“A STUDY TO ASSESS THE FACTORS ASSOCIATED WITH THE BEDWETTING AMONG CHILDREN IN A SELECTED PRIMARY SCHOOLS OF SINDHUDURG”

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Abstract: Background. Bedwetting refers to an inability to control urination during sleep. It is a common problem affecting school-aged children worldwide. It is a medical condition, behavioural, and psychological disorder in children. However, it can have a real impact on a child’s self-esteem, relationship with friends, and school performance. Primary bedwetting can occur due to the maturation delay or deep sleep or Poor bathroom habits during daytime. Less than 3% cases have organic etiology such as obstructive uropathy or urinary tract infection. Children are so busy playing that they put off peeing to “later,” which can create a need to urinate often at night. Secondary bed wetting (occurring in 10%-25% cases) refers to the condition that develops at least six months or even several years after which children have been seen successfully trained, but revert to bed wetting in response to some stress. It may be due to parent-child maladjustment. Some children and even adults have small bladders, which makes it difficult for them to hold even a normal amount of urine. Teenagers go through a lot of hormonal changes, which could affect their ADH levels. Aim & Objectives: The study was planned to assess the prevalence & factors associated of bedwetting & to find out an association between the factors associated with bedwetting among school children with selected demographic variables in selected primary school of children in Sindhudurg. Material & Method: A Quantitative approach & survey research design used for this study. The study was conducted on 100 caregiver of primary school children in Sindhudurg. The data gathering technique used was non-probability purposive sampling. The data gathering technique used was interviewing. The tool used was structured interview schedule for caregiver & children to assess the demographic data & semi-structured interview schedule use to find out an associated causative factors related to bedwetting among primary school children of Sindhudurg. Results: The investigator surveyed the total population of 100 children above the age 6 years out of them, total 47 children were identified with bedwetting. Thus the prevalence of bedwetting in the selected area was 47%. By surveying 47 bedwetting children it was observed that the rate of bedwetting decreased with age children, also the child with bedwetting having behavioural problems like Temper Tantrum (38.29 %), Nail biting (21.27%), Thumb sucking (10.63%), Pica (19.14%) and Attention Deficit hyper-activity disorder (10.63%), this study concluded that the majority i.e. 15 (31.91%) children started bedwetting after the fear of dark place and 12 (25.5%) children started bedwetting after change in residence, about half of the bed wetter i.e. 25 (53.19%) children watch horror movies or serials before going to bed. Majority of bedwetting children i.e. 30 (63.83%) were scared to sleep separate, according to their caregiver. It is also evident that, majority of caregivers said that the majority of children i.e. 28 (59.6%) did not wake up in the middle of the night for urination therefore, the children are in deep sleep therefore they do not recognize that his/her bladder is full. Majority of bedwetting children i.e. 37 (78.72%) drink water or milk before going to sleep. Therefore, they produce a large amount of urine during night hours. Conclusion: This study concluded that there is prevalence rate of bedwetting in rural areas is high which is 47%. Bedwetting in children was closely associated with their age, family history of bedwetting, toilet training, achieving the bladder control, & fear of darkness. There were statistically all 47 (100%) children had not been given any medical help for the bedwetting problem. Therefore, awareness about bedwetting and its complications is important among people in the rural areas.

Index Terms – Study, Assess, Factors, Bedwetting, Primary school Children, Sindhudurg.
I. INTRODUCTION

Bedwetting is a secret problem. That secrecy about bedwetting makes the situation tougher for kids and parents alike. "Ninety percent of kids think they’re the only ones who wet the bed, which makes them feel even worse," says Bennett. The International Children's Continence Society (ICCS) defines intermittent incontinence as urine leakage in discrete amounts, occurring during the day and/or at night in children aged ≥ 5 years. Though children naturally gain bladder control at night, they do so at different ages. From 5 to 7 million kids wet the bed some or most nights -- with twice as many boys wetting their bed as girls. After age 5, about 15% of children continue to wet the bed, and by age 10, 95% of children are dry at night. Bedwetting can lead to behavior problems, because the child feels guilty and embarrassed. It is also particularly stressful for the parents or guardians. It is a common problem affecting school-aged children worldwide. It is a medical condition, behavioral, and psychological disorder in children. However, it can have a real impact on a child’s self-esteem, relationship with friends, and school performance. Dealing with bedwetting day in and day out can be frustrating. Worse is that the child may be too embarrassed to talk about it and may end up tormenting himself. While parents might think punishment will make bedwetting stop, they should know that punishment can actually make the problem worse, leading to more frequent bedwetting, more depression and a poorer quality of life for the child. The first step in treating bedwetting is to educate the child and parents about the condition and provide reassurance regarding spontaneous resolution (annual cure rate is 15%). The primary management is through behavioral intervention, including dry-bed training, reward systems such as star charts given for dry nights, lifting or waking the children at night to urinate, retention control training to enlarge bladder capacity (bladder training) and fluid restriction.

II. Background of study:

Bedwetting can be more than just a little embarrassing. It can cause serious psychological problems. Children with enuresis have described themselves as being tense, having difficulty sleeping and having bad dreams. Children state that they are embarrassed about the disorder and are often hesitant to sleep at other children’s homes. It impacts the emotional state, self-esteem, as well as the social development of a child, which can be influenced if parental response to the disorders is harsh or punitive. In some instances, enuresis may serve as a trigger for child abuse. Although behavioral problems can be associated with these psychological effects, research suggests that adults treated for enuresis as children have normal psychological profiles. It can cause a feeling of failure and result in chronic stress. The fear of being detected by peers at school can cause stress. Children may feel unable to participate in activities and may feel that they are missing out on important aspects of their life that’s why they have lower self-esteem, mental health, skills, and poorer relation to their parents and others. Importantly, after treatment for nocturnal enuresis, children who become completely dry have higher self-esteem than those with persisting nocturnal enuresis. Affected children may be at an increased risk of physical and emotional abuse from family members. According to WHO, 2017 the worldwide prevalence of enuresis among children aged 6-12 years is 1.4% - 28%. Indian data on incidence and prevalence are very limited. In general, prevalence of nocturnal enuresis is higher among male children than female children. The prevalence in India is 7.61% - 16.3%. The prevalence is highest in children aged 5-8 years (and 6-8 years) and lowest in children aged 11-12 years (8-10 years). In rural areas in India, the prevalence is higher among children from poor socioeconomic class compared to those from the upper middle class. Bedwetting can lead to behavior problems, because the child feels guilty and embarrassed. It can cause loss of self-esteem in children, change relations with family and friends, and decrease the school success.

Statement of Problem: A study to assess factors associated with bed wetting among children in selected primary schools of Sindhudurg.

Operational definitions:
1. Assess:
   ‘Assess’ means to find out the factors associated with bedwetting among school children as reported by caregiver.
2. Factors associated:
   In this study, ‘Factors associated’ means facts or elements which are responsible for bedwetting in school children. Like,
   - Genetic Factors:
     Genetic factors relates with any family member of the child having history of bed wetting.
   - Toilet training:
     Toilet training” means the process of a teaching carried out by caregiver for control of bladder and bowel movements and for using of toilet for elimination to the primary school children.
   - Psychological factors:
     In this study, ‘psychological factors’ are Positive family history, Stubborn attitude, Physical or sexual abuse, Stressful life events like early separation from parents, breakup of family because of divorce or death of family members, extreme bullying, severe punishment or scolding. Horrified figures and ghost experienced in the dream. Inability to recognize a full bladder, Move to new home, Birth of the sibling.
3. Bedwetting:
   ‘Bedwetting’ means involuntary voiding of urine during sleep at night time in primary school children in the 6 years -12 years age group.
4. Children:
   In this study, ‘Children’ means 6-12 years’ age children with bed wetting studying in primary school of Sindhudurg.
Objectives of study:
1. To assess the incidence of bed wetting among primary school children as reported by caregiver of Sindhudurg.
2. To determine the factors associated with bedwetting among primary school children as reported by caregivers.
3. To find out an association between the factors associated with bedwetting among school children with selected demographic variables.

Assumptions:
1. Children may have incidence of bed wetting.
2. The factors associated with bedwetting among primary school children may differ from individual to individual.

Delimitations:
1. This study will be delimited only to primary school going children and who have bedwetting.
2. Data is confined to the verbal responses given by caregivers of children with bed wetting.

III. Research Methodology: Methodology is the philosophical framework within which the research is conducted, or the foundation upon which the research is based. In this study the quantitative approach was considered appropriate as it enables the investigator to find out the prevalence of bedwetting in school going children and the factors associated with it. In this study, survey research design was selected out to obtain information regarding the prevalence of bedwetting and the factors associated with bedwetting in children in primary schools of Sindhudurg.

3.1 Population and Sample
In this study, the population consisted of children belonging to the age group 6-12 years who are studying in primary school of Sindhudurg. The sample size consisted of 100 caregivers of primary school children, where the children were prone to bedwetting.

3.2 Data and Sources of Data
The Purposive sampling technique is used for the collection of data. Basically, it is a non-probability sampling method where the elements selected for the sample are chosen by the judgment of the researcher.

The tool used for this study is the structure & semi-structured questionnaire for interviewing to the caregiver.

The Validity of the tool was obtained by giving it to the two pediatrician’s, one child psychiatrist, and nine experts from the field of nursing. The data was collected in 28 days.

The reliability of the tool was not carried out because of, the present study is mainly relied upon the individual’s own perceptions about various aspects of bedwetting which are under study. Response of every respondent would differ according to his or her perception. Therefore, consistency cannot be achieved in responses when the tool is administered.

3.3 Theoretical framework
In this study conceptual framework is based on the Iceberg Theory. According to the concept of iceberg of disease, it states that there is a lot in our world that is hidden below the surface in many cases only a very small amount (the ‘tip’) of information is available or known about a situation or phenomenon, whereas the ‘real’ information or bulk of data is either unavailable or hidden. This theory is used to assess the prevalence of the bedwetting in the primary school children and their hidden associated factors like family history, psychological and sexual factors and factors related to toilet training. The floating tip of the iceberg represents what the physician sees in the community. The tip represents those children who have showed symptoms of the disease. The vast submerged portion of the iceberg represents the hidden mass of the disease that is latent/ in apparent/ pre-symptomatic/ undiagnosed cases. In this study, vast proportion of bedwetting causing factors are hidden among children. The water line represents the demarcation between clinical and undiagnosed cases.

IV. RESULTS AND DISCUSSION
The data collected was analyzed in terms of frequency and percentage and was presented in the form of tables and graphs.

The ‘Chi square’ test used for the find out an association of the causative factors of the bedwetting in children.
TABLE: I
ANALYSIS AND INTERPRETATION OF INCIDENCE OF BEDWETTING

<table>
<thead>
<tr>
<th>Content</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your child pass urine in the bed at night time?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>No.</td>
<td>53</td>
<td>53</td>
</tr>
</tbody>
</table>

From the above table it was concluded that forty-seven (47%) children are suffering from bedwetting in the age group of 6 to 12 years. Therefore, the overall prevalence of bedwetting is high in rural areas of Sindhudurg district, i.e. 47%. So there is a need to focus on it and provide appropriate interventions.

TABLE: IV
DISTRIBUTION OF BEDWETTING CHILDREN WITH REGARD TO THEIR DEMOGRAPHIC VARIABLES

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Demographic Data of Child</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Age of the child:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 years to 7 years</td>
<td>27</td>
<td>57.44</td>
</tr>
<tr>
<td></td>
<td>7 years to 9 years</td>
<td>15</td>
<td>31.9</td>
</tr>
<tr>
<td></td>
<td>9 years to 11 years</td>
<td>03</td>
<td>6.38</td>
</tr>
<tr>
<td></td>
<td>11 years to 12 years</td>
<td>02</td>
<td>4.25</td>
</tr>
<tr>
<td>12.</td>
<td>Gender of the child:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>28</td>
<td>59.57</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>19</td>
<td>40.42</td>
</tr>
<tr>
<td>13.</td>
<td>Standard:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Balwadi</td>
<td>18</td>
<td>38.3</td>
</tr>
<tr>
<td></td>
<td>1st to 2nd standard</td>
<td>22</td>
<td>46.80</td>
</tr>
<tr>
<td></td>
<td>3rd to 4th standard</td>
<td>05</td>
<td>10.63</td>
</tr>
<tr>
<td></td>
<td>5th to 6th standard</td>
<td>02</td>
<td>4.25</td>
</tr>
<tr>
<td>14.</td>
<td>Birth order of the child:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Single</td>
<td>12</td>
<td>25.53</td>
</tr>
<tr>
<td></td>
<td>b) 1st child.</td>
<td>18</td>
<td>38.29</td>
</tr>
<tr>
<td></td>
<td>c) 2nd child.</td>
<td>12</td>
<td>25.53</td>
</tr>
<tr>
<td></td>
<td>d) 3rd child.</td>
<td>05</td>
<td>10.63</td>
</tr>
</tbody>
</table>
Table IV: highlights the following points regarding the bedwetting children:

**Age of the child:** It was observed that twenty-seven (57.44%) children belong to the age group between 6 years to 7 years, fifteen (31.9%) children belong to age group 7 years to 9 years, three (6.38%) children belong to age group 9 years to 11 years and two (4.25%) children belong to age group between 11 and 12 years.

**Gender of child:** From the forty-seven children twenty-eight (59.57%) were male and nineteen (40.42%) children were females. The prevalence of bedwetting is high in male child than female.

**Standard:** It was seen that eighteen (38.3%) children were from Balwadi, twenty-two (46.80%) children were studying in 1st to 2nd standard, five (10.63%) children studying in 3rd to 4th standard, and two (4.25%) children were studying in 5th to 6th standard.

**Birth order of the child:** It was noted that 12 (25.53%) were single child of their parents, eighteen (38.29%) children were 1st child of their parent, twelve (25.53%) children were 2nd child of their parents, and remaining five (10.63%) children were 3rd child of their parent.

DISTRIBUTION OF SAMPLE IN TERMS OF BEHAVIORAL PROBLEMS

**TABLE VI**

<table>
<thead>
<tr>
<th>Content</th>
<th>Temper tantrum</th>
<th>Nail biting</th>
<th>Thumb sucking</th>
<th>Pica</th>
<th>ADHD</th>
<th>(\chi^2)</th>
<th>df</th>
<th>Tabulated value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your Child have any behavioural Problem?</td>
<td>18 (9.4)</td>
<td>10 (9.4)</td>
<td>5 (9.4)</td>
<td>9</td>
<td>5</td>
<td>12</td>
<td>4</td>
<td>9.49</td>
<td>significant at 0.05 level</td>
</tr>
</tbody>
</table>

The table VI noted that the calculated ‘\(\chi^2\)’ value (12) for the behavioural problem, is greater than the tabulated value (9.49) which was significant at 0.05 level. Thus it is concluded that there is significant association between bedwetting with behavioural problems like temper tantrum and nail biting.

**TABLE: XXII**

DISTRIBUTION OF CHILDREN ACCORDING TO THE FACTORS RELATED TO THEIR PSYCHOLOGICAL BEHAVIOUR

<table>
<thead>
<tr>
<th>N=47</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Content</th>
<th>Yes</th>
<th>No</th>
<th>(\chi^2)</th>
<th>df</th>
<th>Tabulated value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your child feel scared to sleep separate?</td>
<td>30 (23.5)</td>
<td>17 (23.5)</td>
<td>3.58</td>
<td>1</td>
<td>3.84</td>
<td>Non-significant At 0.05 level</td>
</tr>
</tbody>
</table>
From the above table, it was noted that the calculated \(\chi^2\) value (3.58) is greater than the tabulated value (3.84), which was significant at 0.05 level. Thus it is concluded that there is significant association between incidences of bedwetting and feeling scared to sleep separate.

Figure: 3
Incidence of the bedwetting in children of Sindhudurg

Figure: 14
Distribution of bedwetting children with regard to their age

Figure: 15
Distribution of bedwetting children with regard to their gender

Figure: 16
Distribution of bedwetting children with regard to their standards

Figure: 17
Distribution of bedwetting children with regard to their birth order
III. ACKNOWLEDGMENT

With sincere gratitude, the investigator wishes to acknowledge all those who have put their efforts in the making of this study. It was the contribution of many people, which helped in the successful completion of the study. I owe my heartfelt gratitude to those parents who have participate in this study & provide me all the information to carry out my research study. Also she would like to thanks her guide & also to the Cluster Head of the primary school to provide help to complete my research study.

REFERENCES


