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**A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED
TEACHING PROGRAMME REGARDING TOILET TRAINING
AMONG MOTHERS OF TODDLERS IN A SELECTED RURAL AREA
OF DABHOI, VADODARA, GUJARAT**

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ABSTRACT

Study Background: Toilet training involves educating young children on managing their bladder and bowel movements and using the restroom. Many parents are uncertain about the appropriate timing and methods to initiate toilet training. Parents are seeking information on effective toilet training to avoid potential issues in the future. The study aimed to evaluate the impact of a video-assisted teaching program on toilet training for mothers of toddlers in a specific rural area, Dabhoi, Vadodara, Gujarat. **Objectives:** The primary objective was to gauge the effectiveness of a video-assisted teaching program on toilet training among mothers of toddlers in the chosen rural area of Dabhoi, Vadodara, Gujarat. **Material & Methods:** The research followed a quantitative approach, employing a pre-experimental one-group pre-test and post-test research design. Purposive sampling was used to select participants. The central aim was to assess the toilet training knowledge of mothers with toddlers. The research instrument consisted of two parts: one collecting demographic information and the other using a self-structured questionnaire. The study involved 130 mothers of toddlers residing in the

selected rural region of Dabhoi, Vadodara, Gujarat. **Results:** The average score of the post-test (22.23) surpassed the average score of the pre-test (10.39), yielding a mean difference of 11.84 between the two. The standard deviation was 1.50 for the pre-test and 2.298 for the post-test. The calculated "t" value was 51.478, signifying the effectiveness of the video-assisted teaching program. **Conclusion:** The analysis of pre-test and post-test scores underscores the enhancement in knowledge among mothers of toddlers following the video-assisted teaching program. The study found no significant correlation between knowledge and demographic variables.

Keywords: Effectiveness, Video Assisted Teaching, Toilet Training, Toddler, Rural Area

INTRODUCTION

In today's intricate and constantly evolving society, the process of emotional maturation during childhood is intricate and challenging, irrespective of the situation. Children represent the blossoming potential of the nation and are indispensable assets. It is expected that children should flourish and grasp their utmost capacities. The role of mothers involves advocating for children to fulfill the aspirations of all youngsters in terms of accessing educational and healthcare opportunities [1].

The focal point of a child's life revolves around the family. Simultaneously, a child holds significant sway over all other family members, regardless of the family unit's size or structure. As children begin to interact with individuals beyond their family circle, parents guide them in adhering to societal norms. During this phase, a crucial societal expectation placed on the child is the mastery of self-regulation, especially in terms of bodily functions [2].

Age cannot be solely relied upon as a rigid

indicator to decide when to initiate Toilet Training (TT), given that each child follows their unique developmental timeline. It has, therefore, been suggested to delay until the child displays specific attributes or capabilities known as Developmental Signs. Many DS have been put forth in literature as indicators to commence TT or as predictors of successful outcomes, yet there is no available research indicating which signs or how many are essential. Moreover, it remains unclear whether DS solely represent natural developmental progress or if the act of Toilet Training itself can influence the emergence of DS [3].

The successful accomplishment of potty training is reliant on reaching specific physical, developmental, and behavioral markers, rather than being determined solely by age. Several children exhibit indications of readiness for potty training sometime between 18 to 24 months of age. Nevertheless, certain children might not exhibit such readiness until they reach three

years old. Patience is key, as rushing into potty training prematurely can actually prolong the training process for child [4].

NEED FOR THE STUDY

Gaining mastery over bowel and bladder functions is a crucial skill for social interaction. Educating a toddler on using the restroom requires a combination of time, knowledge, and patience. Toilet training involves guiding young children to regulate the timing of their bladder and bowel movements and effectively using the toilet. This process represents a significant stride towards children's self-sufficiency. While all children eventually attain this fundamental control, the difficulty of the task can raise concerns for parents and even lead to familial conflicts [5].

Acquiring mastery over bladder and bowel control primarily involves two approaches: parental instruction, wherein parents guide the child on when and how to use the toilet for urination and bowel movements, and the child's own learning, where they recognize their body's cues for regulating the release and retention through their sphincters. It's important to note that each child follows a unique developmental timeline [6].

The proverb "From cradle to grave" is a well-known saying that carries a profound message: what we learn in our early years continues to influence us throughout our lifetime. Childhood holds immense significance as both positive and negative

behaviors tend to take shape during this phase of life. The virtues and qualities we instill in a child during their early years often endure until their passing. Thus, it is crucial to initiate the teaching of positive behaviors right from childhood. This developmental stage is most suitable for imparting effective hygiene practices, with proper waste disposal ranking as the foremost and essential practice [7].

Mothers play a pivotal role in the toilet training process for their children. Toilet training primarily falls within the responsibilities of mothers. They shoulder numerous tasks in this regard, including recognizing when the child is ready, providing the necessary equipment, establishing a consistent toilet training routine, responding calmly and patiently to accidents, and educating themselves about the various stages of toilet training. Mothers are typically the primary caregivers for children, thus their role in toilet training is paramount. However, research indicates that their awareness of the various aspects of toilet training for their children is limited [8-12].

AIMS AND OBJECTIVES

The study aimed to achieve the following goals:

1. To evaluate the current level of understanding among mothers regarding toilet training through the utilization of a well-structured

- knowledge questionnaire.
2. To create and validate a teaching program aided by videos that enhances the knowledge of mothers with toddlers.
 3. To gauge the impact of the video-assisted teaching program on mothers' understanding of toilet training using the same structured knowledge questionnaire.
 4. To determine whether a relationship exists between mothers' pre-test knowledge scores on toilet training and various demographic variables.

ASSUMPTIONS

The investigator assumes that

1. Mothers may possess limited understanding concerning appropriate methods of toilet training for children.

The implementation of a video-assisted program is expected to improve parents' awareness regarding toilet training.

Enuresis stands out as a prevalent issue among young children, and its neglect could lead to serious complications.

HYPOTHESES

All hypothesis will be tested at 0.05 level of significance.

H₀: There will be no significant difference between the mean post-test knowledge score of mothers of toddlers on toilet training and mean pre-test knowledge scores.

H₁: The mean post-test knowledge score

of mothers of toddlers on toilet training will be significantly higher than the mean pre-test knowledge scores.

H₂: There will be a significant association between the pre-test knowledge score of mothers of toddlers on toilet training with demographic variables.

MATERIAL AND METHOD

This study employed a quantitative research methodology. The study design chosen was a pre-experimental one group pretest post test research design. The research was carried out within a specific rural region, namely Dabhoi in Vadodara, Gujarat. The participants of the study were mothers who had toddlers. The research instrument utilized in this study consisted of two components. The first part encompassed demographic information pertaining to the sample, while the second part comprised a self-structured questionnaire. The data collection methods involved the utilization of these questionnaires. The study's sample size encompassed 130 mothers who had toddlers, all residing within the specified rural area of Dabhoi in Vadodara, Gujarat.

Sampling Technique

Sample were selected by non- probability purposive sampling technique

Inclusion Criteria

Mothers of toddler who are

- 1) Ready to take part in the study.
- 2) Available during the time of data collection.

3) Able to read and write Gujarati.

Exclusion Criteria

Mothers of toddler who are

- 1) Attended some education programme related to toilet training.
- 2) Mothers of children who are less than 1 year and more than 3 years.

TOOLS FOR DATA COLLECTION

The tool comprised of two sections:

Section-I It consists of demographic variables of the participants such as such as Age of mother, Education of mother, religion, numb of children, birth children order, Occupation of mother, types of family, income of family per month related to mother of toddler.

Section – II Semi structured knowledge questionnaire consisting of 30 Multiple Choice Questions on knowledge of mother of toddler regarding toilet training

METHOD OF DATA COLLECTION

Phase 1: Pre-Test was conducted through semi structured knowledge questionnaire to assess the existing level of mother of toddler regarding toilet training.

Phase 2- Video assisted teaching program was delivered regarding toilet training among mothers of toddlers.”

Phase 3: After a period of seven days to Post Test was conducted using the same questionnaire to assess the knowledge of mother regarding toilet training.

CONTENT VALIDITY OF THE TOOL

The content validity assessment of the

instrument was extended to seven specialists, each representing diverse domains. These domains encompassed 2 experts specializing in Child Health Nursing, 1 expert in community health nursing, and 2 experts proficient in Gujarati language. The experts were invited to contribute their perspectives and insights concerning the significance of the instrument. This collaborative effort aimed to refine and enhance the clarity and substance of the items within the tool. The suggestions and recommendations provided by the experts were then integrated to adapt and enhance the instrument accordingly.

DATA COLLECTION PROCEDURE

Data collection was scheduled to take place on two specific dates, namely January 24th and January 28th, 2022. Before initiating the data collection process, the researcher ensured proper authorization from the sarpanch of the rural area Sathod in Dabhoi. For the study, a total of 130 participants were selected using a non-probability purposive sampling technique. The aim of the study was to evaluate the impact of a video-assisted teaching program on toilet training for mothers of toddlers, utilizing a self-structured questionnaire.

On the first day, the purpose of the training was explained to the mothers who were selected based on specific criteria. Informed consent was obtained before proceeding with the study. The pre-test phase involved

the administration of a self-structured knowledge questionnaire, along with a demographic questionnaire, to the 130 mothers of toddlers. Clear instructions were provided to ensure consistent understanding during the completion of the questionnaires. Following the pre-test, the same day included a 45-minute session where video-assisted teaching on toilet training was delivered.

After a duration of seven days, the post-test was conducted by administering the same self-assisted knowledge questionnaire to measure the effectiveness of the video-assisted teaching program on toilet training among the mothers of toddlers.

Data Analysis and Interpretation

The collected data was analyzed by Descriptive and Inferential statistics.

- Descriptive statistics is used for to assess the Mean, Frequency and Percentage
- Inferential Statistics like Chi Square test used to find the association.

RESULTS

SECTION-A Frequency and Percentage distribution of the samples

The **Table 1** illustrates the distribution of percentages among mothers of toddlers. A significant proportion of these mothers, around 44.61%, fall within the age range of 26 to 40 years. The education level of 44.61% of the mothers is categorized as upper primary. In terms of religious affiliation, the majority of the mothers,

precisely 93.85%, identify with the Hindu religion. Among the 130 samples included, a noteworthy 96.14% are mothers of a single child.

When considering the occupation of these mothers, a substantial 84.61% are homemakers. Around 65.39% of these mothers belong to a joint family system, reflecting a common family structure. Furthermore, the monthly income of 46.15% of the mothers falls within the range of 6001 to 10000, signifying their economic status.

Section-B: Analysis of pre-test and post test score of knowledge on toilet training among mother of toddlers

The data presented in the **Table 2** depicts the distribution of knowledge levels among the participants before and after undergoing the assessment. The knowledge levels are categorized into four groups: Poor, Moderate, Good, and Very Good. Before the intervention (pre-test), the majority of participants (86.93%) fell under the "Poor" category, indicating a limited understanding of the subject matter, with scores ranging from 0 to 12. A smaller portion (13.07%) were classified as having a "Moderate" knowledge level, scoring between 13 and 18.

Following the intervention (post-test), a remarkable shift in knowledge levels is observed. Notably, none of the participants remained in the "Poor" category, signifying a complete transformation in understanding

due to the teaching program. Additionally, only a negligible percentage (0.77%) of participants exhibited a "Moderate" knowledge level post-intervention.

The most significant change occurred in the "Good" knowledge category, where a substantial portion of participants (85.39%) moved into this category after the intervention. Their scores ranged from 19 to 24, reflecting a noteworthy improvement in comprehension.

Section C: Assess effectiveness of video teaching programme on toilet training among mother of toddlers

The **Table 3** presents the values for M (mean), mean difference (Z), and SD (standard deviation) for both pre-test and post-test scores. Specifically, the average

score of the post-test (22.23) surpasses the mean pre-test score of 10.39. Moreover, there is a notable mean difference of 11.84 between the pre-test and post-test scores.

The standard deviation for the pre-test is 1.50, while for the post-test, it is 2.298. In addition, the calculated "t" value stands at 51.478, signifying the effectiveness of the Video Assisted teaching program.

Section-D Association between toilet training among mother of toddler of selected demographic variables

Table 4 reveals that there is no significant association found between the demographic variables and knowledge of mothers regarding toilet training in toddlers. Hence the research hypothesis is rejected and null hypothesis is accepted.

Table 1: Frequency and Percentage distribution of the samples (N=130)

1	Age of Mothers	Frequency	%
	A. Less than 25	30	23.07%
	B. 26-30	41	31.53%
	C. 31-35	36	27.69%
	D. 36 and above	23	17.69%
2	Education status of Mothers		
	A. Primary	49	37.69%
	B. Upper primary	58	44.61%
	C. High school	23	17.7%
	D. Puc/diploma	00	00%
	E. Graduate	00	00%
3	Religion of Mothers		
	A. Hindu	122	93.85%
	B. Christian	8	6.15%
	C. Muslim	00	0%
	D. Others	00	0%
4	Number of children		
	A. One	125	96.14%
	B. Two	5	3.840%
	C. Third or above	0	00%
5	Birth order of the Toddler		
	A. First	117	90%
	B. Second	13	10%
	C. Third and above	00	00%
6	Occupation of Mother		
	A. Unemployed	00	00%
	B. House wife	110	84.61%
	C. Self employed	00	00%

	D. Professional	20	15.38%
	E. Any other specify	00	00%
7	Type of Family		
	A. Nuclear	45	34.61%
	B. Joint	85	65.39%
	C. Extended	00	00%
	D. Any other specify	00	00%
8	Income of the Family per month		
	A. Less than or equal to 4000	44	33.84%
	B. 4001-6000	10	7.69%
	C. 6001-10000	60	46.15%
	D. 10001 and above	16	11.53%

Table 2: Analysis of pre-test and post test score of knowledge on toilet training among mother of toddlers

Level of Knowledge	Pre-test		Post-test	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Poor (0-12)	113	86.93%	00	00%
Moderate (13-18)	17	13.07%	1	0.77%
Good (19-24)	00	00%	111	85.39%
Very Good (25-30)	00	00%	18	13.85%

Table 3: Assess effectiveness of video teaching programme on toilet training among mother of toddlers

Variables	Mean	Mean Difference	Standard Deviation	T-value	Significance
1 Pre- test	10.39	11.84	1.50	51.478	Significant
2 Post-test	22.23		2.298		

Table 4: Association between toilet training among mother of toddler of selected demographic variables (N=130)

S. No.	Variables	Score which falls at below the median	Score which falls at above the median	Total	X ²	df	S
1.	Age (in years)						
	Less than 25	25	05	30	0.759	3	NS
	26-30	37	04	41			
	31-35	31	05	36			
	36 and above	20	03	23			
Total	113	17	130				

S. No.	Variables	Score which falls at below the median	Score which falls at above the median	Total	X ²	df	S
2.	Education of Mother						
	Primary	44	05	49	0.66	4	NS
	Upper Primary	49	09	58			
	High school	20	03	23			
	PUC/Diploma	00	00	00			
	Graduate	00	00	00			
Total	113	17	130				

S. No.	Variables	Score which falls at below the median	Score which falls at above the median	Total	X ²	df	Level of significance
3.	Religion of Mother						
	Hindu	105	17	122	1.282	3	NS
	Christian	08	00	08			
	Muslim	00	00	00			
	Others	00	00	00			
Total	113	17	130				

S. No.	Variables	Score which falls at below the median	Score which falls at above the median	Total	X ²	df	S
	Number of Children						

4.	One	103	14	117	1.271	2	NS
	Two	10	03	13			
	Third or above	00	00	00			
	Total	113	17	130			

Sr. No.	Variables	Score which falls at below the median	Score which falls at above the median	Total	X ²	Df	S
5.	Birth order of the toddler						
	One	110	15	125	3.316	2	NS
	Two	03	02	05			
	Third or above	00	00	00			
	Total	113	17	130			

Sr. No.	Variables	Score which falls at below the median	Score which falls at above the median	Total	X ²	Df	S
6.	Occupation of mother						
	Unemployed	00	00	00	0.077	3	NS
	House wife	96	14	110			
	Self employed	00	00	00			
	Professional	17	03	20			
	Any other specify	00	00	00			
Total	113	17	130				

Sr. No.	Variables	Score which falls at below the median	Score which falls at above the median	Total	X ²	Df	S
7.	Types of family						
	Nuclear	39	06	45	0.004	3	NS
	Joint	74	11	85			
	Extended	00	00	00			
	Any other specify	00	00	00			
	Total	113	17	130			

S.No	Variables	Score which falls at below the median	Score which falls at above the median	Total	X ²	df	S
8.	Income of the family						
	Less than or equal to 4000	37	07	44	0.503	3	NS
	4001-6000	09	01	10			
	6001-10000	53	07	60			
	10001 and above	14	02	16			
TOTAL	113	17	130				

DISCUSSION

In this research, the initial pre-test scores reveal that before implementing the video-assisted teaching program, a substantial number of participants, specifically 113 mothers (86.92%) from the rural area, demonstrated a poor level of knowledge (with scores ranging from 0 to 12)

concerning the subject of interest. Conversely, 18 mothers (13.85%) from the rural area exhibited a very good level of knowledge (scoring between 25 and 30). Interestingly, none of the rural area mothers (0%) achieved a good knowledge level (scores from 19 to 24), and there were no

mothers (0%) with an average level of knowledge within the very good range (scores from 25 to 30). The average score in the pre-test, signifying knowledge regarding toilet training among the mothers, was recorded as 10.39.

Moving on to the post-test scores, they indicate that following the implementation of the video-assisted teaching program, a significant majority of rural area mothers, comprising 11 individuals (85.392%), exhibited a good level of knowledge (scores ranging from 19 to 24). Additionally, 17 mothers (13.08%) from the rural area showcased a moderate level of knowledge (scores between 13 and 18), and just 1 mother (0.77%) demonstrated a similar moderate level of knowledge. Impressively, none of the rural area mothers (0%) indicated a poor level of knowledge (scores from 0 to 12).

A research conducted by [9] unveiled that a significant portion of participants whose children experienced unsuccessful toilet training previously, encompassing 73.3% or 22 respondents, were provided with instruction using modeling techniques. Furthermore, among those respondents whose children managed to successfully undergo toilet training, 90% or 27 respondents utilized modeling techniques. The study's outcomes underscore the effectiveness of allowing children to witness their parents' bathroom practices. Through

observing adults using the toilet, children can glean insights on its proper usage, cultivating a desire to replicate the behavior. An additional research undertaken by [10] illuminated that the approach of mothers towards toilet training is of moderate nature. The study also identified noteworthy correlations between mothers' practices and their socio-demographic attributes, specifically their education and marital status. The study's outcomes underscore the need for an extensive health education initiative, potentially led by the Ministry of Health and Environment, to enrich and refine mothers' practices concerning toilet training during early childhood.

In a quasi-experimental research conducted by [11], the objective was to investigate the impact of video modeling animation on the toilet training proficiency of mothers with toddlers. The study concluded that the utilization of video modeling animation notably enhances both the preparedness of mothers for toilet training and the competence of their children in toilet training. Therefore, video modeling animation emerges as a viable option for enhancing the efficacy of toilet training practices.

A comparable investigation was carried out by [12] to examine signs of developmental progress linked to toilet training in healthy toddlers. The purpose was to identify indicators that could aid in determining the

optimal initiation time for toilet training and predicting its success. The study's outcomes indicated a substantial correlation between age and 13 out of 15 identified developmental signs. Notably, attributes such as comprehension of instructions and adherence, along with a more extensive vocabulary, were notably more prevalent when toilet training was commenced. However, the achievement of staying dry during midday nap did not yield significant results.

CONCLUSION

The study found that there is no association between the sociodemographic variables and knowledge of mothers regarding knowledge of Toilet training and it has been revealed that Video assisted teaching program enhanced the level of knowledge of mothers.

RECOMMENDATIONS

1. The research can be replicated using a substantial sample, thereby allowing the results to be applicable to a broader population.
2. Employing a video-assisted educational program can effectively enhance mothers' understanding of toilet training methods for toddlers.
3. A quantitative investigation can be carried out to evaluate the perspectives of mothers with toddlers regarding the process of toilet training.

Conflict of Interest

The authors declare that there is no any conflict of interest.

Ethical Clearance

Ethical approval was obtained from Institutional Ethics committee before the commencement of study.

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