



Research article

Effectiveness of planned teaching programme on knowledge regarding prevention of urinary tract infection and practice regarding perineal care among mothers of children with urinary tract infection

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Abstract

Aim: A pre-experimental study was carried out to assess the effectiveness of planned teaching programme on knowledge regarding prevention of urinary tract infection (UTI) and practice regarding perineal care among mothers of children with urinary tract infection in selected hospitals at Puducherry. **Method:** Thirty five mothers of children with urinary tract infection were selected using the convenient sampling method. The knowledge was assessed using the structured knowledge questionnaire and practice was assessed by an observational check list. **Result:** Among 35 mothers of children with urinary tract infection in the pre-test, 11% of the mothers of children with urinary tract infection had moderate level of knowledge and 89 % of them had inadequate knowledge regarding prevention of urinary tract infection. In the post test, 51% of the mothers of children with urinary tract infection had moderate level of knowledge and 49% of them had adequate knowledge regarding prevention of urinary tract infection. **Conclusion:** In the pre-test level of perineal care practice, 3% of the mothers of children with urinary tract infection had adequate practice level, 14% mothers had moderate level and 83% of them had inadequate practice level. In the post-test 97% of the mothers had adequate practice level regarding perineal care and only 3% in moderate level of practice.

Key Words: Urinary tract infection, Perineal care, Pre-test level, Post-test level, Prevention.

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1. Introduction

Urinary tract infection (UTI) is a common bacterial infection in developing countries because of nonspecific signs and vague symptoms in very young children. UTI is the invasion of urinary tract by pathogens that may involve upper and lower tract depending on the infection in the kidney (or) bladder and urethra. Children with recurrent urinary tract infection leads to permanent renal scar and results in chronic renal failure. In 30% of children with urinary tract anomalies, urinary tract infection (UTI) can be the first sign [1].

If failed to identify patients at risk, damage to the upper urinary tract may occur. Up to 85% of infants and children with febrile UTI have visible photon defects on technetium Tc 99 labelled dimercaptosuccinic acid (DMSA) scanning, and 10–40% of these children have permanent renal scarring [2–4] that may lead to poor renal growth, recurrent pyelonephritis, impaired glomerular function, early hypertension, end-stage renal disease, and preeclampsia [5–10]. In childhood the prevalence of urinary tract infection is second only to infection of the respiratory tract [11, 12] and, while there is no evidence to suggest that untreated bacteriuria in the adult produces progressive kidney damage [13], the sequelae of untreated infection in children may be more serious. Persistent

urinary tract infection in childhood often leads to chronic atrophic pyelonephritis and renal failure [14]. The prevalence of urinary tract infection in childhood has been studied in the neonate and in schoolchildren but little attention seems to have been paid to children of pre-school age. This paper records the findings of a study in which 1000 Glasgow children between the ages of 3 months and 5 years were screened for urinary tract infection using a dip slide technique. To distinguish between bacteriuria due to contamination before or after the collection of urine and bacteriuria due to the presence of bacteria in the bladder urine, Kass introduced the concept of 'significant bacteriuria' [11]. The term applies to the presence of more than 100,000 organisms/ml urine, and it is now widely believed that this demarcation between infection and contamination holds true with few exceptions [13].

In survey study found that prevalence of urinary tract infection in 1000 children of preschool age, in which 47% highest in children below one year of age. Higher prevalence was seen in girls (16%) than in boys (11%) [15]. It carried out a cross-sectional study in Turkey revealed the incidence of idiopathic hypercalciuria in 75 children (62 girls and 13 boys) with recurrent UTI. 220 hypercalciuria was found in children (43%), of whom 72% were girls and 28% were boys. Hypercalciuric children were younger (7.2 ± 2.1 years versus 8.7 ± 2.9 years; $P = 0.01$) and had a higher mean calcium/creatinine ratio (0.50 ± 0.21 versus 0.10 ± 0.04 ; $P = 0.01$) than normalcalciuric children.

There was no significant difference between groups for voiding dysfunction, pain, haematuria, urolithiasis, and family history of urolithiasis or predisposing urinary tract abnormality. In this research study find out the effectiveness of planned teaching programme on knowledge regarding prevention of urinary tract infection and practice regarding perineal care among mothers of children with urinary tract infection.

Aim:

1. Assess the level of knowledge on prevention of urinary tract infection among mothers of children with urinary tract infection.
2. To assess the level of practice regarding perineal care among mothers of children with urinary tract infection.
3. To assess the effectiveness of planned teaching programme on knowledge regarding prevention of urinary tract infection and practice regarding perineal care among mothers of children with urinary tract infection.
4. To find correlation between the knowledge on prevention of urinary tract infection and practice regarding perineal care among mothers of children with urinary tract infection.
5. To find association between pre test level of knowledge on prevention of urinary tract infection and selected demographic variables among mothers of children with urinary tract infection.
6. To find association between pre test level of practice regarding perineal care and selected demographic variables among mothers of children with urinary tract infection.

2. Method

A Pre experimental design was used to find effectiveness of planned teaching programme on knowledge regarding prevention of urinary tract infection and practice regarding perineal care among 35 mothers of children with urinary tract infection in Urology ward of Indira Gandhi Government General Hospital and Pediatric ward of Rajiv Gandhi Maternal and Children Hospital, Puducherry by using convenient sampling technique [16-18].

3. Result

Effectiveness of planned teaching programme on knowledge regarding prevention of urinary tract infection and practice regarding perineal care among mothers of children with urinary tract infection

Table No 1: Effectiveness of knowledge regarding prevention of urinary tract infection among mothers of children with urinary tract infection

N=35

Knowledge	Pre test		Post test		't'-value	P-value
	Mean	SD	Mean	SD		
General information	2.97	1.54	6.17	0.89	10.54	0.000***
Causes, signs and symptoms of urinary infection	3.02	1.04	6.23	0.81	14.81	0.000***
Treatment (preventive aspect)	2.11	1.51	4.97	0.82	8.99	0.000***
Overall	8.11	2.89	17.37	1.57	16.07	0.000***

***-p<0.001, level of significant

Table 1 shows depict the effectiveness of planned teaching programme on knowledge regarding prevention of urinary tract infection. In that the aspect of general information, causes, signs and symptoms of urinary tract infection and treatment shows high statistical significant difference in pre and post test with 't' value 16.07 at $P<0.001$ level of significance. It could be interpreted that the planned teaching knowledge programme enhances the knowledge level of the mothers.

Table No 2: Effectiveness of planned teaching programme on practice regarding perineal care among mothers of children with urinary tract infection

N=35 **4. Discussion**

Variable	Pre test		Post test		't'-value	p-value
	Mean	SD	Mean	SD		
Practice	2.45	1.501	7.88	0.53	19.89	0.000***

***p<0.001, level of significant

Table 2 depicts the effectiveness of planned teaching programme on practice regarding perineal care among mothers of children with urinary tract infection. In that aspect of perineal care shows high statistical difference in pre and post test with value of 19.89 at p<0.001 level of significance. It could be interpreted that the planned teaching program me enhance the practice level of the mothers.

Correlation of pre test knowledge on prevention of urinary tract infection and practice regarding perineal care.

Table No 3: Knowledge on prevention of urinary tract infection and practice regarding perineal care among mothers of children with urinary tract infection

N=35

Pre test Variables	Mean	SD	'r'-value	P-value
Knowledge	8.11	2.89	- 0.159	0.361 (N S)
Practice	2.45	1.501		

N S-Not significant.

Table 3 Illustrates the correlation pre test knowledge on prevention of urinary tract infection and practice regarding perineal care among mothers of children with urinary tract infection. The correlation 'r' between pre test knowledge and practice was - 0.159 with p value 0.361. It signifies minimal negative correlation exists between pre test knowledge and practice with regard to pre test correlation.

Table No 4: Correlation of post test knowledge on prevention of urinary tract infection and practice regarding perineal care among mothers of children with urinary tract infection

N=35

Post test Variable	Mean	SD	'r'-value	p-value
Knowledge	17.37	1.57	0.68	0.000***
Practice	7.88	0.53		

***-p<0.001, Level of significance

Table 4 Illustrates the correlation post test knowledge on prevention of urinary tract infection and practice regarding perineal care among mothers of children with urinary tract infection. The correlation 'r' between post test knowledge and practice was 0.68 with p value 0.000. It signifies positive correlation exists between post test knowledge and practice with regard to post test correlation.

The correlation 'r' between pre test knowledge and practice was - 0.159 with p value 0.361. It signifies minimal negative correlation. The post test correlation 'r' between post test knowledge and practice was 0.68 with p value 0.000. It signifies positive correlation exists between post test knowledge and practice with regard to post test correlation. The study had positive correlation 0.79 between knowledge and attitude. The effectiveness of planned teaching programme on knowledge regarding prevention of urinary tract infection. In that the aspect of general information, causes, signs and symptoms of urinary tract infection and treatment shows high statistical significant difference in pre and post test with 't' value 16.07 at P<0.001 level of significance. It could be interpreted that the planned teaching knowledge programme enhances the knowledge level of the mothers. The effectiveness of planned teaching programme on practice regarding perineal care among mothers of children with urinary tract infection. In that aspect of perineal care shows high statistical difference in pre and post test with value of 19.89 at p<0.001 level of significance. It could be interpreted that the planned teaching program may enhance the practice level of the mothers.

Conclusion

The present study concluded that planned teaching programme was found to be very effective method in providing knowledge regarding prevention of urinary tract infection and practice regarding perineal care. The aspect of general information, causes, signs, and symptoms of urinary tract infection and treatment shows high statistical significant difference in pre and post test. This research study shows that the planned teaching program me enhance the practice level of the mothers.

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