

# Incidence Of Primary Nocturnal Enuresis Among Children In Selected Community Area At Coimbatore: A Cross-Sectional Study

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## Abstract:

Primary nocturnal enuresis (PNE) is a common condition among children, yet its prevalence varies across regions and populations. This cross-sectional study aimed to determine the incidence of PNE among children aged 5-15 years in a selected community area at Coimbatore. A structured questionnaire was used to collect data from 300 children. The results highlight the prevalence, associated factors and parental attitudes toward Primary Nocturnal Enuresis. Findings emphasize the need for community education and accessible healthcare nursing services to manage this condition effectively.

**Keywords:** Primary Nocturnal Enuresis, Incidence, Children, Community Area

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## I. Introduction:

Primary nocturnal enuresis (PNE), commonly known as bedwetting is the involuntary voiding of urine during sleep in children aged five years or older in the absence of any structural or neurological abnormalities. PNE affects children's quality of life and can lead to emotional distress, social challenges and parental anxiety. Although genetic predisposition, delayed bladder maturity and hormonal imbalances are known contributing factors, cultural and socioeconomic influences also play significant roles in primary nocturnal enuresis.

The present study aimed to investigate the incidence of primary nocturnal enuresis in community areas at Coimbatore and analyze its associated demographic and behavioral factors that provide insights for public health strategies.

## II. Materials And Methods:

A descriptive cross-sectional study was conducted in a selected community area at Coimbatore. The sample consisted of 300 children aged 5-15 years selected through stratified random sampling. Data were collected using a structured questionnaire filled out by parents. The questionnaire included sections on demographic profile details, frequency and severity of enuresis, family history and parental attitudes toward the condition. Written informed consent was obtained from parents and assent was obtained from children aged 12 years and older. Participants were assured of confidentiality. Statistical analysis was estimated using SPSS software.

## III. Results:

Table 1: Demographic Characteristics of Study Participants

Characteristic	Frequency (n=300)	Percentage (%)
Age Group (Years)		
5-7	90	30.0
8-10	120	40.0
11-13	60	20.0
14-15	30	10.0
Gender		

Male	165	55.0
Female	135	45.0
<b>Socioeconomic Status</b>		
Low	120	40.0
Middle	150	50.0
High	30	10.0

Table 1 presents the demographic profile of the participants. The majority of the children belonged to the 8-10 years age group (40%), followed by the 5-7 years group (30%). Males (55%) were slightly more represented than females (45%). Regarding socioeconomic status, most participants were from middle-income families (50%), followed by low-income (40%) and high-income families (10%).

**Table 2: Incidence and Severity of Primary Nocturnal Enuresis**

Measure	Frequency (n=300)	Percentage (%)
<b>Presence of PNE</b>	72	24.0
<b>Severity of PNE</b>		
Mild (<2 nights/week)	40	55.6
Moderate (3-5 nights/week)	22	30.6
Severe (>5 nights/week)	10	13.8

Table 2 highlights the incidence and severity of primary nocturnal enuresis. The overall incidence was 24%, with the majority of cases classified as mild (55.6%), involving fewer than two nights per week of bedwetting. Moderate cases (3-5 nights/week) accounted for 30.6%, and severe cases (>5 nights/week) represented 13.8% of affected children.

**Table 3: Factors Associated with Primary Nocturnal Enuresis**

Factors	PNE Cases (n=72)	Percentage (%)
Family History	45	62.5
Delayed Toilet Training	50	69.4
Parental Education (Low)	55	76.4

Table 3 explores factors associated with primary nocturnal enuresis among the 72 affected children. A significant proportion had a family history of enuresis (62.5%), suggesting a genetic predisposition. Delayed toilet training was noted in 69.4% of cases, while low parental education levels were observed in 76.4%.

#### **IV. Discussion:**

The overall incidence of primary nocturnal enuresis was 24%, with higher prevalence in the younger age group (5-7 years). Male children (65%) were more commonly affected than females (35%). Most cases were mild, with less than two episodes per week (55.6%). Family history of enuresis, delayed toilet training, and low parental education levels were significantly associated with primary nocturnal enuresis. Many parents (68%) perceived primary nocturnal enuresis as a behavioral issue rather than a medical condition. The incidence of primary nocturnal enuresis in this community aligns with global prevalence rates. Genetic predisposition and delayed toilet training emerged as significant contributors, consistent with existing literature. The high prevalence among low socioeconomic groups underscores the impact of educational and healthcare disparities. Public health initiatives should address these gaps through targeted awareness campaigns and accessible interventions.

Parental perceptions about enuresis being a behavioral issue rather than a medical condition highlight the need for culturally sensitive educational initiatives. Nurses must address misconceptions and provide support to families, focusing on non-stigmatizing approaches.

The relationship between delayed toilet training and primary nocturnal enuresis depicts the importance of pediatric guidance in early childhood development. Psychiatry nurses should offer anticipatory guidance to parents on appropriate toilet training practices, emphasizing developmental readiness to reduce stress for both parents and children. Future research should focus on longitudinal studies to track outcomes of interventions, including counseling, behavioral therapies and pharmacological treatments.

### **V. Conclusion:**

Primary nocturnal enuresis is a prevalent issue among children in Coimbatore, particularly in socioeconomically disadvantaged groups. Community-based interventions focusing on parental education and early medical consultation can reduce the burden of this condition.

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