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Review Paper

Assessing the Impact of a Structured Teaching Program on Universal Immunization Awareness and Utilization Among Mothers with Under-Five Children in a Rural Community, Bangalore District, India

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ABSTRACT:
This research focuses on evaluating the effectiveness of a structured teaching program (STP) aimed at enhancing awareness and utilization of services related to the Universal Immunization Program among mothers with children under the age of five in a rural community within Bangalore District, India. Children can be protected against illnesses that can be prevented by vaccination by immunization, which is a cost-effective method of lowering morbidity and mortality in children. The Expanded Programme of Immunization (EPI) of the World Health Organization was established in 1974. The study's goals included determining the level of mothers' existing knowledge about vaccination services, implementing the structured training program, assessing its success, and examining correlations between post-test knowledge scores and certain demographic factors. The study used a one-group pretest and post-test design with a quantitative strategy and a quasi-experimental technique. The study was conducted in Mallasandra, T. Dasarahalli, Bangalore, and included a sample of 60 mothers with children under five, selected through convenience sampling. The results showed a considerable improvement in awareness ratings, with the mean percentage awareness score after the test rising from 31.35% to 72.24%. With 13.34% of women earning a 13 on the post-test compared to just 7% on the pre-test, there was also a noticeable improvement in the usage of services for the Universal Immunization Program. Additionally, a statistically significant correlation between post-test awareness and a few demographic factors, most notably married status, was found by the study. In conclusion, the structured teaching program had a significant positive impact on the awareness and utilization of services related to the Universal Immunization Program among mothers with children under five. These findings underscore the effectiveness of educational interventions in improving immunization knowledge and practices among this population.

Keywords: Awareness; Utilization; Knowledge; Structured Teaching; Universal; Immunization.

INTRODUCTION:

Infectious diseases pose a significant threat to children's health and well-being. One of the most economical and effective ways to ensure a child's survival is through vaccination. The Expanded Programme of Immunization (EPI), which aims to eradicate six illnesses that may be prevented by vaccination globally by the year 2000, was introduced by the World Health Organization (WHO) in May 1974. Immunization enhances the immune system's ability to combat diseases by introducing weakened or killed germs into the body, building immunity without causing illness. This method has played a crucial role in reducing under-five mortality rates in India from 233 to 63 per 1000 over the last five decades. Immunization is not only essential for public health but also aligns with broader global health and safety goals. The National Immunization Programme, a crucial element of India's National Health Policy, places a high priority on immunizing children against six preventable illnesses, including measles, diphtheria, tetanus, pertussis, and diphtheria. Initiated in 1978, the Expanded Programme on Immunization (EPI) aimed to provide free vaccination services to all eligible children, subsequently expanding to include additional vaccines such as polio, tetanus toxoid, tuberculosis, and measles. Immunization, the process by which an individual's immune system is strengthened to defend against external agents, plays a vital role in protecting the body from diseases. Immunization programs, including vaccinations, are globally implemented to bolster children's immune systems and mitigate threats posed by diseases such as influenza, pneumonia, hepatitis, polio, and chickenpox. The immune system's core components enhanced by immunization include B cells and T cells, which produce antibodies and exhibit immunological memory, respectively. This memory enables a swift response upon subsequent exposure to the same pathogen. Immunization typically occurs through two

methods: active and passive. Active immunization involves introducing foreign particles that stimulate antibody production, leading to natural resistance upon future encounters with the same microbe. In passive immunization, pre-synthesized immune elements are transferred to the body to provide immediate protection, such as maternal antibody transfer during pregnancy.

Rationale for Study:

The selection of this research area is driven by the persistent high mortality rate among children under the age of five, primarily attributable to preventable diseases. Consequently, there is a pressing need to identify the educational needs of mothers and provide them with structured teaching programs aimed at enhancing awareness about immunization. This educational effort is intended to promote the health of children under the age of five, ultimately leading to a reduction in mortality rates within this age group.

Statement of the Problem

The purpose of the study is to assess the effect of a structured training program on mothers with young children living in rural areas of the Bangalore district who are aware of and use services linked to the Universal Immunization Program (UIP).

Objectives of the Study:

- To evaluate the current understanding of mothers with children under the age of five's awareness of and use of the services offered by the Universal Immunization Program.
- To develop and implement a structured teaching program (STP) focused on enhancing awareness and utilization of services offered by the Universal Immunization Program among mothers with children under the age of five.
- To assess the success of the structured teaching program (STP) in raising awareness of and encouraging mothers of children under the age of five to use the services connected with the Universal Immunization Program.\
- To look at the relationships between pre-test and post-test knowledge scores and a few demographic factors in connection to how well mothers with young children under the age of five are aware of and use the services offered by the Universal Immunization Program.

Hypotheses:

The hypotheses will be tested at a significance level of 0.05.

H1: Mothers of children under five will significantly differ in their understanding of the Universal Immunization Program between the pre-test and post-test.

H2: Selected demographic factors and levels of awareness about the Universal Immunization Program will be significantly correlated.

Review of Literature:

A literature review is a critical aspect of research, serving as a foundation for understanding existing knowledge on a subject. It encompasses an examination of research, theories, and practical contributions relevant to the topic. This review aims to provide an in-depth understanding of various aspects related to the study's focus.

Awareness and Utilization of Universal Immunization Programme (UIP):

1. Despite providing free vaccinations, the Universal Immunization Programme in India fell short of its objectives, according to a research that used data from the National Family Health Survey (1998–1999). Urban habitation, mother's education level, mother's age, media exposure, and vaccine knowledge all enhanced the chance of immunization. Improvements in female education, the inclusion of health information in curriculum, and the dissemination of information via the media were all suggested (Ferrino et al., 2013).
2. "Immunization in India: An Equity-Adjusted Assessment," a descriptive research, showed remarkable advancements in vaccination outreach in both urban and rural regions, with a discernible decline in the proportion of unvaccinated children. According to this study's findings (Parasar et al., 2003), wealth-based inequality declined as vaccination rates rose.
3. A research evaluated urban educated residents' knowledge, attitudes, and vaccination practices. It revealed inadequate vaccination knowledge and awareness, particularly among educated, rural parents, underscoring the significance of teaching parents about immunization (Bosset & Hart, 1994).
4. A cross-sectional study conducted in West Bengal assessed Child Immunization Coverage in relation to socio-economic factors. It identified low immunization coverage against diseases such as BCG, DPT, Polio, and Measles, with a lack of knowledge among rural mothers contributing to this issue (Duclos, et. Al. 2009).
5. Different rates of vaccination coverage were found in urban, rural, and tribal areas of Himachal Pradesh when comparing assessments

of the state. Although coverage was higher than the national average, rural areas had higher dropout rates. Poor coverage was attributed to parental illiteracy and work-related distractions (Matthew et al., 2006).

6. A research that looked at Delhi's urban and rural districts analyzed how well youngsters had been immunized. Despite higher rates in urban areas, the research revealed that coverage fell short of the goal set by the Universal Immunization Programme. It stressed the significance of education provided by health professionals through direct interaction and media (Kempe et al., 2011).
7. An epidemiological survey in Japan examined the transmission routes of hepatitis B and C viruses among children. The study indicated the need for measures to prevent horizontal hepatitis B infection and advocated expanding selective vaccination to universal vaccination (Marlow & Redding, 2005).
8. The 10-valent pneumococcal conjugate vaccine (PCV10) was introduced to the Brazilian National Immunization Program and its cost-effectiveness was assessed. According to the study's findings, PCV10 is a cost-effective strategy for the universal vaccination program (De & Bhattacharya, 2002).
9. A survey assessed the status of the Immunization Programme in different Indian states. It revealed variations in immunization coverage levels among states and districts, highlighting the need for targeted interventions (Melnky, 2005).
10. A study in Jammu assessed the knowledge, attitude, and practices of mothers regarding HBV infection. The results indicated low immunization rates for HBV due to inadequate maternal knowledge, emphasizing the need for the introduction of HBV immunization into the universal immunization program (Kalavati, et. al., 2016).

In summary, the literature review covers a range of studies highlighting the importance of immunization awareness, coverage, and knowledge among mothers and caregivers. It underscores the need for effective educational programs and interventions to improve immunization rates and reduce preventable diseases among children.

Research Methodology:

Research Approach:

The study aims to evaluate the "Effectiveness of a Structured Teaching Program on Awareness and Utilization of Services Regarding the Universal Immunization Program Among Mothers With Under-Five Children Residing in a Rural Community in Bangalore District."

Research Design:

The effectiveness of the Structured Teaching Program on awareness and utilization of services regarding the Universal Immunization Program among mothers with under-five children in a rural community of Bangalore was assessed using a one-group pre-test and post-test design with a pre-experimental approach.

Research Variables:

- ***Independent Variable***: The structured teaching program on awareness and utilization of services regarding the Universal Immunization Program among mothers residing in a rural community.
- ***Dependent Variable***: Age, education, religion, family structure, number of children, prior knowledge history, and information source regarding universal vaccination are examples of demographic factors.

Setting of the Study:

The neighborhood of Mallasandra, T. Dasarahalli, Bangalore, where the study was done, was chosen based on the investigator's acquaintance with the area, practicality, sample availability, permission, and closeness to the investigation.

Population of the Study:

All moms who lived in the community and had children under the age of five made up the target demographic. In Mallasandra, T. Dasarahalli, Bangalore, moms of children under five were among the people who could be reached.

Sample Size:

Mothers who met the inclusion criteria were included in the sample size of 60.

Sampling Technique:

Based on inclusion and exclusion criteria, samples were chosen using purposeful sampling.

Sampling Criteria:

Inclusion Criteria:

1. Mothers of young children who are willing to take part in the study.

2. Mothers who agreed to take part in the research at the time.
3. Mothers who are literate in English or Kannada.

Exclusion Criteria:
1. Mothers who were unavailable when the data was collected.
2. Mothers who are illiterate in English or Kannada.

Data Collection Tool:
Structured interview schedules comprising of three segments:

- Section A: Demographic data of the subjects.
- Section B: Awareness queries regarding the Universal Immunization Program.
- Section C: Utilization questions regarding the Universal Immunization Program.

Data Collection Procedure:

- The hospital authorities provided formal approval.
- Mothers of children under five gave their informed permission.
- After a structured instruction program, data from moms were gathered by self-administered structured questionnaires.
- Data was collected seven days following the exam.

Validity and Reliability:

- **Validity**: Through discussions with authorities in community health nursing, nursing research, and biostatistics, the validity of the instrument was determined. The correctness of the instrument was evaluated and verified by professionals.
- **Reliability**: The split-half approach was used to determine the tool's dependability. The reliability coefficient, [r=0.760], was found to be reliable.

The major research was done in Bangalore's Mallasandra and T. Dasarahalli neighborhoods. The Medical Officer of the Mallasandra Maternity Hospital gave his written consent. The study subjects provided their informed consent. Using standardized questionnaires and checklists, information was gathered from 60 mothers of children under the age of five to evaluate their knowledge of and use of the Universal Immunization Program. In the coming week, the organized instructional schedule was carried out. The degree of knowledge and application of universal vaccination was examined again after two weeks using the same methods. Data entry and statistical analysis were done.

Result and Discussion:

Section 1: Distribution of Samples Based on Frequency and Percentage of Demographic Characteristics

Table 1: Distribution of Samples Based on Their Age
N=60

S. No	Demographic variables		Frequency	percentage
1	Age in years	18-26	30	50.0
		27-35	27	45.0
		36-44	3	5.0
		>44	0	0.0

Table 1 Shows frequency and percentage distribution of age among the mothers with under five children, 50.0% of them were between 18-26 years, 45.0% of them were between 27-35 years, and 5% were in between 36-44years.

Table No 2: Distribution of Samples Based on Religion
N=60

S. No	Demographic variables		Frequency	percentage
1	Religion	Hindu	42	70.0
		Muslim	15	25.0
		Christian	3	5.0
		Any Other	0	0

Table 2 shows frequency and percentage distribution of religion, 70.0% of them were Hindu, 25.0% of them were Muslim, and 5.0% were Christian.

Table 3: Distribution of Samples Based on Marital Status
N=60

S. No	Demographic variables		frequency	percentage
1	Marital Status	Married	58	96.6
		Single parent	1	1.7
		Divorce parent	1	1.7

Table 3 **s**hows frequency and percentage distribution of Marital status of mothers with under five children, 96.6% were married and the remaining 1.7% was single parent and 1.7% was divorced parent.

Table 4: Distribution of Samples Based on Mothers Education
N=60

S. No	Demographic variables		Frequency	percentage
1	Mothers Education	Illiterate	2	3.3
		Primary education	29	48.3
		High secondary education	22	36.7
		Degree and above	7	11.7

Table 4 **s**hows figure and percentage distribution of mothers' education, 3.3% of them were illiterate, 48.3% of them studied up to primary education, 36.7% had a higher education and 11.7% had studied up to degree and above.

Table 5: Distribution of Samples Based on Source of Information
N=60

S. No	**Demographic variables**		**Frequency**	**percentage**
1	Source of information	Mass media	15	**25.0**
		Health personnel	39	**65.0**
		Neighbor	3	**5.0**
		Peers	3	**5.0**

Table 5 shows the frequency and percentage distribution of source of information of the mothers with under five children, 25.0% of them got information from mass media, 65.0% got information about universal immunization programme from health personnel, 5.0% got information from neighbor and 5.0% got information from their peers.

Table 6: Distribution of Samples Based on the Age of Mother at Child Birth
N=60

S. No	Demographic variables		frequency	percentage
1	Age of mother at child birth	18-22	26	43.3
		23-27	27	45.0
		28-32	7	11.7
		33-37	0	0.0
		38-42	0	0.0

Table 6 shows the percentage distribution and frequency of Age of mother at child birth, 43.3% of the mothers were in between the age of 18-22 during child birth, 45.0% of the mothers were in between the age of 23-27 during child birth, and 11.7% of the mothers were in between the age of 28-32 during child birth.

Table 7: Distribution of Samples Based on Age of Children
N=60

S. No	Demographic variables		frequency	percentage
1	Age of children	0-1	31	51.7
		1-2	19	31.7
		2-3	6	10.0
		3-4	3	5.0
		4-5	1	1.6

Table 7 shows frequency and percentage distribution of age of children, 51.7% child were at age between 0-1 years, 31.7% child were at age between 1-2 years, 10.0% child were at age between 2-3 years, 5.0% child were at age between 3-4 years and 1.6% child were at age between 4-5 years.

Section II: Assessment of Pre and Post Test Awareness Regarding Universal Immunization Programme at Mallasandra Bangalore

Table 8: Frequency distribution of mothers with under five children according to pre-test and post-test level of awareness regarding universal immunization programme.
N=60

S.No	Level of Awareness	Pre-test		Post test	
		Frequency	Percentage	Frequency	Percentage
1	Inadequate (<50%)	60	100.0	1	1.6
2	Moderately adequate (50-75%)	0	0.0	30	50.0
3	Adequate (>75%)	0	0.0	29	48.4
4	Tot	60	100	60	100.0

Table 8 shows that in the pre-test 100% had inadequate awareness. Whereas in post test, 50.0% had moderately adequate awareness, 48.4% had adequate awareness and 1.6% had inadequate awareness regarding universal immunization. It evidenced that there is an increase in the awareness.

Section III – Assessment of Pre-Test and Post-Test Utilization of Services Regarding Universal Immunization Programme at Mallasandra Bangalore

Table 9: Frequency distribution of mothers with under five children according to pre-test and post-test utilization of services regarding universal immunization programme.
N=60

S.N.	Pretest			Post test		
	Total Score	Frequency	Percentage	Total Score	Frequency	Percentage
1	6	6	10.0	13	8	13.34
2	7	4	6.7	12	10	16.66
3	8	17	28.3	11	12	20.0
4	9	20	33.3	10	8	13.34
5	10	9	15.0	9	7	11.66
6	11	3	5.0	8	11	18.34
7	12	1	1.7	7	4	6.66
	Total	60	100.0	Total	60	100.0

Table 9 shows the frequency and percentage distribution of utilization of services regarding universal immunization programme , in pretest 10% mothers with under 5 children had scored 6, 6.7% had scored 7, 28.3%had scored 8, 33.3% had scored 9, 15% had scored 10, and 5% had scored 11, and 1.7% had scored 12, where as in post test 13.34 % mothers

with under 5 children had scored 13, 16.66% had scored 12, 20.0% had scored 11, 13.34% had scored 10, 11.66% had scored 9, 18.34% had scored 8 and 6.66% had scored 7. Hence the above table shows the increment of utilization of services regarding universal immunization in post test which evidence that the STP was significantly effective on utilization of universal immunization programme.

Section-Iv: Effectiveness of Structured Teaching Programme on Awareness Regarding Universal Immunization Programme

Table 10: Outcomes paired t-test analysis for comparison of pre and post test scores of knowledge regarding universal immunization among mother of under five children.
N=60

Aspects	Max. Score	Respondents Knowledge Scores			Mean difference	SE of Mean Diff	Paired 't' Test	P valve	Inference
		Mean	SE of Mean	Mean %					
Post-test	17	5.33	0.209	72.24	6.95	0.076	34.358*	<0.05	HS
Pre-test	17	12.28	0.285	31.35					

Note: *-denotes significant (p<0.05) for df=59.

Table 10 displays the results of a pre- and post-test assessing moms with children under the age of five's knowledge about routine vaccination. The significance of the difference between the pre- and post-test knowledge of mothers with under-five children about universal vaccination was examined using the paired t-test. (p 0.05) revealed that it was statistically significant. With an increase in mean score of 6.95, the post-test mean awareness score of 12.28 was noticeably higher than the pre-test mean score of 12.28. The rising mean score demonstrates the growing public understanding of the need of vaccination for all. It suggested that the STP had a considerable impact on raising mothers of children under five children's knowledge of the importance of universal vaccination.

Section-V Relationship between Selected Demographic Variables and Mothers of Children Under Five's Awareness and Use of Services Regarding the Universal Immunization Program

Table 11: The relationships between mothers of children under the age of five and their chosen demographic characteristics for post-test awareness and service use on the universal immunization program
N=60

S.No	Demographic Variable		post score		Chi-square value	p-value
			Median ≤ 12	Median >12		
			N	n		
1	Age of mother	18-26	11	19	5.406, df= 2	0.067
		27-35	18	9		
		36-44	2	1		
		>44	0	0		
2	Religion	Hindu	21	21	0.334, df=2	0.846
		Muslim	8	7		
		Christian	2	1		
		Other	0	0		
3	Marital Status	Married	30	28	2.005, df= 2	0.367*
		Single parent	0	1		
		Divorce parent	1	0		
4	Type of family	Joint	13	15	0.610, df=2	0.737
		Nuclear	17	13		
		Extended	1	1		
5	Occupation	House wife	20	17	2.629, df=3	0.452
		Business	0	2		
		Govt. employee	2	3		

		Others	9	7		
6	Mother education	Illiterate	0	2	4.498, df=3	0.212
		Primary education	18	11		
		High secondary education	9	13		
		Degree and above	4	3		
7	Family income	<10000	13	11	1.935, df= 3	0.586
		10000-15000	15	12		
		15000-20000	3	5		
		20000<	0	1		
8	Source of information	Mass media	11	4	6.772, df= 3	0.080
		Health personnel	18	21		
		Neighbor	2	1		
		Peers	0	3		
9	Age of mother at child birth	18-22	10	16	3.534, df= 2	0.171
		23-27	16	11		
		28-32	5	2		
		33-37	0	0		
		38-42	0	0		
10	Total no. Of child	1	15	14	2.399, df= 3	0.494
		2	9	12		
		3	6	2		
		More than 3	1	1		
11	Age of child	0-1	14	17	2.876, df= 4	0.579
		1-2	12	7		
		2-3	3	3		
		3-4	2	1		
		4-5	0	1		
12	Decision authority	Father	10	10	0.391, df= 2	0.822
		Mother	2	3		
		Both	19	16		
		Grand parents	0	0		

Note: *- Significant; NS-Not significant.

Findings of The Study:

The study's results have been examined in relation to its goals. The following is a discussion of the findings:

Description of Demographic Characteristics of the Respondents:

60 mothers with under five children were selected from the selected community Bangalore. Findings related to demographic variables were discussed as follows:

- **Age:** In relation to age, 50.0% of them were of 18-26 years, 45.0% of them were of 27-35 years, 5% were between 36-44 years.
- **Religion:** Frequency and percentage distribution of religion, 70.0% of them was Hindu, 25.0% of them were Muslim, 5.0% were Christian and 0% was from any other religion.
- **Marital status:** In terms of frequency and percentage distribution, 96.6% of moms with fewer than five children were married, whereas 1.7% of them were single parents or divorced.
- **Type of family:** In terms of relative distribution, nuclear families made up 50.0% of the population, joint families 46.7%, and extended families 3.3%.
- **Occupation:** With regard to occupation, 61.7% were housewife, 26.7% belongs to other occupation, 3.3% were doing their own business and 8.3% were government employee
- **Mother's Education:** With regards to mothers' education, 3.3% of them were illiterate, 48.3% of them studied up to primary education, 36.7% had a higher education and 11.7% had studied up to degree and above.
- **Family income:** With regards to reveals that 40.0% had <10000 incomes, 45.0% had 10000-15000 incomes per month, 13.3% had 15000-

20000 incomes per month and the remaining 1.7% had 20000< incomes per month.

- **Source of information:** Information of the mothers with under five children, 25.0% of them got information from mass media, 65.0% got information about universal immunization programme from health personnel, 5.0% got information from neighbor and 5.0% got information from their peers.
- **Age of mother during childbirth:** Regarding mother at child birth, 43.3% of the mothers were in between the age of 18-22 during child birth, 45.0% of the mothers were in between the age of 23-27 during child birth, 11.7% of the mothers were in between the age of 28-32 during child birth, 0% were at age 33-37 and 38-42 at child birth.
- **Total no. of child:** Regarding distribution of total number of children, 48.4% have 1 child, 35.0% of them have 2 children, and 13.3% of them have 3 children where as 3.3% of them have more than 3 children.
- **Age of children:** Regarding age of children, 51.7% child were at age between 0-1 years, 31.7% child were at age between 1-2 years, 10.0% child were at age between 2-3 years, 5.0% child were at age between 3-4 years and 1.6% child were at age between 4-5 years.
- **Decision authority:** Regarding to distribution of decision authority, in 33.3% of family father is decision maker, in 8.3% mothers were decision maker and in remaining 58.4% of family both father and mothers were decision maker

1st Objective:

Assess the existing knowledge regarding awareness and utilization of services of universal immunization programme among mothers with under five children.

The knowledge level of universal vaccination was tested using a structured questionnaire before the administration of a structured education program on 60 mothers with children under the age of five.

The study's findings indicated that 100% of pre-test participants had insufficient knowledge. The mean score going into the exam was 5.33. The majority of mothers with children under five had insufficient knowledge, according to findings. The frequency and percentage distribution of service use for the universal vaccination program showed that only 7% of mothers received a score of 12 on the pre-test.

2nd Objective:

Prepare and administer Structured Teaching Programme regarding awareness and utilization of service regarding universal immunization programme among mothers with under five children.

Based on the objectives, criteria checklist, literature analysis, and professional opinion, the first draft of a structured teaching program was created. When creating a structured teaching program, the following primary considerations were made: the sample's literacy level, the teaching strategy to be used, the simplicity of the language, the applicability of teaching aids, and the sample's attention span.

After obtaining the experts opinions and suggestions, final draft of Structured Teaching Programme was developed. The planned teaching plan was structured for one session with the help of appropriate AV aids, which was prepared to enhance awareness and utilization of mothers with under five children regarding universal immunization programme.

3rd Objective:

Assess the effectiveness Structured Teaching Programme regarding awareness and utilization of service regarding universal immunization programme among mothers with under five children.

Following the implementation of a structured instruction program, the same 60 mothers with children under the age of five participated in a post-test study where knowledge related awareness and usage of the universal vaccination program was assessed using the same, which comprises three categories.

According to the study's findings, 50.0% of respondents had awareness of universal vaccination that was only somewhat adequate, 48.4% had awareness that was adequate, and 1.6% had awareness that was insufficient. It demonstrated that moms of children under five are becoming more alert.

Comparing the knowledge of mothers participating in the universal vaccination program between the pretest and posttest allowed researchers to determine the efficiency of the structured teaching program. Pre-test averages were 5.33, 1.623 for standard deviation, and 31.35% for mean percentage. Post-test averages were 12.28, 2.210 for standard deviation, and 72.24% for mean percentage.

The total mean percentage awareness of the Universal Immunization Program score was 31.35% in the pre-test and 72.24% in the post-test, with a mean percentage difference of 40.89% on the improvement of awareness of the UIP score. The average score on the pre- and post-tests for knowledge of the universal vaccination program is 5.33 and 12.28, respectively. In the paired t-test, the frequency and percentage distribution of service utilization for the universal immunization program were consistently significant at the 0.05 level. In the pretest, 10% of mothers with children under 5 had scored 6,

6.7% had scored 7, 28.3% had scored 8, 33.3% had scored 9, 15% had scored 10, and 5% had scored 11, and 1.7% had scored 12, while in the post test, 13.34% had scored 13, 16.66% had scored 12, and 20.0% had had 13.

4th Objective:

Find out association between post-test awareness and utilization of services regarding universal immunization programme score with their selected demographic variables among mothers with under five children.

In the post test, there is a statistically significant correlation between mothers with children under the age of five and their chosen demographic characteristics in terms of knowledge and use of the universal vaccination program. Out all the factors that were taken into consideration for association, marital status was significantly linked with knowledge of universal vaccination in the post-test (Chi-square value=2.005, df=2, at p = 0.367). The findings showed that mothers' knowledge about and use of universal vaccination was substantially correlated with their chosen demographic factors. As a result, the research hypothesis (H2) was supported and the null hypothesis (H0) was rejected.

CONCLUSION:

The purpose of this study was to evaluate the impact of a structured education program on women with young children in a chosen Bangalore district community's awareness of and use of services related to the Universal Immunization Program. A one-group pre-test and post-test design using a quasi-experimental method was adopted. The results of the study showed a substantial difference between the pre-test and post-test levels of knowledge among mothers of children under five about the Universal Immunization Program. This shows that the organized teaching strategy was successful in raising public knowledge of the initiative. However, it was found that demographic factors, with the exception of marital status, were not substantially linked to knowledge of and use of the Universal Immunization Program's services. The results of the post-test showed an improvement in service use, showing the value of the organized education program in raising utilization.

Nursing Implications:

1. **Nursing Education:** Nurse educators can offer nursing staff in-service training on how to recognize and use services connected to the Universal Immunization Program. Community-based education programs can also be initiated.
2. **Nursing Practice:** Community health nurses can effectively use the structured teaching program to address issues related to immunization awareness among mothers with under-five children.

Nursing Administration:

1. Nursing administrators can develop protocols, posters, and educational materials for health education programs on immunization practices.
2. They can arrange awareness programs conducted by nursing professionals who have received in-service education on the Universal Immunization Program at the community level.

Nursing Research:

1. The study's findings can serve as a reference for emerging researchers in the field.
2. Further research can build upon this study to expand the scientific knowledge related to immunization awareness and utilization.

Recommendations:

Based on the study's findings, the following recommendations are made:

1. To generalize the results, do a comparable study on a bigger sample.
2. For more accurate comparisons, run an experimental research with a control group.
3. Include additional demographic variables to further explore their impact.
4. Compare the effectiveness of various teaching strategies, such as simulation, pamphlets, leaflets, and instruction, on the Universal Immunization Program.
5. Develop manuals, information booklets, and self-instruction modules on the Universal Immunization Program.

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