

## CHILDHOOD TRAUMA AND STRESSFUL LIFE EXPERIENCES AS PREDICTORS OF DISSOCIATIVE SYMPTOMS AND EMOTIONAL DISTRESS IN FUNCTIONAL NEUROLOGICAL SYMPTOM DISORDER

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### Abstract

Functional Neurological Symptom Disorder (FNSD) is a complex neuropsychiatric condition in which psychological, environmental, and interpersonal factors contribute to the development and severity of neurological symptoms. The present study examined the predictive contributions of childhood trauma, stressful life experiences, emotional distress, and psychosocial resources to dissociative symptom severity among patients with FNSD. A quantitative cross-sectional predictive research design was employed among 700 patients recruited from Psychiatry department of Mardan medical complex tertiary care teaching hospital in Mardan, Pakistan. Data were collected using standardized measures of childhood trauma, stressful life experiences, anxiety, depression, perceived social support, life satisfaction, and somatoform dissociation. Multiple linear regression analysis was conducted to identify significant predictors of dissociative symptom severity. The regression model was statistically significant,  $F(6, 693) = 96.52$ ,  $p < .001$ , explaining 46% of the variance in dissociative symptom severity ( $R^2 = .46$ , Adjusted  $R^2 = .45$ ). Childhood trauma, stressful life experiences, anxiety, and depression significantly predicted higher dissociative symptom severity, whereas perceived social support and life satisfaction emerged as significant negative predictors. Among all predictors, life satisfaction demonstrated the strongest protective association, followed by perceived social support. The findings support a biopsychosocial understanding of FNSD, highlighting that dissociative symptom severity is influenced not only by exposure to adversity and emotional distress but also by the availability of protective psychosocial resources. These findings underscore the importance of trauma-informed and resilience-focused interventions that address both vulnerability factors and psychological strengths in individuals with FNSD.

### 1. Background of the Study

Functional Neurological Symptom Disorder (FNSD), formerly known as conversion

disorder, is a complex neuropsychiatric condition characterized by neurological symptoms that are incongruent with recognized

neurological or medical diseases (American Psychiatric Association, 2013; Stone et al., 2015). Common clinical manifestations include psychogenic non-epileptic seizures (PNES), functional weakness, paralysis, abnormal gait, tremors, sensory disturbances, and speech impairments (Espay et al., 2018). Although these symptoms lack a structural neurological basis, they are associated with substantial disability, impaired psychosocial functioning, increased healthcare utilization, and diminished quality of life comparable to that observed in many chronic neurological disorders (Espay et al., 2018; Stone et al., 2015).

Historically, psychodynamic formulations conceptualized FNSD as the symbolic conversion of unresolved psychological conflict into physical symptoms, thereby reducing conscious emotional distress (Baslet, 2011). Contemporary perspectives, however, emphasize a biopsychosocial framework in which biological predispositions, developmental experiences, environmental stressors, cognitive processes, and emotional regulation difficulties interact to shape symptom development and maintenance (Boeckle et al., 2020; Brown & Reuber, 2016; Perez et al., 2021). This shift reflects growing recognition that functional neurological symptoms emerge through the cumulative influence of multiple risk and protective processes operating across the lifespan.

One of the most consistently documented risk factors in FNSD is childhood trauma. Adverse childhood experiences, including emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect, occur during critical periods of neurological and psychological development (Felitti et al., 1998). Exposure to chronic adversity during these formative years has been linked to long-term alterations in stress-response systems, including dysregulation of the Hypothalamic-Pituitary-Adrenal (HPA) axis, heightened autonomic reactivity, and disturbances in emotional regulation (Boeckle et al., 2020). Neuroimaging studies further indicate that childhood trauma may affect neural circuits involved in threat detection, emotional processing, and bodily awareness, thereby increasing vulnerability to

dissociative and functional neurological symptoms later in life (Perez et al., 2021; Teodoro et al., 2022).

The stress-sensitization model provides a useful framework for understanding how early adversity contributes to FNSD (Ludwig et al., 2018). According to this perspective, childhood trauma creates a heightened sensitivity to subsequent stressors, making individuals more vulnerable to the psychological effects of adverse life events encountered during adulthood. Stressful Life Experiences (SLEs), such as financial hardship, interpersonal conflict, bereavement, chronic illness, occupational difficulties, and family-related challenges, can overwhelm coping resources and intensify psychological burden (Holmes & Rahe, 1967). Individuals with prior trauma exposure may therefore experience a disproportionate emotional response to later stressors, increasing the likelihood of symptom development.

Emotional distress represents an important mechanism through which trauma and stress may contribute to dissociative symptomatology. Anxiety and depression are highly prevalent among patients with FNSD and have consistently been associated with greater symptom severity and poorer functional outcomes (Kroenke et al., 2001; Spitzer et al., 2006). Persistent anxiety may heighten vigilance toward internal bodily sensations, whereas depressive symptoms can impair adaptive coping and psychological resilience. When emotional distress exceeds an individual's capacity for regulation, dissociative processes may emerge as defensive responses to overwhelming psychological experiences (Baslet, 2011; Nijenhuis et al., 1996). In FNSD, these dissociative processes frequently manifest through disruptions in voluntary motor control, sensory functioning, and bodily awareness, contributing to the severity of functional neurological symptoms.

While substantial attention has been devoted to understanding risk factors, growing evidence suggests that psychosocial resources may also play a critical role in shaping clinical outcomes. Perceived social support, defined as the availability of emotional, informational, and practical assistance from significant others, has

been identified as a protective factor against the negative psychological effects of trauma and stress (Zimet et al., 1988). Similarly, life satisfaction reflects an individual's overall cognitive evaluation of life quality and has been linked to improved emotional well-being, adaptive coping, and psychological resilience (Diener et al., 1985). Individuals with stronger psychosocial resources may be better equipped to manage adversity, thereby reducing vulnerability to emotional distress and dissociative symptoms. Nevertheless, the protective influence of these factors remains relatively understudied within the FNSD literature.

## **2. Research Gap and Rationale of the Study**

Although previous research has established significant associations among childhood trauma, stressful life experiences, emotional distress, and dissociative symptoms in Functional Neurological Symptom Disorder (Brown & Reuber, 2016; Ludwig et al., 2018), several important gaps remain unresolved. First, much of the existing literature has concentrated primarily on identifying risk factors, with comparatively limited attention devoted to protective psychosocial resources such as perceived social support and life satisfaction. Consequently, current knowledge provides an incomplete understanding of the factors that may buffer individuals against the development of severe dissociative symptoms despite exposure to significant adversity.

Second, many previous investigations have examined trauma, life stress, anxiety, depression, social support, and life satisfaction independently or in separate analytical models. Such approaches limit the ability to determine the relative contribution of each factor when considered simultaneously. Given that risk and protective factors rarely operate in isolation, a comprehensive predictive model incorporating developmental adversity, current stressors, emotional distress, and psychosocial resources is needed to clarify the mechanisms associated with dissociative symptom severity in FNSD.

A further limitation concerns the geographical concentration of existing evidence. Most empirical studies on FNSD have been conducted in North American and European

populations, raising concerns regarding the generalizability of findings to culturally distinct settings. In Pakistan and other South Asian countries, individuals are frequently exposed to chronic socioeconomic pressures, family obligations, gender-based stressors, and restricted access to mental health services. Additionally, strong social stigma surrounding psychiatric disorders often discourages emotional disclosure and professional help-seeking. Within such contexts, psychological distress may be more readily expressed through physical or dissociative symptoms than through direct emotional communication.

Despite the clinical relevance of these sociocultural factors, large-scale studies simultaneously examining childhood trauma, stressful life experiences, anxiety, depression, perceived social support, and life satisfaction as predictors of dissociative symptom severity in South Asian FNSD populations remain scarce. Addressing this gap is essential for extending existing theoretical models beyond Western settings and for identifying both risk and protective pathways associated with dissociative symptom severity. Such evidence may contribute to the development of culturally informed, trauma-sensitive, and resilience-focused interventions for individuals living with Functional Neurological Symptom Disorder.

## **3. Objectives and Hypotheses**

### **Objective of the Study**

1. To investigate the extent to which childhood trauma, stressful life experiences, emotional distress (anxiety and depression), and psychosocial resources (perceived social support and life satisfaction) predict dissociative symptom severity among patients with Functional Neurological Symptom Disorder.

### **Study Hypothesis**

H1: Childhood trauma, stressful life experiences, anxiety, depression, perceived social support, and life satisfaction will significantly predict dissociative symptom severity among patients with Functional Neurological Symptom Disorder.

#### **4. Methodology**

##### **Research Design and Setting**

This study employed a quantitative, cross-sectional, predicative research design. Data collection was carried out in the psychiatry department of Mardan Medical Complex tertiary care teaching hospital in Mardan, Pakistan.

##### **Participants and Sampling Strategy**

A clinical sample of  $N = 700$  adult patients diagnosed with FNSD was selected via purposive sampling (32.3% male,  $n = 226$ ; 67.7% female,  $n = 474$ ; age range = 18–41 years,  $M = 24.67$ ,  $SD = 4.64$ ). Formal diagnosis of FNSD was established by consultant psychiatrists based on standard DSM diagnostic criteria prior to study enrollment. Patients with co-occurring organic neurological disorders (e.g., verified epilepsy), active psychosis, intellectual disability, or severe cognitive impairment were excluded.

##### **Measures and Standardized Assessment Tools**

1. **Adverse Childhood Experience Questionnaire (ACE-Q):** A 10-item self-report questionnaire assessing exposure to physical, emotional, and sexual abuse, physical/emotional neglect, and household dysfunction prior to age 18 (0 = No, 1 = Yes). Total scores range from 0 to 10, with higher scores reflecting greater developmental trauma ( $\alpha = .73$ ).

2. **Social Readjustment Rating Scale (SRRS):** A 43-item checklist developed by Holmes and Rahe (1967) to evaluate exposure to major stressful life events requiring social readjustment over the preceding year (0 = Absent, 1 = Present). Total scores quantify overall recent environmental stress ( $\alpha = .75$ ).

3. **Generalized Anxiety Disorder 7-Item Scale (GAD-7):** A 7-item instrument developed by Spitzer et al. (2006) rating anxiety symptom frequency over the past two weeks on a 4-point Likert scale (0 = Not at all to 3 = Nearly every day). Higher scores indicate greater anxiety severity ( $\alpha = .72$ ).

4. **Patient Health Questionnaire-9 (PHQ-9):** A 9-item tool developed by Kroenke et al. (2001) evaluating depressive symptom severity over the preceding two weeks on a 4-

point Likert scale (0 to 3). Higher scores denote higher levels of depression ( $\alpha = .77$ ).

5. **Somatoform Dissociation Questionnaire (SDQ-20):** A 20-item standardized scale developed by Nijenhuis et al. (1996) measuring somatoform dissociative symptom severity (e.g., motor inhibition, analgesia, sensory changes) on a 5-point Likert scale (1 = Not at all to 5 = Extremely). Higher total scores indicate more severe somatoform dissociation ( $\alpha = .72$ ).

6. **Multidimensional Scale of Perceived Social Support (MSPSS):** A 12-item instrument developed by Zimet et al. (1988) assessing perceived adequacy of social support across three subscales: Family, Friends, and Significant Others. Items are rated on a 7-point Likert scale (1 = Very Strongly Disagree to 7 = Very Strongly Agree), where higher aggregate scores reflect stronger perceived social support networks ( $\alpha = .82$ ).

7. **Satisfaction with Life Scale (SWLS):** A 5-item scale developed by Diener et al. (1985) assessing global cognitive evaluations of life satisfaction on a 7-point Likert scale ( $\alpha = .72$ ).

##### **Procedure and Ethical Considerations**

Data were collected via face-to-face interviews conducted by trained clinical psychologists in private clinical consultation rooms. Written informed consent was obtained from all participants prior to administration. Ethical approval was granted by institutional review boards at each participating tertiary hospital, and strict participant anonymity was maintained.

##### **Data Analysis Plan**

Data were analyzed using IBM SPSS Statistics (Version 26.0). Hypothesis was tested using Simultaneous Multiple Linear Regression analysis to evaluate the direct predictive contributions ( $\beta$ ,  $t$ ,  $p$ ,  $R^2$ ,  $F$ ) of childhood trauma, stressful life experiences, anxiety, and depression on dissociative symptom severity.

#### **5. Results**

##### **Demographic Characteristics of the Participants**

The study sample consisted of 700 patients diagnosed with Functional Neurological

Symptom Disorder (FNSD), ranging in age from 18 to 41 years ( $M = 24.67$ ,  $SD = 4.64$ ). Females represented the majority of participants (67.7%), while males comprised 32.3% of the sample. Most participants presented with motor (37.0%) or psychogenic (36.4%) symptoms, and the majority were experiencing their first clinical presentation (76.7%).

Regarding educational attainment, most participants had received primary or secondary

education, whereas only a small proportion had completed higher education. More than half of the sample was unemployed (53.4%), and a greater proportion resided in rural areas (61.6%) than urban areas (38.4%). Participants were almost equally distributed across nuclear and joint family systems. Additional demographic characteristics, including marital status, number of siblings, birth order, and number of children, are presented in Table 1.

Table 1

*Demographic Characteristics of the Sample (N = 700)*

| Demographic                           | <i>f</i> | %    | Demographic               | <i>F</i>        | %                |
|---------------------------------------|----------|------|---------------------------|-----------------|------------------|
| <b>Type of FNSD</b>                   |          |      | <b>Number of Siblings</b> |                 |                  |
| Sensory                               | 103      | 14.7 | 0                         | 57              | 8.1              |
| Motor                                 | 259      | 37.0 | 1                         | 80              | 11.4             |
| Psychogenic                           | 255      | 36.4 | 2                         | 138             | 19.7             |
| Mixed                                 | 83       | 11.9 | 3                         | 165             | 23.6             |
| <b>First or Chronic</b>               |          |      | 4                         | 104             | 14.9             |
| 1 <sup>st</sup> Presentation          | 537      | 76.7 | 5                         | 82              | 11.7             |
| 2 <sup>nd</sup> or More presentations | 163      | 23.3 | 6                         | 45              | 6.4              |
| <b>Gender</b>                         |          |      | 7                         | 20              | 2.9              |
| Male                                  | 226      | 32.3 | 8                         | 6               | .9               |
| Female                                | 474      | 67.7 | 9                         | 3               | .4               |
| <b>Education</b>                      |          |      | <b>Birth Order</b>        |                 |                  |
| Uneducated                            | 51       | 7.3  | Only Child                | 57              | 8.1              |
| Up to 5 <sup>th</sup> Grade           | 297      | 42.4 | 1 <sup>st</sup>           | 281             | 40.1             |
| 6 <sup>th</sup> Grade to Metric       | 279      | 39.9 | 2 <sup>nd</sup>           | 184             | 26.3             |
| FSc                                   | 71       | 10.1 | 3 <sup>rd</sup>           | 85              | 12.1             |
| BS/BSc                                | 2        | .3   | 4 <sup>th</sup>           | 47              | 6.7              |
| <b>Madrassa Education</b>             |          |      | 5 <sup>th</sup>           | 31              | 4.4              |
| Not Going                             | 481      | 68.7 | 6 <sup>th</sup>           | 8               | 1.1              |
| Goes to Madrassa                      | 216      | 30.9 | 7 <sup>th</sup>           | 4               | .6               |
| Doing Hifz                            | 3        | .4   | 8 <sup>th</sup>           | 3               | .4               |
| <b>Profession</b>                     |          |      | <b>Urban/Rural</b>        |                 |                  |
| Unemployed                            | 374      | 53.4 | Urban                     | 269             | 38.4             |
| Student                               | 216      | 30.9 | Rural                     | 431             | 61.6             |
| Employed                              | 110      | 15.7 | <b>Number of Kids</b>     |                 |                  |
| <b>Family System</b>                  |          |      | Not Married               | 368             | 52.57            |
| Nuclear                               | 343      | 49.0 | 0                         | 11              | 1.57             |
| Joint                                 | 357      | 51.0 | 1                         | 83              | 11.9             |
| <b>Marital Status</b>                 |          |      | 2                         | 106             | 15.1             |
| Single                                | 263      | 37.6 | 3                         | 95              | 13.6             |
| Engaged                               | 105      | 15.0 | 4                         | 34              | 4.9              |
| Married                               | 315      | 45.0 | 5                         | 1               | .1               |
| Divorced                              | 3        | .4   | 6                         | 2               | .3               |
| Widow                                 | 14       | 2.0  | <b>Age (18-41)</b>        | <b>M: 24.67</b> | <b>SD: 4.644</b> |

**Descriptive Statistics, Reliability, and Distribution Characteristics of Study Variables**

Descriptive statistics, reliability coefficients, and distribution characteristics for all study variables are presented in Table 2. All measures demonstrated acceptable to good internal consistency, with Cronbach's alpha coefficients ranging from .72 to .82. The highest reliability was observed for the Multidimensional Scale of Perceived Social Support ( $\alpha = .82$ ), whereas the remaining instruments exhibited satisfactory reliability for research purposes.

Participants reported moderate levels of childhood trauma ( $M = 5.05$ ,  $SD = 2.70$ ), stressful life experiences ( $M = 23.10$ ,  $SD =$

6.32), anxiety ( $M = 9.97$ ,  $SD = 4.96$ ), and depression ( $M = 12.87$ ,  $SD = 6.20$ ). Mean scores for perceived social support ( $M = 47.16$ ,  $SD = 14.80$ ) and life satisfaction ( $M = 20.53$ ,  $SD = 7.41$ ) indicated moderate psychosocial resources within the sample. Dissociative symptom severity, the primary outcome variable, yielded a mean score of 60.18 ( $SD = 10.23$ ).

Examination of skewness and kurtosis values indicated that all variables fell within acceptable limits ( $\pm 1$ ), supporting the assumption of normality and confirming the suitability of the data for parametric analyses, including multiple linear regression.

**Table 2***Reliability Coefficients, Descriptive Statistics, and Distribution Characteristics of Study Variables*

| Scales                                  | <i>k</i> | $\alpha$ | <i>M</i> | <i>SD</i> | Potential |     | Actual |     | Skew | Kurt |
|-----------------------------------------|----------|----------|----------|-----------|-----------|-----|--------|-----|------|------|
|                                         |          |          |          |           | Min       | Max | Min    | Max |      |      |
| Childhood Trauma (ACE-Q)                | 10       | .73      | 5.05     | 2.70      | 0         | 10  | 0      | 10  | -.01 | -.30 |
| Stressful Life Experiences (SRRS)       | 43       | .75      | 23.10    | 6.32      | 0         | 43  | 9      | 43  | .85  | .97  |
| Social Support (MSPSS)                  | 12       | .82      | 47.16    | 14.80     | 12        | 84  | 12     | 84  | .01  | .62  |
| Satisfaction with Life (SWLS)           | 7        | .72      | 20.53    | 7.41      | 5         | 35  | 5      | 35  | .12  | .30  |
| Anxiety (GAD-7)                         | 7        | .72      | 9.97     | 4.96      | 0         | 21  | 0      | 21  | -.22 | .56  |
| Depression (PHQ-9)                      | 9        | .77      | 12.87    | 6.20      | 0         | 27  | 0      | 27  | -.22 | .82  |
| Dissociative Symptoms Severity (SDQ-20) | 20       | .72      | 60.18    | 10.23     | 20        | 100 | 31     | 81  | .09  | -.23 |

**Multiple Linear Regression Analysis**

A multiple linear regression analysis was conducted to examine the predictive roles of childhood trauma, stressful life experiences, perceived social support, life satisfaction, anxiety, and depression on dissociative symptom severity. The overall model was statistically significant,  $F(6, 693) = 96.52$ ,  $p < .001$ , explaining 46% of the variance in dissociative symptom severity ( $R^2 = .46$ , Adjusted  $R^2 = .45$ ).

As presented in Table 4, childhood trauma significantly predicted higher dissociative symptom severity ( $B = 0.43$ ,  $SE = 0.13$ ,  $\beta = .11$ ,  $t = 3.30$ ,  $p < .001$ , 95% CI [0.17, 0.68]). Similarly, stressful life experiences emerged as a significant positive predictor ( $B = 0.21$ ,  $SE = 0.05$ ,  $\beta = .13$ ,  $t = 3.83$ ,  $p < .001$ , 95% CI [0.10,

0.31]). Anxiety ( $B = 0.21$ ,  $SE = 0.09$ ,  $\beta = .10$ ,  $t = 2.33$ ,  $p = .020$ , 95% CI [0.03, 0.38]) and depression ( $B = 0.21$ ,  $SE = 0.07$ ,  $\beta = .13$ ,  $t = 3.08$ ,  $p = .002$ , 95% CI [0.08, 0.34]) also significantly predicted greater dissociative symptom severity.

In contrast, perceived social support significantly predicted lower dissociative symptom severity ( $B = -0.12$ ,  $SE = 0.03$ ,  $\beta = -.17$ ,  $t = -4.59$ ,  $p < .001$ , 95% CI [-0.17, -0.07]). Likewise, life satisfaction emerged as a significant negative predictor ( $B = -0.38$ ,  $SE = 0.05$ ,  $\beta = -.28$ ,  $t = -7.54$ ,  $p < .001$ , 95% CI [-0.48, -0.28]). Among all predictors, life satisfaction demonstrated the largest standardized effect, followed by perceived social support, indicating that psychosocial resources

were associated with lower dissociative symptom severity.

Table 3

*Multiple Linear Regression Predicting Dissociative Symptoms Severity (N = 700)*

| Predictor Variables        | B     | SE   | $\beta$ | t     | p     | 95% CI [LL, UL] |
|----------------------------|-------|------|---------|-------|-------|-----------------|
| (Constant)                 | 61.88 | 2.20 | —       | 28.07 | <.001 | [57.55, 66.21]  |
| Childhood Trauma           | 0.43  | 0.13 | .11     | 3.30  | <.001 | [0.17, 0.68]    |
| Stressful Life Experiences | 0.21  | 0.05 | .13     | 3.83  | <.001 | [0.10, 0.31]    |
| Social Support (MSPSS)     | -0.12 | 0.03 | -.17    | -4.59 | <.001 | [-0.17, -0.07]  |
| Satisfaction with Life     | -0.38 | 0.05 | -.28    | -7.54 | <.001 | [-0.48, -0.28]  |
| Anxiety (GAD-7)            | 0.21  | 0.09 | .10     | 2.33  | .020  | [0.03, 0.38]    |
| Depression (PHQ-9)         | 0.21  | 0.07 | .13     | 3.08  | <.001 | [0.08, 0.34]    |

Note.  $R^2 = .46$ , Adjusted  $R^2 = .45$ ,  $F(6, 693) = 96.52$ ,  $p < .001$ .

## 6. Discussion

The findings of the present study support the proposed hypothesis that both risk and protective psychosocial factors contribute significantly to dissociative symptom severity among patients with Functional Neurological Symptom Disorder (FNSD). Multiple linear regression analysis revealed that childhood trauma, stressful life experiences, anxiety, and depression were significant positive predictors of dissociative symptom severity, whereas perceived social support and life satisfaction emerged as significant negative predictors. Collectively, these variables explained a substantial proportion of variance in dissociative symptom severity, highlighting the multifactorial nature of FNSD and supporting contemporary biopsychosocial models of symptom development (Boeckle et al., 2020; Brown & Reuber, 2016; Perez et al., 2021).

The positive predictive effects of childhood trauma and stressful life experiences are consistent with previous literature suggesting that exposure to adversity across the lifespan increases vulnerability to dissociative and functional neurological symptoms (Felitti et al., 1998; Ludwig et al., 2018). Developmental trauma may disrupt emotional regulation capacities and alter neurobiological stress-response systems, creating a heightened sensitivity to subsequent environmental stressors. Consequently, individuals exposed to both early adversity and ongoing life stress may experience greater psychological burden,

increasing the likelihood of dissociative symptom expression (Boeckle et al., 2020; Perez et al., 2021; Teodoro et al., 2022).

The findings further demonstrated that anxiety and depression independently predicted greater dissociative symptom severity. This result supports theoretical perspectives proposing that emotional distress plays a central role in the manifestation and maintenance of functional neurological symptoms (Baslet, 2011). Persistent anxiety may increase physiological arousal and attentional focus on bodily sensations, whereas depressive symptoms may diminish coping resources and psychological flexibility. Together, these emotional difficulties may intensify vulnerability to dissociative responses, particularly among individuals with prior trauma exposure and ongoing psychosocial stress (Kroenke et al., 2001; Spitzer et al., 2006).

Importantly, the present study also identified perceived social support and life satisfaction as significant protective factors. Higher levels of social support were associated with lower dissociative symptom severity, suggesting that supportive interpersonal relationships may buffer the adverse effects of stress and emotional distress. Likewise, greater life satisfaction predicted lower levels of dissociative symptoms and emerged as the strongest predictor in the model. These findings are consistent with resilience-based frameworks, which emphasize the role of psychosocial resources in promoting adaptive coping and

reducing vulnerability to psychopathology (Diener et al., 1985; Zimet et al., 1988). The results indicate that protective factors are not merely the absence of risk but may actively contribute to better psychological adjustment among patients with FNSD.

The coexistence of significant risk and protective predictors underscores the importance of adopting a comprehensive biopsychosocial approach to understanding FNSD. While developmental trauma, stressful life experiences, anxiety, and depression appear to increase vulnerability to dissociative symptoms, psychosocial resources such as social support and life satisfaction may mitigate their impact. This pattern of findings suggests that effective clinical interventions should extend beyond symptom reduction and trauma management to include strategies aimed at strengthening social connectedness, enhancing life satisfaction, and fostering psychological resilience.

Within the Pakistani context, these findings carry particular significance. Cultural stigma surrounding mental health problems often discourages direct emotional disclosure and professional help-seeking. As a result, psychological distress may be expressed through physical and dissociative symptoms that are perceived as more socially acceptable. The present findings suggest that both adversity-related factors and psychosocial resources contribute to dissociative symptom severity in this population, emphasizing the need for culturally sensitive, trauma-informed, and resilience-focused interventions for individuals with Functional Neurological Symptom Disorder.

### **Clinical Implications**

The findings emphasize the importance of adopting an integrated biopsychosocial approach for the assessment and management of Functional Neurological Symptom Disorder (FNSD). Clinical evaluations should extend beyond neurological symptom assessment and routinely consider developmental trauma, recent stressful life experiences, emotional distress, and psychosocial resources. Early identification of childhood adversity, anxiety, and depressive symptoms may help clinicians

recognize individuals at greater risk for severe dissociative symptoms.

Intervention strategies for FNSD may benefit from combining symptom-focused rehabilitation with trauma-informed psychological approaches. Alongside trauma-focused interventions, therapeutic programs should incorporate emotion regulation training, stress management techniques, and strategies aimed at strengthening perceived social support and improving overall life satisfaction. Enhancing protective psychosocial resources may represent an important component of resilience-focused care and may contribute to better long-term clinical outcomes.

### **Limitations and Future Directions**

Several limitations should be considered when interpreting the findings. First, the cross-sectional design prevents conclusions regarding causal relationships between childhood trauma, stressful life experiences, psychosocial resources, and dissociative symptom severity. Second, the use of self-report measures may have introduced recall bias, particularly for retrospective assessment of childhood experiences and stressful events. Third, although the study included multiple psychological predictors, other biological, neurological, and sociocultural factors that may influence FNSD symptom severity were not examined.

Future research should employ longitudinal designs to investigate temporal relationships among adversity, emotional distress, psychosocial resources, and dissociative symptoms. Further studies incorporating biological indicators, such as cortisol regulation, autonomic functioning, and neuroimaging measures, may provide deeper insight into the mechanisms underlying FNSD. Additionally, intervention-based research is needed to determine whether strengthening protective factors, such as social support and life satisfaction, can reduce dissociative symptom severity and improve functional outcomes.

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