

BEHAVIORAL AND EMOTIONAL PROBLEMS IN CHILDREN AND PARENTING STRESS WITH PRIMARY NOCTURNAL ENURESIS IN TAIWAN

Hypothesis / aims of study

Enuresis is a very common clinical problem in children. It often leads to anxiety and distress in affected children and their parents, and may cause secondary emotional and social problems in children who continue bedwetting. This study was to explore parents' and children's attitudes towards bedwetting and investigate the behavioural and emotional problems of enuretic children in Taiwan.

Study design, materials and methods

A total of 148 children 6 to 12 years old, participated in the study. The bedwetting group included 79 patients with primary nocturnal enuresis from the enuresis clinics. The control group included 69 normal children who were recruited at random from the schoolchildren of local community in Changhua (located in the middle of Taiwan). Exclusion criteria were chronic health conditions, delayed development and organic illness. The frequency of enuresis was classified into four categories: wetting at least once every night, 1-6 wet night per week, 1-3 wet night per month, 1-5 wet night last 6 months. A research assistant who has undergraduate degree on psychology interviewed the parents of both groups. After adequate instruction, every parent completed the Behavioral and Emotional Rating Scale (BERS) to evaluate their own child. In addition the parents completed a bedwetting questionnaire to record demographic characteristics, family history, clinical symptoms, parents' and children's attitudes towards bedwetting. The children were also asked to complete the Teenage Self-Concept Scale (TSCS) to evaluate themselves if the children had been 10 years old. The BERS consists of 52 items from which the behavior and emotion of children are assessed. It includes the following subscales: Interpersonal Strength, Family Involvement, Intrapersonal Strength, School Functioning, and Affective Strength. The TSCS contains 61 items and identifies five major domains of self-concept: Family, School, Appearance, Physical, and Emotion. Each of two scales has good internal consistency and test-retest reliability. T-scores were used for the statistical comparison in this study, and high scores signal good performance or high self-concept. Two scales all adjusted for gender and age. Data were analyzed by SPSS (version 10.0). Pearson Chi-square test, Chi-square test for trend, Student's t-test, and Spearman's correlation coefficients were used for analyzing the variables. A p-value of less than 0.05 was considered to be a statistically significant difference.

Results

1. On the BERS, the bedwetting group had lower mean T-scores significantly in each subscale ($p < 0.05$). (Table 1)
2. On the TSCS, the bedwetting group also had lower mean T-scores in each subscale. However, there were no statistically significant differences between two groups ($p > 0.05$). (Table 1)
3. The severity of enuresis was statistically correlated with children's Emotion Self-Concept ($r = -0.324$, $p = 0.044$) in TSCS, also affecting the child's Family Involvement ($r = -0.331$, $p = 0.003$) and Affective Strength ($r = -0.247$, $p = 0.0319$) in BERS.
4. Parental response to bedwetting behavior: scold the child (50.6%), punish the child (10.1%), comfort the child (29.1%), clean child up silently (57%), ignore the problem (10.1%), others (12.7%).
5. Parents' attitudes towards bedwetting: worry and anxious (84.8%), mentally and physically exhausted (36.7%), angry and loathing (12.7%), guilty (10.1%), others (7.6%).

6. Bedwetting effects on the child self-esteem: embarrassed (78.5%), innocent and have no choice (77.2%), sad (67.1%), feeling of inferiority (62%), no effect (50.6%), guilt (49.4%), concealing (45.6%), annoyed (35.4%), laughing and talking happily (24.1%), shamed into anger (16.5%). wail and whine (6.3%).

Interpretation of results

Table 1. T-scores on the subscales of the BERS and TSCS, for children with bedwetting and normal groups

	Normal		Bedwetting		P-value
	Mean	SD	Mean	SD	
Behavioral and Emotional Rating Scale (BERS) $n=69$					
			$n=77$		
Girls, n (%)	30	43.5%	38	49.4%	0.478
Boys, n (%)	39	56.5%	39	50.6%	
Age	9.3	1.9	9.1	1.9	0.470
Interpersonal Strength	10.2	2.3	9.3	2.3	0.015
Family Involvement	12.0	1.9	11.0	2.4	0.005
Intrapersonal Strength	11.3	2.3	10.3	2.6	0.016
School Functioning	11.9	2.6	10.9	2.4	0.018
Affective Strength	11.7	1.9	10.8	2.8	0.027
Total score	57.1	8.3	52.3	10.4	0.002
Teenage Self-Concept Scale (TSCS) $n=33$					
			$n=39$		
Girls, n (%)	13	39.4%	18	46.2%	0.564
Boys, n (%)	20	60.6%	21	53.8%	
Age	10.8	1.4	10.5	1.3	0.410
Family Self-concept	51.5	11.1	51.4	10.8	0.984
School Self-concept	57.3	10.5	55.2	10.6	0.405
Appearance Self-concept	55.1	9.7	52.0	10.1	0.188
Physical Self-concept	52.9	9.4	50.6	10.1	0.333
Emotion Self-concept	52.4	9.5	50.7	7.0	0.395
Total score	243.5	33.2	236.1	35.8	0.364

Concluding message

There were more behavior and emotion problems in enuretic children and were proportional to the severity of enuresis. In addition, their parents had more negative feelings about bedwetting. The investigations provide sufficient attention to both parents and children to assess and manage the psychosocial function of the child and the stress of the parents.