

## Stress Factors and Behavioral Characteristics in Enuretic Children

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Enuresis is defined as repeated, involuntary voiding of urine by day or night, at least two such events per month for children between age of 5-6 years and at least one event per month for older children. Excluded from this definition is repeated involuntary voiding of urine due to physical disorders(1). The exact etiology of this disorder has been a subject of debate. Psychological factors have often been implicated(2-4). The present study explores the relationship between nocturnal enuresis and various stress and behavioral factors from a relatively deprived population.

### Subjects and Methods

The study was conducted in the Department of Psychiatry and Child Guidance Clinic, Patna Medical College Hospital, Patna in liaison with the Up-

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graded Department of Pediatrics, Patna Medical College Hospital, Patna. The subjects comprised 50 children with enuresis as defined above(1) and 50 age, sex and socio-demographic variables matched controls. A detailed interview was conducted with the parent(s) on a pretested proforma to elicit the possible underlying stress and behavioral factors. The differences in the groups were analyzed by the Chi-square test or Fischer's exact test.

### Results and Discussion

Of the 50 children with enuresis, 31 were boys. Two-thirds (68%) were aged between 5-6 years and the rest were older. A male preponderance in enuretic children has been reported earlier(2,3). The age distribution of children in the present series was slightly lower than the earlier report from India(2).

The various stress factors and behavioral characteristics evaluated in the two groups are compared in *Table I*. The important significant associated stress factors in enuretic subjects were fear of darkness and sharing bed with others. An association of stress factors in enuretic children had been documented from India and abroad in earlier reports(2-4). Several behavioral characteristics (teeth grinding, hyperactivity, fears and worries, increased food intake and loss of temper) were significant associates in enuretic children. These findings are in agreement with earlier reports(2-6). However, occasionally such association could not be documented(7).

It is concluded that several stress factors and behavioral characteristics are significant associates of enuretic children even in this deprived population.

**TABLE I-Comparison of Stress Factors and Behavioral Characteristics.**

Factors	Enuretics (n=50)	Controls (n=50)	p value	OR (95% (I).
<i>Stress</i>				
Sharing bed with others	33	22	0.027	2.47(1.02, 6.03)
Fear of darkness	23	5	0.000	7.67 (2.38, 26.29)
Overcrowding	7	4	0.337	NA
Over protective	6	2	0.140	NA
Parental neglect	5	2	0.239	NA
Frequent quarrel between parents	4	0	0.117	NA
<i>Behavioral Characteristics</i>				
Teeth grinding	28	10	0.000	5.09 (1.93, 13.75)
Hyperactivity	19	6	0.003	4.49 (1.47, 14.35)
Fear and Worries	18	7	0.011	3.46 (1.8,10.45)
Food Intake				
Increased	19	9	0.026	2.79 (1.02, 7.78)
Reduced	14	7	0.086	NA
Night mares	12	4	0.056	NA
Nail biting	12	4	0.056	NA
Loss of temper	22	8	0.004	4.13 (1.48, 11.82)
Thumb sucking	12	5	0.110	NA
Stuttering	8	2	0.095	NA
Tics	2	1	1.000	NA

NA-Not applicable

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