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Efficacy of Pantomime on Knowledge Regarding Management of Temper Tantrum Among Mothers of Under-Five Children: A Pre-Experimental Study

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Abstract:

Introduction: Temper tantrums are very common among under-five children because they are yet to master communication skills. Some typical tantrums behaviours include crying, hitting, kicking, stomping, throwing objects and breath-holding. The purpose of the study was to examine the effectiveness of pantomime in increasing the maternal knowledge on how to deal with temper tantrum. **Methodology:** The quantitative, pre-experimental design were adopted. Non-probability purposive sampling was used to select a sample of 100 mothers with under-five children in Nerkundram, Chennai. The educational intervention applied was pantomime and post-test were done after 7 days. **Results:** During the pretest, 100% of mothers were found to have poor knowledge. After the intervention, 94% were at the adequate level of knowledge and 6% were at the moderately adequate level of knowledge. The pre-test mean score was 6.34 ± 1.89 and post-test mean score was 20.93 ± 1.84 , with a mean difference of 14.59. The $t = 55.499$ was the paired t-test value that is statistically significant at $p = 0.001$. **Conclusion:** Pantomime is a convenient educational intervention to enhance maternal education on how to control temper tantrum in mothers of children under-five years.

Keywords: Pantomime, knowledge, temper tantrum, mothers of under-five children, health education

INTRODUCTION

Temper tantrums are a frequent occurrence in under-five children, as they are still developing their communication skills. Common behaviours during tantrums include crying, hitting, kicking, stomping, throwing objects, and holding their breath. When these outbursts become frequent or severe, it is important for mothers to explore the underlying causes and seek effective ways to manage them. Researchers suggest that tantrums may arise not only from anger or frustration, but also from a broader sense of emotional distress.

Temper tantrums are short episodes of intense, often unpleasant or aggressive behaviour triggered by frustration or anger. Among under-five children, these behaviours include crying, screaming, yelling, collapsing to the ground, flailing limbs, hitting, kicking, throwing objects, holding their breath, pushing, pulling, or biting. On average, tantrums occur once daily in children aged 18 to 60 months, typically lasting around three minutes.

Globally, parenting challenges related to behavioural issues like temper tantrums are reported across all socio-economic and cultural settings. Disparities in literacy, educational opportunities, and access to professional support make it difficult for many mothers, especially in low- and middle-income countries (LMICs), to gain skills needed for effective behaviour management. UNICEF emphasize that parental capacity to manage behavioural challenges is directly linked to positive child outcomes.

Pantomime, a form of non-verbal dramatic expression using gestures, facial expressions, and body movements, can vividly demonstrate real-life scenarios and appropriate caregiver responses to child behaviour. Its ability to transcend language and literacy barriers makes it especially useful in community health education. Despite its potential, the use of pantomime in behaviour-focused parenting education remains underexplored.

NEED FOR THE STUDY

According to global statistics, a large percentage of mothers exhibit poor or average knowledge on temper tantrums among under-five children. The studies conducted internationally show that although most mothers are familiar with tantrums as a normal aspect of toddlerhood, a significant portion of them do not have a well-developed idea of the reasons behind tantrums, how they can be managed, and what consequences may be expected.

At the state level, moderate knowledge and adequate knowledge of temper tantrum management among mothers are 58.5 and 18.5, respectively. Mangalore, Karnataka descriptive study found out that 26.45% of preschool children had mild tantrum behaviour, 54.54% moderate level and 19.01% moderate severe level.

A pre-experimental study carried out in Punjab revealed that 76.7% of mothers were moderately informed and 23.3% were adequately informed. A study in Maharashtra revealed that 64% had inadequate knowledge and 37% had moderately knowledge. The findings demonstrate the pressing necessity of providing innovative, easy-to-use, and culturally flexible educational interventions to increase maternal knowledge about dealing with temper tantrums in young children.

METHODOLOGY

Quantitative research was employed. The study adopted a pre-experimental design. It was carried out in Nerkundram, an urban community located in Chennai District, Tamil Nadu, India, which has a population of approximately 59,790, including 7,845 children under five years of age. The study sample comprised 100 mothers of under-five children.

Participants were recruited using a non-probability purposive sampling technique based on predefined inclusion criteria. The required sample size was estimated through power analysis.

Criteria

The inclusion criteria consisted of mothers of under-five children who were literate in either Tamil or English, expressed willingness to participate, and were available during the data collection period. The exclusion criteria included caregivers other than mothers and mothers who were unwilling to take part in the study.

Data were collected using a self-structured questionnaire to assess mothers' knowledge regarding temper tantrum management, along with a socio-demographic data sheet to obtain relevant background information about the participants.

Ethical clearance was obtained from Institutional Ethics Committee (IEC No. 1275/2024/IEC/ACSMCH). Informed consent was obtained and strict measures were taken to ensure confidentiality and privacy throughout the research process.

Data collection was conducted between 11 January 2025 and 15 January 2025. Initially, a pre-test was done using a structured questionnaire to assess the knowledge. This was followed by a pantomime-based intervention focusing on the management of temper tantrums. The post-test was carried out seven days after the intervention to evaluate changes in knowledge. The collected data were analyzed using descriptive and inferential statistical methods.

RESULT

Most mothers were aged 20–24 years (54%), had two under-five children (62%), were Hindu (54%), belonged to nuclear families (60%), had intermediate or diploma education (35%), were housewives (58%), and belonged to the upper middle socioeconomic class (36%). More than half (51%) had prior information about temper tantrums, mainly obtained from health personnel (43.1%). (Table 1)

In the pre-test, all mothers (100%) demonstrated inadequate knowledge regarding temper tantrum management. Following the pantomime intervention, 94% of the mothers attained adequate knowledge, while 6% achieved moderately adequate knowledge; none remained in the inadequate knowledge category (Table 2).

The mean knowledge score increased markedly from 6.34 ± 1.89 in the pre-test to 20.93 ± 1.84 in the post-test, with a mean gain of 14.59. This improvement was found to be highly statistically significant ($p < 0.001$), indicating the effectiveness of the pantomime intervention in enhancing mothers' knowledge (Table 3).

Among the demographic variables examined, only the number of under-five children in the family was significantly associated with post-test knowledge scores ($p = 0.045$). No significant associations were observed with the other selected demographic variables (Table 4).

DISCUSSION

The present study demonstrated that pantomime is an effective educational method for improving mothers' knowledge regarding the management of temper tantrums among under-five children. Prior to the intervention, all mothers (100%) had inadequate knowledge; after the pantomime session, 94% attained adequate knowledge.

The mean knowledge score increased significantly from 6.34 ± 1.89 in the pre-test to 20.93 ± 1.84 in the post-test, with a mean difference of 14.59. The paired t-test value ($t = 55.499$, $p < 0.001$) confirmed the effectiveness of the intervention. Comparable findings have also been reported in previous studies, which documented good parental knowledge regarding temper tantrums following educational interventions.

Among the selected demographic variables, only the number of under-five children in the family showed a statistically significant association with post-test knowledge scores ($p = 0.045$). This finding suggests that mothers with more experience in caring for young children may possess better knowledge regarding the management of temper tantrums. Similar observations have been reported in previous studies, which indicate that family characteristics can influence parental knowledge and child management practices.

The effectiveness of pantomime may be attributed to its visual and interactive nature, which enhances understanding and retention, particularly among mothers with varying literacy levels.

CONCLUSION

The present study confirms that pantomime is an effective educational strategy for improving mothers' knowledge regarding the management of temper tantrums among under-five children. A significant increase in knowledge was observed after the intervention ($t = 55.499$, $p < 0.001$). Among the demographic variables, only the number of under-five children in the family showed a significant association with post-test knowledge.

RECOMMENDATION

Further studies may be undertaken to assess the attitudes and practices of mothers of under-five children regarding the management of temper tantrums. Replication of the present study with larger samples and in diverse settings is recommended to enhance the generalizability of the findings. Comparative research between urban and rural populations may provide additional insights into differences in knowledge and management practices. Health facilities should ensure access to pediatricians who can offer parents appropriate guidance on managing temper tantrums.

In addition, manuals and informational booklets should be developed and distributed within the community to improve parental knowledge. Experimental studies incorporating a control group are also recommended to compare the effectiveness of pantomime with conventional educational methods.

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Table 1: Frequency and Percentage Distribution of Demographic Variables of Mothers of Under-Five Children (N = 100)

Demographic Variables	F	%
Age of the Mothers (years)		
20 – 24	54	54.0
25 – 29	37	37.0
30 – 34	4	4.0
> 35	5	5.0
Number of Under Five Children		
1	37	37.0
2	62	62.0
3	1	1.0
Religion of Mother		
Hindu	54	54.0
Christian	25	25.0
Muslim	21	21.0
Type of Family		
Nuclear	60	60.0
Joint	37	37.0
Extended	3	3.0
Educational Qualification		
Professional Degree	5	5.0
Graduate	15	15.0
Intermediate/Diploma	35	35.0
High School	33	33.0
Middle School	3	3.0
Primary School	4	4.0
Illiterate	5	5.0
Occupation of Mother		
Private Employee	32	32.0
Government Employee	10	10.0
Housewife	58	58.0
Family Income per Month		
Below Rs. 10,000	13	13.0
Rs. 10,001 – 15,000	35	35.0
Rs. 15,001 and above	52	52.0

Socio-Economic Status		
Upper	1	1.0
Upper Middle	36	36.0
Lower Middle	34	34.0
Upper Lower	27	27.0
Lower	2	2.0
Previous Information on Temper Tantrum		
Yes	51	51.0
No	49	49.0
Source of Information (among those who received)		
Elders/Relatives/Friends	11	21.6
Health Personnel	22	43.1
Television/Radio	11	21.6
Newspaper/Books/Magazine	7	13.7

Table 2: Frequency and Percentage Distribution of Pre-test and Post-test Level of Knowledge Regarding Management of Temper Tantrum (N = 100)

Level of Knowledge	Pretest F	Pretest %	Post-test F	Post-test %
Inadequate ($\leq 50\%$)	100	100.0	0	0
Moderately Adequate (51–75%)	0	0	6	6.0
Adequate ($> 75\%$)	0	0	94	94.0

Table 3: Comparison of Pre-test and Post-test Knowledge Scores Regarding Management of Temper Tantrum (N = 100)

Knowledge	Mean	S.D	Mean Difference	Paired 't' value	p-value
Pretest	6.34	1.89	14.59	t = 55.499	p = 0.0001 (S***)
Post-test	20.93	1.84			

* $p < 0.05$ – Significant (S*); N.S – Not Significant

Table 4: Association of Post-test Level of Knowledge with Selected Demographic Variables (N = 100)

Demographic Variable	Chi-Square (χ^2)	df	p-value
Age of Mothers (years)	3.782	3	0.286 (N.S)
No. of Under Five Children*	6.211	2	0.045 (S*)
Religion	0.659	2	0.719 (N.S)

Type of Family	0.262	2	0.877 (N.S)
Educational Qualification	4.912	6	0.555 (N.S)
Occupation of Mother	4.622	2	0.099 (N.S)
Family Income per Month	3.086	2	0.214 (N.S)
Socio-Economic Status	5.138	4	0.273 (N.S)
Previous Info on Temper Tantrum	0.003	1	0.960 (N.S)
Source of Information	1.856	3	0.603 (N.S)

* $p < 0.05$ – Significant (S*); N.S – Not Significant

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