



## A study to assess the knowledge and practice on toilet training among mothers of toddler in selected urban area of Murshidabad, West Bengal

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### Abstract

**Background:** Toilet training is a developmental milestone during toddler period, although all milestones and the timing of its onset vary between child to child. Most children will be toilet trained by 36 months of age. The correct knowledge and awareness among parents or the caregivers are very essential to the success of their child.

**Materials and Methods:** This non-experimental descriptive survey research study was conducted among 140 mothers from Gandhi colony, Subhas colony & Jomideri bosti under R. N. Tagore UPHC, Berhampore, Murshidabad, West Bengal from 02/01/2024 to 28/02/2024 were selected by convenient sampling technique. Data collected through interviewing by using reliable & validate tools.

**Results:** The findings of the study revealed that among 140 mothers 80% had moderately adequate knowledge, 12.1% had adequate and 7.9 % mothers had poor knowledge regarding toilet training. It also found that 52.1% mother had average, 47.9% mothers had good practice on toilet training. Positive relationship found between knowledge and practice as 'r' value 0.338. The chi-square shows that statistically significant association found between knowledge with selected demographic variables such as religion, type of the family and birth order at 0.05 level of significance.

**Conclusion:** In conclusion, adequate knowledge is essential for the enhancement of better toilet training practice among mothers of toddler.

**Keywords:** Knowledge, practice, toilet training, mother, toddler

### Introduction

Toilet training is the process of training a young child to use the toilet for urination and defecation, through the training. Toilet training is considered a progressive process which consist of several stages for which the child must acquire both physical and cognitive self-control. It includes discussing, undressing, going, wiping, dressing, flushing and hand washing <sup>[1]</sup>. Toilet training is an important task during toddler period & impacts on the parent as well as families. The process becomes smoother for parent and child if parents are educated on training techniques which should be emphasized waiting until a child shows signs of readiness before initiating training and taking a child-oriented approach <sup>[2]</sup>. The child's readiness for toilet training is very important and parent should wait to train their child at least 18 months so that child should developmentally ready to relay the sensation of bladder & bowel fullness. Investigator felt to explore the different aspects of toilet training which was most crucial age-appropriate developmental tasks during toddler period thus it was necessary to assess knowledge & practice on toilet training among mothers of toddler because mother's competency on toilet training influence the successful accomplishment of their child's toilet training and prevent further developmental complication in future. Insufficient research exists regarding the assessment of knowledge & practice on toilet training. The investigator's aims to assess the knowledge and practice on toilet training among mothers of toddler in selected urban area of Murshidabad, West Bengal.

### Material and Methods

This non-experimental descriptive survey research study was conducted to assess the knowledge and practice on toilet training among mothers of toddler in selected urban area of Murshidabad, West Bengal among 140 mothers from Gandhi colony, Subhas colony & Jomideri bosti under R. N. Tagore UPHC, Berhampore, Murshidabad, West Bengal from 02/01/2024 to 28/02/2024.

**Study Design:** Non-experimental descriptive survey research design.

**Study Location:** This study was conducted at Gandhi colony, Subhas colony & Jomideri bosti under R. N. Tagore UPHC, Berhampore, Murshidabad, West Bengal.

**Study Duration:** From 02/01/2024 to 28/02/2024

**Sample Size:** 140 mothers

**Sample size calculation:** In the present study, the sample constituted of 140 mothers. Sample size determination was done by using Cochran formula 1977 The estimated prevalence was 9% <sup>[3]</sup>

$$n = \frac{Z^2 \times p \times q}{e^2}$$

Here, p = estimated proportion which was 0.09

n = Sample size

q = Numerical probability of failure

$$q = (1-p) = (1-0.09) = 0.91$$

$$z = \text{Statistical parameter (z)} = 1.96$$

$$e = \text{Maximum accepted Estimated error} = 0.05$$

By taking 95 % estimated confidence interval sample size was calculated-

$$\text{So Estimated sample size (n)} = \frac{(1.96)^2 \times 0.09 \times 0.91}{(0.05)^2} = 125$$

Sample non-respondent 10% of sample size is 12.5 =13

So, total sample size = 125+13=138

So, estimated sample size is 140

**Subjects and selection method:** The study population was drawn by non-probability convenient sampling technique among 140 mothers from Gandhi colony, Subhas colony & Jomideri bosti under R. N. Tagore UPHC, Berhampore, Murshidabad, West Bengal.

**Inclusion criteria**

- Mothers having children 12 months -3 6months of age.
- Mothers of toddler who understand Bengali.
- Mothers of toddler who are present at the time of data collection.

**Exclusion criteria**

- Mothers of toddler who are not willing to participate in research study.
- Mothers of toddler who are not engaged as primary care giver for their baby.
- Mother of those toddlers who having infection of bowel & bladder.
- Mothers of those toddlers who are differently challenged.

**Procedure methodology:** Data were collected from 140 mothers of toddler in selected urban area of Murshidabad district after getting formal administrative permission from CMOH, Murshidabad district. Informed consent was taken from each participant throughout the study.

Tool-I composed of 12 items to collect information on demographic variables using interview schedule

Tool-II Structured interview schedule on knowledge questionnaire on toilet training consist of 14 multiple choice questions. Score 1 was given for each correct answer and 0 score for wrong answer. The maximum possible score was 14 and minimum score was 0.

Tool-III Structure interview schedule on Toilet training practice which consist of 16 items. Practice questionnaire consists of 16 dichotomous questions. Each correct practice was given 1 mark & wrong practice given 0 mark. Maximum possible score was 16.

**Statistical analysis:** Descriptive and inferential statistics were used for data analysis. To assess the demographic characteristics frequency and percentage was used. Frequency, percentage was used for assessment of level of knowledge & stated practice of the mother of toddler regarding toilet training. Karl Pear-sons Co relation & coefficient formula was used to find out the relationship between knowledge & practice. Chi-square was performed to test association between knowledge of the mother of toddler regarding toilet training with selected demographic variables.

**Result**

**Table 1:** Frequency and percentage distribution of socio-demographic characteristics of mothers of toddler

Demographic variables	Frequency (%)
Age of mother in years	
<20	43 (30.7%)
20-30	52 (37.1%)
>30	45 (32.1%)
Religion	
Hindu	81 (57.9%)
Muslim	59 (42.1%)
Educational of mother	
Primary	67 (47.9%)
Secondary	41 (29.3%)
H. S	15 (10.7%)
Intermediate	7 (5.0%)
Graduate and above	10 (7.1%)
Occupation of mother	
Housewife	114 (81.4%)
Self employed	18 (12.9%)
Other professional	8 (5.7%)
Per capita income of the family (in Rs)	
>8397	6 (4.3%)
4156-8396	20 (14.3%)
2460-4155	89 (63.6%)
1272-2456	14 (10.0%)
< 1272	11 (7.9%)
Type of family	
Nuclear	65 (46.4%)
Joint	75 (53.6%)
Source of information	
Relatives or friends	133 (95%)
Health personnel	7 (5%)

Data presented in Table 1 shows that most of the mother of toddler i.e.37.1% belongs to 20-30 years age and 57.9 % belong to Hindu religion. 47.9 % mother passed primary education. Most of mothers 81.4 % are house wife. Most of mothers 63.6% had per ca-pita income within 2460-4155, most of the families 53.6 % are joint family & most of the mothers 95% got toilet training information from relatives & friends.

**Table 2:** Frequency & percentage distribution of toddler in terms of age, sex, birth order & number of siblings of the child

Demographic variables	Frequency (%)
Age of child in months	
12-24	42 (30%)
25-36	98 (70%)
Sex of the child	
Male	51 (36.4%)
Female	89 (63.6%)
Birth order	
1 <sup>st</sup>	73 (52.1%)
2 <sup>nd</sup>	55 (39.3%)
3rd or more	12 (8.6%)
Number of siblings	
One	73 (52.1%)
Two	62 (44.3%)
Three or more	5 (3.6%)

Table 2 shows that 70% toddler belongs to maximum age 25-36 months. Most of the child were female that is 63.6%. 52.1%toddler born in 1st birth order. More than half of the child had no sibling.

**Table 3:** Frequency and Percentage distribution of knowledge score of mothers of toddler regarding toilet n=140

Level of knowledge	Frequency (%)
Inadequate knowledge (<50%, score <7)	11 (7.9%)
Moderately adequate knowledge (50-75%) (score 7-11)	112 (80%)
Adequate knowledge (>75%) (score >11)	17 (12.1%)

Above table depicted that 80 % mothers had moderately adequate knowledge, 12.1% had adequate knowledge, and 7.9 % of mother had inadequate knowledge on toilet training.

**Table 4:** Frequency and percentage distribution of the stated practice of mothers of toddler regarding toilet training n =140

Practice score	Frequency (%)
Poor Practice <50% (score < 8)	Nil
Average Practice 50-75% (score 8-12)	73 (52.1 %)
Good Practice >75% (score>12)	67 (47.9%)

Above table revealed that 52.1 % mothers of toddler had

**Table 6:** Association between knowledge of the mothers of toddler regarding toilet training with demographic variables n=140

Variables	Knowledge score		Chi-square value
	≥Median	<Median	
Age of mother in years			0.167
<20	22	21	
≥ 20	46	52	
Religion			4.001*
Hindu	47	33	
Muslim	25	35	
Education of the mother			0.486
Primary	30	36	
Secondary & above	38	36	
Occupation of the mother			0.502
Housewife	57	57	
Other professional	11	15	
Per capita income of the family (in Rs)			.075
>4155	12	14	
4155 or less	56	58	
Type of family			4.407*
Nuclear	24	41	
Joint	41	34	
Sources of information			1.15
Relatives	66	67	
Health Personnel	3	4	

$\chi^2$  at df (1) = 3.84,  $p < 0.05$

Above table depicted that there were statistically significant association present between the knowledge & selected demographic variable (Religion and type of the family) as

average practice on toilet training and 47.9 % of mothers had good practice.

**Table 5:** Relationship between knowledge and stated practice of mothers of toddler regarding toilet training n=140

Variables	Mean	Median	SD	'r'- value	't'- test
Knowledge	9.44	10	1.73	0.338*	4.224
Practice	12.40	12	1.43		

't' (138) = 2.048, \* Significant

Above Table observed that the mean knowledge score of mothers was 9.44 with SD 1.73 and the mean practice score of mothers was 12.40 with SD 1.43. So, there was a different of mean score between knowledge & practice. There was weak positive relation present between knowledge & practice as the value of corr. Co eff was 0.338 and the calculated value of t (4.704) was higher than the table value of t (2.048) with df 138 at 0.05 level of significance which was found to be a statistically significant relationship present between knowledge & practice of mother. So, it can be interpreted that mothers who have good knowledge follows an adequate practice.

the calculated value of chi square was higher than table value at 0.05 level of significance.

**Table 7:** Association between the knowledge of mother regarding toilet training with selected demographic variables in terms of age, sex, birth order, number of siblings of child n =140

Variables	Knowledge score		Chi-square value
	≥Median	<Median	
Age of child in months			1.574
12-24	17	25	
25-36	51	47	
Sex of child			1.756
Male	21	30	
Female	47	42	
Birth order			4.778*
1 <sup>st</sup>	29	44	
2nd & more	39	28	
Number of Siblings			

One	31	42	2.276
Two & more	37	30	

$\chi^2$  at  $df(1) = 3.84$ ,  $p < 0.05$

Above table observed that there was statistically significant association present between the knowledge & only selected demographic variable (Birth order) as the calculated value of chi square was higher than table value at 0.05 level of significance.

## Discussion

### Discussion related to the demographic characteristics of mothers

A descriptive study was conducted by Annamreddi L to assess the knowledge on toilet training among mothers of toddler. Result revealed that most of the mothers (80%) belongs to 20-26 years age, maximum number of mothers (80.3%) were house wife, most of the toddlers (53.3%) were female majority of toddlers (56.6%) were single child, more than half of the mothers (86.6%) were Hindu<sup>[4]</sup>.

Another study was conducted by Mrs. Kavitha S to assess the knowledge regarding toilet training among mothers of toddler in selected area at Tamil Nadu. This study result depicted that most of the mothers were (36%) belong to 20-25 years of age, maximum number of mothers (39%) were house wife, more than half of the mothers (52%) were Hindu<sup>[5]</sup>.

### Discussion related to level of knowledge of mothers of toddler

A study was conducted by Mrs. Kaur H to assess the knowledge and practice regarding toilet training among Mothers of toddler (1-3 years) at Ludhiana. Study result revealed that more than half 64% of mothers had average knowledge, 27% had good knowledge and very few i.e 9% had poor knowledge regarding toilet training.<sup>3</sup>

Another study to determine the knowledge and practice on toilet training among mothers of toddler in selected area at urban area Bhopal M.P conducted by Prof. Sisodiya V. Results found that among the mothers of toddler, 19% of the mothers had inadequate knowledge, 59% of mothers had moderately adequate knowledge and only 19% of the mothers having adequate knowledge on toilet training<sup>[6]</sup>.

Another study was supported by which was conducted by Tabdar M, Koirala N, Pradhan R to assess the knowledge and practice regarding toilet training among mothers of toddler at Sundarharaicha, Morang, Nepal. Results found that among 215 mothers, 36.3% of the mothers had moderate knowledge, 34.4% had inadequate knowledge and 29.3% had adequate knowledge regarding toilet training<sup>[7]</sup>.

### Discussion related to level of practice of mothers of toddler

A study was conducted by Mrs. Kaur H to assess the knowledge and practice regarding toilet training among Mothers of toddler (1-3 years). Result depicted that in case of practice, 73% of mothers had adequate practice and 27% had inadequate practice towards toilet training. There is no evidence of poor practice<sup>[3]</sup>.

Another study was partially supported conducted by Prof. Sisodiya V to determine the knowledge and practice on toilet training among mothers of toddler in selected area at urban area Bhopal M.P. Results found that among the mothers of toddler, 32% of the mothers having good

practice, 41% of mothers having average and 27% of the mothers having poor practice on toilet training<sup>[6]</sup>.

### Discussion related to relationship between knowledge and stated practice of mothers of toddler regarding toilet training

Mrs. Kaur H conducted a study that depicted, the co-relation between knowledge and practice regarding toilet training with the mean knowledge score 15.3 followed by practice score 12.5 respectively. The correlation was  $r=0.51$ . The correlation between knowledge and practice was found positive, it revealed that the mothers of toddlers who had more knowledge, they had adequate practice<sup>[3]</sup>.

This study further supported by the study by Mrs. Kavitha S. Study result observed that the positive correlation found between knowledge and practice. As the computed 'r' value is +0.197. Hence it was interpreted that mother who had adequate knowledge, followed good practices<sup>[5]</sup>.

Another study was supported conducted by Prof. Sisodiya V to determine the knowledge and practice on toilet training among mothers of toddler in selected area at urban area Bhopal M.P. Results found that computed 'r' value is +0.197. The positive correlation was found between knowledge and practice. Hence it was interpreted that mother who had adequate knowledge, followed good practices<sup>[6]</sup>.

### Discussion related to association between knowledge of the mothers with demographic variables

The study supported by a study conducted by Mrs. Kavitha S, the result depicted that there was a statistically significant association present between knowledge & religion ( $\chi^2=3.87$ ) as the calculated chi-square value more than the tabulated value at 0.05 level of significance<sup>[5]</sup>.

Another study was supported by which was conducted by Tabdar M, Koirala N, Pradhan R to assess the knowledge and practice regarding toilet training among mothers of toddler at Sundarharaicha, Morang, Nepal. Results found that there was a significant association between knowledge and sociodemographic variables like educational status ( $p=0.005$ ), occupation of the mother ( $p=0.008$ ), number of children ( $p=0.014$ ), birth order ( $p=0.012$ ), sources of information ( $p=0.001$ ) and previous experience ( $p=0.001$ ) regarding toilet training. Similarly, there was a significant association between practice and socio-demographic variables like educational status ( $p=0.001$ ) and source of information ( $p=0.010$ ) at  $p < 0.05$  level of significance<sup>[7]</sup>.

## Conclusion

From the above study it can be concluded that most of the mothers belongs to 20-30 years of age group & most of them were house wife & belongs to Hinduism, most of the children were female, belongs to 25 -36 months & 1st birth order. The study further depicted that most of the participants had moderately average knowledge & least number of mother's had an adequate knowledge. More than half of the mothers i.e. 52.1% had an average practice on toilet training & there is a positive relationship present between knowledge & practice. Positive association present between knowledge & selected demographic variable. So,

adequate knowledge is essential for the enhancement of better toilet training practice among mothers of toddler.

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