

Assessment Of Enuresis In Children In Erbil City

تقييم سلس البول اللاإرادي لدى الأطفال لمدينة اربيل

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الخلاصة

خلفية: سلس البول الليلي التبول اللاإرادي غالبا ما وقعت في عدة أعضاء من نفس العائلة. وأظهرت إحدى الدراسات أن ٧٠٪ من الأطفال الذين لديهم سلس البول يكون أحد الوالدين لديه تاريخ لسلس البول. وفي دراسة أخرى أن سلس البول الليلي هو اضطراب شائع نسبيا مرتبط بالآثار المادية والاجتماعية العاطفية للأطفال
الأهداف: تهدف الدراسة الحالية الى الكشف عن بعض العوامل المتصلة لسلس البول، مثل عامل وراثي والتاريخ العائلي والإجهاد والتهاب المسالك البولية والسكري واضطراب النوم.
منهجية البحث: دراسة وصفية أجريت في العيادات الخارجية للمستشفى التعليمي للأطفال رابرين في مدينة اربيل، من ١/٢٠١١ / ابريل الى ٣٠ / مايو / ٢٠١٢. تم تحديد سنة لتحقيق الهدف من هذه الدراسة - تم اختيار عينة عشوائية ٥٠ ام مع أطفالهن الذين تتراوح أعمارهم بين (٥ - ١٥) سنة
النتائج: أظهرت النتائج أن ٦٢٪ من عينة الدراسة هن من الإناث وكان ٧٦ ٪ ما بين (٥-٧) سنوات من العمر وأكثر من نصف العينة سبق التبول في الفراش بنسبة ٢٧٪ منهم كان لديهم التبول في الفراش في سن ٥ سنوات من العمر، و ٤٠٪ كان التبول لديهم ليلا ونهارا. أوضحت الدراسة ان أسباب التبول لديهم هي (٧٤٪، ٣٢٪) سببها العوامل الوراثية والتهاب المسالك البولية على التوالي، في حين أن (٢٢.٢٦٪) منهم كان أحد أخواتهم أو إخوانهم لديهم سلس البول أيضا على التوالي.
الاستنتاجات: استنتجت الدراسة أن سلس البول هو مشكلة صحية عامة يعاني منها الأطفال، مرتبطة بتاريخ العائلي لسلس البول والتاريخ الطبي لالتهابات المسالك البولية بالإضافة إلى الكثير من البيانات الديموغرافية والأمهات والأطفال ذات العلاقة بسلس البول. أكثر من نصف عينة الأطفال لديهم تاريخ مرضي للتبول الليلي اللاإرادي. وإن أغلبهم بدأ للتبول الليلي في سن خمس سنوات.
التوصيات : أوصت الدراسة بضرورة انتباه الآباء على العناية بأطفالهم في فترة لتدريبهم على استعمال التواليت (لمرحاض)

Abstract:

Background: Nocturnal enuresis has been observed that bedwetting often occurred in several members of the same family. A study shows that 70% of children who have enuresis have a parent who has a history of the disorder ⁽¹⁾. Another study shows that Nocturnal Enuresis (bed wetting) is a relatively common disorder fraught with emotional physical and social effects ⁽²⁾. **Objectives:** The aim of the study is to detect certain factors related to enuresis, such as (genetic factor, family history, stress, urinary tract infection, diabetic mellitus and sleeping disorder).

Subjects and methods: A descriptive study, conducted in outpatient in Raparen Pediatric Teaching Hospital in Erbil City, from the April 1st 2011 to May 30th 2012. A convenience sample size of 50 mothers with their children aged (5–15) years old were selected to achieve the aim of this study.

Results: The results revealed that 62% of the study sample were females, the age of total sample 76% were range between (5–7) years old, more than half of the sample had previously bed wetting, 72% of the them start bed wetting at age 5 years old, and 40% of them had bed wetting day and night highest frequency 74% and 32% risk factors of enuresis were by genetic factors and urinary tract infection respectively, while 26% and (22%) of them their sisters or brothers had enuresis too, respectively.

Conclusion: Present study concluded that enuresis is a pediatric public health problem that associated with young age children, family history of enuresis and history of urinary tract infections in addition to a lot of maternal & child demographic data. Majority of the sample had previously bed wetting, most of them start bed wetting at age 5 years old.

Recommendation: The study recommended the parents to be more attention and give care about their children during toilet training.

Keywords: Nocturnal enuresis, bed wetting, toilet training, genetic factors and stress,

INTRODUCTION:

Nocturnal enuresis is an involuntary voiding of urine into the bed in children older than 5 years in the absence of other signs of organic disease or by the direct effect of a substance ⁽¹⁾. Enuresis affects many children; it usually disappears naturally over time. In some children, may be a normal part of growing up. Enuresis at the

normal age of toilet training may cause great distress. Daytime or nighttime incontinence can be embarrassing ⁽²⁾. Enuresis can also be categorized into primary and secondary. The clinical presentations of children with primary and secondary enuresis are similar ⁽³⁾. Enuresis, or bedwetting, is a very common problem in children and teenagers the world over. It is estimated that enuresis occurs among 10% of 6-year-olds ,3% of 12-year-olds,1% of 18-year-olds ⁽¹⁾. Enuresis causes a distress to both parents and child ⁽⁴⁾. It affects 5 to 7 million children in the United States. Primary nocturnal enuresis caused by a disparity between bladder capacity and nocturnal urine production and failure of the child to awaken in response to a full bladder. Enuresis is secondary to a medical, psychological, or behavioral problem ⁽⁵⁾.

Most children with enuresis have inherited small bladders and simply cannot hold their urine overnight, there are some psychological factors, Usually occurs with secondary enuresis which include stressor such as divorce, abuse, school trauma, a new sibling, etc. Other causes are, sleep disorders such as narcolepsy and obstructive sleep apnea ⁽⁶⁾. Bedwetting has an increased incidence within families. If one parent wet the bed, there is a 40% chance that a son or daughter will wet the bed. If both parents experienced problems with nocturnal enuresis, there is a 70% chance that their offspring will wet the bed. If one sibling has nocturnal enuresis, there is a 40% chance that another brother or sister will wet the bed ⁽⁷⁾. Incontinence is also called enuresis and classified as primary enuresis is wetting in a person who has never been dry for at least 6 months, the next type is secondary enuresis is wetting that begins after at least 6 months of dryness. Nocturnal enuresis is wetting that usually occurs during sleep, called nighttime incontinence. The third type is diurnal enuresis is wetting when awake, which also called daytime incontinence.

It is important that healthcare workers dealing with children have an understanding of this condition and a working knowledge of the optimum management techniques. Educating the child and family about bedwetting and emphasizing the fact that child not guilty is vital. The parents or caregivers should also avoid blaming and shaming the child ⁽⁸⁾. Objective of the study is to estimate the frequency of enuresis in (5-15) years old of children and to exam the factors associated with itsuch as (genetic factor, family history, stress, urinary tract infection, diabetic mellitus and sleeping disorder).

SUBJECTS AND METHODS

A descriptive study, conducted in outpatient in Raparen Pediatric Teaching Hospital in Erbil City, from the April 1st 2011 to May 30th 2012. A convenience sample size of 50 children aged (4 – 15) years old. A questionnaire were designed that composed of three parts to deal with mothers demographic characteristics including: (age, educational level, occupation and residential area) and their children age, gender, Number of children in family, and history of child with enuresis which include: child's age start toilet training/month, Number of bed wetting, child's age caused bed wetting, risk factors of bed wetting and types of nurseries). Formal permission approval was obtained from scientific committee /College of Nursing / Hawler Medical University

and ethical consent was obtained from participants to take apart in this study .Data was collected by a questionnaire and direct interview with the mothers provided information on the child's bed-wetting status. Data entry and analysis was done by using statistical package for the social science (SPSS, version 17), appropriate tables reveal frequencies, percentages.

RESULTS:

Table 1: Demographical characteristics of mothers

	variables	F	n=50	%
Age of the child	≤ 20	1		2
	21-25	0		0
	26- 30	12		24
	31-35	18		36
	36 -40	16		32
	41- 45	3		6
Mother's educational Level	Unable to read and write	15		30
	Able to read and write	9		18
	Primary school graduated	17		34
	Intermediated school graduated	2		4
	Secondary school graduated	1		2
	Institution and college graduated	6		12
	Post graduated	0		0
Mother's occupation	Governmental employment	6		12
	Private employment	0		0
	Unemployed	0		0
	House wife	44		88
Residential area	Urban	44		88
	Rural	9		12

Table 1 shows the highest percentage (36 %) of mother's within age group 31-35 years old, and (34 %) were completed a primary school, (88%) of them were housewives, and (88%) of them living in urban area.

Table 2: Demographic characteristics of children

Variables		F	n=50	%
Age of the child / year	5-7	58		76
	8-11	11		22
	12-15	1		2
Gender	Male	19		38
	Female	31		62
Number of children in the family	1	1		2
	2	12		24
	3	14		28
	4	12		24
	5	5		10
	6	3		6
	7	1		2
	8	1		2
	9	1		2
The order of the child in the family	1	16		32
	2	12		32
	3	11		22
	4	3		6
	5	2		4
	6	2		4

Table 2 indicated that out of the sample of enuresis 62% were females , the age of total sample 76% were range between (5 – 7) years old ,and 28% of them their family had 3 children and more than one third 32% of them were first or second child in their families had enuresis respectively.

Table 3: Information about child's enuresis

Variables		F	n=50	%
Age of the for child start toilet o / monthly	<18	4		8
	18 < 24	20		40
	24 < 30	18		36
	30 < 36	6		12
	36 < 42	1		2
	42 -48	1		2
Number of bed wetting	Once	10		20
	Night	13		26
	Day and night	20		40
	Weekly	2		4
	Monthly	5		10
Previously bed wetting	Never	5		10
	Yes	30		60
	Some time	14		28
	Frequently	1		2
Age of starting bed wetting / year	5	45		90
	6	5		10
Type of enuresis	Primary	37		74
	Secondary	13		26

Table 3 shows that the 40% of children straining toilet training at age (18 - 24) months, 40 % of them had bed wetting day and night ,and 60% majority of the sample had previously bed wetting , 90% of the them start bed wetting at age 5 years old and 70% of children had primary enuresis

Table 4: Risk factor of enuresis

Risk factors		F	n= 50	%
Genetic factor	No	13		26
	Yes	37		74
Family history	Parents	4		8
	Brother	11		22
	Sister	13		26
	Both	6		12
	Non	16		32
Stress	No	37		74
	Yes	13		26
Urinary tract infection	No	34		68
	Yes	16		32
Diabetic Mellitus	No	43		86
	Yes	7		14
Sleeping Disorder	No	49		98
	Yes	1		2

Table 4 shows the highest frequency (74 %) and(32 %) risk factors of enuresis were by genetic factors and urinary tract infection respectively , and (26 %) and (22%) of them their sisters or brothers had enuresis too respectively .

DISCUSSION:

The study funded that highest percentage of mother's within age group 31-35 years old ,and one third they completed a primary school ,majority of them were housewives and living in urban area (**Table 1**).

Enuresis is common among younger children and its decreases with increasing age .our finding was present (76%)of enuresis in age (5 -7) years old and decreased (2%) in age (12 - 15) years old , most common in females and in first or second child in their families as show in (**Table 2**) Our present was not constant with Taiwanese study which find that the prevalence of enuresis is approximately 10% in children seven years of age ⁽⁹⁾. Also another study added that enuresis occurs in 12% to 25% of 6-year-old children, 7% to 10% of 8-year-old children, and 2% to 3% of 12-year-old children ⁽¹⁰⁾ The ratio of the incidence of enuresis in boys versus girls is 2:1⁽¹¹⁾ , another study observed that bedwetting often occurred in several members of the same family⁽¹²⁾.

The present study find out that some of children straining toilet training at age (18 - 24) months, and had bed wetting day and night ,and more than half of the sample had previously bed wetting , majority of the them start bed wetting at age 5 years old and high percentage of them had primary enuresis as show in (**Table 3**) .

By the age of five, 15% of children still wet the bed, by age ten, 10% of children still wet the bed and by age fifteen, only 1% wet at night ⁽¹³⁾. This was agree with a study reported that most children are ready to begin toilet training when they are at two years old ⁽⁸⁾.its agreement with a study mentioned that the primary enuresis is twice as common as secondary enuresis ⁽¹¹⁾

The highest frequency as risk factors of enuresis were by genetic factors and urinary tract infection was find in this study, and some of them their sisters or brothers had enuresis too as present in (**Table 4**). If a child dry for several months and begins frequent daytime wetting, that may be something going on in the child's life. This was agree with a study reported that the risk for their offspring is 77%, while if only one parent had enuresis, the risk is about 45%. Sporadic bedwetting with no affected relatives occur in a little more of 30% of enuresis children ⁽¹⁴⁾. It was found that, primary enuresis was more likely in a child who was the first or second born child in the family which may be due to sense of stress. In our study, Enuresis was found to be more in children with positive family member's history. Furthermore, previous studies reported that, prevalence of family history in enuresis children ranged from 22% to 5%. ⁽¹⁴⁾.

CONCLUSION:

Enuresis is a pediatric public health problem that associated with young age children, family history of enuresis, and history of urinary tract infections in addition to many emotional and psychological problems such as stress.

RECOMMENDATION:

The study recommended the parents to be more attention and care about their children during toilet training.

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