

Research article

A study to assess knowledge and practices of mothers about management of children with enuresis residing in kamgar nagar, pimpri chinchwad Municipal Corporation, Pune-18**Vaibhavi Duraphe**

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Abstract

A large number of children are in a very unhealthy and intimidating environment both biological and psychological areas affecting their overall psychosocial development and hence, children are facing behavioral problems mainly due to psychological disturbances. Among the psychological problems, enuresis is one of the most prominent problems observed in children. It has been reported that more than one third of India's population is below the age of 18 years and approximately 40% of the Indian Population is children, making India the country with the highest number of child population in the world (i.e around 440 million). The main aim of the present study was to assess knowledge and practices of mothers about management of children with enuresis residing in Kamgar Nagar, Pimpri Chinchwad Municipal Corporation, Pimpri, Pune, Maharashtra, India. The study included 50 mothers who have children with enuresis in age group 5-13 years of age in the selected area. The structured interview schedule was used for assessing the knowledge and practices of the mothers regarding management of children with Enuresis in the selected area. An association between knowledge and demographic variables was also assessed using Chi Square test. P value less than 0.05 was considered significant. The findings on relationship showed there existed association between practices about management of children with enuresis and selected demographic variables like mothers' age, education, type of family and number of children.

Keywords: knowledge, practices, enuresis, nursing, Pune.

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1. Introduction

A nation's most important and precious resource is its children who constitute its hope for continued achievement and productivity. Childhood is the most significant period in every one's life. Every child needs a caring and conducive environment to grow in to a potentially healthy human being in every perspective. Family, neighborhood and the society altogether play vital role in contributing to the maximum growth and development of a child. Worldwide study on children showed that a large number of children are in a very unhealthy and intimidating environment both biological and psychological areas affecting their overall psychosocial development and hence, children are facing behavioral problems mainly due to

psychological disturbances. Among the psychological problems, enuresis is one of the most prominent problems observed in children.

It has been reported that more than one third of India's population is below the age of 18 years and approximately 40% of the Indian Population is children, making India the country with the highest number of child population in the world (i.e around 440 million). [1] A growing number of teenagers and adults are also suffering from the problem of bed-wetting. [2] At the age of five years, more than one in six children still wet the bed. Most grow out of it on their own. By the age of 10, only one in 15 still wet the bed. Even in adulthood, one in 100 still suffers from the problem. [3]

Child care depends on understanding of parents, about the growth and development of the child. Growth and development are the primary markers to assess the child for any problem. Normally the child achieves the bladder and bowel control between the age of 18 and 24 months. If the child does not achieve the bladder control till the age of 5 years it leads to enuresis [4].

Enuresis is defined as repetitive voiding of urine, either during the day or night, at inappropriate places. This state is in normal in infancy. Technically, enuresis is diagnosed only after 5 years of age. The most common cause is psychological, e.g. emotional disturbances, insecurity, sibling rivalry, death of parents. [5] Bed-wetting is the most common urological problem seen in children during sleep (medically referred to as sleep Enuresis or nocturnal enuresis). About 10-20% of 5 to 6-year-olds are known to wet their beds. It is estimated that there are around 80-110 million enuretic children in the world. [6]

It is estimated that 15% of children wet past the age of 3 years while 80% of enuretic children wet only during night time while 15% during day and night and rest during day only. [7] It has been estimated that 5 million to 7 million children in the United States have primary nocturnal Enuresis (nighttime bed-wetting). Although increasing attention has been focused on nocturnal Enuresis and increasing numbers of families have sought assistance from their physicians, questions remain regarding the etiology and management of this condition. [8]

It has been estimated that 75% of children are consistently dry at night by 3 years of age and 90% by 5 years of age. Enuresis is more common in children who have experienced psychological problem. [9]

Need for the Study

The parents play the key role in caring the child and they should know the causes and consequences of enuresis if not treated. It will help the parents as well as nursing practitioners in caring the children. Hence, a study was

designed to assess knowledge and practices of mothers about management of children with enuresis residing in a localized area in Maharashtra, India. Knowledge and practices in mothers about management of enuresis in children with selected demographic variables was also correlated.

2. Patients and methods

Mothers of enuretic children (subjects) from Kamgar Nagar, Pimpri Chinchwad Municipal Corporation, Pimpri, Pune were enrolled from 15th December to 11th January 2009. All subjects fulfilled inclusion criteria including mothers of children with enuresis, ability to speak Marathi and residence in the selected area. The mothers who did not fulfill inclusion criteria were excluded from study. A non-probability sampling technique was used for selecting 50 mothers who were willing to participate and provided informed consent. [10]

Data collection technique and tool

The researcher surveyed the area for enuretic children and the mothers who had enuretic children were selected according to the criteria. Data collection and tool was constructed according to the objectives of the study. A structured questionnaire was prepared and data was collected by structured interview schedule. The structured questionnaire included following sections: **Section I** included 7 questions seeking information on demographic profile of sample such as age of child gender of child, age of mother, education of mother, mother's working status, types of family and number of children; **Section II** comprised of basic information of child's development of urinary control; **Section III** included items to assess the knowledge of mothers about management of children with enuresis and scored as poor, average and good, and **Section IV** comprised of items to assess practices of mothers about management of children with enuresis and scored as poor, good and better practices. The tool was validated with a pilot study.

Statistical analysis

Demographic data and basic information of children development were analyzed by

frequencies and percentage. The analysis of knowledge and practices was done by frequencies, percentage, mean, median and standard deviation. The data were represented as mean \pm SD. Chi-square was used to find the correlation between different variables. P value <0.05 was considered as significant.

Table 1: Description of sample's according to demographic variables

SN	Demographic Variables	Frequency	Percentage (%)
1	Age of child (in years)		
	5 – 7	33	66
	7 - 9	15	30
	9 - 11	02	04
	11 – 13	0	00
2	Gender of child		
	Male	30	60
	Female	20	40
3	Age of mother (in years)		
	20 – 25	01	02
	25 - 30	19	38
	30 - 35	19	38
	Above 35	11	22
4	Education of mother		
	Illiterate	07	14
	Primary	25	50
	Secondary	15	30
	Graduate	3	06
5	Working mother		
	Yes	32	64
	No	18	36
6	Type of family		
	Joint		
	Nuclear	19	38
	Blended	30	60
	Single parent family	01	02
		00	00
7	Number of children		
	1	07	14
	2	34	68
	3	06	12
	More than 3	03	06

3. Results

Majority of the subjects belong to age group between 25 and 35 years and 50% of the subjects

completed primary education. The subjects' demographic variables have been shown in table 1.

Basic information in relation to children's development of urinary control was also noted. Frequency of enuresis was once in a while in 48% of children, while 6% children had daily frequency. Ninety-six percent of children had habit of bed wetting. The detailed information has been shown in table 2.

Table 2: Distribution according to basic information of child's development of urinary control

SN	Basic information	Frequency	Percentage (%)
1	Age of child when toilet trained (in years)		
	1	08	16
	2	30	60
	2&1/2	09	18
	3	03	06
2	Time (presently wet the bed)		
	Night	48	96
	Day	00	00
	Night and Day	02	04
3	Frequency of Enuresis		
	Once in while	24	48
	Monthly	15	30
	Weekly	08	16
	Daily	03	06
4	Bed wetting		
	Yes	48	96
	No	02	04
5	Information		
	Yes	50	100
	No	00	00
6	Source of information		
	Doctor	20	40
	Relatives/ Friends	29	58
	Newspaper/Books	01	02
	T.V/ Radio	00	00

Category wise distribution of knowledge score in percentage was assessed. Figure 1 shows minimum percentage i.e. 8% for meaning of enuresis and maximum i.e. 37.2% for management of enuresis. It was also observed that only 2% subjects had good knowledge about enuresis and 64% subjects had poor score (figure 2).

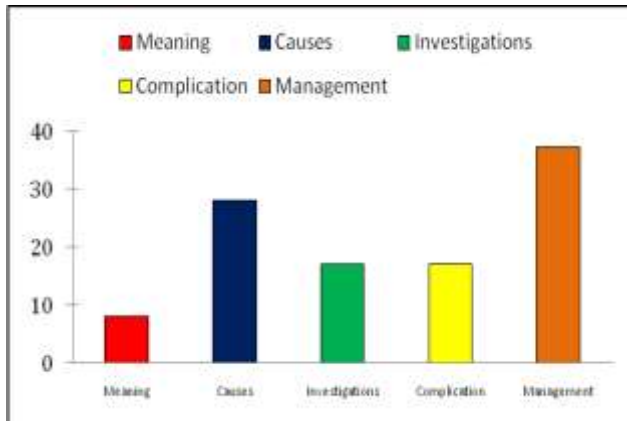


Figure 1: Category wise percentage distribution of the knowledge score in percentage

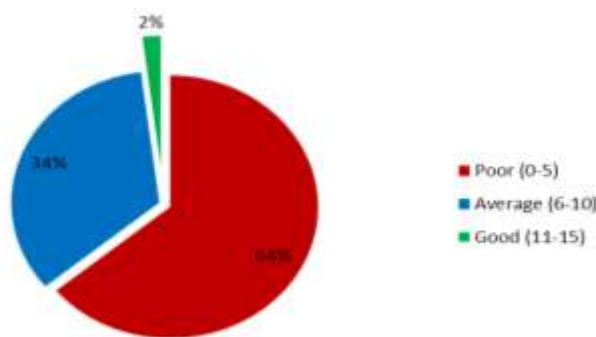


Figure 2: Pie diagram shows that most of the mothers' knowledge scores were 64% i.e. poor score and only 2% mother had good knowledge.

Mean knowledge score of subjects was 4.52 ± 2.79 . Chi-square test was used to assess the relationship between knowledge and demographic variables. It shows that there is no relationship between knowledge and selected demographic variables. It can be concluded that at 5% level of significance, knowledge is independence for different demographic variables (table 3.)

Fifty mothers of enuretic children were given structured questionnaire with interview schedule to assess their practices about management of children with enuresis. Psychological support to the enuretic child is provided by 25 mothers (50%). About 29 mothers (58%) restricts drinks after dinner and 44 mothers (88%) take their child to the toilet every day before going to the bed. Although 32 mothers (64%) make easy access of their children to the lavatory and only 1 mother (2%) used bed wetting alarm for her

child. 50 mothers (100%) never put diapers and waterproof exteriors to their children. Although 14 mothers (28%) give rewards for dry nights to their child, 28 mothers (56%) do not make their child feel guilty after beds wetting 19 mothers (38%) sometimes avoid punishment to their child for bed wetting. About 44 mothers (88%) never ask their child to change bed sheets when he/she wets the bed. About 26 mothers (52%) tell their child to meditate or do yoga and 4 mothers (8%) never give regular counseling. 48 mothers (96%) will administer or administers oral medications for management of enuresis to their child as prescribed by doctors.

Table 3: Relationship between knowledge and demographic variables

Characteristics	Chi Square	Degrees of freedom	P value
Age of Child (in years)	0.0035	2	0.9982
Age of mother (in years)	3.8867	3	0.2740
Education of mother	0.1314	3	0.9878
Working mother	0.4253	1	0.5143
Type of family	1.0477	2	0.5922
Number of children	0.0028	3	1.0000

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Mothers' practices about management of children with enuresis were also assessed. The rating scale was used to assess the practices. Never indicates all the poor practices followed by mother and 0 rating. Majority of the mothers (38.7%) followed better practices and poor practices were followed by (34.8%).

4. Discussion

Our study showed that most of the enuretic children (66%) were in the age group of 5-7 years. There were no enuretic children in the age group of 11-13 years. There were (60%) male and (40%) female enuretic children. There were (38%) mothers in the age group of 25-30 years and 30-35 years. Most of the mothers (50%) were having only primary education. Majority of the mothers (64%) were working mothers. About (60%) mothers belonged to the nuclear family. Most of the mothers (68%) were having two children. Most of the mothers (60%) toilet trained their child at age of 2 years before bed wetting. Majority of the enuretic children (96%) presently wet the bed at night. Most of the enuretic children (48%) wet the bed once in a while. Majority of the children (96%) wet the bed before starting with this present problem. About 40% of the mothers gained information from doctors, 58% from relatives/friends and 2% from newspapers/books regarding enuresis. The findings on correlation of selected demographic variables and knowledge showed that there is no association between the knowledge and the mothers' age, education, working mother, type of family and number of children. Thus the level of knowledge is independent of the selected demographic variables.

Bower et al reported prevalence of marked nocturnal enuresis (at least weekly) and marked day wetting was 5.1% and 1.4%, respectively. There was a moderate but significant relationship between the frequency of enuretic episodes and the parental concern score. Of the enuretic children, 34% had consulted with a health worker. Significantly more of the dry children woke spontaneously at night to void compared with the enuretic children. [11] Oshiname reported overall enuresis prevalence 17.6% (19.9% among boys and 14.9% among girls). The reported causes of nocturnal enuresis included urinary tract infection (33.5%), excessive play (27.5%) and deep sleep (25%). A majority (74.5%) of the respondents would use herbs or traditional medicine to treat enuresis, while only 6.8% of the respondents sought orthodox healthcare facilities for its management. Only 18 (25%) of the 71 parents/guardians with enuretic children had ever consulted a health worker. [12]

Conclusion

Our study shows that there is no association between the knowledge and mothers' age, education, working mother, type of family and number of children and there exists association between the practices and selected demographic variables like mothers' age, education, type of family and number of children except for working mothers.

Pediatric nursing practice

The role of pediatric nurse in management of children with Enuresis or behavioral problems is to assess parents' knowledge and practices and provide health education, assist the child and family to achieve and maintain an optimal level of functioning and reduce the complications. The parents should have adequate knowledge and should follow good practices to manage the child with Enuresis, since they are the key person in caring for the child with enuresis.

Nursing practice

Nurses need to be equipped with advanced knowledge to become involved in providing necessary services to the children with Enuresis

and their mothers through education programme in order to motivate and encourage them to take self actions and follow good practices. Nurses through their own training can acquire a positive attitude and should themselves with a sound base of knowledge, use the same in clinical practice.

Nursing education

Nursing education is developing rapidly in India and nurses from our country can be found all over the world providing care and assistance. The education curriculum must include imparting knowledge about the use of various teaching strategies and principles for effective planned health education. The basic training of nurses in India includes teaching of certain units related to care of children with behavior disorders should update as a part of the course in pediatric and psychiatric nursing. The nursing teachers can use the result of the research study as informative illustrations for the students. Nursing education should help in inculcating values and a sense of responsibility in the students to educate the mothers about management of children with Enuresis.

Nursing administration

In the event of ever changing disease manifestations, knowledge explosion, technological and ever-growing challenges of pediatric nursing, the administration has a responsibility to provide nurses with substantial continuing educational opportunities. Nursing personnel should be motivated to devote their time for development of educational material such as posters, pamphlets, and planned teaching and booklets on management of children with enuresis. The findings of the study should be used as a basis of in-service education programs for nurses so as to make them aware of the present problems in the community.

Nursing research

Though nursing research in pediatric nursing regarding behavioral disorders is still in the infancy stage in India, as increased number of

studies related to management of behavioral disorders specifically enuresis are being taken up by the nurses at masters and post masters level in various Indian settings. There is a need for extensive and intensive nursing research in this area so that strategies for educating people on the management of Enuresis in children and preventing its complications. The nurse researcher should be able to conduct the research on various aspects of awareness about Enuresis and management and prevention of complication of Enuresis in children, so as to generate more scientific data. Findings of this will provide baseline data about management of children with Enuresis, and strategies that can be adopted to educate people about Enuresis, prevention of complications and it can be used for further research.

Recommendations

Keeping in view the findings of the study, the following recommendations were made:

- A comparative and experimental study can be done between rural and urban mothers regarding management of enuresis in a large number of subjects and association between various demographic variables can also be evaluated.
- A study can be conducted to assess the effectiveness of a planned health teaching or using various methods of teaching like CD, health teaching on knowledge of mothers regarding enuresis.
- A similar study can be done on a larger sample as very few nursing studies have been conducted in India for assessing mother's knowledge regarding management of children with enuresis.

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