



Original Article

Relationship between resilience, secondary traumatic stress and work-related factors among mental health professionals

● Tuğba Şahin Tokatlıoğlu,¹ ● Gül Dikeç,² ● Saadet Yaşar³

¹Department of Nursing, İstanbul Aydın University Faculty of Health Sciences, İstanbul, Türkiye

²Department of Nursing, Fenerbahçe University Faculty of Health Sciences, İstanbul, Türkiye

³İzmir Bakırçay University, Çiğli Training and Research Hospital, İzmir, Türkiye

Abstract

Objectives: Resilience is the ability to maintain or rapidly recover mental health under stress. Mental health professionals are often exposed to workplace stress through violence, emotional labor, restrictions, and traumatic stories. Secondary traumatic stress results from being affected by others' traumatic experiences. Examining the relationship between resilience and secondary traumatic stress among mental health professionals is therefore essential.

Methods: This descriptive study was conducted between February and April 2022. Data were collected using the Personal Information Form, the Resilience Scale for Adults, and the Secondary Traumatic Stress Scale. Participants included 212 psychiatric and mental health nurses, 28 psychiatrists, 14 psychologists, and six social workers.

Results: A significant positive relationship was found between resilience and secondary traumatic stress. The regression model, including secondary traumatic stress, gender, educational status, willingness to work in mental health, job satisfaction, and unit of work, significantly predicted resilience.

Conclusion: Secondary traumatic stress and work-related factors, such as willingness and satisfaction with working in mental health and the unit of work, were found to play an essential role in resilience. Institutional support and supervision may strengthen resilience, while reducing secondary traumatic stress can enhance motivation and well-being. Institutions are recommended to implement strategies that address these factors to improve both resilience and professional effectiveness.

Keywords: Mental health professionals; resilience; secondary traumatic stress

Resilience is the ability to adapt effectively in the face of stress and adversity.^[1] In this context, resilience is defined as one's ability to recover in the face of complex life events and to overcome disasters.^[2] Although many factors explain resilience,^[2] these factors often appear as protective and risk factors.^[3] The protective factors of individuals play the most fundamental role in their ability to survive and cope with various difficulties encountered throughout life.^[3] Protective factors include family harmony, personal structural characteristics, and external support systems. Personal factors include physical strength, sociability, intelligence, communication

skills, self-efficacy, talent, and problem-solving. Familial protective factors emphasize that family closeness, harmony and structure, and relationships with at least one parent or a substitute parent are important.^[1,4] External support systems that increase resilience may include social support, such as close bonds with at least one person or good peer relationships that help individuals overcome difficulties.^[1,5]

In the formation of resilience, individuals must encounter some risk factors. Risk is defined as any event, situation, or experience that increases the likelihood that a problem will emerge, persist, or worsen. Traumatic experiences such

Address for correspondence: Tuğba Şahin Tokatlıoğlu, İstanbul Aydın Üniversitesi Sağlık Bilimleri Fakültesi, Hemşirelik Bölümü, İstanbul, Türkiye

Phone: 444 1 428 **E-mail:** tsahintokatlioglu@aydin.edu.tr **ORCID:** 0000-0003-2569-9906

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as maltreatment in childhood can be given as examples of these risks. Risky situations encountered in work life can also affect an individual's resilience.^[3] Mental health services, by nature, are stressful workplaces that serve individuals with mental disorders. Mental health professionals may be exposed to verbal or physical violence,^[2] suicide attempts, emotional labor, and challenging situations such as restraint and isolation,^[5] and they may also be exposed to traumatic histories of patients.^[6] Long-term exposure to these stressors can cause burnout, compassion fatigue, physical and mental health problems, and secondary traumatic stress (STS) in mental health professionals.^[2,7]

STS can be defined as the effects that occur as a result of witnessing or listening to the traumatic experiences of others,^[8] and these effects are reported to be similar to the effects of primary exposure to trauma.^[9] Studies on this subject have found that mental health professionals, especially nurses and social workers, are more affected,^[10–12] and that continuous exposure to traumatic experiences causes decreased job satisfaction, compassion fatigue, and burnout.^[13] A study conducted in Türkiye by Zara and İçöz reported that 44.9% of psychological counselors, psychologists, pedagogues, and social workers experienced above-average secondary trauma, and 25.4% experienced high levels of secondary trauma.^[14]

The ability of mental health professionals to adapt positively to these stressors can contribute to increased resilience. It has been stated that working willingly in mental health services, peer support, and supervision positively affect the well-being of mental health professionals.^[7] In this direction, while studies on this issue often examine the protective and risk factors of professionals' resilience, as well as personal and environmental factors, recent studies have also focused on resilience in the workplace context^[3,6,15] and interventions that can be used to enhance resilience.^[2,5]

For this reason, it is vital to examine work-related stressors and their relationship with resilience. Therefore, this study aimed to determine the relationship between resilience and STS levels, one of the major stressors, and the effects of work-related factors on resilience among mental health professionals working in a regional psychiatric hospital in Türkiye.

The study sought to answer the following three questions:

1. Is there a relationship between the resilience and secondary traumatic stress levels of mental health professionals?
2. Are there differences in the resilience of mental health professionals according to sociodemographic and work-related characteristics?
3. Which work-related characteristics affect the resilience of mental health professionals?

What is presently known on this subject?

- Resilience helps mental health professionals cope with workplace stressors such as violence, emotional labor, and exposure to trauma.

What does this article add to the existing knowledge?

- This study demonstrates a weak positive relationship between resilience and secondary traumatic stress and highlights the role of willingness, job satisfaction, and work unit.

What are the implications for practice?

- Resilience can be strengthened through institutional support, training, and interventions such as mindfulness and cognitive-behavioral techniques.

Materials and Method

The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) initiative,^[16] which is used for standardizing descriptive and observational studies, was followed in reporting this study.

Type and Design

This study used a descriptive research design.

Place and Date

The data for this study were collected at a regional psychiatric hospital in Türkiye between February and April 2022. As two of the researchers had previously worked at the institution, the data collection process was conducted face-to-face by the researchers. All mental health professionals who met the study criteria and provided consent were included without the application of additional selection criteria. Data were collected outside of working hours, with convenient times arranged in advance through prior communication with the participants. Participation was entirely voluntary, and efforts were made to reach all eligible mental health professionals working at the hospital.

Population and Sample

The study population included all 755 healthcare workers (psychiatric and mental health nurses, psychiatrists, psychologists, and social workers) working in mental health at the specified regional psychiatric hospital. The sample size was calculated using the sample size formula for a known universe ($N = N \cdot t^2 pq / d^2 (N-1) + t^2 pq$)^[17] and the Raosoft program (<http://www.raosoft.com/samplesize.html>). The sample size was determined as 255, with type I error set at 5% and the study power at 95%. Stratified sampling was not used. Considering the inclusion and exclusion criteria and potential data loss, 260 mental health professionals were reached.

Inclusion criteria were: (1) working in the field of mental health (psychiatric and mental health nurse, psychiatrist, psychologist, or social worker) at the determined regional psychiatric hospital during the data collection period (February–April 2022), (2) having at least one year of experience in a mental health setting, (3) being 18–65 years old, and (4) agreeing to participate after receiving the necessary information.

Exclusion criteria were: (1) working outside the field of mental health at the determined hospital, (2) working at the hospital for less than one year, and (3) declining to participate in the study.

Variables of the Study

The dependent variable of the study was the total score of the Resilience Scale for Adults (RSA). The independent variables were the total score of the Secondary Traumatic Stress Scale (STSS) and the sociodemographic and work-related characteristics of the participants.

Ethical Considerations

To carry out the study, ethics committee approval (dated 03.01.2022 and numbered E-83270475-200-5981) was obtained from the Non-interventional Clinical Research Ethics Committee of Fenerbahçe University. Institutional permission (dated 18 February 2022 and numbered 32805) was also obtained from the hospital where the mental health professionals worked. Written informed consent was obtained from all participating mental health professionals. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Data Measurement Tools

A personal information form containing questions about sociodemographic and professional information, the STSS, and the RSA was used for data collection. The scales were self-report instruments, and the forms were completed on paper by the participants.

Personal Information Form

The personal information form was prepared in line with the purpose of the study and a literature review.^[18,19] The sociodemographic factors examined were selected from risk and protective factors based on the model.^[3,5] The survey included 12 items to determine sociodemographic characteristics (age, gender, education level, marital status, number of children) and work-related characteristics (occupation, total occupational experience, experience in the mental health field, willingness to choose the profession, satisfaction level in the service, working unit).

Secondary Traumatic Stress Scale (STSS)

The STSS was developed by Bride et al.,^[20] and the Turkish validity and reliability study was carried out by Yıldırım et al.^[21] The scale consists of 17 items and is answered using a five-point Likert-type scale. Items are coded from 1 to 5 as never (1), rarely (2), sometimes (3), often (4), and always (5). The scale has three subdimensions: avoidance, stimulation, and emotional violation. The lowest possible score is 17, and the highest is 85. High total and subdimension scores indicate higher levels of secondary traumatic stress.^[21] In the Turkish validity and reliability study of the scale, Cronbach's alpha value was

0.91 for the total score, 0.84 for the emotional violation subdimension, 0.78 for the avoidance subdimension, and 0.82 for the stimulation subdimension. In this study, Cronbach's alpha value was 0.90 for the total score, 0.74 for emotional violation, 0.77 for avoidance, and 0.84 for stimulation.

Resilience Scale for Adults (RSA)

The RSA was developed by Friborg et al.,^[22] and its Turkish validity and reliability study was conducted by Basım and Çetin.^[23] The scale, with a total of 33 items, has six subdimensions: perception of the self (six items), perception of the future (four items), structural style (four items), social competence (six items), family harmony (six items), and social resources (seven items). To avoid biased evaluations, positive and negative judgments of the items are expressed in different dimensions, and a five-point Likert scale is used for evaluation. Responses are given in five categories, from never to always. In this study, items 1, 3, 4, 8, 11, 12, 13, 14, 15, 16, 23, 24, 25, 27, 31, and 33 were reverse coded. The lowest possible score is 33, and the highest is 165. In the Turkish validity and reliability study, Cronbach's alpha value was 0.86 for the total score, 0.73 for self-perception, 0.75 for perception of the future, 0.63 for structural style, 0.69 for social competence, 0.74 for family cohesion, and 0.62 for social resources. In this study, Cronbach's alpha value was 0.86 for the total score, 0.54 for self-perception, 0.63 for perception of the future, 0.25 for structural style, 0.72 for social competence, 0.71 for family cohesion, and 0.68 for social resources.

Data Analysis

The data obtained in the study were analyzed using SPSS (Statistical Package for Social Sciences) Statistics 28.0 for Windows, and the findings were reported according to the APA (American Psychological Association) Publications and Communications Board Working Group on Journal Article Reporting Standards.^[24] Numerical data were presented as mean and standard deviation, minimum and maximum, and categorical data as percentages (%).

The distribution of the variables was examined using kurtosis and skewness values. It was determined that the scale mean scores and the age variable showed normal distribution, while the duration of work in the profession and in the mental health field showed non-normal distribution. Therefore, the Pearson correlation test was used to investigate the relationship between RSA and STSS total and subdimension scores and age. The Spearman correlation test was used to examine the relationship between the total scale mean scores and work experience. Correlation levels were evaluated as follows: 0.00–0.25 very weak, 0.26–0.49 weak, 0.50–0.69 moderate, 0.70–0.89 strong, and 0.90–1.00 very strong.^[25]

Independent t-test and ANOVA were used to compare group mean scores according to nominal and ordinal variables. Based

Table 1. Sociodemographic and work-related characteristics of participants and comparison of the STSS and RSA total mean scores according to these characteristics

Characteristics	Min-max	Mean (SD)	STSS		RSA	
Age	20-47	29.39 (5.3)	r=0.06*	p=0.28	r=0.05*	p=0.36
	n (%)		Mean (SD)	Test /p	Mean (SD)	Test /p
Gender						
Female	185 (71.2)	71.50 (9.47)	t=2.97		130.56 (14.73)	t=5.86
Male	75 (28.8)	67.57 (10.13)	p<0.001		119.13 (12.96)	p<0.001
Marital status						
Single	179 (68.8)	69.78 (10.20)	t=-1.52		127.11 (15.078)	t=-0.25
Married	81 (31.2)	71.67 (8.79)	p=0.06		127.62 (15.35)	p=0.40
Children						
Yes	50 (19.2)	70.96 (8.17)	t=0.54		127.96 (16.75)	t=0.36
No	210 (80.8)	70.23 (10.17)	p=0.29		127.10 (14.76)	p=0.23
Educational level						
Medical vocational high school ¹	35 (13.5)	67.26 (5.98)	F=5.82		125.74 (15.87)	F=0.72
Bachelor ²	172 (66.2)	70.44 (10.25)	p<0.001		126.80 (15.21)	p=0.53
Master ³	45 (17.3)	74.09 (9.34)	3>1		129.38 (15.39)	
PhD ⁴	8 (3.1)	61.50 (6.50)	3>4		132.00 (6.34)	
Profession						
Psychiatric and mental health nurses	212 (81.5)	70.61 (9.85)	F=0.54		127.04 (15.27)	F=0.32
Psychiatrist	28 (10.8)	69.68 (9.23)	p=0.65		129.18 (14.94)	p=0.80
Psychologist	14 (5.4)	70.14 (8.89)			125.43 (17.02)	
Social worker	6 (2.3)	65.67 (13.77)			130.50 (2.51)	
	Min-max	Median				
Duration of occupational experience (years)	1-25 25% 50% 75%	5.50 4 5.50 8	r=-0.14**	p=0.82	r=0.70**	p=0.26
Duration of mental health settings experience (years)	1-15 25% 50% 75%	4 2 4 6	r=0.46**	p=0.45	r=0.38**	p=0.54
Satisfaction with working in mental health settings				F=6.18		F=9.85
Very satisfied ¹	68 (26.2)	74.99 (9.16)	p<0.001		132.75 (11.62)	p<0.001
Satisfied ²	120 (46.2)	69.17 (9.83)	1>2		128.61 (13.93)	1>3 1>4
Somewhat ³ satisfied	60 (23.1)	68.13 (8.75)	1>3		120.33 (17.55)	2>3 2>4
Unsatisfied ⁴	12 (4.6)	67.42 (10.66)			117.42 (15.61)	
Working willfully				F=0.28		F=21.16
Yes ¹	214 (82.3)	70.42 (9.99)	p=0.75		125.84 (13.91)	p<0.001 1>2
Undecided ²	9 (3.5)	72.33 (9.43)			110.89 (5.84)	3>1
No ³	37 (14.2)	69.62 (8.89)			139.49 (16.17)	3>2
Mental health unit						
Acute psychiatry unit ¹	174 (66.9)	70.87 (10.28)	F=1.21		123.83 (14.20)	F=9.86
Emergency psychiatry unit ²	26 (10)	67.19 (8.03)	p=0.30		131.62 (20.34)	p<0.001
Addiction unit ³	7 (2.7)	71.29 (11.45)			121.71 (16.63)	4>1
Forensic psychiatry unit ⁴	39 (15)	69.15 (8.44)			136.67 (9.67)	5>1
Other ⁵	14 (5.4)	73.00 (8.92)			138.43 (8.46)	

*: Pearson Correlation; **: Spearman Correlation. SD: Standard deviation; Min: Minimum; Max: Maximum; t: Independent t-test; F: ANOVA; STSS: Secondary traumatic stress; RSA: Resilience scale for adults

Table 2. Total and subdimension scores of RSA and STSS

Scales	Min-max	Mean (SD)
RSA	93-163	127.27 (15.13)
Perception of self	14-30	23.81 (3.12)
Perception of future	5-20	15.68 (2.77)
Structured style	6-20	14.55 (2.92)
Social competence	10-30	22.30 (4.20)
Family harmony	12-30	22.06 (4.04)
Social resources	19-65	28.87 (4.01)
STSS	41-85	70.37 (9.81)
Avoidance	14-35	28.58 (4-43)
Stimulation	10-25	20.42 (3.76)
Emotional violation	13-25	21.36 (2.82)

RSA: Resilience scale for adults; STSS: Secondary traumatic stress; Min: Minimum; Max: Maximum; SD: Standard deviation

on significant results from the independent t-test, correlation, and ANOVA, a model was established with the significant dependent variables (STSS, gender, willingness to work, satisfaction, and mental health unit). Multivariable linear regression analysis was performed to examine the effect of variables on RSA. The Enter method was used in regression analysis, and all dependent variables were entered into the model simultaneously. Gender was nominal, STSS was continuous, and satisfaction, willingness, and mental health unit were ordinal variables.

Results

Characteristics of the Participants

The mean age of the participants was 29.39 (SD=5.3) years. A total of 71.2% (n=185) were women, 68.8% (n=179) were single, and 80.8% (n=210) did not have any children. Among the mental health professionals, 66.2% (n=172) had a bachelor's degree, and 81.5% (n=212) were working as nurses. It was determined that 46.2% (n=120) of the professionals were satisfied with working in the mental health field, 82.3% (n=214) were willingly working in this field, and 66.9% were working in the acute psychiatry unit (Table 1).

Study Question 1

The RSA and STSS mean total and subdimension scores are shown in Table 2. A significant weak positive correlation was found between STSS and RSA total mean scores ($r=0.403$, $p<0.001$).

Study Question 2

When the sociodemographic and work-related variables were analyzed regarding RSA total scores, it was determined that the RSA total scores of women were higher than those of men ($p<0.001$). A significant difference was found in RSA total mean

scores according to satisfaction with working in mental health ($p<0.001$). The total RSA mean scores of those who were very satisfied were higher than those who were not satisfied and those who were somewhat satisfied, and the mean scores of those who were satisfied were higher than those who were not satisfied and somewhat satisfied ($p<0.001$).

Moreover, professionals working willingly in the field of mental health had higher RSA total mean scores compared to those who were undecided. The RSA total mean scores of those who were unwilling to work in this field were also higher compared to those who were working willingly and those who were undecided ($p<0.001$).

It was determined that RSA total mean scores varied according to the mental health unit in which the participants worked. Mental health professionals working in the forensic psychiatry unit and other areas had higher RSA total mean scores compared to professionals working in the acute psychiatry unit (Table 1). Accordingly, the RSA total mean scores of those working in the forensic psychiatry unit were higher than those of participants in the acute psychiatry unit. In addition, professionals working in departments such as polyclinic, blood collection, rehabilitation, community mental health centers, and child and adolescent psychiatry had significantly higher RSA total mean scores compared to those working in the acute psychiatry clinic ($p<0.001$).

Study Question 3

The model established with STSS, gender, willingness to work in the field of mental health, satisfaction, and the unit of work was found to be significant ($p<0.001$), explaining 45.5% of the variance in RSA total mean scores ($R^2=0.456$) (Table 3).

Discussion

The aim of this study was to examine the relationship between resilience, secondary traumatic stress (STS) levels, and work-related factors among mental health professionals. The findings revealed a weak positive relationship between resilience and STS levels among mental health professionals. In line with the existing literature, which indicates high levels of secondary traumatic stress in studies involving social workers, psychiatric nurses, psychiatrists, and psychologists,^[26,27] a negative relationship between these two variables has also been documented.^[26,28] In this context, the role of risk factors in the development of resilience may be connected to STS. Therefore, strategies aimed at enhancing the resilience of mental health professionals could be crucial in mitigating the negative effects of STS.^[5] Furthermore, the emergence of protective factors may be associated with mental health professionals' experiences of secondary traumatic stress, particularly from the stories they hear or witness. Their active involvement in

Table 3. The effects of sociodemographic variables and STSS on RSA

Dependent variable	Independent variables	B	p	F	Model (p)	R ²
RSA	Constant	98.75	<0.001	42.63	<0.001	0.456
	STSS	0.47	<0.001			
	Gender	-4.59	0.006			
	Working willfully	7.47	<0.001			
	Satisfaction with working in mental health settings	-6.31	<0.001			
	Mental health unit	1.71	<0.001			

STSS: Secondary traumatic stress; RSA: Resilience scale for adults; B: Regression coefficient; F: ANOVA test statistics

supporting these individuals may reduce the adverse effects of this process. Research has shown that mental health professionals who effectively cope with trauma are able to minimize negative effects and experience lower levels of secondary traumatic stress.^[29] Moreover, Kökçam et al.^[30] emphasized that psychological resilience is a critical factor in coping with trauma and stress. Psychological resilience refers to an individual's ability to cope with and overcome stressful situations.^[31]

In this study, a significant difference in RSA scores was found based on gender, with women reporting higher resilience levels. This is consistent with the findings of Coco et al.,^[32] who recognized gender as an important variable in psychological resilience and coping strategies. Gender-specific strategies play a vital role in stress management.^[33] Research indicates that men and women cope with stress and trauma differently,^[34] and traditional gender roles significantly impact stress management strategies.^[35] Male mental health professionals, for instance, may be less inclined to express their emotions, which could pose challenges in seeking help.^[36] On the other hand, female mental health professionals may be more open in expressing their emotions and seeking support but may face challenges in balancing professional and personal responsibilities.^[37] A study conducted with nurses in the mental health field found that male nurses had higher levels of resilience compared to female nurses.^[15] As the present study had a higher number of female participants, this may explain the higher resilience scores.

Moreover, the study identified a significant difference in RSA total mean scores based on satisfaction with working in the mental health field, with those more satisfied with their work showing higher resilience levels. In line with this, it has been noted that job satisfaction and a passion for nursing correlate with higher resilience levels among psychiatric nurses.

^[5] Similarly, Zheng et al.^[38] found a positive correlation between job satisfaction and resilience among mental health nurses. These findings highlight that having a positive attitude toward work and the work environment may serve as protective factors for resilience.^[3]

This study also found that resilience varied depending on the unit in which professionals worked. Specifically, professionals working in forensic clinics and other specialized units exhibited higher RSA scores, while those in acute clinics had lower RSA scores and higher STSS scores. This finding aligns with the literature, which indicates that trauma caseload, i.e., the amount of time spent working with trauma-exposed clients, is a strong risk factor for the development of secondary traumatic stress symptoms.^[39] This may explain the higher STSS scores among professionals working in acute care settings.

Furthermore, risk factors such as years of experience, personal trauma history, lack of supervision, and absence of work-related support are frequently reported as contributing to secondary traumatic stress.^[40] In Türkiye, mental health professionals at the start of their careers are generally assigned to acute clinics. Given that resilience tends to increase with experience and age, younger and less experienced professionals may have lower resilience levels. However, this study found no significant relationship between professional experience, time spent in mental health settings, and resilience. Future studies are recommended to explore the relationship between age, years of professional experience, and time spent in mental health settings.

Moreover, resilience can be developed and enhanced through education and role modeling.^[5] Interventions such as orientation, in-service training, and peer counseling can help increase the resilience of professionals working in acute care units. Young professionals should be supported in effectively managing stressful situations, such as caring for psychotic patients, dealing with violence and suicide attempts, and managing restrictions and isolation, as well as improving their communication skills, coping mechanisms, and self-care strategies.

Limitations

The most important limitation of this study is that it was conducted in a single center; therefore, the results cannot be generalized. Another limitation is the Cronbach's alpha coefficient of the structural style subdimension of the RSA, which was found to be low. This suggests that the structural style subdi-

mension may be unreliable. It is recommended that this sub-dimension be re-evaluated in a larger sample in future studies. In addition, personal factors such as stress coping methods, self-care activities, and institutional factors were not examined. Since resilience is a complex phenomenon, future studies should evaluate a broader range of individual and environmental factors among mental health professionals. Meanwhile, this study differs from the existing literature in that it focuses on work-related factors and secondary traumatic stress as workplace stressors among mental health professionals. This focus can be considered a strength of the study.

Conclusion

This study was conducted with mental health professionals to determine the association between psychological resilience, STS, and work-related factors, and whether there is a positive relationship between psychological resilience and secondary traumatic stress. It was found that secondary traumatic stress, gender, willingness to work in mental health, satisfaction, and the unit of work significantly affected resilience.

Relevance Statement

Since resilience is a dynamic concept, it can be developed over time. Mental health and psychiatric nurses can benefit from training in managing and controlling negative emotions and ineffective thoughts, coping with stress, and emotionally self-regulating. Such initiatives can strengthen communication skills and reduce clinical conflicts or interpersonal communication difficulties.^[5]

In a review, Kunzler et al.^[2] defined methods that can increase resilience among healthcare professionals. They emphasized that mindfulness-based practices, cognitive behavioral techniques, training, and face-to-face interventions can be used. However, they also noted that the level of evidence for these interventions could be higher, and future studies are needed. Considering that resilience among mental health professionals working in acute psychiatry clinics is lower, it may be recommended to implement resilience-enhancing interventions, as well as provide peer and institutional support and supervision practices, particularly for professionals who are new to the profession and working in psychiatry clinics.

Secondary traumatic stress encountered by health professionals in the mental health field can negatively affect their psychotherapy skills, empathy, and therapeutic relationships with patients. Examining the factors associated with STS and planning preventive interventions are therefore necessary.^[12] Increasing resilience is essential to prevent or reduce secondary traumatic stress among mental health professionals.^[41] Implementing resilience-enhancing interventions into daily work-life routines may positively affect secondary traumatic stress.^[27]

Ethics Committee Approval: The study was approved by the Fenerbahçe University Non-interventional Clinical Research Ethics Committee (no: E-83270475-200-5981, date: 03/01/2022).

Informed Consent: Written informed consent was obtained from all participating mental health professionals.

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