç, 2023; Tominaga et al., 2020).

Mental health professionals, even if they have not directly experienced a traumatic event, may still exhibit symptoms of Post-Traumatic Stress Disorder (PTSD) due to indirect exposure, such as witnessing the event or listening to the accounts of those affected (Kahil & Palabıyıkoğlu, 2018; Pak-Güre, 2022). This condition, known as secondary trauma, encompasses the psychological effects experienced by individuals who work with trauma victims but haven't directly experienced the traumatic event (Sprang et al., 2019). Professionals involved in post-earthquake efforts are in contact with individuals who must cope with the consequences of earthquake, including those who have lost loved ones, been trapped under debris, have to undergo amputations, or have been displaced from disaster-stricken areas. Mental health experts in earthquake responses can provide psychological assistance to these individuals (Eisma et al., 2019; Fatima, 2023; Fischer & Hainzl, 2021). Each person has a unique trauma story that is worth listening to and understanding, and over time, mental health professionals may experience emotions, such as compassion fatigue, in addition to secondary trauma, which can make it challenging to perform their roles (Oginska-Bulik et al., 2021; Rauvola et al., 2019).

Compassion fatigue can be defined as the emotional exhaustion experienced by professionals due to their constant empathy and efforts to assist others (Clark et al., 2019). This fatigue can deplete professionals' emotional resources and have a negative impact on their job performance and personal quality of life.

Research on compassion fatigue and secondary trauma is notable in the literature (Martin-Cuellar et al., 2019; Pirelli et al., 2021; Rivera-Kloppel & Mendenhall, 2023). Alavi et al., (2023) recommended the development of research focusing on mental health services addressing secondary traumatic stress and burnout based on the phenomenological experiences of 22 healthcare providers who had intervened in a fatal disaster crisis approximately one year later. This study is expected to contribute to the existing literature.

The development of secondary trauma or the experience of compassion fatigue by mental health professionals can hinder their ability to provide professional responses in their work (Leung et al., 2023; Singh et al., 2020). Core beliefs and emotional reactions that negatively affect the professional work of mental health experts may have formed during their childhood and adolescence. This condition, also known as early maladaptive schema can significantly influence how professionals think, feel, and act (Pilkington et al., 2020; Simpson et al., 2018).

One study on early maladaptive schemas among healthcare workers, including clinical psychologists, conducted by Bamber and McMahon (2008) found that individuals with intense early maladaptive schemas experienced higher levels of burnout and occupational stress. Additionally, Güzey (2020) examined the role of self-compassion in the relationship between early

maladaptive schema domains and secondary traumatic stress in a study with 116 volunteer participants. The results showed that self-compassion had a moderate to large effect size on the relationship between early maladaptive schema domains and secondary traumatic stress. Therefore, the early maladaptive schemas of mental health professionals involved in post-earthquake efforts can shape their approach to working with trauma victims and their psychological well-being.

This research aims to raise awareness among mental health professionals about factors such as secondary trauma, compassion fatigue, and early maladaptive schemas and how these factors can affect their psychological well-being. It can also help mental health professionals develop a better understanding of post-earthquake crisis interventions. Understanding the effects of factors such as secondary trauma and compassion fatigue can help professionals communicate more effectively with their clients and provide better support. Sharing the challenges faced by professionals working in crisis intervention situations, such as post-earthquake efforts, can increase awareness in this field.

Lastly, emphasizing the importance of the emotional and psychological well-being of professionals working in crisis intervention situations and highlighting the relationship between secondary trauma, compassion fatigue, and early maladaptive schemas, can contribute to the creation of more support and resources for those in the field. Furthermore, this research can serve as an inspiration for future researchers looking to examine the relationship between these factors in more detail, potentially leading to the development of more effective support strategies and more efficient crisis intervention management.

In light of all this information, this research holds the potential to contribute to improving the professional and personal lives of mental health professionals engaged in post-earthquake efforts. The aim of this research is to focus on this critical issue by examining the relationship between secondary trauma, compassion fatigue, and early maladaptive schemas experienced by mental health professionals participating in post-earthquake interventions. In this context, this study poses the following sub-problems:

- 1. Do participants' levels of secondary traumatic stress differ by their gender?
- 2. Do participants' levels of secondary traumatic stress differ according to their educational background?
- 3. Are participants' early maladaptive schemas and compassion fatigue levels significant predictors of secondary traumatic stress?

Method

Research Design

This study followed a correlational survey model. In a correlational survey model, the aim is to determine the relationships between two or more variables and obtain clues about cause-and-effect relationships. In the correlational survey model, it is possible not only to determine relationships between variables but also to investigate one variable as a dependent variable while treating other variables as independent variables (Büyüköztürk et al., 2013). In studies aimed at determining the relationships between variables, it is uncertain which variable affects whom to what extent. In studies conducted for prediction purposes, the extent of change in the dependent variable can be easily explained by the relevant variables (Büyüköztürk et al., 2013).

Sample

This study was conducted with mental health workers working in the provinces affected by the February 6 earthquake, who volunteered to participate in the study. Ethics committee approval for this study was received by the Sivas Cumhuriyet University Social Sciences Scientific Research Proposal Ethics Evaluation Board (decision number 2023/19 dated 23.05.2023). During the data collection process, data were collected from fieldworkers who were accessible or could be reached by the researchers. In this study, a convenience sampling method was used. The study sample consisted of school mental health professionals working in disaster-prone regions during the 2022-2023 academic year. The majority of participants were female (n=101; 71.6%). Most participants were mental health counselors (n=55; 39%). The majority of the participants were undergraduate degree holders (n=96; 68.1%). The majority of those who took part in the study worked in institutions affiliated with the Ministry of Education (MEB) (n=49; 34.8%). They typically work with all age groups (n=77; 54.6%). Most of them indicated their therapeutic orientation as "other" (n=63; 44%). The demographic information of the participants is

presented in Table 1.

Table 1.

Frequency and Percentage Distributions for Demographic Variables

Demographic Variables		f	%
1. Gender	Female	101	71.6
	Male	40	28.4
2. Bachelor's Degree	Guidance and Psychological	55	39.0
_	Counseling		
_	Psychology	24	17.0
_	Social Services	21	14.9
	Medicine/Psychiatry	1	0.7
	Psychological Support Team	40	28.4
3. Education Status	Undergraduate	96	68.1
	Master's Degree and PhD	45	31.9
4. Institution where they	Family and Social Services	27	19.1
work	Hospital	6	4.3
	Ministry of Education	49	34.8
	Private Counseling Center	18	12.8
	University	4	2.8
	Other	37	26.2
5. Groups Worked with	Child and/or Adolescent	37	26.2
	Adult	27	19.1
	All Groups	77	54.6
6. Therapies	Cognitive Behavioral Therapy	30	21.3
	Child-Centered Play Therapy	12	8.5
	Experiential Play Therapy	1	0.7
_	Dynamic Psychotherapy	8	5.7
	EMDR	26	18.4
	Schema Therapy	2	1.4
	Other	63	44.0
TOTAL		141	100

Data Collection

Personal Information Form: The Personal Information Form developed by the researchers was used to collect the demographic information of the participants.

Secondary Traumatic Stress Scale Turkish Form: "Secondary Traumatic Stress Scale Turkish Form" was used to determine the level of secondary traumatic stress of professionals. The Secondary Traumatic Stress Scale was developed by Bride (2001). The scale is 5-point Likert type and consists of 17 items. It measures the secondary traumatic stress symptoms developed by professionals working with individuals with traumatic experiences and evaluates the symptoms seen in the last seven days. According to this analysis, the Turkish form can be accepted as unidimensional. T The scale items were as follows: "(1) Never", "(2) Very little", "(3) Sometimes", "(4) Frequently", and "(5) Very often." The lowest score that could be obtained from an item was 1, and the highest score was 5. The lowest score obtained from the total scale was 17, and the highest score was 85. A high score indicates a high level of affect (Kahil, 2016). Sample items of the scale are as follows: "When I thought about my meetings with my clients, my heart started to beat rapidly", "I was expecting something bad to happen." According to the analysis conducted within the scope of this study, the alpha value of the scale was determined as .82.

Young Schema Scale Short Form: The 3rd version of the short form of the Young Schema Scale (YSÖ-KF3) was used to assess early maladaptive schemas. This scale is a 90-item scale including 18 schemas formed by adding Approval Seeking, Punitiveness and Pessimism schemas after the long form consisting of 16 schemas and 205 items and the short form consisting of 15 schemas and 75 items (Young et al., 2003). Soygüt et al. (2009) conducted a reliability and validity study on the short form of the scale in Türkiye. Participants rated each item on a 6-point Likert-type scale (1 = Completely wrong for me, 6 = Perfectly describes me). Sample items are "I feel that people use me", "I am extremely incompetent at getting things done." The alpha value of this study was .71.

Compassion Fatigue-Short Scale: This scale was developed by Adams et al. (2006). The scale was adapted into Turkish by Dinç and Ekinci (2019). The scale was found to be a valid and reliable measurement tool for the assessment of compassion fatigue. The scale is a self-report assessment tool that asks participants to indicate the extent to which each item reflects their experiences. It is a 10-point Likert-type scale ranging from rarely/never (1) to very often (10). No scoring algorithm or cut-off point was specified for the scale. The minimum score was 13 and the maximum score was 130. As the scores on the scale increased, the level of compassion fatigue experienced by individuals also increased. Sample items are as follow: "I feel trapped because of my job", "I have felt depressed because of my job." According to the analysis conducted within the scope of this study, the alpha value of the scale was .78

Data Analysis

After obtaining approval from the ethical review board of a university for the scientific research proposal in the field of social sciences (Ethics committee approval for this study was received by the Sivas Cumhuriyet University Social Sciences Scientific Research Proposal Ethics Evaluation Board with the decision number 2023/19 dated 23.05.2023), data were collected via a Google Form. Initially, 152 people were reached. After incomplete inventories and outlier results were removed from the dataset, 141 participants were included in the study. Descriptive statistics and regression analyses were used to analyze the data obtained from the study. SPSS 21 Package program was used for the analyses and the significance level was accepted as .05.

Before analyzing the data obtained in the study, we examined whether they showed a normal distribution with kurtosis and skewness coefficients. The kurtosis and skewness values between -3 and +3 (Tabachnick et al., 2007) are accepted as an indicator that the data have a normal distribution. In this study, these values varied between -0.700 and +0.800. It can be said that the data obtained had a normal distribution. The Durbin-Watson coefficient was used to test for autocorrelation among the variables. In the study, the Durbin-Watson coefficient was calculated as 1.678. Accordingly, the range of values in which the Durbin Watson test is valid is 0 < d < 4, a value close to zero indicates an excessive positive correlation, and a value close to 4 indicates an excessive negative correlation. The Durbin-Watson coefficient can be interpreted as an indicator that there is no autocorrelation problem between variables (Kalaycı, 2008). Second, the multicollinearity problem among the independent variables of the study was examined by considering the variance magnification factor. When the variance magnification factor is less than 10, it can be interpreted that there is no multicollinearity problem among the independent variables. The variance inflation factor (VIF) values for the independent variables were calculated as 2.02 in this study. These values show that there is no multicollinearity problem that is not suitable for regression analysis (Büyüköztürk, 2009).

Research Ethics. This study was conducted after obtaining ethics committee permission. In addition, written consent was obtained from the participants stating that their participation in the research was voluntary.

Results

In this section, the results of the analysis conducted to determine whether secondary trauma differs significantly according to gender and educational status are presented first, followed by the results of the multiple linear regression analysis between the variables examined in the study.

Secondary Trauma and Gender

The results of the analysis on whether the level of secondary traumatic stress varied according to gender are given in Table 2.

Table 2.

Secondary Trauma and Gender

		n	$\overline{\mathbf{X}}$	SS	Sd	t	р
Gender	Female	101	37.30	2.14093	13.18616	-1.050	.259
	Male	40	34.70	1.31207	13.54044		

p<.05*

According to the results of the t-test conducted to determine whether the secondary traumatic stress levels changed according to the gender of the person, the secondary traumatic stress levels did not differ according to the gender of the person. The difference between secondary traumatic stress levels of female (\overline{X} = 37.30) and secondary traumatic stress levels of male (\overline{X} = 34.70) was not significant.

Secondary Trauma and Education Status

The results of the analysis on whether the level of secondary traumatic stress varied according to the educational status of the participants are given in Table 3.

Table 3.

Secondary Trauma and Education Status

		n	X	SS	Sd	t	р
Education	Undergraduate	96	37.60	1.30548	12.79102	1.357	.177
Status	Master's	45	34.35	2.11611	14.19532		
_	Degree and PhD	_					

p<.05*

According to the results of the t-test conducted to determine whether secondary traumatic stress levels changed according to the educational level of the person, secondary traumatic stress levels did not differ according to the educational level of the person. The difference between the secondary traumatic stress levels of undergraduate graduates ($\overline{X} = 37.60$) and the secondary traumatic stress levels of graduate graduates ($\overline{X} = 34.35$) was not significant.

Early Schemas and Compassion Fatigue as Predictors of Secondary Trauma

The results of the multiple regression analysis are given in Table 4.

Table 4.

Linear Multiple Regression Analysis Results Regarding the Prediction of Secondary Traumatic Stress Levels by Early Period Schemas and Compassion Fatigue Levels

Variable	В	Standa rd Error	β	t	р	Binary r	Partial ı
Constant	15.803	2.796	-	5.65	,00	-	-
				2	0		
Compassion .397	.397	.055	.617	7.18	,00	.700	.434
				9	0		
Scheme	Scheme .028	.020	.118	1.37	,17	.556	.083
				5	1		
R=0.705	R ² =0.497						
$F_{(2-139)}$ =68.	p=.000						
2 `							

As a result of the multiple linear regression analysis conducted to reveal how compassion fatigue and early schemas variables, which are thought to have an effect on secondary traumatic stress, predict secondary trauma stress, compassion fatigue and early schemas variables together showed a significant relationship (R=0.705, R^2=0.497) with secondary trauma stress (F_((2-139))=68.282, p<.01). Together, these two variables explained 49.7% of the variation in secondary trauma stress. According

to the standardized regression coefficients, the relative order of importance of the predictor variables on secondary trauma stress was compassion fatigue (β =0.617) and early schemas (β =0.118). When the significance tests of the regression coefficients were considered only compassion fatigue (p<.05) was a significant predictor of secondary trauma stress. When the relationships between the predictor variables and secondary trauma stress was examined, there was a correlation with compassion fatigue (p=0.700) [when the effect of the other predictor variable was controlled (p=0.434)] and with early schemas (p=0.556) [when the effect of the other predictor variable was controlled (p=0.083)].

Discussion

The findings of this study are discussed within the framework of the three research questions provided in the introduction. According to the first result of the study, the levels of secondary traumatic stress did not differ according to gender. This finding suggests that gender differences in secondary trauma are not significant. It is noteworthy that the research results are in line with studies conducted with healthcare workers who intervene with trauma-exposed individuals in different countries (Creamer & Liddle, 2005; Dar & Iqbal, 2020; Vagni et al., 2020). In contrast to the findings of this study, Ivivić and Motta (2017), who investigated mental health professionals' levels of secondary traumatic stress in relation to various variables, reported that women experienced more secondary traumatic stress than men did in their study, which included 88 mental health professionals. Felix-Bonilla (2019) conducted a thesis study with 61 mental health professionals working with individuals who experienced military-related trauma and reported that female professionals were more affected by indirect trauma than males. She also emphasized the importance of considering gender as a significant variable in future studies. In a systematic review study on gender as a variable in secondary trauma, Baum (2016) reviewed ten studies. As a result, it was found that female mental health professionals were found to be more sensitive to secondary trauma compared to male professionals. It was also emphasized that this result should not be interpreted as males unaffected by trauma. One of the limitations of this study is the non-homogeneous distribution of male and female participants.

The second result of the study indicates that the levels of secondary traumatic stress did not vary based on the participants' education level. There was no significant difference in the levels of secondary traumatic stress between undergraduate and postgraduate degree holders. This result, in line with the literature, demonstrates that secondary trauma does not only affect individuals with specific educational backgrounds (Salloum et al., 2015). The non-variation of secondary trauma by education level can be interpreted as educational level not being a protective factor against traumatic symptoms. Therefore, it can be said that the symptoms of secondary traumatic stress affect individuals independently of their education level.

Multiple regression analysis results within the scope of the research revealed that as a third result, compassion fatigue significantly predicts the levels of secondary traumatic stress among mental health professionals. There was a positive relationship between compassion fatigue and secondary trauma. This result suggests that individuals working in the fields of health and human services may consider compassion fatigue as a risk factor when they are continually exposed to traumatic experiences. In light of this information, it is seen that the research results are in line with the literature (Deighton et al., 2007; Singh et al., 2020; Somoray et al., 2017). Mental health professionals participating in post-earthquake psychological support activities are known to work at a fast pace. Given their intense working hours while dealing with the traumatic symptoms that earthquake survivors struggle with, it is inevitable for mental health professionals to experience compassion fatigue. This result can be considered as an important factor for mental health professionals in maintaining their psychological well-being and emotional health. There are studies in the literature addressing similar situations (Adhikari, 2017; Figley, 1995).

On the other hand, the early maladaptive schemas variable did not significantly predict the levels of secondary traumatic stress. There was no statistically significant relationship between early maladaptive schemas and secondary trauma. This result suggests that the core beliefs mental health professionals develop in childhood do not directly affect the risk of secondary trauma. In a study conducted by Saddichha et al. (2012), who examined early maladaptive schemas in mental health professionals, they inclued 100 participants and reported that men had higher levels of early maladaptive schemas compared to women. Although there are several studies in the literature explaining the relationship between early maladaptive schemas in adults and childhood trauma (Borzyszkowska et al., 2023; Rezeai et al., 2016; Vasilopoulou et al., 2020; Zheng, et al., 2022), there are relatively few studies that use early maladaptive schemas to explain secondary trauma in mental health professionals (Güzey, 2020; Simpson et al., 2018). In contrast to the results of this study, Altan (2020) found

a significant positive relationships between the levels of secondary traumatic stress in mental health professionals and early maladaptive schema scores. The fact that early maladaptive schemas do not affect the symptoms of secondary traumatic stress in mental health professionals participating in disaster studies may stem from the individual characteristics of the professionals beyond the difficulties of the job. The lack of detailed demographic information, such as whether the therapist has gone through their therapy or not, can be considered a limitation in this study. However, it is known that secondary traumas and early maladaptive schemas are based on the specific and individual characteristics of mental health professionals beyond the challenges of the job (Figley, 1995; Hesse, 2002). These findings suggest that personal coping mechanisms, levels of self-awareness, and the extent of professional support received by therapists may also play significant roles. For instance, therapists who continuously engage in self-improvement and receive professional support are likely to be less affected by the impact of early maladaptive schemas. Furthermore, the levels of personal resilience and flexibility of these professionals may mitigate the symptoms of secondary traumatic stress.

Conclusion

In conclusion, this study provides significant findings by examining the relationships among secondary trauma, gender, education level, compassion fatigue, and early maladaptive schemas. However, further studies are required to understand how these findings can contribute to practical applications and support the psychological well-being of mental health professionals. In future studies, the impact of gender on differences in secondary trauma experiences can be analyzed in greater depth, and the causes of these differences can be investigated to fill gaps in the literature. Moreover, there is a need for studies that examine the effects of more specific factors, such as the educational field or professional experience, on secondary trauma, especially beyond the education level. Additionally, a more detailed exploration of the relationship between education level and how secondary trauma is dealt with or attempted to be prevented is recommended. Further research on the coping strategies and support systems of mental health professionals regarding compassion fatigue can guide practices in this area. Therefore, the development of support programs and training for health care workers and mental health professionals to prevent or manage compassion fatigue is recommended. To understand the impact of early maladaptive schemas on secondary trauma, larger samples and in-depth analyses are necessary. Understanding how specific early maladaptive schemas affect specific professional groups can assist in developing preventive interventions.

Etik Komite Onayı: Bu çalışma için etik komite onayı Sivas Cumhuriyet Üniversitesi sosyal Bilimler Bilimsel Araştırma Önerisi Etik Değerlendirme Kurulu tarafından 23.05.2023 tarihli 2023/19 karar sayısı ile alınmıştır.

Katılımcı Onamı: Çalışmaya katılan tüm katılımcılardan yazılı onam alınmıştır.

Yazar Katkıları: Fikir-Ç. A. C.; Tasarım- Ç.A.C., S. E.; Denetleme- Ç.A.C., S. E.; Kaynaklar- Ç.A.C., S. E.; Veri Toplanması ve/veya İşlemesi- Ç.A.C., S. E.; Analiz ve/ veya Yorum- Ç.A.C., S. E., Literatür Taraması- Ç.A.C., S. E.; Yazıyı Yazan- Ç.A.C., S. E S.; Eleştirel İnceleme- Ç.A.C., S. E.

Hakem Değerlendirmesi: Dış bağımsız.

Çıkar Çatışması: Yazarlar, çıkar çatışması olmadığını beyan etmiştir.

Finansal Destek: Yazarlar, bu çalışma için finansal destek almadığını beyan etmiştir.

Ethics Committee Approval: Ethics committee approval for this study was received by the Sivas Cumhuriyet University Social Sciences Scientific Research Proposal Ethics Evaluation Board with the decision number 2023/19 dated 23.05.2023.

Participant Consent: Written informed consent was obtained from all participants who participated in the study.

Author Contributions: Concept - Ç. A. C.; Design- Ç.A.C., S. E.; Supervision- Ç.A.C., S. E.; Resources- Ç.A.C., S. E.; Data Collection and/or Processing-Ç.A.C., S. E.; Analysis and/or Interpretation- Ç.A.C., S. E.; Literature Search- Ç.A.C., S. E.; Writing Manuscript- Ç.A.C., S. E.; Critical Review- Ç.A.C., S. E. E.; Critical Review- Ç.A.C., S. E.; Critical Review- C.A.C., S. E

Peer-review: Externally peer-reviewed.

Conflict of Interest: The authors declare no conflict of interest.

Financial Support: The authors declared that they received no financial support for this study.

References

- Adams, R. E., Boscarino, J. A., & Figley, C., R. (2006). Compassion fatigue and psychological distress among social workers: A validation study. *Am J Orthopsychiatry*, 76(1), 103-108. https://doi.org/10.1037/0002-9432.76.1.103
- Adhikari, Y. (2017). A Comparative Study of Professional-Quality-of-Life Factors of Mental Health and Psychosocial Support (MHPSS) Professionals Working with Earthquake Victims and Other Trauma Victims in Nepal. *The University of Liverpool*.
- Akasaka, M., & Kawashima, Y. (2019). Psychological first aid for children during the Kumamoto Earthquake disaster response in Japan. *Intervention, Journal of Mental Health and Psychosocial Support in Conflict Affected Areas, 17*(1), 103-108. https://doi.org/10.4103/INTV.INTV_3_18
- Alavi, S. M., Kia-Keating, M., & Nerenberg, C. (2023). Secondary traumatic stress and burnout in health care providers: A post-disaster study. *Traumatology*, *29*(3), 389–401. https://doi.org/10.1037/trm0000418
- Altan, B. (2020). The Relationship Between Secondary Traumatic Stress, Maladaptive schemas, Childhood Traumas, Occupational and Sociodemographic Variables in Mental Health Workers. Işık Üniversitesi, İstanbul.
- Bamber, M., & McMahon, R. (2008). Danger—early maladaptive schemas at work!: The role of early maladaptive schemas in career choice and the development of occupational stress in health workers. *Clinical Psychology & Psychotherapy*, 15(2), 96-112. https://doi.org/10.1002/cpp.564
- Baum, N. (2016). Secondary traumatization in mental health professionals: A systematic review of gender findings. *Trauma Violence Abuse*, 17(2), 221-235. https://doi.org/10.1177/1524838015584357
- Beaglehole, B., Mulder, R. T., Boden, J. M., & Bell, C. J. (2019). A systematic review of the psychological impacts of the Canterbury Earthquakes on mental health. *Australian and New Zealand Journal of Public Health, 43*(3), 274-280. https://doi.org/10.1111/1753-6405.12894
- Bhusal, R., & Machamasi, S. (2019). Mainstreaming psychological first aid response during disaster events in Nepal. International NGO Journal, 14(6), 70-75. https://doi.org/10.5897/INGOJ2019.0342
- Boals, A., & Banks, J. B. (2020). Stress and cognitive functioning during a pandemic: Thoughts from stress researchers. *Psychological Trauma: Theory, Research, Practice, and Policy, 12*(1), 255-257. https://doi.org/10.1037/tra0000716
- Borzyszkowska, A., Wojtynkiewicz, E., & Mamełka, K. (2023). Forgiveness and early maladaptive schemas and trauma among women with an alcohol-use disorder parent. *Alcoholism and Drug Addiction/Alkoholizm i Narkomania*, 36(1), 41-52. https://doi.org/10.5114/ain.2023.129515
- Bride, B. E. (2001). *Psychometric Properties of the Secondary Traumatic Stress Scale*. The University of Georgia/Graduate Faculty, Georgia, ABD.
- Büyüköztürk, Ş. (2009). Sosyal bilimler için veri analizi el kitabı (14. bs.). Pegem Yayıncılık.
- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö., Karadeniz, Ş. & Demirel, F. (2013). Bilimsel araştırma yöntemleri. Pegem Akademi.
- Clark, P., Holden, C., Russell, M., & Downs, H. (2022). The impostor phenomenon in mental health professionals: relationships among compassion fatigue, burnout, and compassion satisfaction. *Contemporary Family Therapy, 44*, 185-197. https://doi.org/10.1007/s10591-021-09580-y
- Creamer, T. L., & Liddle, B., J. (2005). Secondary traumatic stress among disaster mental health workers responding to the September 11 Attacks. *Journal of Traumatic Stress*, *18*(1), 89-96. https://doi.org/10.1002/jts.20008
- Dar, I. A., & Iqbal, N. (2020). Beyond linear evidence: The curvilinear relationship between secondary traumatic stress and vicarious posttraumatic growth among healthcare professionals. *Stress & Health, 36*(2), 203-212. https://doi.org/10.1002/smi.2932
- Deighton, R. M., Gurris, N., & Traue, H. (2007). Factors affecting burnout and compassion fatigue in psychotherapists treating torture survivors: Is the therapist's attitude to working through trauma relevant? *Journal of Traumatic Stress, 20*(1), 63–75. https://doi.org/10.1002/jts.20180

- Dinç, S., & Ekinci, M. (2019). Merhamet Yorgunluğu Kısa Ölçeği'nin Türkçeye uyarlanması, geçerlilik ve güvenirliği. *Psikiyatride Güncel Yaklaşımlar* 11(1), 192-202. https://doi.org/10.18863/pgy.590616
- El-Khani, A., Calam, R., Cluver, L., Rakotomalala, S., & Maalouf, W. (2023). Urgent help needed for children affected by earthquake in Syria and Türkiye. *Correspondence*, 10(4), 246-247. https://doi.org/10.1016/S2215-0366(23)00060-3
- Felix-Bonilla, B. (2019). Vicarious Trauma in Clinicians Working with the Military Community. ProQuest.
- Figley, C. R. (1995). Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder in Those Who Treat the Traumatized. Routledge.
- Güzey, A. (2020). Mediating Role of Self-Compasiion on the Relationship Between Early Maladaptive Schema Domains and Secondary Traumatic Stress of Refugee Aid Workers. Başkent University, Ankara.
- Hadi, S., Widarna, D., Putri, L., & Kirana, D. L. (2020). Support Group Therapy as an Alternative to Reduce Stress in Caregiver ODGJ Lombok Earthquake Victims. In *2nd International Conference on Islam, Science and Technology (ICONIST 2019)* (pp. 200-204). Atlantis Press.
- Hesse, A. R. (2002). Secondary trauma: How working with trauma survivors affects therapists. *Clinical Social Work Journal*, 30(3), 293-309.
- Harmanci-Seren, A. K., & Dikeç, G. (2023). The earthquakes in Turkey and their effects on nursing and community health. *International Nursing Review, 70*(3),255-455. https://doi.org/10.1111/inr.12851
- Ivicic, R., & Motta, R. (2017). Variables associated with secondary traumatic stress among mental health professionals. *Traumatology*, 23(2), 196–204. https://doi.org/10.1037/trm0000065
- Kahil, A. (2016). An Assessment of Secondary Traumatic Stress in Those Who Engage in a Helping Behavior With People Who Have Traumatic Life Events. Master's Thesis, Ankara, 2016
- Kahil, A., & Palabıyıkoğlu, N. R. (2018). Secondary traumatic stress. *Current Approaches in Psychiatry, 10*(1), 59-70. https://doi.org/10.18863/pgy.336495
- Kalaycı, Ş. (2008). SPSS uygulamalı çok değişkenli istatistik teknikleri. İstanbul: Asil Yayın Dağıtım.
- Leung, T., Schmidt, F., & Mushquash, C. (2023). A personal history of trauma and experience of secondary traumatic stress, vicarious trauma, and burnout in mental health workers: A systematic literature review. *Psychological Trauma: Theory, Research, Practice, and Policy, 15*(Suppl 2), S213–S221. https://doi.org/10.1037/tra0001277
- Li, Y., Zhu, H., Ren, Z., Lui, S., Yuan, M., Gong, Q., Yuan, C., Gao, M., Qiu, C. & Zhang, W. (2020). Exploring memory function in earthquake trauma survivors with resting-state fMRI and machine learning. *BMC Psychiatry*, 20(43). https://doi.org/10.1186/s12888-020-2452-5
- Martin-Cuellar, A., Lardier Jr, D. T., Atencio, D. J., Kelly, R. J., & Montanez, M. (2019). Vitality as a moderator of clinician history of trauma and compassion fatigue. *Contemporary Family Therapy*, 41, 408-419. https://doi.org/10.1007/s10591-019-09508-7
- Oginska-Bulik, N., Gurowiec, P. J., Michalska, P., & Kedra, E. (2021). Prevalence and predictors of secondary traumatic stress symptoms in health care professionals working with trauma victims: A cross-sectional study. *PLoS ONE 16*(2): e0247596. https://doi.org/10.1371/journal.pone.0247596
- Pak-Güre, M. D. (2022). How to help the helpers?: Integrative group therapy practices with professionals in disasters. *Turkish Journal of Social Work, 6*(1), 29-40. Retrieved from https://dergipark.org.tr/tr/pub/scd/issue/70388/1096597
- Patwary, M. M., Ashraf, S., Swed, S., Beaglehole, B., & Shoib, S. (2023). Natural disaster and mental health of emergency rescue workers: Lessons learned from Turkey-Syria Earthquake. *Annals of Work Exposures and Health, 67*(8), 1018-1021. https://doi.org/10.1093/annweh/wxad043
- Pilkington, P. D., Spicer, L., & Wilson, M. (2022). Schema therapists' perceptions of the influence of their early maladaptive schemas on therapy. *Psychotherapy Research*, *32*(7), 833-846, https://doi.org/10.1080/10503307.2022.2038804
- Pirelli, G., Formon, D. L., & Maloney, K. (2020). Preventing vicarious trauma (VT), compassion fatigue (CF), and burnout (BO)

- in forensic mental health: Forensic psychology as exemplar. *Professional Psychology: Research and Practice, 51*(5), 454–466. https://doi.org/10.1037/pro0000293
- Rauvola, R. S., Vega, D. M., & Lavigne, K. N. (2019). Compassion fatigue, secondary traumatic stress, and vicarious traumatization: a qualitative review and research agenda. *Occupational Health Science*, *3*, 297-336. https://doi.org/10.1007/s41542-019-00045-1
- Rezaei, M., Ghazanfari, F., & Rezaee, F. (2016). The role of childhood trauma, early maladaptive schemas, emotional schemas and experimental avoidance on depression: A structural equation modeling. *Psychiatry Research*, 246, 407-414. http://dx.doi.org/10.1016/j.psychres.2016.10.037
- Rivera-Kloeppel, B., & Mendenhall, T. (2023). Examining the relationship between self-care and compassion fatigue in mental health professionals: A critical review. *Traumatology*, 29(2), 163–173. https://doi.org/10.1037/trm0000362
- Saddichha, S., Kumar, A., & Pradhan, N. (2012). Cognitive schemas among mental health professionals: Adaptive or maladaptive?. *Journal of Research in Medical Sciences*, 17(6), 523-526.
- Salloum, A., Kondrat, D. C., Johnco, C., & Olson, K. R. (2015). The role of self-care on compassion satisfaction, burnout and secondary trauma among child welfare workers. *Children and youth Services Review, 49*, 54-61. http://dx.doi.org/10.1016/j.childyouth.2014.12.023
- Simpson, S., Simionata, G., Smout, M., van Vreeswijk, M. F., Hayes, C., Sougleris, C., & Reid, C. (2018). Burnout amongst clinical and counselling psychologist: The role of early maladaptive schemas and coping modes as vulnerability factors. *Clinical Psychology & Psychotherapy*, 26(1), 35-46. https://doi.org/10.1002/cpp.2328
- Singh, J., Karanika-Murray, M., Baguley, T., & Hudson, J. (2020). A systematic review of job demands and resources associated with compassion fatigue in mental health professionals. *International Journal of Environmental Research and Public Health*, 17(19), 6987. https://doi.org/10.3390/ijerph17196987
- Somoray, K., Shakespeare-Finch, J., & Armstrong, D. (2017). The impact of personality and workplace belongingness on mental health workers' professional quality of life. *Australian Psychologist*, 52(1), 52–60. https://doi.org/10.1111/ap.12182
- Soygüt, G., Karaosmanoğlu, A., & Çakır, Z. (2009). Assessment of early maladaptive schemas: A psychometric study of the Turkish Young Schema Questionnaire-Short Form-3. *Turkish Journal of Psychiatry*, 20(1), 75-84.
- Sprang, G., Ford, J., Kerig, P., & Bride, B. (2019). Defining secondary traumatic stress and developing targeted assessments and interventions: Lessons learned from research and leading experts. *Traumatology*, 25(2), 72-81. https://doi.org/10.1037/trm0000180
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using Multivariate Statistics* (Vol. 5, pp. 481-498). Boston, MA: Pearson.
- Tominaga, Y., Goto, T., Shelby, J., Oshio, A., Nishi, D., & Takahashi, S. (2020). Secondary trauma and posttraumatic growth among mental health clinicians involved in disaster relief activities following the 2011 Tohoku earthquake and tsunami in Japan. *Counseling Psychology Quarterly*, 33(4), 427-447. https://doi.org/10.1080/09515070.2019.1639493
- Vagni, M., Maiorano, T., Giostra, V., & Pajardi, D. (2020). Coping with COVID-19: Emergency stress, secondary trauma and self-efficacy in healthcare and emergency workers in Italy. *Frontiers in Psychology*, 11. https://doi.org/10.3389/fpsyg.2020.566912
- Vasilopoulou, E., Karatzias, T., Hyland, P., Wallace, H., & Guzman, A. (2020). The mediating role of early maladaptive schemas in the relationship between childhood traumatic events and complex posttraumatic stress disorder symptoms in older adults (>64 years). *Journal of Loss and Trauma*, 25(2), 141-158. https://doi.org/10.1080/15325024.2019.1661598
- Young, J. E., Klosko, J. S, & Weishaar, M. E. (2003). Schema Therapy: A Practitioner's Guide. The Guilford Press.
- Zheng, S., Stewart, J. G., Bagby, M., & Harkness, K. L. (2022). Specific early maladaptive schemas differentially mediate the relations of emotional and sexual maltreatment to recent life events in youth with depression. *Clinical Psychology & Psychotherapy*, 29(3), 1020-1033. https://doi.org/10.1002/cpp.2681