

# The Effect of Nocturnal Enuresis in Adults on Sexual Satisfaction and Self-Esteem

Furkan Dursun\*, Ercan Malkoc, Sezgin Okcelik, Abdullah Cirakoglu, Ferhat Ates, Kenan Karademir, Temucin Senkul and Hasan Soydan

Department of Urology, Gumussuyu Military Hospital, Istanbul, Turkey

\*Corresponding author: Furkan Dursun, Department of Urology, Gumussuyu Military Hospital, Istanbul, Turkey, Tel: 90-5327008354; E-mail: drfurkandursun@hotmail.com

Rec date: Apr 17, 2014, Acc date: May 15, 2014, Pub date: May 25, 2014

Copyright: © 2014 Dursun F, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## Abstract

**Aim:** To determine whether there is a change in sexual satisfaction and self-esteem in adult patients with monosymptomatic enuresis.

**Methods:** This study was a prospective questionnaire analysis. 35 adult age individuals still suffering from monosymptomatic enuresis filled out 5-item Arizona Sexual Experiences (ASEX) scale and the 10-item Self-Esteem Scale (SES). Same query forms were filled out by 23 similar aged healthy control group and the results were compared. A value of  $P < 0.05$  was used as significance limit.

**Results:** Mean age of the 35 individuals included in the study was  $21.6 \pm 1.39$  for the patient group and  $22 \pm 2.59$  for the control group (n:23). While 7 patients in the enuresis group had sexual dysfunction, there was only 1 patient in the control group. The self-esteem score has decreased in 22 respondents in patient group whereas there wasn't any decline in the self-esteem of control group. The two groups' responses to SES questions were statistically different ( $p < 0.02$ ).

**Conclusion:** Monosymptomatic enuresis at adult ages might affect body respect negatively as well as it might have negative effects on sexual function independent of lower urinary tract symptoms.

**Keywords:** Nocturnal enuresis; Sexual satisfaction; Self-esteem

## Introduction

Nocturnal enuresis is the condition describing the symptom of incontinence during night. Any wetting during sleep above the age of 5 years is enuresis. While 5 years-old children are expected to sleep dry, 15% still wet their bed. Frequency of the disease decreases with age, with 15% of decay rate, the incidence is reduced to 1-3% [1-4]. Most of them suffer primary enuresis nocturnal [2,4].

Bed-wetting is known to have negative psychosocial effects on children. Feeling different, social avoidance and reduced self-esteem are some of them [5,6]. A study on adults shows a decrease in self-esteem caused by enuresis [4]. Also lower urinary tract symptoms (LUTS) such as overactive bladder and nocturia are shown to have negative effects on quality of life, including business life and sexuality [7,8]. However, effects of enuresis on sex life have not yet been studied. The purpose of our study is to comparatively identify self-esteem and sexual problems in young adult males with enuresis and to present the effects of previous failed treatments to this case.

## Methods

Adult male patients who consulted to our outpatient clinic with complaints of bed-wetting are included in to the study. Institutional Ethics Committee approval for the study was obtained and the written informed consent was obtained from all the study subjects. 35 patients

suffering from monosymptomatic nocturnal enuresis and 23 healthy people have been included in the study.

Starting date of complaints have been recorded in order to find out the frequency of bed-wetting, whether the disease is primary or secondary. The presence of constipation has been evaluated under criteria of Rome III [9]. Physical examination of the patients were done carefully, lower back, external genital organ and presence of globe vesicles have been checked. Urine analysis, urinary density, serum urea, creatinine and glucose have been checked. Kidney, ureter, bladder X-ray (KUB radiography) and urinary ultrasonography have been done. The dimensions of kidney, presence of hydronephrosis and abnormalities of bladder have been checked. The patients underwent uroflowmetry 2 times at least and the volume of residual urine has been recorded. The voiding diary was filled for at least 3 days. In this diary: time of voiding, voiding volume and the amount of liquid consumed in one day was recorded. It is defined as nocturnal polyuri if the voiding volume during night is 20% over of the volume during the daytime [10].

The patients with spinal dysraphism, uroflowmetry abnormalities, urinary system stone disease, bilateral ureterohydronephrosis, chronic constipation, patients with daytime complaints and suspect of diabetes mellitus, renal failure or diabetes insipidus were excluded. Only the patients with monosymptomatic enuresis were included to the study.

Self-esteem Scale (SES) was developed in 1965 by Rosenberg, used to measure the patients self-esteem [11]. Validation of SES to Turkish was made by Cuhadaroglu [12]. It is a multiple-choice question scale and consists of 12 sub categories and 63 questions. The self-esteem

category of the scale consists of 10 questions. The scale ranges from 0-30. Scores between 15 and 25 are within normal range; scores below 15 suggest low self-esteem [12,13].

Arizona Sexual Experiences (ASEX) is a 5-item rating scale that quantifies sex drive, arousal, vaginal lubrication/penile erection, ability to reach orgasm, and satisfaction from orgasm. Possible total scores range from 5 to 30, with the higher scores indicating more sexual dysfunction. With a total ASEX score of > 19, any one item with a score of 6, any two items with a score of 5 or any three items with a score of 4 would have sexual dysfunction [14]. The validation of scale in Turkish was made by Soykan in 2004 [15]. The Cronbach's alpha value of ASEX is 0.89 and 0.90.

The control group was selected from among the young adult males, hospital employees with no health complaint. Patients and the control group were compared with each item of ASEX, total score of ASEX and the total score of SES. In addition, patients previously treated unsuccessfully and those who were not treated, compared with each other by again each item of ASEX, total score of ASEX and the total score of SES.

The change in sexual satisfaction and self-esteem in adult patients with nocturnal enuresis was evaluated using SPSS®, version 16.0. The independent samples t test, Mann-Whitney U test was used to compare the groups. A p value of less than 0.05 was accepted as the threshold for statistical significance.

**Results**

35 patients suffering from **monosymptomatic** nocturnal enuresis and applied to urology outpatient clinic between 2009-2011 with complaints of bed-wetting have been included in the study. Mean age of patients was 21.6 ± 1.39. Frequency of bed-wetting was 4.6 (1-7) days/week. 18 patients had failed treatment.

The average SES scores of enuresis group is 15.28 ± 5.49 [6-27]. Decline in self-esteem was detected in 22 patients. The average SES score of those with decline of self-esteem was 11.59 and the score of those with regular self-esteem was 21.53 [6-25]. Average SES score of control group is 16.91 ± 1.99, no decline in self-esteem was detected (Table 1). Total SES score of patients and the control group were statically considerably different (p<0.02) [15-21].

While 7 of 35 patients in the enuresis group had sexual dysfunction, no sexual dysfunction was detected in the control group. Scores of sex drive, arousal, penis erection, having orgasm, orgasm satisfaction in patient and control groups were different (Table 2).

		Minimum-Maximum	Mean	SD	p
Total Score	SES				
	Patient	6-27	15.28	5.49	0.02
Control	15-21	16.91	1.99		

**Table 1:** The comparison of the SES scores in enuretic patient group and control group

		Minimum-Maximum	Average	SD	p
State of being sexually eager	Patient	1-6	2.8	1.6	0.016
	Control	1-3	1.91	0.73	
Sexual Arousal	Patient	1-6	2.54	1.29	0.028
	Control	1-4	1.86	0.75	
Penile Erection	Patient	1-4	2.54	1.14	0.001
	Control	1-3	1.52	0.66	
State of Orgasm	Patient	1-4	2.05	0.76	0.001
	Control	1-5	3.13	1.09	
Orgasm Satisfaction	Patient	1-5	2.54	1.17	0.002
	Control	1-3	1.69	0.63	
Total Scale Score	Patient	5-22	12.54	4.66	0.023
	Control	6-15	10.13	2.073	

**Table 2:** The comparison of the ASEX scores in enuretic patient group and control group

Independent variables with the t test

18 of the enuretic patients had a failed treatment with desmopressin, imipramine or tolteradine and 17 patients had not received any treatment before. No sexual function difference in sexual arousal, erection, satisfaction and total scores were found when both groups were compared in terms of ASEX. Likewise, no difference was found in self-esteem of both groups (p=0.7), (Table 3).

		Minimum-Maximum	Mean	SD	p
State of being sexually eager	With Medication	1-6	3.1	1.8	0.32
	Without Medication	1-6	2.27	1.32	
Sexual Arousal	With Medication	1-6	2.55	1.37	0.86
	Without Medication	1-6	2.52	1.24	
Penile Erection	With Medication	1-4	2.61	1.24	0.68
	Without Medication	1-4	2.47	1.06	
State of Orgasm	With Medication	1-4	2.00	0.9	0.37

	Without Medication	1-4	2.11	0.6	
Orgasm Satisfaction	With Medication	1-5	2.77	1.3	0.34
	Without Medication	1-4	2.29	0.98	
Total Scale Score	With Medication	5-20	11.88	4.24	0.45
	Without Medication	6-22	13.05	5.06	

**Table 3:** The comparison of patients in the enuretic group, who had taken medication before and the patients without medication

Mann-Whitney U test

## Discussion

Although the incidence of enuresis nocturnal decreases with age, 1-3% of adults continue bed-wetting. While the recovery in time is bigger in those with low intensity of complaint, bed-wetting frequency of those with continuous complaint is usually 3 nights/week. This fact shows that the probability of recovery in the course of time is low for those with high frequency of bed-wetting [4]. In our study, the frequency of bed-wetting is 4.6 nights/week on average. In addition, latest studies show that patients with no response to therapy have low capacity of bladder, detrusor instability [16-18]. Although we did not evaluate patients with filling cystometry test, only the patients with monosymptomatic enuresis were included to the study according to our evaluation with uroflowmetry and voiding diary.

No difference was detected in studies on self-esteem of children with enuresis compared to those healthy [19-21]. Whereas, study of Hagglof and colleagues show decrease of self-esteem in children with enuresis [5,6]. However the fact that this study group included children who have daytime complaints should also be taken into consideration. Bed-wetting children are shown to start feeling different from the others in the course of time [22]. Urinary incontinence in children at later ages is perceived to be a humiliating, shameful situation. Fear of becoming known of urinary incontinence causes social avoidance [23]. This situation is thought to lead to a lowered body respect and physiological dysfunctions and other mental problems following [5,6].

According to a study about effects of adult enuresis on self-esteem, SES scores of male patients with enuresis nocturnal were lower than those of control group [4]. Also enuresis nocturnal is detected to affect social life, career choice, social activity attendance, and individual and family relations negatively. In our own study, body respect of enuresis patients is significantly lower than those of control group.

Self-esteem of children with enuresis is lower in males, the ones with high bed-wetting frequency, the ones who had a failed therapy and those having daytime complaints [5,23]. Male patients with high bed-wetting frequency were included in our study group.

Effects of LUTS and overactive bladder (OAB) on sexual functions had been studied before [24,25]. For those with LUTS, fear of urinary leakage or urinary leakage during sexual activity raises the risk of erectile dysfunction [25]. Nocturia and prostatitis are found to be particularly related with lowered sexual arousal and erectile dysfunction [8]. Also, overactive bladder is determined to have negative effects on sexual health in terms of decrease of sexual activity, decrease of satisfaction, erectile dysfunction and ejaculation dysfunction [24]. Yet, it should be considered that patients with

comorbid situation such as diabetes mellitus, neurologic disorders, prostate cancer were also included in the study.

For the first time, in our study, we uniquely studied the effects of enuresis nocturnal on sexual function rather than LUTS. We determined significant statistical difference in 5 sub-categories of sexual function in enuretic patients compared to control group. The facts that the average age of our patients is 21.6 and absence of comorbidities and other LUTS increases our study's importance. Because it promotes the presence of negative effects of enuresis nocturnal alone on sexual function as well. Besides the possibility of sexual reluctance that is caused by decreased body respect should be taken into consideration [8].

## Conclusion

Our study suggests that enuresis nocturnal affects body respect negatively as well as it has negative effect on sexual function independent of LUTS.

## References

- Burgio KL, Locher JL, Ives DG, Hardin JM, Newman AB, et al. (1996) Nocturnal enuresis in community-dwelling older adults. *J Am Geriatr Soc* 44: 139-143.
- [No authors listed] (1992) Nocturnal enuresis. A new strategy for treatment against a physiological background. *Scand J Urol Nephrol Suppl* 143: 3-29.
- Tietjen DN, Husmann DA (1996) Nocturnal enuresis: a guide to evaluation and treatment. *Mayo Clin Proc* 71: 857-862.
- Yeung CK, Sihoe JD, Sit FK, Bower W, Sreedhar B, et al. (2004) Characteristics of primary nocturnal enuresis in adults: an epidemiological study. *BJU Int* 93: 341-345.
- Hagglof B, Andrén O, Bergström E, Marklund L, Wendelius M (1997) Self-esteem before and after treatment in children with nocturnal enuresis and urinary incontinence. *Scand J Urol Nephrol Suppl* 183: 79-82.
- Hagglof B, Andrén O, Bergström E, Marklund L, Wendelius M (1998) Self-esteem in children with nocturnal enuresis and urinary incontinence: improvement of self-esteem after treatment. *Eur Urol* 33 Suppl 3: 16-19.
- Coyne KS, Sexton CC, Irwin DE, Kopp ZS, Kelleher CJ, et al. (2008) The impact of overactive bladder, incontinence and other lower urinary tract symptoms on quality of life, work productivity, sexuality and emotional well-being in men and women: results from the EPIC study. *BJU Int* 101: 1388-1395.
- Rosen RC, Link CL, O'Leary MP, Giuliano F, Aiyer LP, et al. (2009) Lower urinary tract symptoms and sexual health: the role of gender, lifestyle and medical comorbidities. *BJU Int* 103 Suppl 3: 42-47.
- Longstreth GF, Thompson WG, Chey WD, Houghton LA, Mearin F, et al. (2006) Functional bowel disorders. *Gastroenterology* 130: 1480-1491.

10. Van Kerrebroeck P, Abrams P, Chaikin D, Donovan J, Fonda D, et al. (2002) The standardisation of terminology in nocturia: Report from the standardisation sub-committee of the International Continence Society. *Neurourol Urodyn* 21: 179-183
11. White C, Schweitzer R (2000) The role of personality in the development and perpetuation of chronic fatigue syndrome. *J Psychosom Res* 48: 515-524.
12. CuhadaroGlu F (1986) Self-esteem in adolescents. Unpublished master thesis Psychiatry, Hacettepe University, Ankara, Turkey.
13. Oner N (2006) Examples of Psychological Tests Used in Turkey. Expanded Second Printing, Istanbul, Bosphorus University Publishing House.
14. McGahuey CA, Gelenberg AJ, Laukes CA, Moreno FA, Delgado PL, et al. (2000) The Arizona Sexual Experience Scale (ASEX): reliability and validity. *J Sex Marital Ther* 26: 25-40.
15. Soykan A (2004) The reliability and validity of Arizona sexual experiences scale in Turkish ESRD patients undergoing hemodialysis. *Int J Impot Res* 16: 531-534.
16. Hirasig RA, van Leerdam FJ, Bolk-Bennink L, Janknegt RA (1997) Enuresis nocturna in adults. *Scand J Urol Nephrol* 31: 533-536.
17. Robertson G, Rittig S, Kovacs L, Gaskill MB, Zee P, et al. (1999) Pathophysiology and treatment of enuresis in adults. *Scand J Urol Nephrol Suppl* 202: 36-38.
18. Vandersteen DR, Husmann DA (1999) Treatment of primary nocturnal enuresis persisting into adulthood. *J Urol* 161: 90-92.
19. Reynolds C, Richmond B (1978) What I think and feel: a revised measure of the Children's Manifest Anxiety Scale. *J Abnorm Child Psychol* 6: 271-280.
20. Wagner W, Johnson SB, Walker D, Carter R, Wittner J (1982) A controlled comparison of two treatments for nocturnal enuresis. *J Pediatr* 101: 302-307.
21. Wagner WG, Geffken G (1986) Enuretic children: How they view their wetting behaviour. *Child Study J* 16: 13-18.
22. Butler RJ (1994) Nocturnal enuresis: the child's experience. Butterworth-Heinemann, Boston, USA.
23. Butler RJ (2001) Impact of nocturnal enuresis on children and young people. *Scand J Urol Nephrol* 35: 169-176.
24. Coyne KS, Sexton CC, Thompson C, Kopp ZS, Milsom I, et al. (2011) The impact of OAB on sexual health in men and women: results from EpiLUTS. *J Sex Med* 8: 1603-1615.
25. Wein AJ, Coyne KS, Tubaro A, Sexton CC, Kopp ZS, et al. (2009) The impact of lower urinary tract symptoms on male sexual health: Epi LUTS. *BJU Int* 3: 33-41.