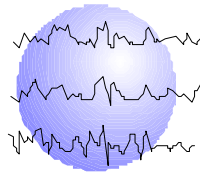


CLINICAL AND PSYCHOSOCIAL PRESENTATION OF PEDIATRIC PATIENTS WITH PSYCHOGENIC NONEPILEPTIC SEIZURES

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This paper has been prepared specifically for:

American Epilepsy Society Annual Meeting
Boston, MA
December 5 - 10, 2003

Please consider this information to be preliminary findings.

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REVISED ABSTRACT

RATIONALE

Pediatric patients with psychogenic nonepileptic seizures (PNESs) often present at epilepsy centers for evaluation; however, research describing the clinical presentation and psychosocial functioning of this population is limited. The objective of the present investigation is to describe the clinical and psychosocial presentation of pediatric PNES patients admitted to an inpatient epilepsy unit.

METHODS

Medical records of 22 pediatric patients with PNESs were reviewed retrospectively. Participants had been admitted to an inpatient epilepsy unit from September 1999 to February 2003 for continuous video-EEG monitoring to clarify episodes of undetermined etiology or because they were refractory to treatment with anticonvulsant medication. Patients were included if a typical event was recorded and the event did not have any EEG correlate. Patients with physiological nonepileptic events and those not formally evaluated by the primary author were excluded.

RESULTS

Of 22 participants, almost all were female (2M; 20F). 7 patients (32%) had a history of epileptic seizures. 7 patients without a history of epileptic seizures had been taking anticonvulsant medication prior to their admission. Mean age of symptom onset was 13 years (range=7 to 19 years). Mean duration of symptoms prior to admission was 7 months (range=<1 month to 36 months); however, 62% of patients (n=13) were admitted within 2 months of their first event. Neuropsychological testing available for 13 participants indicated that 69% (n=9) had average to high average intellectual abilities, yet 50% of all participants were in special education. On average, patients presented with 5 different clinical symptoms (range=1 to 8). Symptoms most frequently reported included dizziness, shaking/jerking, unresponsiveness, staring and headache. Mean number of stressors experienced was 5.5 (range=2 to 9). A majority of participants identified school and/or peer issues as significant stressors. Traumatic sexual experiences were reported by 36% of patients. Stressors experienced by at least 25% of all participants included family conflict, not living with both biological parents, parental psychopathology, grief and health problems in one's immediate family. A majority of patients (68%) reported a tendency to manage stressors on their own rather than spontaneously seeking external social support; however, all patients reported receiving secondary gain for their symptoms. 19 participants (86%) met diagnostic criteria for a somatoform disorder and 11 patients (50%) had more than one psychiatric diagnosis (e.g., ADHD, anxiety, mood disorder).

CONCLUSION

The typical pediatric patient with PNESs is female and presents with symptoms during early adolescence. Several clinical symptoms resulting in secondary gain and consistent with a somatoform disorder are usually reported. In addition, patients often experience multiple stressors, but do not seek external social support to cope.

[Epilepsia 44 Suppl. 9:132 \(Abst. 1.380\), 2003](#)

INTRODUCTION

Although pediatric patients with psychogenic nonepileptic seizures (PNESs) often present to epilepsy centers for evaluation, research describing their clinical presentation and psychosocial functioning is limited. Thus, the present investigation provides a clinical and psychosocial profile of pediatric PNES patients that presented to an inpatient epilepsy unit.

METHODS

Participants and Procedure: Participants were patients from the Minnesota Epilepsy Group, P.A. who were admitted to the inpatient Pediatric Epilepsy Unit of Children's Hospitals and Clinics (St. Paul, MN) for continuous video-EEG monitoring to clarify episodes of undetermined etiology or because they were refractory to treatment with anticonvulsant medication. A retrospective review of medical records for patients admitted from September 1999 to February 2003 was completed. Patients were included in the present investigation if a typical event (similar to that which precipitated the patient's admission) was recorded and the event(s) did not have an EEG correlate suggestive of an epileptic seizure. Patients with physiological nonepileptic events and those not formally evaluated by the primary author with a diagnostic clinical interview were excluded. The final sample included 22 patients.

RESULTS

Demographic and background variables of participants are presented in Table 1. 91% of participants were female. 7 participants (32%) had a documented history of epileptic seizures and of these, 5 were taking anticonvulsants at the time of admission. 7 additional patients (without a history of epileptic seizures) also had been taking anticonvulsants prior to their admission. 50% of participants received regular education programming whereas the remaining patients were enrolled in special education. Neuropsychological test results available for 13 patients indicated that a majority of participants (n=9; 69%) were functioning in the average to high average range of intellectual abilities.

Table 1 **DEMOGRAPHIC AND BACKGROUND VARIABLES**

	(n=22)
Female	20 (91%)
History of Epileptic Seizures	7 (32%)
Taking AEDs Prior to Admission	12 (55%)
Educational Programming	
Regular Education	11 (50%)
Special Education	11 (50%)
Full Scale IQ (WISC-III or WAIS-III; n=13)	
M	86.5
SD	21.5
Range	(42-111)
Intellectual Distribution	(n=13)
Superior and Above	0
High Average	1 (8%)
Average	8 (62%)
Low Average	0
Borderline	2 (15%)
Mild Mentally Impaired	0
Moderately Mentally Impaired	2 (15%)
Severely Mentally Impaired and Below	0

Table 2 presents additional information regarding patients' histories and presentation. The mean age of symptom onset was 13.6 years. On average, patients experienced their symptoms for 7.6 months prior to being admitted; however, a majority of patients (n=13; 62%) were hospitalized within two months of experiencing their first clinical symptom(s). Patients presented with an average of five different clinical symptoms (range = 1 to 8). As seen in Figure 1, the symptoms most frequently observed or reported included somatic complaints, body movements, changes in mobility or strength, altered consciousness and sensory changes. As seen in Table 2, all patients were experiencing at least two stressors and most participants were experiencing several stressors simultaneously. Figure 2 illustrates the primary stressors reported. Academic difficulties and interpersonal problems with peers were rated as significant stressors by a majority of participants (68% and 64% respectively). Family-related issues (i.e., discord with family members, not living with both biological parents, parental psychopathology) were reported by many patients as well. Traumatic sexual experiences or sexual abuse was identified as a significant stressor by approximately one-third of participants.

Table 2

HISTORY AND PRESENTATION OF PARTICIPANTS

	M	SD	Range
Age of Symptom Onset (n=21)	13.6 yrs	3.6 yrs	7 to 19 yrs
Duration of Symptoms Before Admission (n=21)	7.6 mos	11.4 mos	<1 to 36 mos
Clinical Symptoms (n=22)	5.1	1.9	1 to 8
Stressors (n=22)	5.5	2.1	2 to 9

Figure 1

SYMPTOM PRESENTATION

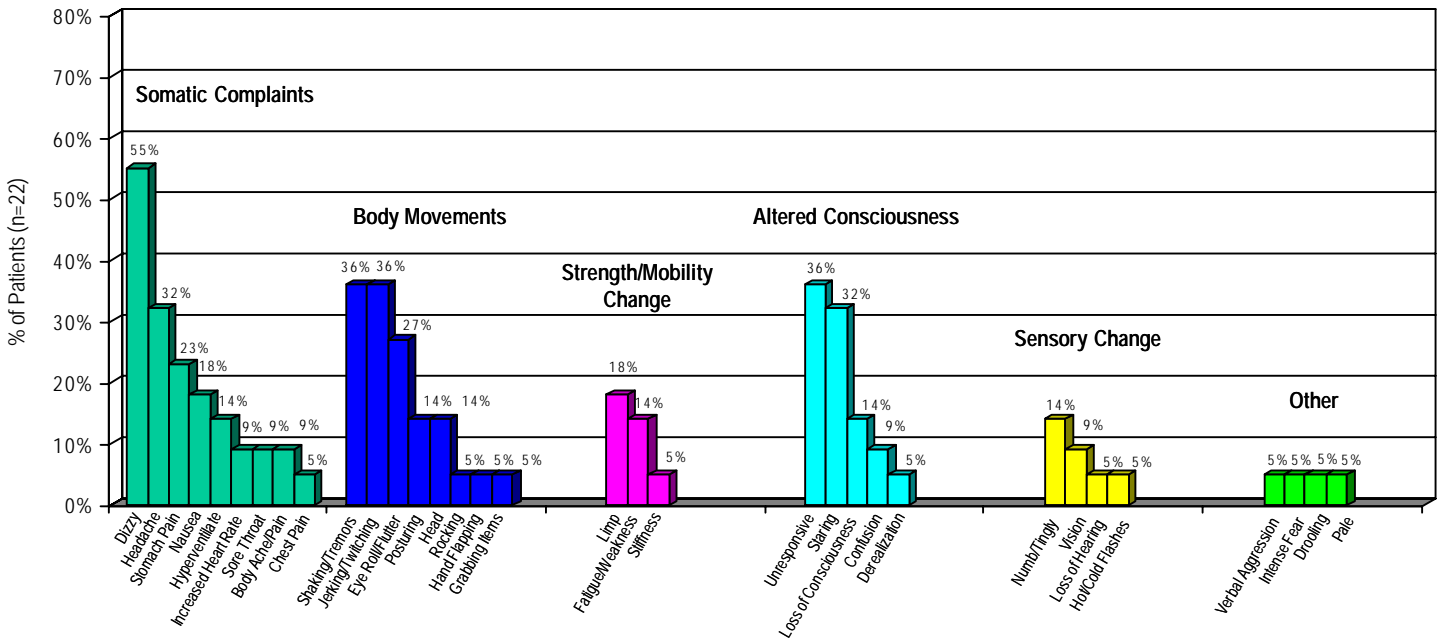
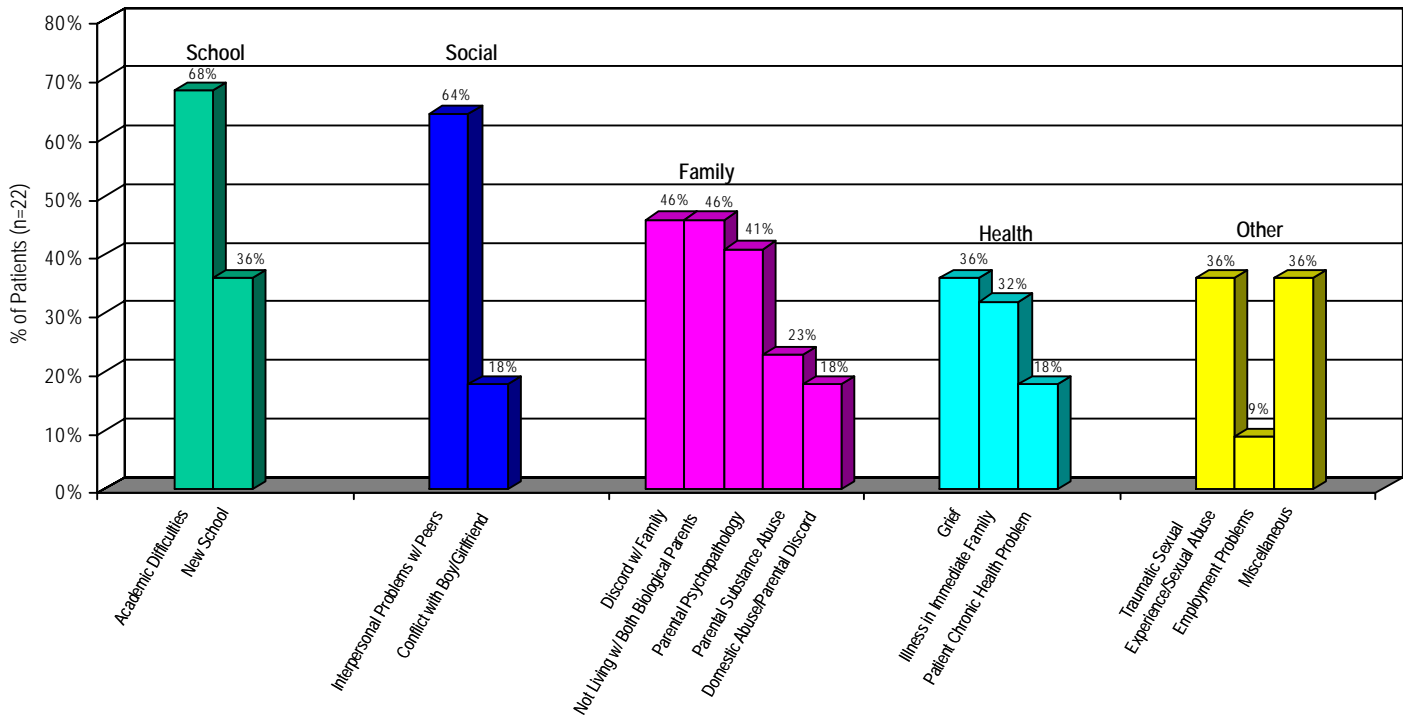


Figure 2

PSYCHOSOCIAL STRESSORS



As seen in Table 3, a majority of participants (68%) do not regularly seek out others for social and emotional support to assist them in managing stress (as reported during a clinical interview). In addition, the remaining participants only seek out others occasionally or after they have been prompted (e.g., patient will confide in a parent after the parent has asked “what’s wrong?”). All patients also described themselves as receiving secondary gain for their symptoms (e.g., increased attention and concern from others, avoidance of the stressor).

Table 3

Coping Style	(n=22)
Does not usually seek others	15 (68%)
Seeks others if prompted	2 (9%)
Occasionally seeks others	5 (23%)
Frequently seeks others	0
Secondary Gain	22 (100%)

Figure 3 illustrates the DSM-IV psychiatric diagnoses consistent with the clinical presentation and symptoms of patients' PNEs. Most patients (n=19) demonstrated symptoms consistent with a somatoform disorder. Other diagnoses given for PNEs symptoms included anxiety disorders and an autism spectrum disorder. As seen in Figure 4, 50% of participants (n=11) met diagnostic criteria for more than one psychiatric disorder including three patients who had two additional comorbid diagnoses. Comorbid diagnoses for patients with PNEs included disruptive behavior disorders (73%), anxiety disorders (27%), mood disorders (18%) and adjustment disorder (9%).

Figure 3 DSM-IV PSYCHIATRIC DIAGNOSES OF PNEs SYMPTOMS

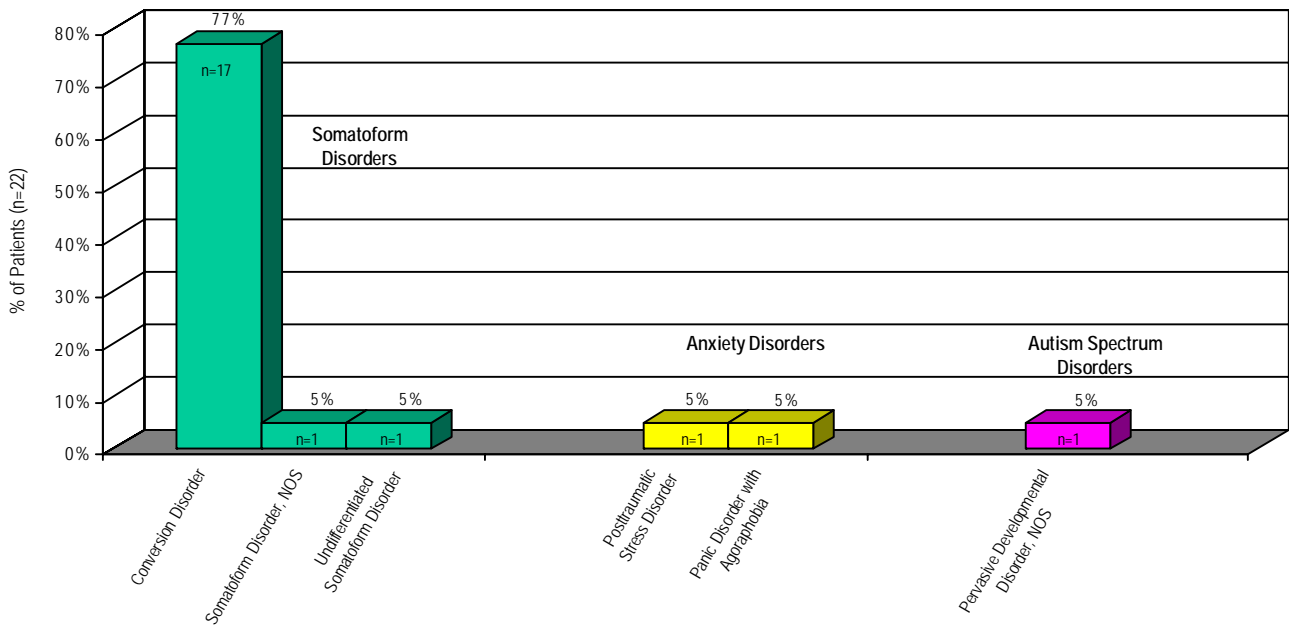
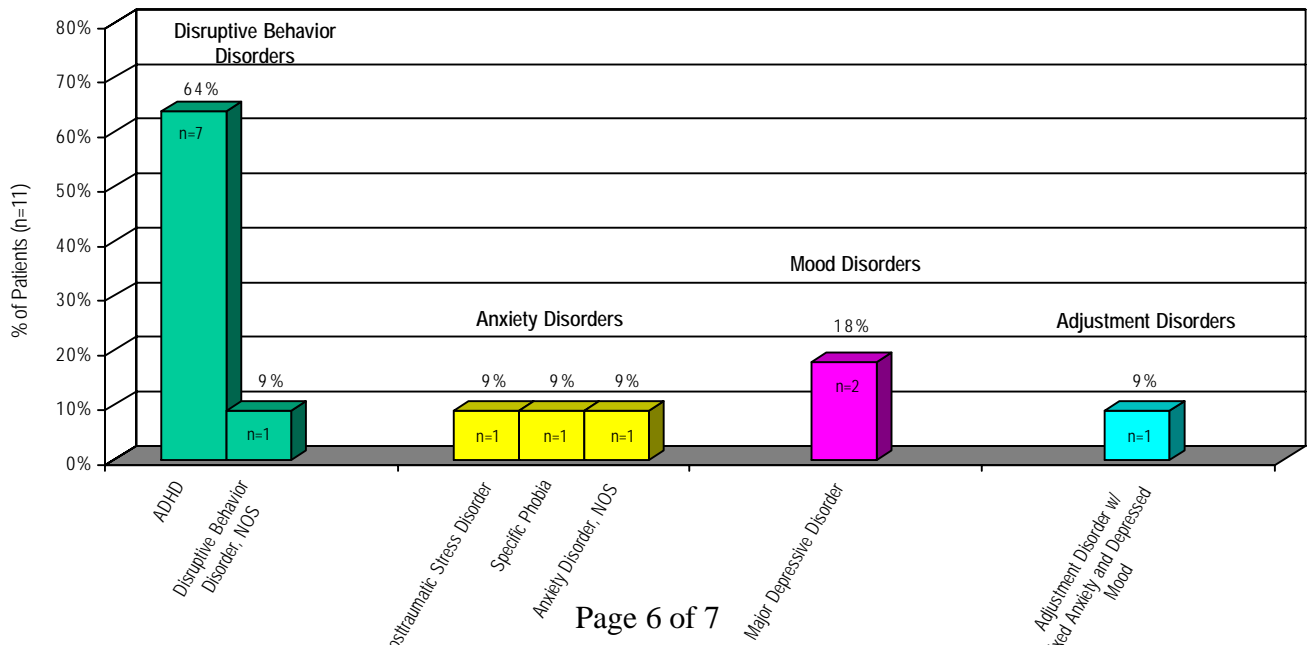


Figure 4 COMORBID PSYCHIATRIC DIAGNOSES OF PATIENTS WITH PNEs



CONCLUSIONS

- The typical pediatric patient presenting to an epilepsy center with PNESs is an early adolescent female with average intelligence.
- Patients often report experiencing multiple clinical symptoms that result in secondary gain and are consistent with a psychiatric diagnosis of a somatoform disorder. In addition, comorbid psychiatric diagnoses are common.
- Patients are often experiencing several stressors simultaneously, yet their difficulties seeking out others for social support may be exacerbating and/or maintaining their psychiatric symptoms.
- Future research comparing the clinical and psychosocial presentation of pediatric and adult patients with PNES is recommended.