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¹Assistant Lecturer, Purbanchal University School of Health Sciences, Gothgaon, Morang, Nepal

²Assistant Professor, Purbanchal University School of Health Sciences, Gothgaon, Morang, Nepal

***Corresponding Author:**

Meera Tabdar

Email ID:

meeratabdar@gmail.com

ORCID iD:

[https://orcid.org/0009-0000-](https://orcid.org/0009-0000-8984-6114)

8984-6114, Mobile:9804366623

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Knowledge and Practice Regarding Toilet Training Among Mothers of Toddler at Sundarharaicha, Morang, Nepal

Meera Tabdar^{1*}, Namu Koirala², Rita Pradhan²

Abstract

Introduction: Toilet training is a significant milestone in a child's development involving both physiological and psychological readiness. It is the process of teaching toddler to control the bowel and bladder. Mother plays a crucial role in the toilet training process.

Objective: The objective of the study was to assess the knowledge and practice regarding toilet training among mothers of toddler at Sundarharaicha, Morang, Nepal.

Method: A descriptive cross-sectional study was conducted at Sundarharaicha, Morang, Nepal from August 2022 to July 2023 involving 215 mothers of toddler aged 15 to 36 months selected through convenience sampling. Purbanchal University School of Health Sciences- Institutional Review Committee (PUSHS-IRC) granted ethical clearance and informed consent were taken from study participants. Data were collected through interview using a questionnaire and checklist. Descriptive and inferential statistics were employed for data analysis using SPSS version 21. P value <0.05 was considered statistically significant.

Result: 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. There was a significant association between knowledge and socio-demographic 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.

Conclusion: It was concluded that less than half of the mothers had moderate knowledge and unsatisfactory level of practice on toilet training. An adequate knowledge and satisfactory practice on toilet training will help in normal growth and development of children.

Keywords: Knowledge; Mothers; Practice; Toddlers; Toilet training

Introduction

Toilet training also known as potty training, is the process of teaching children to control their bowel and bladder functions.¹ The appropriate age for starting toilet training is based on the child's physical, emotional, and cognitive development. According to Sigmund Freud's psychosexual theory, the toddler period (18 and 24 months) is considered a significant time for initiating toilet training.²

Many parents are unsure about the optimal timing and methods for starting toilet training. Readiness for toilet training involves both the child's signals and the parent's readiness to engage in the process.³ Early toilet training can negatively affect on acquisition of bladder and bowel control, especially if previous attempts have failed. Delayed training might lead to rise in the constipation, voiding dysfunctions and refusal to use toilet.⁴ The process should be approached with a positive and supportive attitude, using encouragement and rewards for progress.⁵

Before starting toilet training, several factors need to be considered, including the child's readiness, the parents understanding, and proper toileting practices. It's essential for parents to be well-informed about these aspects to ensure that the toilet training process is carried out effectively.⁶

According to the descriptive cross-sectional study on mothers knowledge, attitude and practice regarding toilet training at Kalika municipality, Chitwan, Nepal showed that 51.60% had inadequate awareness and 48.4% had adequate awareness regarding toilet training. The level of awareness of mother regarding signs of readiness, the time component, potential consequences, causes of wetting was insufficient.⁷

Improper toilet training practices can contribute to bladder and bowel disorders, which can cause significant challenges for both children and their families.⁸ A successful toilet training process relies on a mother's appropriate approach, a relaxed and non-anxious parental behavior and a healthy parent-child relationship.² As per researchers knowledge, in developing countries like Nepal very few research regarding toilet training have been done. Therefore, this study aims to assess the knowledge and practice regarding toilet training among mothers of toddlers at Sundarharaicha, Morang, Nepal.

Method

A Quantitative- descriptive cross-sectional study research was conducted from August 2022 to July 2023 in Sundarharaicha, Morang, Nepal to assess the understanding and practice about toilet training among 215 mothers of toddler. The sample size was calculated using Cochran's formula: $n = \frac{z^2pq}{d^2}$ where, $z=1.96$ (standard deviation for 95% set interval), $p=0.17$ (17% Prevalance of knowledge)⁹, d =confidence interval, i.e. 5% (0.05). The calculated sample size was 215.

Convenience sampling technique was used. Mothers of toddler aged 15 to 36 months and who were available and open to participate in the study were included. Mothers who could not understand Nepali or who had any psychiatric illness were excluded. Data were collected through interview using a questionnaire and checklist. The knowledge questionnaire consisted of 20 questions. The knowledge score less than 10 was categorized as inadequate, score between 10-15 was categorized as moderate and above 15 as adequate.⁴ There were total 10 categories for assessment of practice. A score of 5 or more was categorized as adequate whereas less than 5 was inadequate.⁷ By reviewing related literature and consultation with the experts, validity of the tool was maintained. The questionnaire was first developed in English, then translated into Nepali and finally with the consultation of language experts they were reverse translated.

The Institutional Research Committee (IRC no. 018-079/80) of Purbanchal University School of Health Sciences provided ethical clearance. Formal approval from the Sundarharaicha Municipality was obtained. Prior to data collection, written informed consent of the mothers was obtained. The Data were were entered into SPSS version 21 and analyzed by using descriptive statistics, such as frequency, percentage, mean, standard deviation, and inferential statistics (chi square test) was used to find the association of the level of knowledge and practice with socio demographic characteristics. The p -value < 0.05 was regarded as statistically significant.

Result

Table 1 illustrates that out of 215 respondents, majority 90.7 % were 20 years and above. Regarding the age of the toddler, majority 42.8% were 15-24 months and most of them 58.1 % were male. Majority of the respondents 27.4% were educated up to secondary level and most of them 67.4% were home maker. With regard to type of family, majority of the respondents 58.6% were from nuclear family. Majority of the respondents 43.7% had 2 children and majority 43.3% had first birth order. With regard to the source of information on toilet training, majority of the respondents 50.7% obtained information from friends and relatives and majority 52.1% had previous experience on toilet training.

Table 1: Socio demographic characteristics of respondents n=215

Characteristics		Frequency (%)
Age of mothers in years	Below 20	20(9.3)
	20 years and above	195(90.7)
	Mean \pm SD=27.48 \pm 4.79	
Age of toddler in months	15-24	92(42.8)
	25-30	45(20.9)
	31-36	78(36.3)
	Mean \pm SD=27.51 \pm 6.87	
Sex of children	Male	125(58.1)
	Female	90(41.9)
Educational Status	Illiterate	29(13.5)
	General	51(23.7)
	Primary	49(22.8)
Occupation	Secondary	59(27.4)
	Higher Secondary and above	27(12.6)
	Home maker	145(67.4)
	Agriculture	30(14)
	Business	17(7.9)
Monthly Income of Family	Daily wages	13(6.0)
	Service	10(4.7)
	Below 15000	14(6.5)
Type of Family	15000-30000	147(68.4)
	More than 30000	54(25.1)
Number of children	Nuclear	126(58.6)
	Joint	89(41.4)
	One	91(42.3)
Birth Order	Two	94(43.7)
	Three and more	30(14.0)
	One	93(43.3)
	Two	90(41.9)
Sources of information	Three	28(13.0)
	Four and above	4(1.9)
	Television	74(34.4)
	Internet	17(7.9)
	Magazines and Internet	2(.9)
Previous experience	Friends and relatives	109(50.7)
	Others	13(6.0)
	Yes	112(52.1)
	No	103(47.9)

Table 2: The level of knowledge regarding toilet training n=215

Level of knowledge	Frequency(%)
Inadequate knowledge (<50%)	74(34.4)
Moderate knowledge (50-75%)	78(36.3)
Adequate Knowledge (>75%)	63(29.3)
Total	215(100)

Table 2 depicts that majority, 36.3% of the mothers had moderate knowledge, 34.4% had inadequate knowledge and 29.3% had adequate knowledge regarding toilet training.

Table 3: The level of Practice regarding toilet training n=215

Level of practice	Frequency (%)
Unsatisfactory (\leq 50%)	121(56.3)
Satisfactory (>50%)	94(43.7)
Total	215(100)

Table 3 shows that majority, 56.3 % of the respondents had unsatisfactory level of practice and 43.7% had satisfactory level of practice regarding toilet training.

Table 4: Association between knowledge and socio demographic characteristics. n=215

Characteristics		Level of Knowledge			p value
		Inadequate n(%)	Moderate n(%)	Adequate n(%)	
Age of mother	Below 20 years	8(40)	8(40)	4(20)	0.627
	20years and above	66(33.8)	70(35.9)	59(30.3)	
	15-24	36(39.1)	26(28.3)	30(32.6)	
Age of toddler	25-30	17(37.8)	16(35.5)	12(26.7)	0.267
	31-36	21(27.3)	35(45.4)	21(27.3)	
	33	0	1(100)	0	
Sex of children	Male	38(30.4)	40(32)	47(37.6)	0.107
	Female	36(40)	38(42.2)	16(17.8)	
	Illiterate	16(55.2)	7(24.1)	6(20.7)	
Educational Status of mother	General	24(47)	21(41.2)	6(11.8)	0.005*
	Primary	12(24.5)	19(38.8)	18(36.7)	
	Secondary	14(23.7)	20(33.9)	25(42.4)	
Occupation of mother	Higher Secondary and above	8(29.6)	11(40.8)	8(29.6)	0.008*
	Home maker	45(31)	51(35.2)	49(33.8)	
	Agriculture	17(56.7)	9(30)	4(13.3)	
Monthly Income of mother	Business	6(35.3)	6(35.3)	5(29.4)	0.641
	Daily wages	0	8(61.5)	5(38.5)	
	Service	6(60)	4(40)	0	
Monthly	Below 15000	4(28.6)	4(28.6)	6(42.8)	0.641
	15000				

Income of the family	15000-30000	52(35.4)	51(34.7)	44(29.9)	
	more than 30000	18(33.3)	23(42.6)	13(24.1)	
Type of family	Nuclear	45(35.7)	48(30.1)	33(26.2)	0.489
	Joint	29(32.6)	30(33.7)	30(33.7)	
	One	41(45.1)	31(34.1)	19(20.8)	
Number of children	Two	21(22.3)	37(39.4)	36(38.3)	0.014*
	Three	12(40)	10(33.3)	8(26.7)	
	One	43(46.3)	31(33.3)	19(20.4)	
	Two	19(21.1)	37(41.1)	34(37.8)	0.012*
Birth Order	Three	10(35.7)	10(35.7)	8(28.6)	
	Four and above	2(50)	0	2(50)	
	Television	27(36.5)	25(33.8)	22(29.7)	
Sources of information	Internet	14(82.4)	3(17.6)	0	0.001*
	Magazines	0	2(100)	0	
	Friends and relatives	33(30.3)	37(33.9)	39(35.8)	
	Others	0	11(84.6)	2(15.4)	
Previous experience	Yes	28(25%)	39(34.8)	45(40.2)	0.001*
	No	46(44.7)	39(37.8)	18(17.5)	

Pearson's chi-square test, *=p value significant at < 0.05 Table 4 reveals that there was significant association between the knowledge score regarding toilet training with 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) at <0.05 level of significance.

Table 5: Association between practice and socio demographic characteristics.

n=215

Characteristics		Level of Practice		P value
		Unsatisfactory n(%)	Satisfactory n(%)	
Age of mother	Below 20 years	14(70)	6(30)	0.194
	20years and above	107(54.9)	88(45.1)	
Age of toddler	15-24	58(63.1)	34(36.9)	0.210
	25-30	24(53.3)	21(46.7)	
Sex of children	31-36	39(50)	39(50)	0.195
	Male	75(60)	50(40)	
	Female	46(51.1)	44(48.9)	
	Illiterate	26(89.7)	3(10.3)	
Educational Status of mother	General	29(56.9)	22(43.1)	0.001*
	Primary	29(59.2)	20(40.8)	
	Secondary	25(42.4)	34(57.6)	
	Higher	12(44.4)	15(55.6)	
Occupation of mother	Home maker	83(57.2)	62(42.8)	0.766
	Agriculture	17(56.7)	13(43.3)	
	Business	10(58.8)	7(41.2)	

	Daily wages	5(38.5)	8(61.5)	
Monthly Income of the family	Service	6(60)	4(40)	0.087
	Below 15000	10(71.4)	4(28.6)	
	15000-30000	87(59.2)	60(40.8)	0.980
	more than 30000	24(44.4)	30(55.6)	
Type of family	Nuclear	71(56.3)	55(43.7)	
	Joint	50(56.2)	39(43.8)	0.556
	One	54(59.3)	37(40.7)	
Number of children	Two	49(52.1)	45(47.9)	0.739
	Three	18(60)	12(40)	
Birth Order	One	56(60.2)	37(39.8)	0.010*
	Two	47(52.2)	43(47.8)	
	Three	16(57.1)	12(42.9)	0.404
	Four and above	2(50)	2(50)	
Sources of information	Television	43(58.1)	31(41.9)	0.010*
	Internet	15(88.2)	2(11.8)	
	Magazines	0	2(100)	
	and Internet	59(54.1)	50(45.9)	
Previous experience	Friends and relatives	59(54.1)	50(45.9)	
	Others	4(30.8)	9(69.2)	
	Yes	60(53.6)	52(46.4)	
	No	61(59.2)	42(40.8)	

Pearson's chi-square test, *=p value significant at < 0.05

Table 5 reveals that there was significant association of level of practice with educational status (p=0.001) and sources of information (p=0.010) at < 0.05 level of significance.

Discussion

The analysis revealed that majority of the respondents, 78(36.3%) of the respondents had moderate knowledge, 74(34.4%) had inadequate knowledge and 63(29.3%) had adequate knowledge regarding toilet training. The finding was supported by the similar study conducted at selected districts of Ludhiana. The findings from a study in Ludhiana showed that 64% had average level of knowledge regarding toilet training among mothers.² Similarly other different studies conducted at Moradabad, Mysuru, Singapore have also shown the similar results.^{9 10 11} In contrast to the finding of study by done in Raipur, Chhattisgarh, India showed 70% mothers of toddlers have inadequate knowledge, 30% have mothers of toddlers have moderate knowledge regarding toilet training. Similarly study conducted at Saudi Arabia showed majority of the mothers had poor knowledge.^{4,12} This discrepancy may be the result of differing study settings and approaches. This study shows majority of the respondents, 56.3 % of the respondents had unsatisfactory

level of practice regarding toilet training and 43.7% had satisfactory level of practice regarding toilet training. The finding was supported by the similar study conducted by Pabitra Sharma at Kalika municipality, Chitwan. The findings from a study in Chitwan showed that only 38.1 % had satisfactory level of practice.⁷ In contrast, to the finding of study conducted at Ludhiana, Jatinangor, their practice level was adequate regarding toilet training in toddler.^{2,6} The difference might be due to different methodology adopted and study setting. The analysis revealed that there was the association between educational status, occupation of the mother, number of children, birth order, sources of information and previous experience on toilet training with knowledge score regarding toilet training was found to be significant at 0.05 level of significance whereas rest of demographic variables were not significant with knowledge score. The finding was supported by the similar study conducted in Raipur, Chhattisgarh, India. There was significant relation between mothers knowledge about toilet training and their age, educational status and occupation of the mother.⁴ The analysis revealed that educational status, occupation of the mother, number of children, birth order, sources of information and previous experience on toilet training were associated with knowledge score at 0.05 level of significance. Remaining demographic variables were not significant with knowledge score. The finding was supported by the similar study conducted in Raipur, Chhattisgarh, India. In this study there was significant association between mothers knowledge about toilet training and their age, educational status and occupation of the mother.⁴ The analysis revealed that educational status of mother and sources of information on toilet training were associated with practice score. The finding was supported by the similar study conducted at Kalika municipality, Chitwan. In this study there was significant relation between mothers knowledge and the number of the children whereas other demographic variables were not significant with practice score.⁷ In contrast, a study conducted at Karnataka, India, there was a significant association between the education of mother and there was significant association between the practice and number of children. But there was no significant association

with other demographic variables.⁹ The difference might be due to different study setting and sample size.

The limitation of the study was that the research findings was based on the verbal response of the mother instead of observation of their actual practice.

Conclusion

Majority of the mothers were found to have moderate knowledge and unsatisfactory level of practice on toilet training. The knowledge was related to educational status, occupation of the mother, number of children, birth order, sources of information and previous experience on toilet training and the practice was associated to educational status of mother and sources of information on toilet training.

Recommendation

These findings suggested comprehensive health education programme is required to raise awareness among mothers of toddlers, to initiate healthy toilet training practices, the nurse administrator should organize frequent community camps on toilet training practices.

Conflict of interest

We declare no conflict of interest.

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