HEALTH SCIENCES QUARTERLY

Volume: 3
Issue: 1
2023

E-ISSN: 2791-6022
https://journals.gen.tr/jsp

Received: 2022-04-29
Accepted: 2022-10-26

ORIGINAL ARTICLE

# Psychological resilience and stress coping methods in patients presenting with conversive symptoms and general medical symptoms

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**Abstract**

To investigate the differences between the levels of psychological resilience and coping with stress among individuals presenting with conversion symptoms and general medical symptoms to the emergency department. A comparative-descriptive research study was conducted on 118 patients (n = 59) who presented with conversion symptoms (n = 59) and general medical symptoms (n = 59) from the Kafkas University Health, Practice and Research Hospital, Emergency Department. The research data were collected using a general information form, the Stress Coping Styles Scale (SCSS) and the Brief Resilience Scale (BRS). In addition to descriptive statistical methods, chi-square analysis and t-test were used in the evaluation of differences between groups. The mean age of the participants in the conversion symptoms group was 28.10 ± 13.49 and 25.69 ± 7.85 in the control group. The mean score obtained by the participants in the control group on the BRS was found to be significantly higher than that of the participants in the conversion symptoms group ($p$ <0.05). There was no significant difference between the groups in terms of the mean scores on the subscales of the SCSS ($p$ > .05). Psychological resilience levels were low in patients presenting with conversion symptoms. Based on this finding, individuals presenting to health centers with conversion symptoms would greatly benefit from the development of therapeutic interventions that aim to improve psychological resilience.

**Keywords:** Conversion, psychological resilience, coping skills

**Citation**: Kaya et al. / Psychological resilience and stress coping methods in patients presenting with conversive symptoms. Health Sci Q. 2023;3(1):49-57. https://doi.org/10.26900/hsq.1773

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## Introduction

Conversion disorder, which used to be called hysteria, was considered a uterus-based disorder in the 16th century [1]. Today, the disorder is also referred to as functional neurological symptom disorder and is characterized by function loss associated with one or more pseudoneurological symptoms [2]. There is no actual neurological disorder, but neurological symptoms do exist [3]. These symptoms affect the voluntary motor and sensory system [4]. According to the DSM-5, the prevalence of conversion disorder is between 2 to 5 / 100.000 [5].

Although the main etiologic mechanism of conversion disorder is assumed to be psychological, this traditional model (e.g. Freudian) is opposed because stressors are not clearly visible in all patient. [6]. Modern models correlate symptoms, cognitions and behavioral factors with neuronal connections [7], but there are few experimental results supporting these models or providing neuroanatomical specificity. The literature shows that experiencing traumatic events in either childhood or adulthood is correlated to psychopathology development in the further stages of life [8]. Childhood trauma is the most evidently shown factor [9-10]. Besides these, physical symptoms are a more commonly accepted way of showing the existence of pain. Therefore, when an individual with conversion disorder faces a stressful situation, they can use physical symptoms as a way to express difficulties they are experiencing [4].

Throughout the course of a lifetime, individuals may encounter numerous adverse situations or traumatic, shocking and stressful life events. Each individual who experiences these negative situations has different reactions to them or ways to cope with them [11]. Folkman and Lazarus defined coping with stress as the cognitive and behavioral efforts individuals develop when they face stressful situations and that they use to overcome the demands of the environment. Moreover, they analyzed stress coping methods under two groups, namely, "Emotional-Focused Coping" and "Problem-Focused Coping." "Problem-Focused Coping" reduces stress by solving problems, whereas "Emotional-Focused Coping" produces emotional distress associated with certain situations; in other words, in the case of the latter, instead of handling a problem, the problem is denied or avoided and the negative emotions created by the problem are shared. Avoidance coping strategies are examples of emotional coping. Problem-focused coping strategies are a form of active coping and planning and include spiritual coping methods. [12]. According to the results of studies conducted with patients with conversion disorders, these patients were less able to cope with stress [13-15], and in terms of the coping strategies they did apply, active and problem-focused coping strategies were used less often than emotional-focused and avoidance strategies [16-20]. Psychological resilience is considered as a personal characteristic that eases struggling against difficult living conditions, and it is defined as individuals' ability to recover, rehabilitate, return to their old functionality and readjust. Therefore, psychological resilience can also be a protective factor [21].

The relationship between psychological resilience, conversion disorder and coping with stress has been discussed in various studies [16,17, 23, 24]. In line with the aforementioned studies, the aim of this study was to investigate the differences between the levels of psychological resilience and stress coping methods in individuals presenting with conversion symptoms and other symptoms to the emergency department. Accordingly, this study applied a comparative-descriptive design. The following hypotheses were developed for this study:

**1.** The psychological resilience of the patients with general medical symptoms is higher than that of those presenting with conversion symptoms,

**2.** Patients with general medical symptoms use active coping methods more than those presenting with conversion symptoms,

**3.** Patients with conversion symptoms use avoidance coping methods more than those presenting with general medical symptoms.

## Materials and Methods

### *Ethical Considerations*

Ethical approval (2018/46) and institutional permission (2018/35380) were obtained from the Kafkas University Ethics Committee. All participants were informed about the study process and their written informed consents were obtained.

### *Sample*

In this study, the sample size was calculated based on a 95% confidence interval using the G* Power version 3.1.9.4 program. In a previous study [17] the effect size obtained was 1.80 and the minimum sample size was calculated to be 20 people with 0.95 theoretical power. During the study period, 85 conversion patients were treated in the emergency department. The sample of this study involved 118 people, a case group, which included 59 patients who presented to the emergency department of Kafkas University Health, Practice and Research Hospital between March 2018 to 2019 with conversion symptoms after other organic causes foreseen in differential diagnosis were excluded, and who were treated according to conversion pre-diagnosis, and a control group, which included 59 patients who presented to the emergency department of the same hospital with mild physical symptoms (fever, cough, sore throat, headache, indigestion, mild pain, diarrhea /constipation etc.) and received treatment.

### *Inclusion Criteria*

Inclusion criteria were to be showed conversion symptoms after exclusion of other organic causes in the differential diagnosis, to agree to participate in the study, to be 18 years of age or older. Inclusion criteria for the control group were general medical conditions, having mild physical illness such as fever, cough, sore throat, headache, indigestion, minor pain and oozing, diarrhea/constipation, and infectious diseases.

### *Exclusion Criteria*

Exclusion criteria of the study, presence of any organic reason for the patient's complaint, having a diagnosed psychiatric illness, the patient's refusal to participate in the study and not giving consent or wanting to leave the study afterwards, the study questionnaires were not fully completed, the patient had serious health problems such as cancer, HIV/AIDS and substance use-related disorders.

### *Instruments*

### *General information form*

This form was developed by the researchers and includes 18 questions under three sections. The first section features questions related to the participants' sociodemographic characteristics such as age, gender, education level, marital status, occupation, place of residence, level of income, and family type. The second section includes questions about the participants' mental health characteristics such as psychiatric diagnosis and treatment history, psychiatric diagnosis and treatment history of the family, smoking, alcohol, substance use history, and suicide attempt history. Finally, the third section has questions related to the participants' subjection to violence, such as physical, emotional and sexual violence history in the family.

### *The stress coping styles scale (SCSS)*

This scale was developed by Lazarus and Folkman in 1980 to determine individuals' subjective stress coping styles under stressful situations. In Türkiye, the first standardization was carried out in 1995 by Şahin and Durak who reduced the scale to 30 items under five subscales for its adaption to university students. The subscales of the adapted scale are "Self-Confident Approach", "Desperate Approach", "Submissive Approach", "Optimistic Approach" and "Social Support Seeking Approach" [25]. The items on the scale are scored as 0%, 30%, 70%, and 100% in terms of their applicability to individuals. The first and 9th items are reversely scored. No total score is obtained from the scale. The scores are separately calculated for each subscale. Higher subscale scores indicate that the approach specified in the subscale is used more in coping with stress [25]. *Cronbach's alpha* values of the subscales as obtained in the validity and reliability study of the scale were as follows: between .68 and .49 for "Optimistic Approach", between .80 and .62 for "Self-confident Approach", between .73 and .68 for "Desperate

Approach", between .70 and .47 for "Submissive Approach", and between .47 and .45 for "Social Support Seeking Approach" [25].

***The brief resilience scale (BRS)***

This scale was developed by Smith et al. in 2008. The BRS is a 5-point Likert type, 6-item, self-report style measurement tool. Turkish validity and reliability study of the scale was conducted in 2015 by Doğan [11]. From the exploratory and confirmatory factor analysis, it was found that the scale had a one-factor model. The response options on the BRS's 5-point Likert-type scale are "Strongly disagree" (1), "Disagree" (2), "Neutral" (3), "Agree" (4), and "Strongly Agree" (5). The 2nd, 4th, and 6th items of the scale are reversely scored. High scores obtained after rescoring reversed coded items indicate high resilience level. The internal consistency coefficient of the BRS was found to be .83 [11]. *Cronbach's alpha* value in the present study was .65.

***Statistical Analysis***

The data were analyzed using SPSS (Statistical Package for the Social Sciences) 20.0. Descriptive statistical methods (mean, number, percentage) were used to observe the distribution of variables. Student's *t-test* was applied for independent samples and independent sample chi square test were used for the comparison of sociodemographic characteristics and scales. A $p<0.05$ value was accepted as statistically significant, and effect size was calculated using *Cohen's d* coefficient.

## Results

The mean age was 28.10 ± 13.49 in the case group and 25.69 ± 7.85 in the control group. A majority of the participants from both groups were female and single, were in the process of attending university or higher education, lived in an urban setting, had an income level equal to their expenses, had a nuclear family and did not work. Moreover, it was determined that in both groups, the majority of the participants' families did not have a member with a psychiatric diagnosis, nor had the majority attempted suicide, smoked, used alcohol or substances, or been subject to emotional/physical or sexual violence (Table 1).

There was a statistically significant difference between the groups in terms of gender and education variables ($p<0.05$) (Table 1). In the patient with conversion symptoms, there was a statistically significant greater number of females than males and a statistically significant greater number of those who were illiterate or unschooled literate than those with other levels of education.

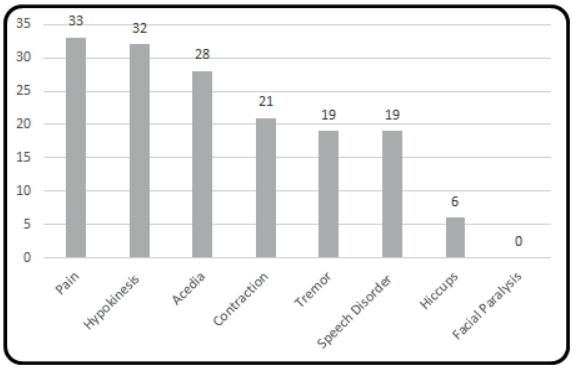


**Figure 1.** Descriptive Analyses of the Conversion Symptoms (n=59).

Figure 1., shows the conversion symptoms of participants in the group presenting with conversion symptoms. The most common symptoms were pain (55.9%; n=33), hypokinesis (54.2%; n=32) and acedia (47.5%; n=28). The least common symptoms were facial paralysis (0%; n=0), hiccups (10.2%; n=6), speech disorder (32.2%; n=19) and shivering (32.2%; n=19).

The mean score on the BRS was significantly higher in the control group than conversion symptom group ($p<0.05$). There was no significant difference between groups in terms of mean subscales of the SCSS scores ($p>0.05$) (Table 2).

## Discussion

This study aimed to investigate the psychological resilience levels and differences in the stress coping methods between patients presenting to the emergency department with conversion symptoms and patients presenting to the emergency department with general medical symptoms.

Conversion disorder, which is classified among the somatoform disorders, is a psychiatric condition in which psychological conflicts are reflected in the form of physical symptoms

[26-28]. In line with the literature, this study also found that pain, hypokinesis, weakness, contraction, speech disorder and shivering were commonly reported.

According to hypothesis 1; we predicted that general medical patients have a higher level of psychological resilience than that of patients with conversion symptoms. According to the results, patients with general medical symptoms had higher level psychological resilience levels when compared to those of patients with conversion symptoms. Jalilianhasanpour et al. reported in their study that the resilience levels of patients with conversion disorders were lower, a finding supported by Alpat's study [17,22]. Moreover, it has been shown that there is a negative relationship between neurotic character types and resilience and a positive relationship between extroversion and awareness and

**Table 1.** Descriptive Analyses of the Demographic Variables (N=118)

| | Conversion Symptoms | Control | Total | $X^2/t$ | *p* |
|---|---|---|---|---|---|
| **Gender (n=116)** | | | | | |
| Female | 46 (79.3%) | 36 (62.1%) | 84 (70.7%) | 4.161 | **0.041** |
| Male | 12 (20.7%) | 22 (37.9%) | 34 (29.3%) | | |
| **Age** | 28.10 ± 13.49 | 25.69 ± 7.85 | 26.90 ± 11.07 | 1.111 | 0.27 |
| **Education Level** | | | | | |
| Unschooled literates and illiterates | 9 (90%) | 1 (10%) | 10 (8.5%) | | |
| Primary and Secondary education | 13 (52%) | 12 (48%) | 25 (21.2%) | 7.416 | **0.025** |
| University and higher | 37 (44.6%) | 46 (55.4%) | 83 (70.3%) | | |
| **Marital Status** | | | | | |
| Single | 39 (47%) | 44 (53%) | 83 (70.3%) | 1.015 | 0.314 |
| Married | 20 (57.1%) | 15 (42.9%) | 35 (29.7%) | | |
| **Place of Residence** | | | | | |
| City | 38 (47.5%) | 42 (52.5%) | 80 (67.8%) | | |
| District | 10 (62.5%) | 6 (37.5%) | 16 (13.6%) | 1.200 | 0.549 |
| Village | 11 (50%) | 11 (50%) | 22 (18.6%) | | |
| **Income (n=115)** | | | | | |
| Income is less than expenses | 14 (41.2%) | 20 (58.8%) | 34 (29.6%) | | |
| Income is equal to expenses | 31 (51.7%) | 29 (48.3%) | 60 (52.2%) | 1.096 | 0.578 |
| Income is greater than expenses | 11 (52.4%) | 10 (47.6%) | 21 (18.3%) | | |
| **Family Type (n=117)** | | | | | |
| Nuclear family | 43 (50%) | 43(50%) | 86 (73.5%) | 0.024 | 0.878 |
| Extended family | 15 (48.4%) | 16 (51.6%) | 31 (26.5%) | | |
| **Employment Status(n=117)** | | | | | |
| Employed | 41 (50%) | 41 (50%) | 82 (70.1%) | 0.020 | 0.887 |
| Unemployed | 17 (48.6%) | 18 (51.4%) | 35 (29.9%) | | |
| **History of Psychiatric Diagnosis in Family** | | | | | |
| No | 54 (47.8%) | 59 (52.2%) | 113 (95.8%) | 5.221 | 0.057 |
| Yes | 5 (100%) | 0 (0%) | 5 (4.2%) | | |
| **Smoking** | | | | | |
| No | 48 (55.8%) | 38 (44.2%) | 86 (72.9%) | 3.473 | 0.062 |
| Yes | 11 (34.4%) | 21 (65.6%) | 32 (27.1%) | | |
| **Alcohol/Substance Use** | | | | | |
| No | 55 (51.9%) | 51 (48.1%) | 106 (89.8%) | 0.835 | 0.361 |
| Yes | 4 (33.3%) | 8 (66.7%) | 12 (10.2%) | | |
| **Suicide Attempt** | | | | | |
| No | 56 (49.6%) | 57 (50.4%) | 113 (95.8%) | 0.209 | 0.648 |
| Yes | 3 (60%) | 2 (40%) | 5 (4.2%) | | |
| **Subjected to Physical Violence** | | | | | |
| No | 57 (49.6%) | 58 (50.4%) | 115 (97.5%) | 0.342 | 0.559 |
| Yes | 2 (66.7%) | 1 (33.3%) | 3 (2.5%) | | |
| **Subjected to Emotional Violence** | | | | | |
| No | 53 (47.7%) | 58 (52.3%) | 111 (94.1%) | 3.797 | 0.051 |
| Yes | 6 (85.7%) | 1 (14.3%) | 7 (5.9%) | | |
| **Subjected to Sexual Violence** | | | | | |
| No | 58 (49.6%) | 59 (50.4%) | 117 (99.2%) | 1.009 | 0.315 |
| Yes | 1 (100%) | 0 (0%) | 1 (08%) | | |

***X2:** Chi-square; **t:** Student's *t Test*; ***p*** < .05

resilience [23]. In one conducted by Ahmad & Bokharey, it was reported that the psychological well-being levels of the patients with a general medical condition were significantly higher than those of the patients with conversion disorder [16]. Furthermore, it has been shown a positive relationship exists between psychological resilience and mental health [29]. For example, in a study analyzing whether psychological resilience is a protective or curative factor in adverse mental states that result from experiencing major stress [30], it was shown that psychological resilience is both protective and curative. Moreover, the intermediary role of resilience in perceived stress, anxiety and depression was highlighted [3]. In another study, that assessed the correlation between suicidal ideation and psychological resilience, the psychological resilience score was reported to be significantly lower in the group with suicidal ideation [32]. The same study recommended that psychological resilience should be improved. Lee et al. stated that resilience is a dynamic process, can change through time, and can be affected by environment [33]. According to the results of the present study, patients in the conversion symptoms group may not have been in suitable individual, family, and social environments for the growth of psychological resilience in the development processes. This might have led to lower psychological resilience in the conversion symptoms group compared to that of the control group. Also; the positive emotion can effect psychological resilience, hence the nature of the conversion symptoms patient can always be in the negative mood. Thus, the resilience scores were lower than acute general medical condition. Considering the relationship between psychological resilience psychopathology [34], the lower mean psychological resilience scores of the conversion symptoms group are in agreement with the relevant literature. Resilience is a personality trait related to personal well-being, insofar as it sustains a healthy state in the face of stressful situations.

In the analysis of the relationship between mental health and psychological resilience, it was observed that psychological resilience was lower in the individuals with conversion symptoms. Moreover, studies analyzing the relationship between conversion disorder and sociodemographic variables have shown that there are higher rates of conversion disorder among those who reside in rural areas, have a low education level and low socioeconomic level, are female and young, and have a history of sexual/physical abuse [27,35]. In the present study, there was a significantly higher rate of participants who were female and unschooled literate and illiterate compared to that of the control group. In addition to the psychological resilience mean score, gender and education level variables, should also be considered as factors contributing to the etiology of conversion symptoms in this region.

The results of this study showed that there was no significant difference between the coping with stress methods used by the groups; rather, they used similar coping with stress methods. The

**Table 2.** Analysis of between patient with control group and conversion symptoms

| Variables | Conversion Symptoms (M± SD) | Control (M± SD) | *t* | *p* | 95% *CI* | | *Cohens* |
|---|---|---|---|---|---|---|---|
| | | | | | LL | UL | d |
| **BRS** | 17.86±4.86 | 20.03±3.94 | -2.630 | **0.010*** | -3.803 | 0.535 | **0.49** |
| **SCA** | 14.03±4.76 | 13.50±4.38 | 0.623 | 0.535 | -1.145 | 2.196 | 0.11 |
| **DA** | 12.22±5.68 | 11.52±5.44 | 0.678 | 0.499 | -1.335 | 2.724 | 0.12 |
| **SA** | 7.64±3.61 | 7.22±4.05 | 0.599 | 0.550 | -0.977 | 1.825 | 0.10 |
| **OP** | 9.05±3.65 | 9±3.01 | 0.082 | 0.934 | -1.171 | 1.272 | 0.01 |
| **SSA** | 12±7.33 | 7.54±1.9 | -0.454 | 0.651 | -1.092 | 0.685 | 0.83 |

**BRS:** The Brief Resilience Scale, **SCA:** Self-confident Approach**, DA:** Desperate Approach**, SA:** Submissive Approach, **OP:** Optimistic Approach, **SSA:** Social Support Seeking Approach *$p < .05$, **M:** Mean, **SD:** Standard Deviation, ***CI:*** Confidence Interval.

SCSS classifies the subjective coping methods that individuals use when they encounter stressful situations as either emotion-focused (ineffective) or problem-focused (effective) [25]. The present study found that the individuals in the conversion symptoms group and the individuals with general medical symptoms use emotion-focused or problem-focused stress coping methods at similar levels when they encounter a stressful situation. Contrary to results reported in previous studies, the findings in this study showed that the groups did not differ in terms of the coping with stress methods they applied [16-20,24]. Otherwise stated, individuals with conversion symptoms tend to use avoidance and emotion-focused coping methods, compared to problem-focused coping methods, at higher rates and more actively. Myers et al. indicated in their study that three out of four patients experiencing psychogenic neuroleptic seizures used emotional-focused coping strategies, and that psychopathologic conditions, including conversion, were encountered more often in patients who used emotional-focused coping strategies at high levels [13]. These conflicting results reveal that more studies need to be carried out in this field and region to verify the results of this study and to provide more data on their causes. A study carried out by Evrin & Kaykısız reported that a majority of the individuals who presented to the emergency department and were subsequently diagnosed with conversion disorder were female and single [36]. Considering the sociodemographic characteristics of the participants (*i.e.* being female and single, having a low or intermediate level of income, being unemployed) in the present study and the general patriarchal culture defining the city in which they reside, the limited social opportunities, and the climate conditions, it is not surprising that all the participants tended to use problem-focused coping methods at a low level and emotion-focused coping methods at a high level.

## Conclusion

In this study, it was determined that the psychological resilience levels of patients with conversion symptoms were low. This result is important insofar as it shall aid the development of therapeutic interventions aimed at increasing psychological resilience. The stress coping strategies used by patients with conversion symptoms and by those with a general medical condition were similar. It is recommended that future studies on this subject examine the reason(s) behind this similarity. Additionally, considering that patients with conversion disorder are challenging to diagnose and treat due to their complex presentation, symptoms common to this disorder should be taken as indicators, especially in presentations to the emergency department. A multidisciplinary approach, one that involves the clinician-patient relationship and appropriate communication, proper neurological/epilepsy evaluation, diagnosis, treatment, psychiatric treatment, psychotherapy, and when necessary, physical treatment and pharmacotherapy, is needed in the treatment of conversion symptoms, especially in emergency departments.

### *Limitations*

This study did have some limitations. First, the sample size of the study was small. To improve statistical significance and generalizability of the results, future studies on this subject should have larger sample sizes. Another limitation of this study was that the percentage of females and those with lower education levels was higher in the conversion symptom group compared to the control group. This situation limits the ability to generalize the results to both genders and all education levels.

### *Funding*

The authors declared no financial support.

### *Conflict of Interest*

No conflict of interest was declared.

### References

1. Roy S, Roy GK, Begum M, Karim ME, Akhter MS, Begum O. Psycho-social stressors and life events of the patients with conversion disorder: A study in a tertiary care hospital in north east zone of Bangladesh. Bang J Psychiatry. 2014;28(2):41-4. doi: 10.3329/bjpsy.v28i2.32734.

2. Yücel B. Somatoform disorders. Psychiatry, Tükel R, Çakır S, Ertekin E (Ed) İstanbul: Nobel Medical Bookstores. 2017, 71-7 p.
3. Aybek S, Nicholson TR, O'Daly O, Zelaya F, Kanaan RA, David AS. Emotion-motion interactions in conversion disorder: An FMRI study. PLoS One. 2015;10(4):e0123273. doi: 10.1371/journal.pone.0123273.
4. Farooq A, Yousaf A. Childhood trauma and alexithymia in patients with conversion disorder. J Coll Physicians Surg Pak. 2016;26(7):606-10.
5. Amerikan Psikiyatri Birliği, Ruhsal Bozuklukların Tanısal ve Sayımsal El Kitabı, Beşinci Baskı, (DSM-5), Tanı Ölçütleri Başvuru El Kitabı'ndan çev. (in Turkish) Köroğlu E, Hekimler Yayın Birliği: Ankara, 2013.
6. Stone J, Edwards MJ. How "psychogenic" are psychogenic movement disorders? Mov Disord. 2011;26(10):1787-8. doi: 10.1002/mds.23882.
7. Edwards MJ, Adams RA, Brown H, Parees I, Friston KJ. A Bayesian account of 'hysteria'. Brain. 2012;135(11):3495-512. doi: 10.1093/brain/aws129.
8. Beltran NP. Long-term psychological consequences of child sexual abuse. Papeles del Psicologo. 2010;1(2):191-201.
9. Baslet G. Psychogenic non-epileptic seizures: A model of their pathogenic mechanism. Seizure. 2011:20(1);1-13. doi: 10.1016/j.seizure.2010.10.032.
10. Nicholson TR, Stone J, Kanaan RA. Conversion disorder: A problematic diagnosis. J Neurol Neurosurg Psychiatry. 2010:82(11);1267-73. doi: 10.1136/jnnp.2008.171306.
11. Doğan T. Adaptation of the brief resilience scale into Turkish: A validity and reliability study. J Happiness Well-Being. 2015:3(1);93-102.
12. Lazarus RS, Folkman S. Stress, appraisal and coping. New York: Springer Publishing Company Inc: 1984.
13. Myers L, Fleming M, Lancman M, Perrine K, Lancman M. Stress coping strategies in patients with psychogenic non-epileptic seizures and how they relate to trauma symptoms, alexithymia, anger and mood. Seizure. 2013:22(8);634-9. doi: 10.1016/j.seizure.2013.04.018.
14. Cronje G. Coping styles and quality of life in patients with psychogenic nonepileptic seizures (PNES): A South African perspective. Doctoral dissertation, Stellenbosch: Stellenbosch University, 2013.
15. Mehta, R, Mittal A, Singh DC, Patel C. Perceived stress and coping strategies in females with psychogenic non-epileptic seizures in a tertiary care hospital, New Delhi. Delhi Psychiatry J. 2019;22(1):82-8.
16. Ahmad QA, Bokharey IZ. Resilience and coping strategies in the patients with conversion disorder and general medical conditions: A comparative study. MJP. 2013;22(1):39-50.
17. Alpat B. Konversiyon bozukluğunda psikolojik dayanıklılığın ve başa çıkma tarzlarının etkisi, Yayınlanmamış Yüksek Lisans Tezi (in Turkish). Işık Üniversitesi. İstanbul, 2017.
18. Sempértegui GA, Karreman A, van Hout GC, Bekker MH. Functional status in patients with medically unexplained physical symptoms: Coping styles and their relationship with depression and anxiety. J Health Psychol. 2017;22(13):1743-54. doi: 10.1177/1359105316638548.
19. Testa SM, Krauss GL, Lesser RP, Brandt J. Stressful life event appraisal and coping in patients with psychogenic seizures and those with epilepsy. Seizure. 2012;21(4):282-7. doi: 10.1016/j.seizure.2012.02.002.
20. Van Beilen M, Griffioen BT, Leenders KL. Coping strategies and IQ in psychogenic movement disorders and paralysis. Mov Disord. 2009;24(6):922-5. doi: 10.1002/mds.22428.
21. Roy A, Carli V, Sarchiapone M. Resilience mitigates the suicide risk associated with childhood trauma. J Affect Disord. 2011;133(3):591-4. doi: 10.1016/j.jad.2011.05.006.
22. Jalilianhasanpour R, Williams B, Gilman I, Burke MJ, Glass S, Fricchione G, et al. Resilience linked to personality dimensions, alexithymia and affective symptoms in motor functional neurological disorders. J Psychosom Res. 2018;107:55-61. doi: 10.1016/j.jpsychores.2018.02.005.
23. Campbell-Sills L, Cohan SL, Stein MB. Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. Behav Res Ther. 2006;44(4):585-99. doi: 10.1016/j.brat.2005.05.001.
24. Asad S, Saeed S, Kausar R. Level of frustration tolerance and coping strategies used by women with conversion disorder vs those with general medical conditions. JPPS. 2016;13(2):35-8.
25. Şahin NH, Durak A. Stressc coping styles scale: Adaptation for university students. Turkish J Psy. 1995;10(34):56-73.
26. Pourkalbassi D, Patel P, Espinosa PS. Conversion disorder: The brain's way of dealing with psychological conflicts. Case report of a patient with non-epileptic seizures. Cureus. 2019;11(1):e3902. doi: 10.7759/cureus.3902.
27. Ali S, Jabeen S, Pate RJ, Shahid M, Chinala S, Nathani M, et al. Conversion disorder-mind

versus body: A review. Innov Clin Neurosci. 2015;12(5-6):23-7.

28. Akyüz F, Gökalp PG, Erdiman S, Oflaz S, Karşidağ Ç. Conversion disorder comorbidity and childhood trauma. Arch Neuropsychiatry. 2017;54(1):15-20. doi: 10.5152/npa.2017.19184.
29. Kazemi M. Prediction of mental health in MS patients: The role of psychological resilience and cognitive integration. Adv Nurs Midwifery. 2019;28(2):29-32.
30. Russell DW, Russell CA, Chen HY, Cacioppo S, Cacioppo JT. To what extent is psychological resilience protective or ameliorative: Exploring the effects of deployment on the mental health of combat medics. Psychol Serv. 2021;18(1):51-63. doi: 10.1037/ser0000343.
31. Reh L. Perceived stress, depression and anxiety in university students: The role of resilience. Bachelor's thesis, University of Twente. NL:2019.
32. Cong EZ, Wu Y, Cai YY, Chen HY, Xu YF. Association of suicidal ideation with family environment and psychological resilience in adolescents. CJCP. 2019;21(5):479-84. doi: 10.7499/j.issn.1008-8830.2019.05.016.
33. Lee JH, Nam SK, Kim AR, Kim B, Lee MY, Lee SM. Resilience: a meta-analytic approach. J Couns Dev. 2013;91(3):269-79. doi: 10.1002/j.1556-6676.2013.00095.x.
34. Echezarraga A, Las Hayas C, López de Arroyabe E, Jones SH. Resilience and recovery in the context of psychological disorders. J Humanist Psychol. 2019. doi: 10.1177/0022167819851623.
35. Encyclopedia of mental disorders. Conversion disorder. https://www.encyclopedia.com/medicine/diseases-and-conditions/pathology/conversion-disorder
36. Evrin T, Kaykısız E. Assessment of the patients diagnosed with conversion disorder in the emergency department. Ortadogu Med J. 2018;10(3):348-55. doi: 10.21601/ortadogutipdergisi.449211.