

# Psychosocial profiles of psychogenic movement disorder patients with non-epileptic seizures and other abnormal motor manifestations.



Strutt, A.M.,<sup>1</sup> Scott, B.M.,<sup>1</sup> Ferrara, J.,<sup>2</sup> York, M.K.,<sup>1</sup> & Jankovic, J.<sup>1,3</sup>

<sup>1</sup>Department of Neurology, Baylor College of Medicine, Houston, TX; <sup>2</sup>Department of Neurology, University of Louisville, Louisville, KY; <sup>3</sup>Parkinson's Disease and Movement Disorders Center, Baylor College of Medicine, Houston, TX

## Introduction

- The myriad of somatic manifestations presenting as psychogenic movement disorders (PMD) are seldom differentiated in the research literature.<sup>1-2</sup>
- PMD are presumed to result from psychological and psychosocial distress, however, the etiopathogenic relationship between such experiences and PMD is not well understood.<sup>3-4</sup>
- Research has documented a higher prevalence of PMD in female patients.<sup>5-6</sup>
- The objective of the current study was to examine the psychological profiles of female psychogenic movement disorder (PMD) patients with psychogenic non-epileptic seizures (PNES) and other types of abnormal motor manifestations (AMM).

## Methods

- 39 age and education matched women diagnosed with PNES (n<sup>1</sup>=22) and AMM (n<sup>2</sup>=17) participated in the current study subsequent to diagnostic confirmation by means of video-EEG monitoring or adherence to Fahn and Williams criteria.<sup>7</sup>
- Measures administered: Beck Anxiety Inventory (BAI), Beck Depression Inventory-second edition (BDI-II), Multidimensional Health Locus of Control (MHLC), and Dissociative Experiences Scale-second edition (DES-II).

## Results

- The PNES group reported an earlier age of symptom onset and an average duration of motor symptoms nearly twice that of the PAMM group.
- Ethnicity and trauma history were significantly different with more AMM participants being Caucasian and reporting no history of trauma.
- Both groups reported moderate levels of anxiety, while the PNES group demonstrated significantly elevated symptoms of depression.

**Table 1.** Comparison of PNES and PMD group demographics.

Demographic	PNES	PMD	t/X <sup>2</sup>	P
<b>Age</b>	36.4 (10.8)	40.1 (11.1)	1.05	0.30
<b>Education Level</b>	13.0 (1.85)	14.3 (1.99)	1.59	0.12
<b>Ethnicity</b>				
Caucasian	13 (59.2%)	14 (82.4%)	8.33	0.04
African American	5 (22.7%)	-		
Hispanic	4 (18.2%)	1 (5.90%)		
Other	-	2 (11.8%)		
<b>Age of Onset (yrs)</b>	27.8 (13.3)	35.5 (11.7)	1.82	0.08
<b>Duration of Motor Sx (yrs)</b>	8.73 (9.21)	4.40 (5.32)	-1.64	0.11
<b>History of Trauma*</b>				
None	7 (31.8%)	13 (76.5%)	7.65	0.006
Sexual Abuse	7 (31.8%)	2 (11.8%)	2.17	0.14
Physical Abuse	8 (36.4%)	3 (17.6%)	1.66	0.20
Emotional Abuse	10 (45.5%)	4 (23.5%)	2.00	0.16

Note. Means (SD) or Frequencies (%) are provided for each variable.

\*Percentages do not add to 100% as some participants reported multiple forms of abuse.

**Table 2.** Outcome measures by diagnostic group.

Measure	PNES	PMD	F	p
<b>Mood</b>				
BAI Total	18.4 (9.61)	17.8 (11.4)	-0.18	0.86
BDI-II Total	28.0 (11.5)	16.7 (14.6)	-2.70	0.01
<b>Locus of Control</b>				
Internal	17.3 (6.56)	17.5 (8.63)	0.07	0.94
Chance	14.2 (6.86)	13.2 (4.74)	-0.52	0.61
Doctors	12.4 (3.62)	12.1 (3.02)	-0.27	0.78
Others	11.4 (4.22)	8.13 (3.36)	-2.57	0.01
<b>Dissociation</b>				
DES-II Total	14.2 (15.9)	9.08 (9.83)	-1.17	0.25
Absorption	17.0 (17.6)	13.0 (12.8)	-0.80	0.43
Depersonalization	9.77 (15.9)	5.54 (9.46)	-0.97	0.34
Amnesia	11.3 (16.9)	2.21 (4.10)	-2.17	0.04

Note. Means (SD) are provided for each variable.

## Conclusions

- The current study suggests that women with PNES may have a different psychological profile than female AMM patients, including higher levels of depression, increased amnesic dissociative episodes and an external control orientation that associates the influence of others (non-physicians) to their medical condition.
- Given these results, psychological interventions for PMD patients should be tailored to their motor-movement subtypes.
- Future research is needed to determine the utility of such psychological characteristics in discriminating psychogenic movements and neurological conditions with clinically similar features.

## References

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- Dissociation tendencies were within normal limits; however, PNES participants endorsed significantly more dissociative amnesic experiences.

- The majority of both PNES (81.8%) and AMM (70.6%) groups reported a greater external (versus internal) control orientation. However, PNES participants attributed significantly greater control of their medical condition to other individuals (non-physicians), and this variable was the only significant predictor of group membership.