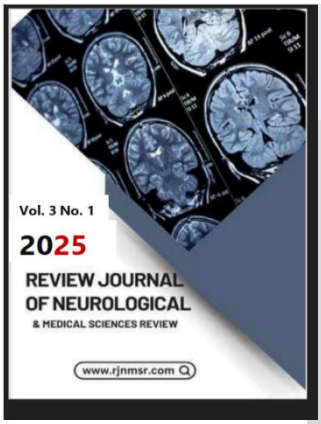

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Precipitating Factors in Dissociative Neurological Symptom Disorder: A Cross-Sectional Study

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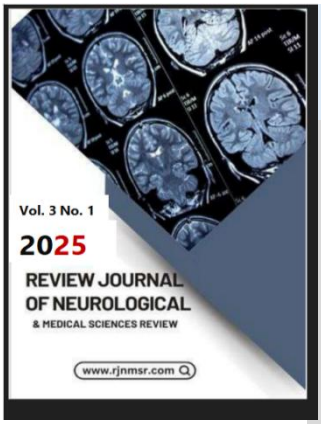
Abstract

Background: Dissociative Neurological Symptom Disorder (DNSD), commonly known as Conversion Disorder, presents with unexplained neurological symptoms. This study investigates the precipitating factors contributing to DNSD in the Pakistani population. **Objectives**: To identify and analyze significant life stressors that lead to the development of DNSD in patients admitted to the Psychiatry ward at Khyber Teaching Hospital, Peshawar. **Methods:** A cross-sectional study was conducted over six months involving 100 patients diagnosed with DNSD according to ICD-11 criteria. Data were collected using structured interviews and the Holmes-Rahe Life Stress Inventory to analyze precipitating factors. **Results:** The majority of patients were female (73%), primarily between 15 and 35 years old. The most common precipitating factors included family conflicts (41%), relationship issues (22%), and financial stress (17%). High levels of stress were noted in 86% of participants, indicating a direct correlation between stress and DNSD. **Conclusion:** The findings highlight the significant role of psychosocial stressors, particularly family dynamics, in the onset of DNSD. This study underscores the necessity for culturally sensitive interventions and comprehensive assessments to manage DNSD



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effectively in the Pakistani context. Future research should explore longitudinal effects and therapeutic strategies tailored to this population.

Keywords: Dissociative Neurological Symptom Disorder (DNSD), Conversion Disorder, Psychosocial stressors, Family conflicts, Cross-sectional study, Life stressors, Holmes-Rahe Life Stress Inventory, Pakistan

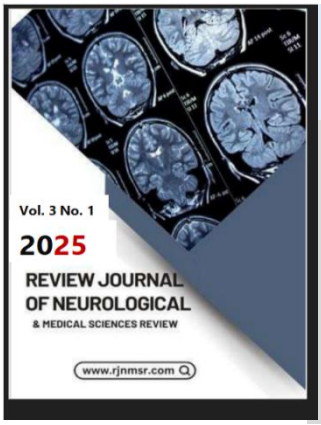
Introduction

Dissociative neurological symptom disorder (DNSD), more commonly known as Conversion disorder is a psychiatric illness characterized by the presence of motor, sensory, or cognitive symptoms that are not explained by any known disorders of the nervous system due to any other mental or behavioral disorder, or due to any known medical conditions. These symptoms are now known to imply an involuntary discontinuity in the normal integration of motor, sensory, or cognitive functions (1). The symptoms of DNSD include but are not limited to abnormal movements, weakness or paralysis, sensory loss or abnormal sensations, speech issues or symptoms during swallowing, and epileptic-like episodes (dissociative seizures/psychogenic/non-epileptic seizures) (2). The prevalence of this disorder is 50 per 100,000 population-based on a community registry (3), it is a common diagnosis in patients presenting to outpatient neurology clinics, with 5.4% of patients having a primary diagnosis of DNSD in a reputable study (4).

DNSD, or Conversion disorder, is prevalent among populations belonging to developing countries. According to a study conducted in a tertiary care hospital in Pakistan, patients with DNSD represented 5.1% of the inpatient psychiatric admissions over 6 years (5). It is more common in females of the population, in the Pakistani locality, and those with limited education (6). This, along with the fact that the majority of the population has beliefs that contradict the scientific understanding regarding DNSD, with family members of these patients seeking help for this disorder from faith healers, and most societies in Pakistan have their roots in ethnic practices and faith healing complicate dealing with this mental disorder appropriately, and also shows a lack of awareness regarding this common mental condition among the general public in this region (7).

As is the case for most psychiatric disorders, psychological models are used to explain the way the disorder develops in patients. For DNSD the popular Freudian theory is that physical symptoms of DNSD provide an escape from stressors. These stressors, or severe life events, are more common in patients with DNSD as compared to the general population (8). Everyday stressors that may lead to the development of this disorder are sexual abuse, parent's death or separation, disturbed relations with in-laws, failures in academia, disturbed relations with spouse, husband staying abroad, love interest problems, and job stress, among others (9,10). The interplay between these precipitating factors and DNSD is complex in the population of Pakistan varies from region to region, and we need to determine what these factors might be in our population to help streamline the management of these patients.

Regional cultural norms, ethnic variability, and local beliefs influence the kind of symptoms that are seen in DNSD, as evident in a study in Bangladesh where



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psychotic symptoms were seen in patients with DNSD (11). This shows that stressors that vary from region to region will have differing impacts on the kind of symptomatology seen in DNSD and likely influence treatment outcomes.

This study aims to find out the precipitating factors in a tertiary care hospital in Peshawar, Pakistan, to determine the stressors or severe life events that have a role in the development of DNSD, as there is just one study conducted more than 10 years ago regarding this specific topic (12). There is a need to explore the kinds of stressors that precipitate this mental disorder, to further improve our knowledge base regarding this condition that is common in females under stress and in low-income regions, both characteristics of our locality.

Objectives

To identify and analyze the precipitating factors, including significant life stressors, that contribute to the development of Dissociative Neurological Symptom Disorder (DNSD) in Patients were admitted to the psychiatry ward at Khyber Teaching Hospital, Peshawar, Pakistan.

Operational Definitions

Dissociative Neurological Symptom Disorder: Defined as per criteria in ICD-11 for
Mortality and Morbidity Statistics.

Precipitating factors: Precipitating factors refer to a specific event or trigger to the onset of
the current problem, in this case, DNSD.

Materials And Methods

Study Design: Cross-Sectional Study

Study Setting: Department of Psychiatry, Khyber Teaching Hospital, Peshawar.

Duration Of Study: Minimum 6 months after approval of research proposal.

Sample Size: The sampling was conducted through a non-probability sampling method, and the sample size was taken as 100 patients, recruited as per the specified inclusion and exclusion criteria. This is in reference to a previous study that was quite similar to this study (12).

Sampling Technique: Convenient (Non-probability) Sampling.

Sample Selection

Inclusion Criteria

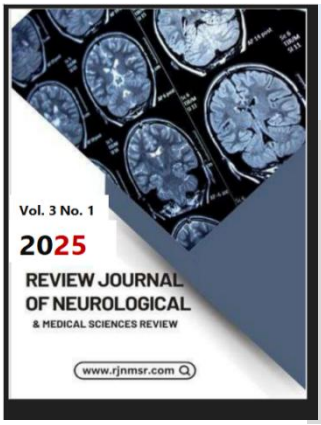
1. Patients with Dissociative neurological symptom disorder, as diagnosed by a qualified Psychiatrist as per ICD-11 for Mortality and Morbidity Statistics.
2. Both genders.
3. Inpatients, admitted to the Psychiatry ward, Khyber Teaching Hospital.

Exclusion Criteria

1. Comorbid Psychiatric Disorders, specifically Schizophrenia or other Psychotic Disorders or Post-Traumatic Stress Disorder.

Data Collection Procedure

The study was conducted after the approval of the institutional ethical review board. Patients fulfilling the inclusion criteria was approached and informed about the



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purpose of the study. Those who agree to participate were enrolled in the study after informed consent.

Exclusion criteria will be applied to limit the effect of confounding variables. The patients will be assessed for the presence of Dissociative neurological symptom disorder by a qualified psychiatrist, and once diagnosed, demographic parameters like age and gender and other variables were recorded on a structured proforma. Detailed psychiatric history, physical examination and mental state examination was performed as per routine, and then the Holmes-Rahe Life Stress Inventory was applied to determine the precipitating factors that resulted in the episode of DNSD.

Data Analysis Procedure

Data was entered into EpiData version 3.1 for collection and analysis using Statistical Package for Social Sciences (SPSS), version 21. Means was calculated for the different variables collected during the data collection process. The percentages of different precipitating factors were then presented in a tabulated form.

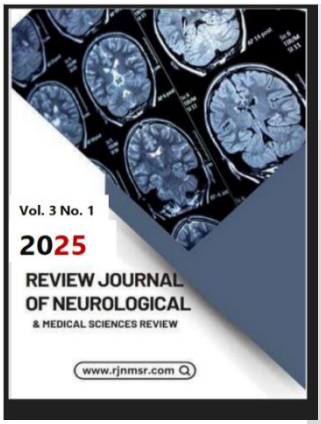
Data Analysis

Demographic Characteristics

One hundred patients with Dissociative Neurological Symptom Disorder (DNSD) attended the Psychiatry ward at Khyber Teaching Hospital, Peshawar, Pakistan, for admission. Table 1 displays the demographic profile of the research participants.

Table 1: Demographic Characteristics of Patients with DNSD (N=100)

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Female	73	73.0
	Male	27	27.0
Age Group (years)	15-25	42	42.0
	26-35	31	31.0
	36-45	15	15.0
	46-55	8	8.0
	>55	4	4.0
Marital Status	Unmarried	39	39.0
	Married	52	52.0
	Divorced/Separated	5	5.0
	Widowed	4	4.0
Educational Status	Illiterate	43	43.0
	Primary education	27	27.0
	Secondary education	18	18.0
	Higher education	12	12.0
Occupational Status	Unemployed	24	24.0
	Student	21	21.0
	Housewife	36	36.0
	Employed	19	19.0
Residential Setting	Rural	67	67.0
	Urban	33	33.0



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Monthly Income	Family	<20,000 PKR	41	41.0
		20,000-50,000 PKR	38	38.0
		>50,000 PKR	21	21.0

According to the data in Table 1, DNSD primarily affected females, who made up 73% of all diagnosed cases at a rate of 2.7 females per male. This evidence reveals substantial gender prevalence in DNSD diagnosis. Most DNSD cases affected patients aged 15-25 and 26-35 because they accounted for 42% and 31%, respectively. Statistics show DNSD primarily affects younger patients since 73% of all tested individuals were below 35 years old.

The patient group included 52% of married participants and 39% of unmarried participants. Analysis of education levels showed that 43% of patients were illiterate, yet only 12% attended higher education institutions, which demonstrated a negative correlation between education level and DNSD occurrence rates. Occupational records revealed that housewives represented the biggest category (36% of all respondents) alongside users employed outside the home (24%), students (21%), and employed people (19%).

Rural patients represented 67% of the total sample, indicating that rural areas have greater DNSD susceptibility than urban areas. The majority of 79% of patients (41% whose families earned below 20,000 PKR per month) came from low—or middle-income families with incomes not exceeding 50,000 PKR monthly.

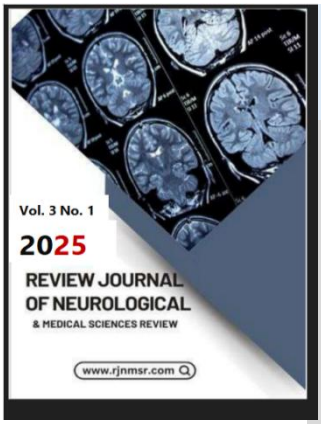
Clinical Presentation

The symptoms exhibited by patients with DNA Nucleotide Sequence Deletion varied widely from one patient to another. The table 2 summarizes the significant clinical symptoms observed in patients.

Table 2: Clinical Manifestations of DNSD (N=100)

Clinical Manifestation	Frequency (n)	Percentage (%)
Pseudo-seizures	38	38.0
Motor symptoms	31	31.0
- Paralysis/weakness	14	14.0
- Abnormal movements	11	11.0
- Gait disturbances	6	6.0
Sensory symptoms	17	17.0
- Anesthesia/paresthesia	9	9.0
- Pain	8	8.0
Speech disturbances	9	9.0
Mixed presentation	5	5.0

The research indicated pseudo-seizures appeared as the principal clinical sign, which developed in 38% of patients in table 2. After pseudo-seizures, the second most common symptom cluster included motor symptoms affecting 31% of patients who experienced paralysis or weakness in 14%, abnormal movements in 11%, and gait disturbances in 6%. The patient population exhibited 17% sensory symptoms,



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primarily anesthesia or paresthesia in 9% of patients and pain effects in 8% of cases. Among the studied participants, speech disturbances were found in 9% of patients, which demonstrated a substantial effect on their ability to communicate effectively. Symptoms of both weakness and paralysis, along with abnormal body movements, were present among 5% of patients who exhibited mixed symptomatology. The various clinical symptoms demonstrate how complicated CIP is and require detailed assessments followed by personalized treatment approaches for all affected patients. Medical professionals can use patterns to improve the identification and treatment of this condition.

Duration of Symptoms and Previous Episodes

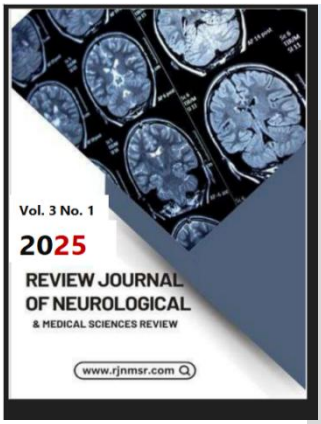
The information on present symptom duration and prior occurrences of DNSD is provided in Table 3.

Table 3: Duration of Current Symptoms and Previous Episodes of DNSD (N=100)

Characteristic	Category	Frequency (n)	Percentage (%)
Duration of current symptoms	<1 week	31	31.0
	1-4 weeks	42	42.0
	1-6 months	17	17.0
	>6 months	10	10.0
Previous episodes	None (First episode)	53	53.0
	One episode	26	26.0
	Two episodes	13	13.0
	Three or more episodes	8	8.0
Duration since first episode (n=47)	<1 year	18	38.3
	1-3 years	19	40.4
	>3 years	10	21.3

Table 3 shows 73% of the participants showed acute symptoms. According to 42% of patients, symptoms lasted between 1 and 4 weeks, but 31% of patients had symptoms shorter than one week. The data reveals that numerous people have brief and quick periods of symptom development. Only 10% of patients exhibited chronic symptoms that lasted more than six months, thus showing that DNSD cases with prolonged duration are rare.

The research revealed that many patients experienced their initial DNSD development because 53% reported being affected for the first time. Recurrent DNSD episodes affected 47% of patients, while 53% experienced their first episode. The biggest group among people with a history of DNSD (47%) presented their first such episode. However, a significant percentage (26%) had one prior episode, and another 13% reported two prior episodes, though only 8% had three or more episodes. A large number of patients with recurrent DNSD (78.7%) reported less than three years of



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disease duration. Because of these study findings, education and treatment strategies for patients need to incorporate knowledge about new cases and recurring episodes of the condition.

Precipitating Factors

DSP authors used the Holmes-Rahe Life Stress Inventory to determine the triggers leading to DNSD cases. The data about these factors appears in Table 4.

Table 4: Precipitating Factors for DNSD (N=100)

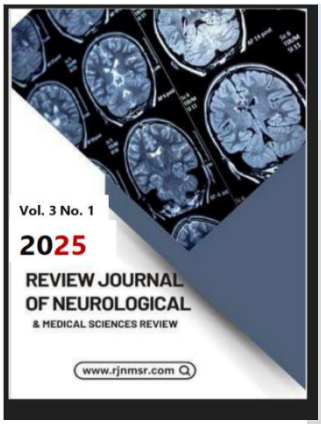
Precipitating Factor	Frequency (n)	Percentage (%)
Family conflicts	41	41.0
- With in-laws	19	19.0
- With spouse	14	14.0
- With parents/siblings	8	8.0
Relationship issues	22	22.0
- Romantic relationship problems	13	13.0
-Spousal separation / divorce	9	9.0
Financial stressors	17	17.0
Academic pressures	12	12.0
Death of a loved one	11	11.0
Work-related stress	9	9.0
Physical illness	7	7.0
Sexual abuse/assault	6	6.0
Legal problems	4	4.0
Multiple stressors	29	29.0
No identifiable precipitating factor	8	8.0

As noted in table 4, family conflicts were the main cause of the condition, with reports from 41% of patients. The study showed that family conflicts with in-laws were most prevalent, causing 19% of these cases, followed by spouse conflicts at 14% and family relations between parents and siblings at 8%. Research shows that family relationships are a major factor in symptom development.

The study revealed that relationship problems were the second leading factor triggering the condition since they affected 22% of patients. Consistent with the researchers' findings, romantic relationship troubles amounted to 13% of cases compared to 9% for spousal separation or divorce.

Many reported financial pressures as a trigger at 17%, while academic demands stood at 12%. A total of 11% of patients experienced grief-related issues as their primary cause.

The least common factors leading to patient admissions were work-related stress followed by physical illness, sex, sexual abuse or assault, and legal problems. A significant portion of 29% of patients exhibited overlapping multiple stressors that contribute to their condition. Comprehensive assessments seem necessary because 8% of patients exhibited no clear precipitating factor during their illness.



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Stress Severity According to the Holmes-Rahe Life Stress Inventory

Classification of patients exists in Table 5 according to their scores from the Holmes-Rahe Life Stress Inventory for measuring life stress levels prior to DNSD development.

Table 5: Stress Severity According to Holmes-Rahe Life Stress Inventory (N=100)

Holmes-Rahe Score	Risk Level	Frequency (n)	Percentage (%)
<150	Low risk	14	14.0
150-299	Moderate risk	41	41.0
≥300	High risk	45	45.0

Patients demonstrated substantial life stress burdens before DNSD diagnosis, according to their Holmes-Rahe Life Stress Inventory assessments, since 86% of them reached moderate to high-stress levels as shown in table 5. A high stress-related health breakdown risk was indicated by 45% of the assessed patients. The severe amount of stress affects health in multiple ways, which impact both mental state and physical condition. Patients who obtained scores between 150 and 299 during assessment numbered 41%, thus indicating their moderate susceptibility to stress-related health problems.

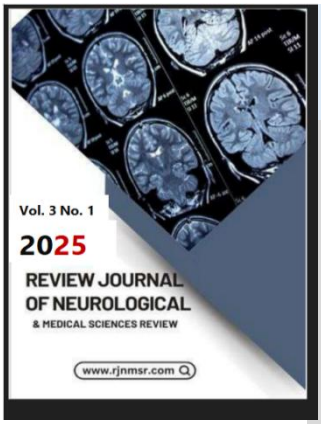
Most patients with DNSD showed high-stress levels because 86% of them scored above 150 on the stress assessment. Research evidence has established a direct relationship between high life stress levels and DNSD development, thus confirming the need for stress management programs in patient treatment approaches. Healthcare providers need information about stress levels to design interventions that adequately support patients in these situations.

Gender-Specific Analysis of Precipitating Factors

The analysis of DNSD vulnerability factors was conducted individually for male and female patients, and the data are presented in Table 6.

Table 6: Gender-Specific Analysis of Precipitating Factors (N=100)

Precipitating Factor	Female (n=73)		Male (n=27)	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Family conflicts	35	47.9	6	22.2
- With in-laws	18	24.7	1	3.7
- With spouse	11	15.1	3	11.1
- With parents / siblings	6	8.2	2	7.4
Relationship issues	18	24.7	4	14.8
Financial stressors	9	12.3	8	29.6
Academic	8	11.0	4	14.8



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pressures				
Death of a loved one	9	12.3	2	7.4
Work-related stress	4	5.5	5	18.5
Physical illness	5	6.8	2	7.4
Sexual abuse/assault	6	8.2	0	0.0
Legal problems	1	1.4	3	11.1
Multiple stressors	22	30.1	7	25.9
No identifiable factor	5	6.8	3	11.1

Table 6 examines factors leading to DNSD produced specific results between female and male patients who showed different ways their conditions started. Patient mothers revealed family conflicts as their leading cause in developing DNSD, according to 47.9% of all female subjects. In-law conflicts were the most prevalent factor within this group, reaching 24.7%. Female patients experienced relationship problems that affected 24.7% of them. Research data shows sexual abuse or assault targeting female patients exclusively since 8.2% of them revealed their experience with these traumatic events. This study provides evidence of a significant health concern specific to females.

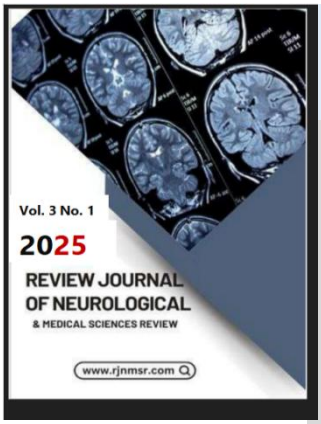
The stressors that male patients experienced differed from those identified among female patients. Male patients mainly reported financial challenges during assessments among a survey population where financial stressors affected 29.6% of respondents. A total of 22.2% of male patients experienced stress sources from family conflicts, while work-related stress affected 18.5% of them. Results showed males reported more often about having legal problems leading to their suicidal distress at a rate of 11.1% when compared to female patients who reported 1.4%. Gender-specific approaches to understanding DNSD factors become essential because distinctive interventions might be needed to provide proper support for individual groups based on their sex-specific circumstances.

Age-Specific Analysis of Precipitating Factors

The table 7 shows an age-based analysis of the factors that trigger self-harm incidents.

Table 7: Age-Specific Analysis of Precipitating Factors (N=100)

Precipitating Factor	15-25 years (n=42)	26-35 years (n=31)	36-45 years (n=15)	>45 years (n=12)
Family conflicts	16 (38.1%)	15 (48.4%)	7 (46.7%)	3 (25.0%)
Relationship issues	14 (33.3%)	6 (19.4%)	2 (13.3%)	0 (0.0%)
Financial	5 (11.9%)	6 (19.4%)	4 (26.7%)	2 (16.7%)



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stressors				
Academic pressures	11 (26.2%)	1 (3.2%)	0 (0.0%)	0 (0.0%)
Death of a loved one	3 (7.1%)	4 (12.9%)	2 (13.3%)	2 (16.7%)
Work-related stress	2 (4.8%)	5 (16.1%)	2 (13.3%)	0 (0.0%)
Physical illness	1 (2.4%)	2 (6.5%)	1 (6.7%)	3 (25.0%)
Sexual abuse/assault	3 (7.1%)	2 (6.5%)	1 (6.7%)	0 (0.0%)
Legal problems	1 (2.4%)	2 (6.5%)	1 (6.7%)	0 (0.0%)
Multiple stressors	11 (26.2%)	10 (32.3%)	5 (33.3%)	3 (25.0%)
No identifiable factor	3 (7.1%)	2 (6.5%)	1 (6.7%)	2 (16.7%)

A detailed investigation of different age ranges established substantial differences between the factors that lead to depression based on life-stage-specific needs. Patients between 15 and 25 years old experienced family conflicts as the primary stressor, affecting 38.1% of subjects, and relationship problems and academic demands followed behind equally with 33.3% and 26.2%, respectively. The research data documents behavioral patterns that characteristically exist during early adolescence because of personal and social development.

The research demonstrated that family conflict was the leading stressor leading to hospital admissions for patients between 26 and 35 years old. 48.4% of this group selected it as their primary reason for hospitalization. The second most common stressors for this population age group were relationship issues and financial strain, at equal levels of 19.4%.

People from 36 to 45 years old faced two main stressors, which included 46.7% family conflicts and 26.7% financial stressors.

Patients who exceeded 45 years of age experienced physical illness at the same frequency as family conflicts because both reached 25.0% of the total population. The changing stress levels of older populations demonstrate that health-related concerns play an expanding role in patient needs but require specific intervention solutions for each age group.

Relationship between Precipitating Factors and Clinical Manifestations

Table 8 demonstrates the connection between particular precipitating situations and DNSD clinical presentation.

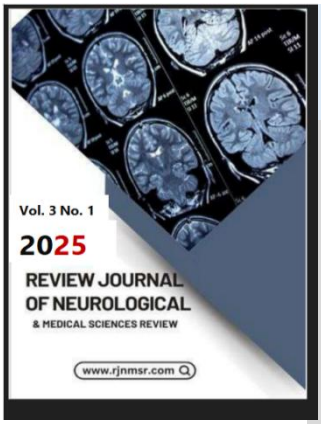

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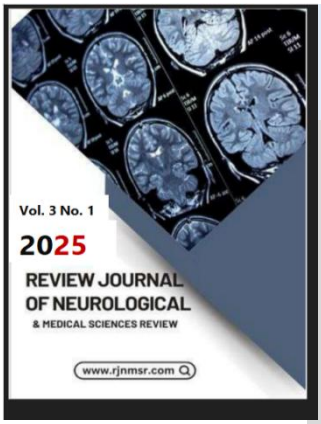
Table 8: Relationship between Precipitating Factors and Clinical Manifestations (N=100)

Precipitating Factor	Pseudo-seizures (n=38)	Motor symptoms (n=31)	Sensory symptoms (n=17)	Speech disturbances (n=9)	Mixed presentation (n=5)
Family conflicts	18 (47.4%)	14 (45.2%)	5 (29.4%)	3 (33.3%)	1 (20.0%)
Relationship issues	10 (26.3%)	6 (19.4%)	4 (23.5%)	1 (11.1%)	1 (20.0%)
Financial stressors	5 (13.2%)	6 (19.4%)	3 (17.6%)	2 (22.2%)	1 (20.0%)
Academic pressures	7 (18.4%)	3 (9.7%)	1 (5.9%)	1 (11.1%)	0 (0.0%)
Death of a loved one	4 (10.5%)	3 (9.7%)	2 (11.8%)	1 (11.1%)	1 (20.0%)
Work-related stress	2 (5.3%)	4 (12.9%)	2 (11.8%)	1 (11.1%)	0 (0.0%)
Physical illness	1 (2.6%)	2 (6.5%)	3 (17.6%)	1 (11.1%)	0 (0.0%)
Sexual abuse/assault	4 (10.5%)	1 (3.2%)	1 (5.9%)	0 (0.0%)	0 (0.0%)
Legal problems	1 (2.6%)	2 (6.5%)	1 (5.9%)	0 (0.0%)	0 (0.0%)
Multiple stressors	13 (34.2%)	8 (25.8%)	5 (29.4%)	2 (22.2%)	1 (20.0%)
No identifiable factor	2 (5.3%)	3 (9.7%)	1 (5.9%)	1 (11.1%)	1 (20.0%)

Research on DNSD precipitating components and illness signs shows important links between these elements, which underscore the complexity of the disease. According to the table 8, pseudo-seizures and motor symptoms developed primarily due to family conflicts because these conflicts led to their onset in 47.4% of patients who exhibited pseudo-seizures and 45.2% who developed motor symptoms. The analysis demonstrates that family disagreements and emotional distress produce physical expressions through these symptoms.

Research showed that romantic problems trigger pseudo-seizures in 26.3% of patients, indicating their status as primary pseudo-seizure triggers. Academic pressures showed the highest association with pseudo-seizures since they occurred in 18.4% of individuals demonstrating stress's significant impact on the school environment.

Sexual abuse or assault demonstrated a direct correlation to pseudo-seizures when 10.5% of patients reported such events as triggering factors for the symptoms.



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Research findings show physical illness leads patients to develop sensory symptoms at a rate of 17.6% since health conditions can result in such disturbances. The need arises to assess patients thoroughly and develop specialized intervention methods that evaluate the relationship between risk variables and their associated symptoms.

Discussion

Cross-sectional research evaluated the developing factors of Dissociative Neurological Symptom Disorder (DNSD) among Psychiatry ward patients at Khyber Teaching Hospital Peshawar, Pakistan. This research establishes important findings about DNSD characteristics and contributing elements among patients in this Pakistani medical setting.

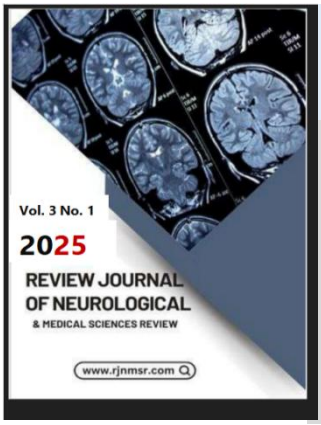
Sociodemographic Profile

A survey of Dissociative Neurological Symptom Disorder patients showed that women significantly outnumbered men (73%) according to multiple studies from different cultural backgrounds. Numerous studies observe gender inequality in repetitive disorders of the tendinous insertion points, with women composing 80% or more of patients. Numerous experts link the excessive number of female DNSD patients to biological hormones and sociocultural influences, as well as gender-specific stress management approaches. The traditional Pakistani female experience includes multiple stressors, from being denied autonomy and pressured social demands to have limited education and employment options, and this combination appears to make women more susceptible to DNSD.

Research in South Asian communities demonstrates that our studied patient population, where 73% were below 35 years old, matches previously recorded results. The increased occurrence of DNSD among younger individuals seems linked to their developmental issues alongside their challenges in identity formation as well as their various social and interpersonal stressors from contemporary society. Young people lack mature methods of stress management that older adults learn through their accumulated life experience.

Similar cultural research shows that low levels of education or illiteracy result in more cases of DNSD. This pattern was reflected in our study population, where patients with illiteracy accounted for 43% of our total participants. Protective elements against DNSD development include enhanced problem-solving capacities, better social networks, and healthcare information obtained through education. Our study population demonstrates a high prevalence of homemakers (36%) whose primary duty involves home responsibilities because Pakistan has traditional cultural practices keep women primarily dedicated to home-based activities.

Similar to several developing countries' research, the study demonstrates that patients mainly originate from rural regions (67%), and a large proportion (79%) earn an annual income below PKR50,000. The population in rural areas deals with unique obstacles since they experience limited medical care access and high levels of illiteracy in combination with traditional mental illness beliefs that promote their usage of faith healers instead of psychiatric healthcare. Higher stress levels and few coping mechanisms, along with lower access to healthcare quality, exist in lower



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socioeconomic groups, and this combination seems to increase diagnosis rates of DNSD.

Clinical Manifestations

Our study confirms the research from other South Asian studies, which discovered pseudo-seizures (38%) as the leading clinical presentation. The clinical features of DNSD show differences between regions since some symptoms appear more frequently in selected cultural areas. The cultural dynamics in our region play a significant role in explaining the high prevalence of pseudo-seizures because people tend to accept seizures better than psychiatric symptoms while holding traditional beliefs about supernatural origins of seizure activity compared to psychological distress.

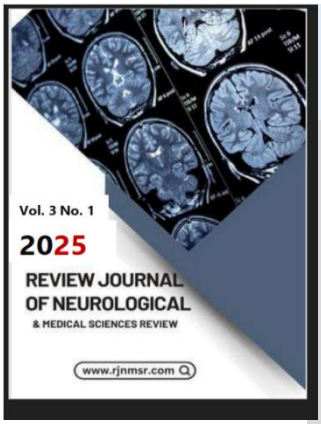
Motor symptoms with their features of paralysis/weakness along with abnormal movements stood as the second prevalent symptom cluster at 31% in our study's patient group. The research data matches results from other developing countries that display motor symptoms as common manifestations of DNSD. Patients tend to demonstrate obvious dramatic symptoms such as pseudo-seizures and motor behavior because Pakistan's cultural standards favor outward physical methods for expressing mental distress. Psychological distress in Pakistani culture, along with other collectivistic societies, manifests through physical symptoms instead of direct emotional communication of problems, which psychiatry literature calls somatization.

Review data demonstrates that DNSD mainly exhibits acute symptomology in patients with less than a month of duration (73%) because it generally develops as a rapid reaction to stressful situations in our population. The study findings match data from comparable cultural populations. About half of our patient sample experienced repeated DNSD attacks, which demonstrates that this condition has a recurrent nature because patients need extended monitoring and preventive care measures.

Precipitating Factors

Family conflicts emerged as the leading cause (41%) of DNA symptoms during our research, confirming the essential function of social-family relations on psychological health stability in Pakistani culture. The study data supports earlier research results that examined DNSD in Pakistan and other South Asian nations. The Pakistani social structure emphasizes familial interdependence and hierarchical patterns because family harmony holds tremendous significance while family duties must be fulfilled. Patrilocal living arrangements create psychological distress that primarily affects women because of family conflicts among their in-laws.

A traditional household structure in Pakistan contributes to the prevalence of in-law conflicts (19%), representing the familiar family dynamic where married women live with their husbands and adjust to new family dynamics. Due to traditional wife authority dynamics, household adjustments regularly include intricate family dynamics between women and their mother-in-law. Women face an increased risk of DNSD when family relationship tensions occur because they do not have direct methods of resolving conflicts because of power inequalities in their family structure.



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Our research found that 22% of patients developed DNSD after enduring romantic relationship problems and marital discord, which led to splitting up or divorce. Relationship problems within Pakistani society become especially painful because arranged marriages and socially stigmatized divorces are common customs. Young adults experience significant emotional distress from failed love relationships and discrepancies between their marriage desires and family wedding expectations. Marital discord in married individuals creates both relationship problems and social rejection, along with money problems that most affect women who need financial support from their husbands.

According to research, most male patients reported financial strain (29.6%) as their primary stressor (17%). Traditional gender assumptions in Pakistani society explain the gender gap because social norms position men to bring home most household income despite strong family expectations. When economic difficulties combine with joblessness or insufficient income, they cause extensive mental distress in male patients who display DNSD due to lacking alternate ways to cope.

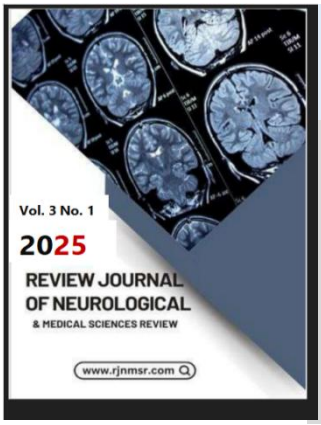
The factor of academic stress emerged as a significant cause for the development of DNSD, with younger patients reporting higher incidence rates of 26.2% in the 15-25 years age cohort. Academic excellence is the primary method through which Pakistani society grants students social advancement and economic protection, which creates extensive academic performance pressures within the student population. Failure to reach academic standards created by personal standards or family requirements leads to severe emotional problems and shame. It contributes to a fear of letting others down, thus increasing the risk of DNSD among susceptible people.

The prevalence of sexual abuse/assault as a trigger in 6% of cases (which affected only women) stands out significantly. However, this number may be higher since some assaulted patients do not report sexual violence due to societal stigma and shame about sex crimes in traditional cultures. Multiple studies confirm that sexual trauma leads to the development of dissociative disorders, including DNSD. The association between sexual abuse and DNSD exists through changes in neural systems that control emotional regulation and self-awareness.

Psychosocial stressors stand as important contributors to DNSD development because a large number of patients (86%) exhibited moderate to high scores on Holmes-Rahe Life Stress Inventory measurements. Research data confirms the stress-diathesis model for DNSD because psychological stressors combine with personal risk attributes to trigger symptoms. A review of the patients showed how 29% managed multiple stressors that likely combined to create excessive demands that exceeded their coping abilities, thus triggering dissociative symptoms.

Gender and Age-Specific Patterns

Pakistani social traditions shape the gender-specific data of stressors because women and men face different cultural expectations in Pakistani society. Female patients commonly experienced family conflicts (47.9%), followed by relationship issues (24.7%), whereas male patients experienced financial stressors (29.6%) and work-related stress (18.5%) the most. Gender role theories validate these results because



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the studies show that women's psychological distress mainly arises through interpersonal domains, yet men's distress stems from achievement-related domains.

The results from specific age groups exposed various factors that drive patients to seek medical attention. Academic performance and relationship dilemmas proved critical stressors among patients aged 15 to 25. The identity-forming and educational phases and the relationship development stage led to these prominent stressors (26.2% and 33.3%, respectively). Family conflicts and financial stressors emerged as the main risk factors for middle adulthood patients between 26-45 years old because this period demands proper work-family balance. Older patients who are over the age of 45 experience physical illnesses just as often as they experience family conflicts when it comes to the factors that initiate psychological disturbances.

Clinical Implications

The research showed patterns regarding how specific stress factors precipitate DNSD symptoms in patients. Patients with family conflicts tend to develop pseudo-seizures at a high rate of 47.4% due to their symbiotic relationship. Previous research supports the present findings about sexual abuse/assault leading to pseudo-seizures (10.5%) since sexual trauma produces dissociative seizures through neurobiological stress response alterations.

According to the study results, physical illness leads to sensory symptoms (17.6%) more often than other DNSD manifestations, likely because physical disease experiences shape the way DNSD symptoms appear. People who have had past physical health issues tend to develop mental representations about symptoms that influence how their psychological distress appears in their body (66). Clinical experts propose that symptom modeling is a mechanism to understand how personal and cultural experiences affect DNSD manifestations.

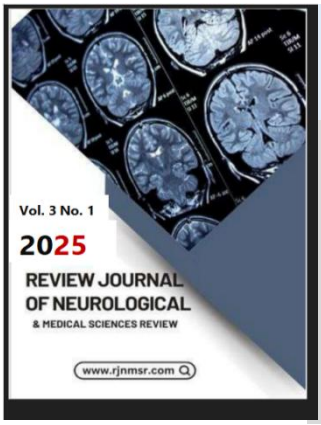
Doctors must consider these results when they manage and assess DNSD symptoms in Pakistani cultural settings. Finding particular components leading to DNSD development enables healthcare providers to design therapeutic actions. The treatment methods that are most effective for patients include family therapy when symptoms stem from family tensions. Financial counseling and vocational rehabilitation help individuals who suffer because of economic hardship.

This research demonstrates why we need interventions that address DNSD specifically for both gender groups and all ages. Appropriate therapies must address the stress factors that impact specific demographic groups within their unique sociocultural environments.

Our study findings highlight why integrating neurologists and psychiatrists becomes essential to properly manage DNSD because of the numerous cases of pseudo-seizures and motor manifestations in our population. Preventing symptom continuity and diminished medical service use depends on early diagnosis accuracy and efficient communication with patients and their families followed by immediate psychological treatment.

Limitations and Future Directions

The research incorporates several important restrictions which need to be recognized. Supplementing our research with a longitudinal design would enable us to determine



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how precipitating elements lead to DNSD development. Our findings encounter restricted application beyond the study because the convenient sampling technique raised selection biases. The method of allowing patients to report factors that triggered their symptoms depends heavily on dependent memory functions and social acceptance considerations, especially in cases involving sexual violence and family tensions.

Research investigating DNSD should include sequential study designs because this method would reveal causal patterns between triggering elements and DNSD and establish a natural timeline of symptom progression. Qualitative investigations would benefit the study of DNSD experiences and cultural symptom meanings among patients. Research studies exploring DNSD precipitating factors, as well as clinical presentations between Pakistan's regional population and between urban versus rural locations, would clarify how cultural elements combined with socioeconomic factors affect this condition.

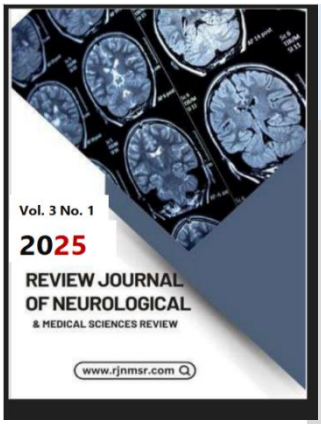
Research needs to study the effectiveness of culturally modified psychological treatments specifically designed to treat DNSD within the Pakistani population. According to this research, the interventions should deal with the particular factors that caused distress while maintaining awareness of cultural understandings of pain expression in this demographic.

CONCLUSION

The research approach used in this study helps identify contributing factors for Dissociative Neurological Symptom Disorder (DNSD) experienced by hospital patients at a tertiary medical facility located in Peshawar, Pakistan. DNSD primarily affects young women who come from rural areas and belong to financially disadvantaged households and presents significant clinical symptoms as pseudo-seizures combined with motor manifestations. The primary initiating factor that triggered Dissociative Neurological Symptom Disorder among patients was family disputes, especially involving spouses and in-laws, while relationship difficulties and monetary strain ranked as additional significant factors. The patients mainly showed moderate to high life stress based on Holmes-Rahe Life Stress Inventory results before their DNSD began.

The analysis by gender showed that interpersonal childhood incidents such as family problems and romantic relationship issues caused symptoms in females. However, men experienced more symptoms due to their occupational-related issues, including financial problems. The research determined that academic stresses and relationship problems primarily affect younger patients. In contrast, middle-aged adults face financial issues alongside family conflicts, and older adults experience both health problems and family conflicts.

This research documented that pseudo-seizures and motor symptoms frequently result from family conflicts, yet physical illness tends to trigger sensory symptoms respectively in DNSD patients. The research demonstrates how psychological stress affects DNSD expression because symptom manifestation depends on both individual factors and developmental stages, together with cultural gender roles.



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The study produces vital findings that can guide medical treatments in societies that match the tested cultural and social dynamics. Research into DNSD precipitating factors enables medical practitioners to develop treatment approaches to identify and treat the fundamental psychosocial causes behind such conditions. Different types of therapy, such as family techniques, show the most benefit for patients who suffer from family conflicts. However, individual therapy emphasizing relationship skills would help people with relationship issues. Medical care for psychiatric patients dealing with financial stress should integrate vocational guidance and financial assistance to boost standard psychiatric interventions.

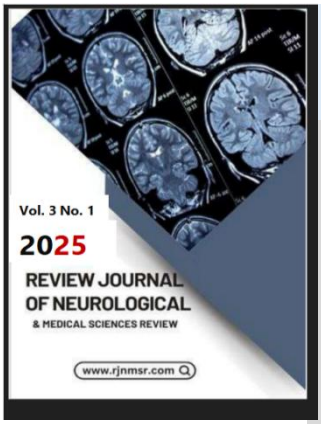
Young female patients from rural areas with limited educational backgrounds have an elevated risk of DNSD, thus requiring community-based mental health interventions for these high-risk groups. The programs should work to educate communities about psychological distress because of its physical symptoms while working to reduce mental illness stigma, followed by establishing easy access to support through mental health services across rural areas. The prevention of DNSD symptoms among families can be advanced through educational programs that teach healthy family relations and conflict resolution methods.

Family conflicts show a strong statistical link to DNSD, so healthcare providers should analyze family systems when diagnosing and treating this condition. Family members' active participation in treatment and respect for patient confidentiality and autonomy leads to superior treatment results. Healthcare providers must show special awareness regarding the intricate family systems that drive DNSD cases, particularly when working in cultural settings that value family unity above all else.

This study's findings establish the need for complete biopsychosocial assessments when diagnosing DNSD because psychosocial stress plays a substantial role in development. In contrast, health professionals must maintain alertness for hidden neurological conditions. The proper diagnosis and efficient management of patients rely on sustained partnerships between psychiatrists and neurologists. Training programs for healthcare staff that teach the identification of DNSD symptoms and proper patient referral will enhance early diagnoses and better treatment outcomes.

This research study adds precious knowledge about factors leading to DNSD within Pakistan's cultural environment through its investigation of family conflicts and relational and financial pressures as primary contributors to the disorder. Identifying distinct gender and age patterns reveals essential information that healthcare providers need to use when creating treatment approaches that match different patient needs. Researchers should expand upon discovered information by creating and assessing culturally relevant therapeutic approaches that handle fundamental psychosocial stress elements in ways that consider cultural traditions and beliefs used to interpret emotional distress in Pakistan.

The complex interplay between individual vulnerability, psychosocial stressors, and cultural context in the development of DNSD calls for a nuanced and multidimensional approach to its prevention and treatment. Healthcare professionals can enhance their treatment of patients with this demanding disorder



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by implementing interventions that address detailed risk factors from this study while considering societal and cultural influences surrounding those elements.

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