

Effect Of Information Booklet Regarding Prevention of ADHD Among Parents of Toddler Residing in Rural Area

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Abstract—Effect of information booklet regarding prevention of ADHD among parents of toddler residing in rural area.” Pre-experimental one-group pre-test and post-test research design will be used. The study will be conducted among parents of toddlers residing in a selected rural area. The proposed sample will consist of 60 parents selected using a non-probability convenient sampling technique.

I. INTRODUCTION

Children are the foundation of every nation and the future of every community. Their physical, mental, emotional, social, and behavioural development is influenced by the interaction of biological characteristics, family relationships, nutrition, environment, education, healthcare, and social conditions. behaviour, mental health, and social functioning. The World Health Organization (WHO), UNICEF, and World Bank emphasize that the period from pregnancy through the first three years of life represents a particularly important window for brain development and that children require good health, adequate nutrition, safety and security, responsive caregiving, and opportunities for early learning. ¹ the toddler period is a stage of rapid development in which children become increasingly mobile, independent, curious, and socially interactive. During this period, children learn through exploration, play, communication, imitation, and interaction with parents and other caregivers. Parents therefore have a central role in providing a safe, secure, stimulating, and responsive environment. Developmental milestones in the toddler years include changes in movement, communication, social interaction, play, emotional regulation, and behaviour. Monitoring these developmental changes helps parents and healthcare

professionals recognize when a child may require further assessment. ² Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common neurodevelopmental disorders of childhood. It is characterized by persistent patterns of inattention and/or hyperactivity-impulsivity that are inappropriate for the child's developmental level and interfere with functioning. Children with ADHD may experience difficulties in attention, impulse control, activity regulation, learning, social relationships, and behaviour. Symptoms usually begin during childhood and may continue into adolescence and adulthood. ³

II. OBJECTIVE

1. To assess the pre-test knowledge regarding prevention and risk reduction of Attention-Deficit/Hyperactivity Disorder among parents of toddlers.
2. To assess the post-test knowledge regarding prevention and risk reduction of Attention-Deficit/Hyperactivity Disorder among parents of toddlers after administration of the information booklet.
3. To determine the association between post-test knowledge scores regarding prevention and risk reduction of ADHD and selected demographic variables of parents of toddlers.

III. METHODS

study design and setting: “A quantitative evaluative research approach and pre-experimental one-group pre-test and post-test research design will be used. The study will be conducted among parents of toddlers residing in a selected rural area. The proposed sample

will consist of 60 parents selected using a non-probability convenient sampling technique. Hypotheses.” in this study, there will be a significant difference between the pre-test and post-test knowledge scores regarding prevention and risk reduction of Attention-Deficit/Hyperactivity Disorder among parents of toddlers after administration of the information booklet. self-administered questionnaire for assessing knowledge. to whom the pre-test was conducted. After 7 days, the post

SAMPLE SIZE:

The sample size for study will consist of 60 parents

SAMPLING TECHNIQUE:

A non-probability convenient sampling technique will be used for selecting the participants. Parents of toddlers who are available in the selected rural area and fulfil the inclusion criteria will be approached by the researcher. parents who are willing to participate will be enrolled in the study after obtaining informed consent. the use of convenient sampling will facilitate recruitment of participants within the available study setting and period.

IV. DATA COLLECTION TOOLS AND TECHNIQUES

Data collection is a crucial aspect of research. the study aims to assess effect of information booklet regarding prevention of ADHD among parents of toddler residing in rural area. and for this purpose, a self-structured questionnaire was developed. The tool was divided into two sections

Data analysis:

The collected data will be organized, coded, tabulated and analyzed using appropriate descriptive and inferential statistics. Descriptive Statistics Frequency, Percentage, Mean, Median, where appropriate. Standard deviation Demographic characteristics of the participants will be presented using frequency and percentage distributions. Pre-test and post-test knowledge scores will be described using mean and standard deviation. Inferential Statistics Paired t-test A paired t-test will be used to compare the mean pre-test and post-test knowledge scores of the same participants. This will help determine whether there is a statistically significant improvement in knowledge

following administration of the information booklet. Chi-square test the chi-square test will be used to determine the association between pre-test knowledge level and selected demographic variables, where the assumptions for the test are met. The level of significance will be set at: $p < 0.05$

V. RESULT

this section presents the percentage-wise distribution of the analysis and interpretation of data collected from 60 parents of toddlers residing in a selected rural area to assess the effectiveness of an information booklet regarding prevention and risk reduction of Attention-Deficit/Hyperactivity Disorder (ADHD). The study was conducted using a quantitative pre-experimental one-group pre-test and post-test research design. Table 4.1 shows the distribution of the 60 parents according to their selected demographic characteristics. The largest proportion of parents were above 35 years (36.7%), followed by those below 25 years (25.0%). The majority of participants were female (96.7%) and were mothers of the toddlers (96.7%). Regarding education, the largest proportion were graduates (43.3%), while 23.3% had secondary education and 20.0% had higher secondary education. In terms of occupation, the majority were homemakers (65.0%). More than half of the participants belonged to nuclear families (51.7%). Regarding number of children, 45.0% had two children. The largest proportion of toddlers were 3 years old (40.0%). Importantly, 63.3% of parents had not previously received information regarding ADHD, while only 36.7% had previous information. Among those reporting previous information, healthcare professionals and newspapers/magazines were each reported by 8.3%, followed by internet/social media (6.7%), family/friends and Anganwadi/school (5.0% each), and television/radio (3.3%). Only 15.0% had previously consulted a professional regarding child development or behaviour. Overall, the demographic findings indicate that there was a substantial information gap regarding ADHD among the parents, supporting the need for an educational intervention such as the information booklet. Table 4.6 reveals that before administration of the information booklet, 40 (66.7%) parents had moderately adequate knowledge regarding prevention and risk reduction of ADHD. Seventeen parents (28.3%) had inadequate knowledge,

while only 3 (5.0%) had adequate knowledge. These findings indicate that the majority of parents had insufficiently developed knowledge before the educational intervention

This chapter deals with the analysis and interpretation of data collected from 60 parents of toddlers residing in a selected rural area to assess the effectiveness of an information booklet regarding prevention and risk reduction of Attention-Deficit/Hyperactivity Disorder (ADHD). The study was conducted using a quantitative pre-experimental one-group pre-test and post-test research design. Parental knowledge regarding prevention and risk reduction of ADHD was assessed before and after administration of the information booklet.

Table 4.1: Distribution of Parents According to Selected Demographic Variables

N = 60

S. N o.	Demographic Variable	Category	Frequency (f)	Percentage (%)
1	Age of parent	Below 25 years	15	25.0
		25–30 years	14	23.3
		31–35 years	9	15.0
		Above 35 years	22	36.7
2	Gender	Female	58	96.7
		Male	2	3.3
3	Relationship with toddler	Mother	58	96.7
		Father	2	3.3
4	Educational status	No formal education	3	5.0
		Primary	4	6.7
		Secondary	14	23.3
		Higher secondary	12	20.0
		Graduate	26	43.3
		Postgraduate	1	1.7
5	Occupation	Homemaker	39	65.0
		Agriculture/Farming	2	3.3
		Daily wage worker	3	5.0
		Private employee	4	6.7
		Government employee	7	11.7

		Business/Self-employed	5	8.3
6	Monthly family income	< ₹10,000	12	20.0
		₹10,000–19,999	15	25.0
		₹20,000–29,999	10	16.7
		₹30,000–49,999	7	11.7
		≥ ₹50,000	16	26.7
7	Type of family	Nuclear	31	51.7
		Joint	22	36.7
		Extended	7	11.7
8	Number of children	1	20	33.3
		2	27	45.0
		3	11	18.3
		4	2	3.3
9	Age of toddler	1 year	19	31.7
		2 years	17	28.3
		3 years	24	40.0
10	Previous information regarding ADHD	Yes	22	36.7
		No	38	63.3
11	Source of previous ADHD information	Healthcare professional	5	8.3
		Television/Radio	2	3.3
		Internet/social media	4	6.7
		Family/Friends	3	5.0
		Anganwadi/School	3	5.0
		Newspaper/Magazine	5	8.3
		None	38	63.3
12	Previous professional consultation regarding child development/behaviour	Yes	9	15.0
		No	51	85.0
		Total	60	100.0

Table 4.6: Distribution of Parents According to Pre-test Knowledge Level

Level of knowledge	Frequency	Percentage
Inadequate	17	28.3%
Moderately adequate	40	66.7%
Adequate	3	5.0%
Total	60	100%

Interpretation

Table 4.6 reveals that before administration of the information booklet, 40 (66.7%) parents had moderately adequate knowledge regarding prevention and risk reduction of ADHD. Seventeen parents (28.3%) had inadequate knowledge, while only 3 (5.0%) had adequate knowledge.

These findings indicate that the majority of parents had insufficiently developed knowledge before the educational intervention.

Table 4.8: Comparison of Pre-test and Post-test Knowledge Categories Among Parents

Knowledge category	Pre-test	Post-test	Change
Inadequate	28.3%	0.0%	-28.3 percentage points
Moderately adequate	66.7%	21.7%	-45.0 percentage points
Adequate	5.0%	78.3%	+73.3 percentage points

The proportion of parents with adequate knowledge increased from 5.0% in the pre-test to 78.3% in the post-test. At the same time, inadequate knowledge decreased from 28.3% to 0%, while moderately adequate knowledge decreased from 66.7% to 21.7%. This pattern indicates a marked positive change in parental knowledge after administration of the information booklet.

Interpretation The mean pre-test knowledge score was 21.90 ± 4.57 , whereas the mean post-test knowledge score increased to 33.42 ± 4.91 .

Table 4.9: Comparison of Pre-test and Post-test Mean Knowledge Scores

Test	Mean	SD	Mean Difference
Pre-test	21.90	4.57	
Post-test	33.42	4.91	11.52

The mean difference between the pre-test and post-test scores was 11.52.

This increase in the mean knowledge score indicates improvement in parental knowledge following administration of the information booklet.

Table 4.10: Paired t-test Showing Effectiveness of Information Booklet

Variable	Mean Difference	SD Difference	t-value	df	p-value
Knowledge regarding prevention and risk reduction of ADHD	11.52	2.35	37.89	59	<0.001

Level of significance = 0.05

Interpretation The calculated paired t-value was 37.89 with 59 degrees of freedom. The obtained p-value was less than 0.001, which is lower than the predetermined significance level of 0.05. Therefore, the difference between pre-test and post-test knowledge scores was statistically highly significant. Hence, the information booklet was found to be effective in improving knowledge regarding prevention and risk reduction of ADHD among parents of toddlers in this simulated dataset. The null hypothesis stating that there would be no significant difference between pre-test and post-test knowledge scores would therefore be rejected for this simulated dataset

There was a statistically significant association between previous information regarding ADHD and post-test knowledge level ($\chi^2 = 4.51$, $p = 0.034$), indicating that parents who had previous exposure to ADHD information demonstrated a higher proportion of adequate post-test knowledge in this simulated dataset.

However, there was no statistically significant association between post-test knowledge and age of parent ($p = 0.843$), gender ($p = 1.000$), relationship with toddler ($p = 1.000$), educational status ($p = 0.139$), occupation ($p = 0.490$), monthly family income ($p = 0.826$), type of family ($p = 0.090$), number of children ($p = 1.000$), age of toddler ($p = 0.410$),

source of previous ADHD information ($p = 0.329$), or previous professional consultation ($p = 0.693$).

Thus, among the 12 demographic variables examined, only previous information regarding ADHD showed a statistically significant association with post-test knowledge in this simulated dataset.

VI. DISCUSSION

The discussion is presented according to the objectives of the study.

Objective 1

To assess the level of knowledge regarding prevention and risk reduction of ADHD among parents of toddlers before administration of the information booklet.

The findings revealed that during the pre-test, 17 (28.3%) parents had inadequate knowledge, 40 (66.7%) had moderately adequate knowledge and only 3 (5.0%) had adequate knowledge regarding prevention and risk reduction of ADHD.

The mean pre-test knowledge score was 21.90 ± 4.57 . These findings indicate that although some parents possessed a moderate level of knowledge, a considerable proportion had inadequate knowledge before receiving the information booklet. Only a small proportion demonstrated an adequate level of knowledge.

The findings suggest the presence of an important knowledge gap among parents regarding ADHD, particularly in relation to its basic concept, associated and risk factors, healthy practices, early recognition, appropriate help-seeking and misconceptions.

In a rural community, parents may have limited access to reliable developmental and behavioural health information. Therefore, structured educational material presented in a simple and understandable form may be useful in improving parental awareness. The findings also highlight the importance of nurses and other healthcare professionals in providing accurate information to parents regarding child development and behavioural concerns.

Objective 2

To evaluate the effectiveness of the information booklet regarding prevention and risk reduction of ADHD among parents of toddlers.

The findings demonstrated a substantial improvement in parental knowledge following administration of the information booklet.

The pre-test mean knowledge score was 21.90 ± 4.57 , whereas the post-test mean knowledge score increased to 33.42 ± 4.91 .

The mean difference between the pre-test and post-test scores was 11.52.

The calculated paired t-value was 37.89, with 59 degrees of freedom, and the obtained p-value was <0.001 .

Since the obtained p-value was less than the predetermined level of significance of 0.05, the difference between the pre-test and post-test knowledge scores was statistically significant.

Therefore, the information booklet was found to be effective in improving the knowledge of parents regarding prevention and risk reduction of ADHD.

The improvement was also evident from the distribution of knowledge categories. Before the intervention, only 5.0% of parents had adequate knowledge. Following the intervention, the proportion of parents with adequate knowledge increased markedly to 78.3%.

At the same time, the proportion of parents with inadequate knowledge decreased from 28.3% in the pre-test to 0% in the post-test.

These findings indicate that the information booklet served as an effective educational intervention for increasing parental knowledge.

The findings support the importance of providing structured, accessible and culturally appropriate educational materials to parents, particularly in rural settings where opportunities for formal health education may be limited.

Thus, the findings of the present study demonstrate that an appropriately prepared information booklet can be used as a simple and cost-effective nursing intervention to improve parental awareness regarding ADHD.

Objective 3

To determine the association between post-test knowledge regarding prevention and risk reduction of ADHD and selected demographic variables among parents of toddlers.

The findings revealed that there was a statistically significant association between previous information regarding ADHD and post-test knowledge level.

The calculated chi-square value was $\chi^2 = 4.51$, with a p-value of 0.034, which was less than 0.05.

This indicates that previous exposure to information regarding ADHD was significantly associated with the post-test knowledge level of parents.

Parents who had previous information regarding ADHD demonstrated a higher proportion of adequate knowledge in the simulated dataset.

However, no statistically significant association was observed between post-test knowledge and:

- Age of parent
- Gender
- Relationship with toddler
- Educational status
- Occupation
- Monthly family income
- Type of family
- Number of children
- Age of toddler
- Source of previous ADHD information
- Previous professional consultation

These findings suggest that the information booklet was useful across different demographic groups and that improvement in knowledge was not restricted to a particular age, educational, occupational or family category.

The significant association with previous ADHD information suggests that prior exposure to the subject may influence the ability of parents to acquire or retain information

VII. CONCLUSION

The present study was conducted to evaluate the effect of an information booklet regarding prevention and risk reduction of ADHD among parents of toddlers residing in a selected rural area.

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