



Journal Homepage: -www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/10953
DOI URL: <http://dx.doi.org/10.21474/IJAR01/10953>



RESEARCH ARTICLE

PATTERN OF BEHAVIOURAL RESPONSES TO ENURESIS AMONG CHILDREN IN A SELECTED COMMUNITY, IBADAN, NIGERIA

Adeyinka Ganiyat Ishola (RN, Ph.D)^{1,2} and Awosanya Bolaji Oluwayemisi (RN, B.Sc)¹

1. Department of Nursing, University of Ibadan, Nigeria.
2. Center for Global Health, Northwestern University, Chicago.

Manuscript Info

Manuscript History

Received: 12 March 2020
Final Accepted: 14 April 2020
Published: May 2020

Keywords:-

Enuresis, Pattern, Behavioural Disorder,
Children

Abstract

In recent times, one of the most common distressful disorders among children is enuresis. It makes them highly vulnerable to the development of behavioural and mental health disorders, such as attention deficit disorder, conduct disorders, oppositional defiant disorders among others. This study aimed to determine the pattern of behavioural disorder in children with enuresis in a rural community in South -West, Nigeria. Descriptive research design using an interviewer-administered questionnaire to elicit information on the perceived pattern of behavioural disorder in children with enuresis. Mothers of children with enuresis (198) in a rural community were selected using accidental sampling method. Both descriptive and inferential statistical tests were employed in analyzing data collected for this study. One hundred and ninety-eight (198) questionnaires were retrieved and analyzed using tables, percentages and Pearson correlation. Ethical clearance was secured from the ethics committee of the University of Ibadan/University College Hospital community. The mean age of respondents was 7.00 ± 1 , with more male children with enuresis than females. The findings from the study revealed that the majority bedwets at least twice a week in the past six months, with 83.3% bedwetting at night only. The result showed that parents punished their children on wet days, but only a few encouraged on dry days. The pattern of behavioural response revealed significant internalized and externalized behavioural problems among children with enuresis. It is recommended that comprehensive enuresis awareness and management options be included in family health programs.

Copy Right, IJAR, 2020, All rights reserved.

Introduction:-

Enuresis is a common, genetically complex, and heterogeneous problem among children (Niemczyk, Wagner, and von Gontard, 2018). The Diagnostic Statistical Manual of Mental Disorders (IV) (DSM-IV) enuresis refers to the urination of children over five years old in clothes or in bed that happens twice a week for three consecutive months can occur at night, during the day, or a combination of these two, and is also called nocturnal enuresis (Özkan et al., 2010) (Baird, Seehusen, and Bode, 2014). According to (Hashim et al., 2019) International Children's Continence

Society's (ICCS) definition, enuresis is defined by an intermittent, wetting during sleep after organic causes have

been ruled out with a minimum wetting frequency of once per month. Enuresis is a disease that many children and their families commonly confront. It is a worrying condition that involves repeated voiding of urine into clothes or bedclothes that persist beyond the normative age of maturation of urinary control. (Imoudu, Bugaje, and Aikhionbare, 2014). It is a source of concern for families because it leads to considerable emotional distress in affected children. Parents reported some psychological consequences of enuresis (Kiddoo, 2012), such as low self-esteem (Salem, El-Shazly and Hassan, 2016) behavioural problems and specifically low school success (IS and O, 2012), (Mahmoodzadeh et al., 2013). Behavioural disorders among children include various forms of anxiety (Salem, El-Shazly and Hassan, 2016), attention deficit hyperactive disorder (ADHD), obsessive-compulsive disorder (OCD), depression, disruptive (oppositional defiance disorder (ODD), conduct disorder (CD), developmental disorders, and pervasive disorders (Abrams et al., 2012), (Salem, El-Shazly and Hassan, 2016), (ELsayed, Hassan and Ibraheem, 2018). Behavioural problems appear as a result of emotional reactions to negative environmental influences linked with other children noticing, shyness, social isolation, being humiliated by peers, emotional and physical abuse from parents and guardian. (Niemczyk, Wagner and von Gontard, 2018), (Akyüz et al., 2016)

The relationship between enuresis and behavioural problems has been studied for several decades due to its importance to the growth of children (Gaonkar et al., 2018) (Alshahrani, Selim, and Abbas, 2018) A study among 401 children in a University Hospital of Rome between June 2013 and July 2018, evaluated the characteristics of patients with nocturnal enuresis (NE) (Ferrara et al., 2019). Of the 401 patients, 101 girls (25.2%) and 300 boys (74.8%), and the mean age of the children at first visit was 8.8 [+ or -] 2.44 years. The study demonstrated that there are a lot of comorbidities that are associated with NE. A cross-sectional (Defenderfer et al., 2017) (Niemczyk, Wagner, and von Gontard, 2018) carried out in Germany on the prevalence of incontinence among preschool children portrayed that attention-deficit/hyperactivity disorder was common among enuretic children. Research assessing the prevalence of behavioural disorders among children that presented in a clinic documented a distinct pattern of the occurrence of internalizing and externalizing symptoms in this group of children. (Liu, 2004) The prevalence of the internalizing symptoms (Abou-Khadra, Amin and Ahmed, 2013) (depression and anxiety disorder) was 29% in the group. The prevalence of externalizing problems (Liu, 2004) (conduct disorder and attention deficit and hyperactivity disorder) was 35%. On the rates of psychiatric comorbidity in a group of 1001 children with bladder and bowel dysfunction. (Niemczyk et al., 2019) (Niemczyk, Wagner, and von Gontard, 2018). The study showed that psychiatric symptoms were up to six times higher in urinary incontinent children than the rates seen in the general population with externalizing and internalizing problems. A higher percentage of symptoms of the oppositional defiant disorder (ODD) in children was also seen in the study.

Few studies in Nigeria assessed the prevalence of enuresis in children (Anyanwu, Ibekwe and Orji, 2015) (Osungbade and Oshiname, 2003) (Senbanjo, Oshikoya, and Njokanna, 2011) (Eneh et al., 2015). In a cross-sectional descriptive study in Ebonyi State, Nigeria, the prevalence of enuresis among 216 children was 37.0%. More males had enuresis (67.5%, $P=0.028$). Enuresis was associated with abnormal behaviour ($P=0.049$) in (23.1%) participants. Attempts at stopping enuresis were based on frequent nightwaking (96.2%), punishments (47.2%), and denial of fluids (75.5%). On seeking treatment 17.5% ($n=14$) had sought orthodox help, majority of caregivers were unconcerned (60.6%, $n=66$). Most caregivers displayed poor attempts in stopping enuresis, which had shown to reinforce negative feelings in the child, reducing enuresis. (Anyanwu, Ibekwe and Orji, 2015) In a prospective cross-sectional epidemiological study of 1984 school children in 10 randomly selected primary schools in Ankara, Turkey, aged 6-13 years with a mean of 7.96. (Sarici et al., 2016) The study was done to determine the prevalence and associated factors of nocturnal enuresis (NE) among primary school children. The overall prevalence of enuresis was 9.52%. The prevalence of NE among boys and girls was 12.4% and 6.5%, respectively. Daytime incontinence was present in 18% of the children. The majority of children (72.5%) received a combination of waking the child to void and fluid restriction. For the others (19.5%), their families viewed enuresis as a normal developmental condition and deemed that no treatment was necessary. Multivariate analyses revealed that age, male gender, parents' history of enuresis, and siblings' history of enuresis were the significant predictive factors for NE (Sarici et al., 2016). In a study among 90 patients with complaints of nocturnal enuresis (Koca et al., 2014), the researchers investigated the effect of depression and self-esteem on enuresis. The mean age of the children was 10.76 years. The study confirmed the occurrence of depression, decreased self-esteem in their respondents, and concluded that NE has depressive effects on children. In a cross-sectional study in Igbo-Ora, Nigeria, to determine the prevalence and perception of enuresis in 644 children aged 6-12 years (Osungbade and

Oshiname, 2003), The prevalence was 17.6% and higher among boys than girls. A majority of the respondents use herbs for the treatment of enuresis. In a hospital-based, cross-sectional descriptive study of 216 children in Ebonyi State, Nigeria, the prevalence of enuresis was 37.0%. (Anyanwu, Ibekwe and Orji, 2015) More males had enuresis 54 (67.5%, $P=0.028$), and the frequency of enuresis decreased with increasing age ($P<0.001$). Nocturnal enuresis was significantly associated with abnormal behaviour ($P=0.049$). Abnormal behavior was observed in 50 (23.1%) participants. Attempts at stopping enuresis were based on frequent night waking 51 (96.2%), denial of fluids 40 (75.5%), and punishments 25 (47.2%). On seeking treatment 17.5% ($n=14$) had sought orthodox help, majority of caregivers were unconcerned (60.6%, $n=66$). This finding shows the enormity of poor health-seeking behavior, which is a determinant of child health in Nigeria and other resource-poor countries. Most caregivers made poor attempts at curbing enuresis. Such attempts have been shown to reinforce negative feelings in the child without any positive effects in reducing the frequency of enuresis.

In Nigeria, there is a lack of information on enuresis in children and adolescents. (Osungbade and Oshiname, 2003) The formative period in children determines in no small extent personality and behaviours to be exhibited throughout their lives; the effect of enuresis during this period contribute to their chances of developing behavioural and personality disorder. This study assessed the pattern of behavioural problems among children living with enuresis.

Methods:-

This is a descriptive cross-sectional study that aims at determining the pattern of behavioural problems among children living with enuresis in Ibadan. The study setting is a populated residential neighborhood in Ibadan, with most houses closely located within short distances within proximity to a famous market.

The study population was 198 mothers of children with enuresis within the ages of 5-12 years, living in a rural community in Ibadan, accidental sampling technique was used to select available participants who met the eligibility criteria. An interviewer-administered structured questionnaire was utilized to collect relevant information from the respondents. The instrument for data collection was pretested with a Cronbach alpha of 0.78.

Ethical approval was obtained from the University of Ibadan Ethics Review Committee, Ibadan. Consent was obtained after they had been briefed about the objective of the research. Data collected were cleaned for errors, and analysis was done using IBM-SPSS version 21. Descriptive statistics of simple percentage frequency counts, bar chart, pie chart, mean and standard deviation were used to summarize and present the result. Chi-square test was used to investigate whether the association between enuresis and patterns of behavioural disorder among enuretic children is statistically significant at a 5% level of significance.

Results:-

Of the total children, 58.1% were male, and 41.9% were female. By implication, more mothers with male children living with enuresis participated in this study. The children were between 6-12 years with a mean of 7 and SD of $[+ \text{ or } -] 1$. About 62% of the respondents are between the ages of 6-7 years, 31% between the age of 8-9 years, ages 9-10 years, and 1.0% of the respondents were 12 yrs and above. Most of the children were living with parents (80.8%), 17.8% living with single parents, 1.5% of and stays with widowed parents.

The mothers reported that the majority of the children bed-wets at least twice a week in the past six months, with 83.3% bedwetting at night only. By implication, most of the children bed-wets only at night and do not meet DSM IV criteria for the diagnosis of enuresis. Almost half the respondents agreed that other children know their children bed wet (49%), out of which 40% agreed that other children make jest of the child when he/she bed-wets. Most of the parents punish their child on wet days (55.1%), but only a few encourage their child on dry days (14.6%), by implication majority of the mothers utilize negative reinforcement compared to positive reinforcement (Table 1)

Table 1:- Report of enuresis among the children.

	Agree	Undecided	Disagree	Mean \bar{x}	St.Dv
My child bed-wets at least twice a week in the past six month	82(41.4)	5(2.5)	111(56.1)	1.85	0.357
He/she bed wets both during the day and at night	22(11.1)	11(5.6)	165(83.3)	1.28	0.253

Other children know he/she bed wets	97(49.0)	8(4.0)	93(47.0)	2.02	0.400
Other children make jest when he/she bed wets	80(40.0)	16(8.1)	102(51.5)	1.89	0.374
I encourage my child on dry days	29(14.6)	3(1.5)	166(83.8)	1.31	0.259
I punish my child on wet days	81(40.9)	8(4.0)	109(55.1)	1.86	0.368

The majority (96%) of the mothers had never sought any form of treatment, while those who did (3.6%) used the hospital (Table 2)

Table 2:- showing treatment-seeking behavior by mothers of enuretic children.

	Yes	No
Have you ever sought any form of treatment?	9(3.6%)	189(96.4%)
Mode of treatment	Hospital	None

Research Question:

What is the pattern of behavioural responses in children with enuresis in Ibadan?

On the pattern of behavioral response of the children, 66.6% (\bar{X} 4.52, SD 0.89) were always in a hurry to get from one place to the other, 47.4% (\bar{X} 3.37, SD 0.67) of the children prefer to participate in quiet games than active games, full of energy 70.3% (\bar{X} 5.05, SD 1.00), and like rough and rowdy games 74.3% (\bar{X} 5.19, SD 1.03). On shyness, the children shy away from new acquaintances 80.7% (\bar{X} 5.44, SD 1.08), and sometimes shy even around people he/she has known a long time 60.0% (\bar{X} 4.68, SD 0.93). The mothers reported that their children get frustrated when prevented from doing things he/she likes 77.7% (\bar{X} 5.20, SD 1.03) and when angry about something, he/she tends to stay angry for ten minutes or longer 53.6% (\bar{X} 4.33, SD 0.86). Most of the respondents agreed that their children seem to feel depressed when unable to accomplish some task 65.1% (\bar{X} 4.74, SD 0.94), a large number of respondents reported that their child hardly ever complain when ill 60.6% (\bar{X} 4.69, SD 0.93), majority of the respondents agreed that it is slightly true that their child is very difficult to soothe when he/she becomes upset 56.0% (\bar{X} 4.78, SD 0.95), most of the respondents agreed that their child gets angry when he/she can't find something to play with 58.6% (\bar{X} 4.69, SD 0.93). This implies that the majority of the children like trying new things in their daily activities and easily get upset when obstructed from doing what they desire. (Table 3)

Table 3:- Pattern of behavioural responses among children with enuresis EU- extremely untrue QU- quite untrue SU- slightly untrue NTNF- neither true nor false ST- slightly true QT- quite true ET- extremely true NA- not applicable

	Untrue			Not sure	True			NA	Descriptive statistics	
	EU	QU	SU		NTNF	ST	QT		ET	Mean \bar{X}
My child										
Seems always in a big hurry to get from one place to the other	29 (14.6)	22 (11.1)	11 (5.6)	14 (7.1)	39 (19.7)	44 (22.2)	39 (19.7)	0 (0)	4.52	0.894
Prefers quiet games to active games	58 (29.3)	44 (22.2)	9 (4.5)	10 (5.1)	27 (13.6)	33 (16.7)	14 (7.1)	3 (1.5)	3.37	0.668
Is sometimes shy even around people he/she has known a long time	11 (5.6)	27 (13.6)	25 (12.6)	13 (6.6)	28 (14.1)	66 (33.3)	25 (12.6)	3 (1.5)	4.68	0.927
Is full of energy, even in the evening	10 (5.1)	17 (8.6)	21 (10.6)	11 (5.6)	37 (18.7)	51 (25.8)	51 (25.8)	0 (0)	5.05	0.999
Likes rough and rowdy games	8 (4.0)	18 (9.1)	15 (7.6)	7 (3.5)	41 (20.7)	58 (29.3)	50 (25.3)	1 (0.5)	5.19	1.028
Sometimes turns away shyly from new acquaintances	5 (2.5)	13 (6.6)	6 (3.0)	10 (5.1)	47 (23.7)	69 (34.8)	44 (22.2)	4 (2.0)	5.44	1.078
Gets frustrated when		15	19	10	44	88	22	0	5.20	1.029

prevented from doing something he/she wants		(7.6)	(9.6)	(5.1)	(22.2)	(44.4)	(11.1)	(0)		
When angry about something, he/she tends to stay angry for ten minutes or longer	11 (5.6)	51 (25.8)	18 (9.1)	10 (5.1)	31 (15.7)	45 (22.7)	30 (15.2)	2 (1.0)	4.33	0.858
Seems to feel depressed when unable to accomplish some task	11 (5.6)	30 (15.2)	11 (5.6)	14 (7.1)	48 (24.2)	53 (26.8)	28 (14.1)	3 (1.5)	4.74	0.938
Hardly ever complain when ill with a cold	10 (5.1)	31 (15.7)	18 (9.1)	16 (8.1)	28 (14.1)	70 (35.4)	22 (11.1)	3 (1.5)	4.69	0.928
Is very difficult to soothe when he/she becomes upset	15 (7.6)	23 (11.6)	17 (8.6)	26 (13.1)	27 (13.6)	42 (21.2)	42 (21.2)	5 (2.5)	4.78	0.946
Gets angry when he/she can't find something to play with	14 (7.1)	19 (9.6)	30 (15.2)	10 (5.1)	50 (25.3)	38 (19.2)	28 (14.1)	9 (4.5)	4.69	0.928

Discussion:-

This study examines the pattern of behavioural response to enuresis in children of a community in Ibadan. A total of 198 respondents participated in the study. The findings revealed that there were males than female children with enuresis. Our study confirmed the prevalence of enuresis among children. One of the major challenges of studies relating to enuresis is in its definition, as various studies utilize various criteria in the selection of respondents. This study included all children that bed-wets with a majority of the children bedwetting only at night. Though, do not meet DSM IV criteria for the diagnosis of enuresis. However, it was in line with (ICCS) definition of enuresis. The children were between ages 6-12 years with a mean of 7 and SD of [+ or -] 1. The mean age of our respondents is lower than that recorded in some other studies (Sarici et al., 2016) (Ferrara et al., 2019) (Osungbade and Oshiname, 2003). Rather, it is in line with an epidemiological study of 1984 school children in 10 randomly selected primary schools in Ankara, Turkey. (Sarici et al., 2016) However, the Rome study is in line with this study finding on male predominance among the children with enuresis (Ferrara et al., 2019) (Li et al., 2018) (Sarici et al., 2016)

This study further revealed that the majority of the parents punished their children on wet days, but only a few encouraged on dry days. This implies that the majority of the parents utilize negative reinforcement and not positive reinforcement. This is in line with a hospital-based, cross-sectional descriptive study in Abakaliki, Ebonyi state. (Anyanwu, Ibekwe and Orji, 2015) The study reported that attempts at stopping enuresis were based on frequent night-waking, denial of fluids, and punishments. In the same vein, most of the respondents claimed they never sought any form of treatment but relied on herbs.

The result is in line with a study in Ebonyi, Nigeria, that reported that the majority of caregivers were unconcerned, so only a few sought help. But, on the contrary with Igbo ora study where respondents rely on herbs (Osungbade and Oshiname, 2003) (Sarici et al., 2016) This study confirmed that enuresis at after the culturally acceptable age exposes a child to ridicule among peers as other children make jest of a child that bed-wet which inadvertently affect the children interaction. This is reinforced by other studies where children's self-esteem was altered as a result of shame by peers. (Koca et al., 2014)

On the pattern of behavioural response of the children, The study revealed that there is a significant internalized and externalized behavioural problems among the children with enuresis. This is in line with other studies that confirmed the comorbidity of behavioural disorders in children with enuresis. (Sarici et al., 2016) (Akyüz et al., 2016) Externalizing problems in the form of impulsivity, aggressiveness, and disruptiveness. (Liu, 2004) Internalizing problems were displayed as shyness, loneliness, social withdrawal, and depression. (Mubarak et al., 2016) (Hamed, Yousf and Hussein, 2017) Though externalizing problems were more prominent than the internalizing problems. This

implies a need for adolescent psychiatric and mental health nurses to create more awareness of internalized and externalized behavioural problems among children with enuresis for early detection and management.

The implication of the Study to Nursing:

The inclusion of a comprehensive enuresis awareness education into family health will assist nurses in their health education delivery and guide parents in on the recognition and early management of enuresis. From the perspective of mental health nursing, early detection and understanding of behavioural deviations in childhood will prevent later life juvenile delinquency, thus, promoting healthy growth and development among these children.

Summary and Conclusion:-

This study described the behavioural responses of 198 children of a rural community in Ibadan, Nigeria. The reviewed literature confirms the comorbidity of behavioural problems with enuresis. The authors concluded by confirming the prevalence of childhood externalizing and internalizing behaviours in children with enuresis, which constitute a risk for the development of juvenile delinquencies. It is noteworthy, to document that the majority of parents of children reported externalizing and internalizing behaviours but did not associate these behaviours to enuresis. Furthermore, the parents did not seek help as they did not relate enuresis as a medical problem requiring hospital visitation and treatment of the children.

This study followed a rigorous data collection and analysis process. However, there are some limitations. The data collected was purely quantitative, and we relied on the perceived responses of the mothers to the questions on enuresis. This might have provided room for the mothers' inaccurate reporting through overestimation or underestimation. A future survey might add qualitative methods for the triangulation of data. Furthermore, the questionnaire used was only pretested but not a standardized tool; thus, it may be subject to measurement error. Lastly, the result of this study is not generalizable as representing the general behavioural responses of Nigerian children to enuresis. Further research is needed to broaden the scope of understanding enuresis in Nigeria. It is believed that improved awareness of the comorbidity of behavioural disorders with enuresis might promote early diagnosis and consequently prevent later life adolescent delinquencies.

References:-

1. Abou-Khadra, M. K., Amin, O. R. and Ahmed, D. (2013) 'Association between sleep and behavioural problems among children with enuresis', *Journal of Paediatrics and Child Health*, 49(2). DOI: 10.1111/jpc.12017.
2. Abrams, P. et al. (2012) *Incontinence: 5th International Consultation on Incontinence.*, Epidemiology of urinary (UI) and faecal (FI) and pelvic organ prolapsed (POP). doi: 978-9953-493-21-3.
3. Akyüz, M. et al. (2016) 'Evaluation of behavioral problems in patients with monosymptomatic nocturnal enuresis: A prospective controlled trial', *Turkish Journal of Medical Sciences*, 46(3), pp. 807–811. doi: 10.3906/sag-1502-90.
4. Alshahrani, A., Selim, M. and Abbas, M. (2018) 'Prevalence of nocturnal enuresis among children in Primary Health Care Centers of Family and Community Medicine, PSMC, Riyadh City, KSA.', *Journal of family medicine and primary care*, 7(5), pp. 937–941. doi: 10.4103/jfmpc.jfmpc_32_18.
5. Anyanwu, O. U., Ibekwe, R. C. and Orji, M. L. (2015) 'Nocturnal enuresis among Nigerian children and its association with sleep, behavior and school performance', *Indian Pediatrics*, 52(7), pp. 587–589. doi: 10.1007/s13312-015-0680-4.
6. Baird, D. C., Seehusen, D. A. and Bode, D. V. (2014) 'Enuresis in children: A case-based approach', *American Family Physician*, 90(8), pp. 560–568.
7. Defenderfer, E. K. et al. (2017) 'Childhood toilet fears as an early behavioral indicator of anxiety', *Children's Health Care*, 46(4), pp. 366–378. doi: 10.1080/02739615.2016.1193808.
8. Elsayed, M., Hassan, H. and Ibraheem, O. (2018) 'Assessment of anxiety and depression risks among mothers having children with nocturnal enuresis disorder', *Egyptian Journal of Psychiatry*, 39(3), p. 115. doi: 10.4103/ejpsy.ejpsy_47_17.
9. Eneh, C. I. et al. (2015) 'Nocturnal enuresis: Prevalence and risk factors among school-aged children with sickle-cell anaemia in a South-east Nigerian city', *Italian Journal of Pediatrics*, 41(1), pp. 4–9. doi: 10.1186/s13052-015-0176-9.
10. Ferrara, P. et al. (2019) 'Medical comorbidity of nocturnal enuresis in children', *Indian Journal of Nephrology*, 29(5), pp. 345–352. doi: 10.4103/ijn.IJN_319_18.

11. Gaonkar, N. V et al. (2018) 'Prevalence of Nocturnal Enuresis in 6–15 Years School Children and its Awareness among Parents in Dharwad', *Indian Journal of Physiotherapy and Occupational Therapy - An International Journal*, 12(3), p. 11. doi: 10.5958/0973-5674.2018.00048.5.
12. Hamed, A., Yousf, F. and Hussein, M. M. (2017) 'Prevalence of nocturnal enuresis and related risk factors in school-age children in Egypt: an epidemiological study', *World Journal of Urology*, 35(3), pp. 459–465. doi: 10.1007/s00345-016-1879-2.
13. Hashim, H. et al. (2019) 'International Continence Society (ICS) report on the terminology for nocturia and nocturnal lower urinary tract function', *Neurourology and Urodynamics*, 38(2), pp. 499–508. doi: 10.1002/nau.23917.
14. Imodu, I., Bugaje, M. and Aikhionbare, H. (2014) 'Childhood Enuresis: A Study of Dogarawa Community of North Western Nigeria.', *IOSR Journal of Dental and Medical Sciences*, 13(4), pp. 06–10. doi: 10.9790/0853-13420610.
15. IS, E. and O, I. (2012) 'Nocturnal Enuresis and its Treatment among Primary School Children in Calabar-Nigeria', *Journal of Nephrology & Therapeutics*, 02(02), pp. 2–4. doi: 10.4172/2161-0959.1000115.
16. Kiddoo, D. A. (University of A. (2012) 'Practice Nocturnal enuresis', *Canadian Medical Association Journal (CMAJ)*, 184(8), pp. 908–910. doi: 10.1503.
17. Koca, O. et al. (2014) 'Evaluation of depression and self-esteem in children with monosymptomatic nocturnal enuresis: A controlled trial', *Archivio Italiano di Urologia e Andrologia*, 86(3), pp. 212–214. doi: 10.4081/aiua.2014.3.212.
18. Li, A. T. W. et al. (2018) 'Effects Of HIV stigma reduction interventions in diasporic communities: insights from the CHAMP study', *AIDS Care - Psychological and Socio-Medical Aspects of AIDS/HIV*. Taylor & Francis, 30(6), pp. 739–745. doi: 10.1080/09540121.2017.1391982.
19. Liu, J. (2004) 'Childhood externalizing behavior: Theory and implications', *Journal of Child and Adolescent Psychiatric Nursing*, 17(3), pp. 93–103. doi: 10.1111/j.1744-6171.2004.tb00003.x.
20. Mahmoodzadeh, H. et al. (2013) 'Prevalence of nocturnal enuresis in school aged children the role of personal and parents related socio-economic and educational factors', *Iranian Journal of Pediatrics*, 23(1), pp. 59–64.
21. Mubarak, A. et al. (2016) 'Self-concept and psychiatric comorbidity in a sample of Egyptian adolescents with secondary nocturnal enuresis', *Egyptian Journal of Psychiatry*, 37(1), p. 17. doi: 10.4103/1110-1105.180264.
22. Niemczyk, J. et al. (2019) 'Detailed Assessment of Incontinence, Psychological Problems and Parental Stress in Children with Autism Spectrum Disorder', *Journal of Autism and Developmental Disorders*, 49(5), pp. 1966–1975. doi: 10.1007/s10803-019-03885-6.
23. Niemczyk, J., Wagner, C. and von Gontard, A. (2018) 'Incontinence in autism spectrum disorder: a systematic review', *European Child and Adolescent Psychiatry*. Springer Berlin Heidelberg, 27(12), pp. 1523–1537. doi: 10.1007/s00787-017-1062-3.
24. Osungbade, K. O. and Oshiname, F. O. (2003) 'Prevalence and perception of nocturnal enuresis in children of a rural community in southwestern Nigeria', *Tropical Doctor*, pp. 234–236. doi: 10.1177/004947550303300416.
25. Özkan, S. et al. (2010) 'Prevalence and risk factors of monosymptomatic nocturnal enuresis in Turkish children', *Indian Journal of Urology*, pp. 200–205. doi: 10.4103/0970-1591.65387.
26. Salem, M. E. A., El-Shazly, H. M. and Hassan, A.-Z. A. (2016) 'Nocturnal enuresis among primary school children in Zarka district, Damietta governorate, Egypt', *Menoufia Medical Journal*, 29(4), p. 1025.
27. Sarici, H. et al. (2016) 'Prevalence of nocturnal enuresis and its influence on quality of life in school-aged children', *Journal of Pediatric Urology*. Elsevier Ltd, 12(3), pp. 159.e1-159.e6. doi: 10.1016/j.jpuro.2015.11.011.
28. Senbanjo, I. O., Oshikoya, K. A. and Njokanna, O. F. (2011) 'Micturitional dryness and attitude of parents towards enuresis in children attending outpatient unit of a tertiary hospital in Abeokuta, Southwest Nigeria', *African Health Sciences*, 11(2), pp. 244–251.