

## ***Effect of Cognitive Restructuring in the Management of Nocturnal Enuresis among Junior Secondary School Adolescents in Imo State***

**N. P. Ogbuokiri, Ph.D**

*Department of Psychological Foundations*

*Faculty of Education*

*Abia State University, Uturu*

[ulogod@yahoo.co.uk](mailto:ulogod@yahoo.co.uk)

### **Abstract**

*This study investigated the effect of Cognitive Restructuring Technique on the management of nocturnal enuresis among junior secondary school adolescents. The study employed quasi-experimental design involving pretest and posttest. One research question and two null hypotheses guided the study and were tested at 0.05 level of significance. The population consists of sixty (60) nocturnal enuretic. A sample of eighteen (18) nocturnal enuretics was screened and randomly selected by simple random sampling procedure. The sample were further screened and confirmed to be enuretics using Enuresis Identification Questionnaire. Eighteen (18) selected students, that is 9 male and 9 female students, constituted the sample and were used for the study. Subjects were grouped into two groups of nine (9) each. The findings of the study revealed that cognitive restructuring technique has significant effect in reducing enuretic behaviour. Based on the findings, it was recommended that the school counsellors and psychologists should adopt Cognitive Restructuring Therapy (CRT) to address enuresis and other behavioural problems.*

**Keywords:** cognitive, restructuring, enuresis, adolescents

### **Introduction**

Children and adolescents exhibit problem behaviours which tend to be in contrast to societal expectations. These maladaptive behaviours prevent these adolescents from fulfilling their developmental tasks thereby making them not to achieve the stated objectives from school. Such behaviours like truancy, enuresis, drug abuse, vandalization of properties, hostility are amenable to treatment, if identified early. But if treatment is not received, these behavioural problems may come together and become more serious and chronic disorders as individuals pass into adulthood and manifest later as different disorders (Ogbuokiri, 2013). A child who therefore engages in any type of behaviour which the society disapproves, manifests anti-social behaviour (Odoemelam, 2004).

However, different authors have classified these problem behaviours in many ways. Akinade and Adedipe (2004) classified behaviour problems into excess, deficit and weak behaviour. Excess behaviour refers to a behaviour that is present but is exhibited in an embarrassing way. It may either be too frequently or over expressed or often results into being undesirable, socially unacceptable and in some cases harmful to the individuals or

others who interact with him. Deficit behaviour that is absent in an individual. It needs to be introduced to the person. While weak behaviour is the one that individuals possess but is below expectation of others. It is often exhibited inadequately, inappropriately, infrequently and insufficiently. Considering the above classification of behavioural problems, nocturnal enuresis which is the main behaviour problem for this study falls within Akinade and Adedipe's classified excess behaviour.

Enuresis commonly called bed-wetting is referred to as a habitual involuntary discharge of urine while sleeping. It is also regarded as a disorder of elimination that involves the voluntary or involuntary release of urine into bedding, clothing or other inappropriate places (Diagnostic and Statistical Manual of Mental Disorder, 2013). Peters (2009) sees it as the involuntary loss of urine usually during deep sleep, beyond the age of five (5) when voluntary control should be present. Passing urine is a normal body function of elimination but considered as maladaptive when passed at inappropriate places after the anticipated weaning period. On the other hand, enuresis is also defined as the uncontrolled, unintentional passage of urine at inappropriate places - bed or cloth after the anticipated weaning period of two or more occurrences a week for a consecutive period of three months which is not associated with a medical condition (Park & Chung, 2000).

Enuresis as was identified by Ogbuokiri (2013) was of two major types namely, organic and functional enuresis. Organic enuresis is largely due to medical conditions like anatomic deformities while functional enuresis includes primary and secondary nocturnal enuresis. Primary enuresis refers to bedwetting that has been ongoing since early childhood without a break. It indicates immaturity of the nervous system. Research, according to Ogbuokiri (2013), suggests that children who are night time only bed wetters may have a nervous system that is slow to process the feeling of a full bladder. Consequently, these children do not wake up in time to relieve themselves. Secondary enuresis is more likely to occur after a child has experienced a stressful life event such as the birth of a sibling, divorce or death of a parent or moving to a new house. Parents of enuretic children experience social, economic and emotional distress over their children's incontinence. They also exhibit apparent helplessness over what to do to stop their children's incontinence after the anticipated periods.

National Kidney Foundation (2000) notes that more than five million children in United States continue to wet the bed past the age of six, and two or three children out of every hundred children still wet the bed when they turn fifteen years old. In Nigeria, there may be no clear statistical data on this, still some children wet the bed at the age they are expected to control their bladder. However, there are certain conditions that lead to this behaviour, which include the child's inability to wake up when the bladder is full, after stressful days and during cold weather among others. This behavioural problem can be a very embarrassing and discomforting experience in the enuretic's social, academic and psychological life. Many bedwetters suffer from low self-esteem, guilt and shame (Enuresis Treatment Centre, 2000). Similarly, there is family embarrassment, parental anger at what they see as a "willful child", and insensitive peers can together make life

miserable for a student with enuresis (Ogbuokiri, 2013). Obi (2004) identifies adult's reactions to children's misbehaviour in general and to bedwetting in particular as being negative and added that children who receive such negative attention do not develop good feeling of self-worth.

Nocturnal enuresis has been found to be prevalent among adolescents. Obi (2004) investigated the differential effectiveness of self-control and contingency management techniques in the treatment of nocturnal enuretic pupils in Abia state. The findings show that the treatment programmes were more effective in the control of enuretic behaviour among the experimental subjects than the control. Enuresis, if left untreated, has considerable psychological effects on the children and adolescents as they grow older (Harari & Moulden, 2000). As a result of this, it is very necessary to intervene so as to help both male and female enuretics to become continent and thereby increase their level of self-esteem, attract and improve their academic performance. In Turkey, a research was carried out to find the prevalence of nocturnal enuresis and the epidemiological factors associated with children aged 7-12 years living in Manisa. It was found out that the prevalence of nocturnal enuresis for females was 10.6%, 16.9% for males and overall prevalence was 13.7%. It was also found out that the prevalence of enuresis was found to be more common in children with a family history of bedwetting (76.5%) (Morison, Tappine & Staines, 2000).

Based on this, the researcher becomes interested in the management of nocturnal enuresis using cognitive restructuring technique. Researcher's choice of cognitive restructuring technique was based on its efficacy in managing behavioural problems as noted by Otta (2000), Oko (2007), Akpabio and Archibong (2014); from interaction with the students who fear that they will urinate in the night as a result of what they eat during the day, and they eventually bed wet. This therefore, can be attributed to irrational thinking. Cognitive restructuring technique is a procedure aimed at helping individuals to avoid crooked thinking and think right. According to Nwamuo and Ekwe (2005), cognitive learning theory assumes that individuals are not passive observers in their environment, rather they are active, goal oriented and capable of taking responsibility for their decisions, actions and consequently exercise control over their behaviours. Therefore secondary school adolescents in junior secondary school (1-3) can benefit effectively from cognitive restructuring technique (CRT).

### **Research question**

To guide the study, one research question were posed thus:

1. Is there any difference in the post-test mean scores of the enuretics adolescents treated with cognitive restricting technique and the control group.

### **Hypotheses**

The following null hypotheses were formulated and tested at 0.05 level of significance:

**Ho1:** There is no significant difference in the post-test mean score of the group treated with cognitive restructuring technique and the control group among the enuretic junior secondary school adolescents.

**Ho2:** There is no significant difference in the post test mean scores of male and female junior secondary school adolescents after being exposed to cognitive restructuring technique.

### **Methodology**

This study was a Quasi-experimental study which adopted pre-test, Post-test and control group design. The study employed a 2x2 factorial design. The researcher used two groups of students. Group A constituted the experimental group while group 'B' was the control group. The treatment group was exposed to cognitive restructuring technique (CRT), while the control group did not receive any treatment.

The population of the study comprised of sixty students of Federal Government College, Okigwe, Imo State, from JS1 to JS3 that manifest enuretic disorder and who responded to the counsellor's advertisement and willingness to participate. A sample of eighteen (18) nocturnal enuretics was screened and purposively selected for the study. The sample was further confirmed to be enuretic by corroborating the information with the data from house captain, house mistresses/masters and school counsellors. Enuresis Identification Questionnaire (EIQ) was used for further screening. Subjects whose urinalysis indicated absence from any physical disorder were exposed to simple random sampling by replacement to select the eighteen (18) nocturnal enuretics and distribute into two groups of nine (9) subjects each.

Enuresis questionnaire were used for the study. The Questionnaire on Enuresis was divided into two sections: Section "A" contained the respondent's bio-data, while section "B" elicited specific information bordering on enuretic behaviour from the respondents. The instrument used "Agree" or "Disagree" response patterns with a score of 2 and 1 for positive items for enuresis and 1 and 2 for negative items for enuresis; a minimum score of 50 points and above shows the presence of nocturnal enuresis. One expert in Test and Measurement and two from Guidance and Counselling from the Department of Psychological Foundations, Abia State University, Uturu, after making necessary corrections and amendments, adjudged the instrument, to have both face and content validity. In order to test the reliability of the instrument, it was administered to JSS1-JSS3 students between the ages of thirteen to fifteen years in Federal Government College, Owerri, Imo State where a pilot study was conducted. The EIQ has a test-re-test reliability at two weeks interval of 0.83 was obtained shows that the instrument was reliable. Pearson Product Moment Correlation was used to ascertain the reliability coefficient of the instrument.

On treatment procedure, permission was sought from school principal to carry out the experiment in the school with identified enuretics. The assistance of the school counsellor was also sought to help the researcher in carrying out the experiment. This phase was

conducted one week prior to the treatment. There were two introductory meetings which involved screening of the subjects according to the predetermined criteria. A pre-test was administered to all the groups at the same time. The experimental group was introduced to the structure of the treatment package while the control group was kept busy on persona-social problems. However, they were also free to keep in contact at request. The whole treatment session lasted for a period of six weeks (twice a week). It was based on group counselling and each session lasted between 40-45 minutes. The post treatment phase was carried out seven days after the last treatment session. This phase involved all the participants that is, those in the experimental and control group. The post assessment instrument was administered to the students. Their responses were analysed and the results compared with the pre-test scores of the subjects. The possible changes in the subjects were inferred from the result after computation. Descriptive and inferential statistics was used in the study. Mean, standard deviation and t-test was used to test hypotheses at 0.05 level of significance.

### **Presentation of results**

**Ho1:** There is no significant difference in the post-test mean scores of the group treated with cognitive restructuring technique and the control group among the nocturnal enuretic junior secondary school adolescents.

**Table 1:** t-test on the post-test mean scores of the treatment and the control groups

Group	N	$\bar{x}$	SD	Df	t-cal	t-crit	$\alpha$
Experimental group	9	58.38	8.211				
Control group	9	50.44	6.793	17	17.22	2.10	.05

From table 1, the calculated t-value of 17.22 is greater than the t-critical value of 2.10, at 0.05 level of significance and 17 degree of freedom. Hence, since calculated value of t is greater than the critical value, the null hypothesis is rejected. The implication of this is that, there is a significant difference between the post-test mean score of subjects treated with cognitive restructuring technique and those in the control group in favour of the treatment group with higher mean score.

**Ho2:** There is no significant difference in the post test mean scores of male and female junior secondary school adolescents after being exposed to cognitive restructuring technique.

**Table 2:** post-test Enuretics mean scores among male and female secondary school adolescents exposed to treatment

Source of Variation	N	Mean	Std. Dev.	Sig. tailed	2 Decision
Male	5	67.00	4.63	0.01	Rejected
Female	4	59.25	1.50		

Table 2 showed the summary of t-test analysis between male and female students in cognitive restructuring technique group. The post-test means score and standard deviation for male and female secondary school adolescents exposed to treatment stood at 67.00 and 4.63 and 59.25 and 1.50 respectively. This showed that the treatment had effect on both the male and female adolescents' students exposed to the treatment. However, the treatment showed to be more significant on the male students. Furthermore, the study revealed a p-value of 0.01 which is below the 0.05 level of significance. This, therefore implies a significant difference exists between the two variables under study.

### **Discussion of the findings**

The research question is in agreement with hypothesis one and the findings of the study indicated that cognitive restructuring technique is significant in the reduction of nocturnal enuretics among adolescents' students. This finding corroborates the findings of Otta (2000), Oko (2007), Akpabio and Archibong (2014) who all found that cognitive restructuring technique is effective in managing behavioural problems including enuresis. The possible explanation for the superiority of cognitive restructuring to control group may be due to the fact that CRT is wholly a behavioural approach which can be observed and practice by the subjects; this process will enable the subjects to imbibe the technique. Again, this technique is effective in reducing enuretic behaviour because of the assumption on which the technique is built – such as removal of irrational, illogical thoughts by teaching the subjects positive, rational and logical self-statements.

Finding from hypothesis two also revealed significant effect of cognitive restructuring technique in enuretics among male and female adolescents' students exposed to treatment using mean score obtain in post-test. To support this assertion, a research was carried out in Turkey, to find out the prevalence of nocturnal enuresis and the epidemiological factors associated with children aged 7-12- years living in Manisa. It was found out that the prevalence of nocturnal enuresis for females was lower (10.6%) than that of male (16.9%) (Morison, Tappine & Staines, 2000). Ordinarily, boys play more than the girls, therefore the effect of the therapy would be felt by the boys more than the girls.

### **Conclusion**

From the findings of this study, it can be concluded that cognitive restructuring technique has significant effect on enuretic adolescents' students that were exposed to treatment and therefore should be regularly employed by the school counsellors in the treatment of students with behavioural problems.

## **Recommendations**

Based on the findings of the study, the following recommendations were made:

1. There is need to establish a well functional guidance programme at all levels of education. This will enable counsellors to identify and modify children's problems early enough.
2. The school counsellors and psychologists should adopt cognitive restructuring technique (CRT) to address enuresis and other behavioural problems or disorders.

## **References**

- Akinade, A. E. & Adedipe, V. O. (2004). *Behaviour modification principle and practices*. Edo State: Stirling Holden Pub. Nig. Ltd.
- Akpabio, I. J. & Archibong, G. A. (2014). Effects of cognitive restructuring on truancy among senior secondary school students in Ikot Ekpene Local Government Area, Akwa-Ibom State. In A. A. Adegoke & O. Aluede (Eds.), *Perspectives in Guidance and Counselling*. Justice-Jeco Printing and publishing Global, pp 147-158.
- Enuresis Treatment Centre (2000). Retrieved February 2000 at <http://www.drybed.com>
- Harari, M. D. & Moulden, A. (2000). Nocturnal enuresis: What is happening? *Journal of Pediatric Child Health*, 36(1), 78-81.
- Morison, M. J., Tappine, D. & Staines, H. (2000). Enuresis. A method for its study and treatment. *American Journal of Orthopsychiatry*, 8(4), 36-47.
- National Kidney Foundations (2000). Behavioural of substance abuse treatment, 51-54.
- Nwamuo, A. P., & Ekwe, A. O. (2005). *Applications of therapeutic principles of behavioural modification*. Owerri: Career publishers. 192-225
- Obi, O. P. (2004). Differential effectiveness of self-control and contingency management technique in the treatment of enuretic pupils. *An unpublished Ph.D Thesis*, Abia State University, Uturu.
- Odoemelam, A. M. (2004). *Contemporary issues in 21<sup>st</sup> century. Guidance and Counselling: The Nigerian perspective*. Okigwe: Printed by Kalevi-Nedu Concepts, Nigeria.
- Ogbuokiri, N. P. (2013). Effects of cognitive restructuring and multi-components therapies in the management of nocturnal enuresis among junior secondary school adolescents. *Asian journal of Management Science and Education*, 2(4), 136-145
- Oko, A. K. (2007). Assertive training and cognitive restructuring on the improvement of self-concept among deaf pupils in Abia State. *An Unpublished Ph.D Thesis*, Abia State University, Uturu.
- Otta, F. E. (2000). Rational emotive therapy and client centered therapy group counselling models in the improvement of self-concept among physically handicapped adolescents. *An unpublished Ph.D Thesis*, Abia State University, Uturu.
- Peters, I. (2009). Enuresis, A special problem. *Child Study Journal*, 8, 235-248.