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Assessment of knowledge about PHC's Essential Healthcare Facilities and Benefits for Mothers with a View to Develop an Information Booklet

Karishma Singh Thakuri, *TUIoM Nepalgunj Nursing Campus, Nepalgunj, Nepal*

Keywords	Abstract
Socio-Demographic Variables, Essential Health Facilities, Information Booklet	*In India, the government has launched various national programs for the control and eradication of endemic diseases, like the leprosy eradication program, the tuberculosis control program, the malaria eradication program, and other prevention and control of locally endemic diseases to promote primary health care (PHC) in a population. In a rural Bangalore neighbourhood, a descriptive survey research design was conducted with sixty moms of children under five. A simple random sampling technique was used to choose the study's sample. A well-structured questionnaire was employed to obtain information from the participants. The majority, 56.7%, of mothers had moderate knowledge of essential health care facilities provided by PHC. 69.2% of respondents had knowledge on the aspect of general knowledge on PHC, and the least aspect-wise mean percentage score was observed (50.7%) in safe drinking water; for the aspect of immunisation, the score was 51.5%, and for sanitation, the score was 51.4%. As to the study's results, 43.3% of the participants had inadequate knowledge, while 56.7% of the participants had moderate knowledge. None of the individuals had adequate knowledge.*

1. INTRODUCTION

Early in the 1970s, the focus of health care was on eradicating certain diseases, including malaria and smallpox. For many people living in underdeveloped sections of the nation, the only means of access to medical care was through malaria spray and immunisations (Lamiya et al., 2019). China created a health care system in the 1960s that prioritised preventative care over curative care. China's program consisted of "barefoot doctors" providing medical care to rural populations (Adefolalu et al., 2019). These "doctors" were individuals who had completed a three- to six-month intensive course in medical training while they also had some general education. They worked and lived in the same village. They were able to assist patients more quickly because of their close proximity. China started pressuring the UN to hold a conference on primary health care in 1974 in order to get recognition for the health care paradigm (Adefolalu et al., 2019).

An international conference aimed at proposing a plan to maintain worldwide health for as many people as possible was convened in Alma-Ata, Kazakhstan, in September 1978. The Alma-Ata Declaration and the notion of primary health care arose during this meeting, which took place during the year when primary health care evolved with a final objective of improving everyone's health. The statement asserts that everyone has the right to health and that every government's main objective should be achieving this fundamental human right. The involvement of traditional

healers and community health workers in the new healthcare system was one of the declaration's central themes (Hall & Taylor, 2003). According to Panari (2016), it provides promotive, preventive, curative, and rehabilitative services in response to the primary health issues facing the community.

The National Health Policy of 2017 established a universal immunisation program. The 2019 infant mortality rate (IMR) objective is 28 per 1000 live births. Approximately 86% of children worldwide were immunised against measles, tetanus, polio, diphtheria, and pertussis in 2018. Currently, vaccinations prevent between two and three million deaths annually (Gurnani et al., 2021).

Now there are nearly 747,516 PHC facilities operating in India (Kumar & Reshmi, 2022). The government of India has launched various national programs for the control and eradication of endemic diseases like the leprosy eradication program, the tuberculosis control program, the malaria eradication program, and other prevention and control of locally endemic diseases to promote primary health care in a population. To make sure that infectious diseases are eradicated or controlled, the nurses and nursing teams collect data, do follow-up visits, monitor cases, and conduct surveillance over the target population.

1.1. Objectives

1. To assess the level of knowledge of mothers regarding essential health care facilities provided by PHC.
2. To assess the level of knowledge of mothers regarding the benefits of essential health care facilities given by PHC.
3. To determine an association between mean knowledge scores of mothers in selected rural areas of Bangalore with their selected socio-demographic variables.
4. To develop an information booklet for mothers in selected rural areas of Bangalore regarding essential health care facilities provided by PHC and their benefits for mothers

1.2. Hypothesis

H_1: There is a significant association between the mean knowledge scores of mothers regarding essential health care facilities provided by PHC and benefits for mothers.

2. REVIEW OF LITERATURE

Several studies have been conducted that assessed mothers' knowledge about the benefits and essential healthcare facilities offered by the PHC. To find out more about mothers' immunisation knowledge, descriptive research was conducted by Tom et al. (2017) among the mothers of children under five who were hospitalised in the paediatric ward at Prabhakarkore Hospital in Belgaum. Convenient sampling was employed with a non-experimental design. According to the study's findings, the knowledge score's mean and standard deviation were 9 and 3.679, respectively. 34 moms with children under five had an average knowledge level about immunisations, or 68% of them. Approximately 18%, or 9 moms with children under five, had good knowledge, whereas only 14%, or 7 mothers, had inadequate knowledge. As immunisation

is the most economical way to avoid diseases that can be prevented by vaccination, the study found that mothers' knowledge about immunisation is crucial for prompt use of immunisation services.

Joshi et al. (2014) conducted a cross-sectional study with 40 participants to examine their practices, attitudes, and knowledge regarding water, sanitation, and hygiene in an urban slum in South Delhi, India. A convenient sample technique and the distribution of a questionnaire were used to get the data. The study's findings indicate that, on average, 75% of respondents did not purify their drinking water using any kind of process. Forty-five percent of the participants drank water from privately owned bores or tube wells. The majority of people who were responsible for fetching water from the source were females over the age of 15 (93%). In their homes, 45% of the participants had toilets. When drinking water samples were taken from storage containers, 53% of them had positive bacteriological contamination (Nimbannavar & Mane, 2022). According to the study's findings, family-centred educational initiatives that raise public knowledge of readily available, reasonably priced water purification methods are urgently required.

Ahmed et al. (2001) assessed people's knowledge, attitudes, and practices (KAP) regarding sanitation, hygiene, and water supply in Sarail Upazila, Brahmanbaria District, Bangladesh, using cluster-village survey methods on 1050 households. A pre-coded questionnaire was created for the demonstration, observation, and interview in order to collect the data. Nearly all marginal farmers (34%) and small farmers (15%) installed tube wells in cooperation with their neighbours, while 44% of marginal farmers collected water from their wells. The results indicated that while almost all tube wells were used for drinking water, only 63% and 16% were used for bathing and washing utensils, respectively. 59% of homes covered their drinking water with a lid, whereas the majority of households covered their food with a lid or cover. In the yard, there were around 22% of residences where faeces were lying and 41% where waste had been dumped. Regarding all latrine users (hygienic and unhygienic), 32% of cases involved faeces found near the latrine platform, and 28% involved faeces found in the latrine pan. Twenty-three percent of households have soap near their latrines. The results of the survey showed that people place less value on washing their hands before eating than they do after urinating. Raising awareness is therefore necessary for the program.

3. THEORETICAL FRAMEWORK

This study relies on the Goal Attainment Theory of Imogene King, which was first presented in the 1960s. In theory, nursing is an action-reaction-interaction process in which the client's perspective on their healthcare is shared between the nurse and the client (King, 2001). These systems are social, interpersonal, and personal. It is based on the fundamental ideas of the goal attainment theory of Imogene King, which are as follows: perception, judgement, action, setting mutual goals, reaction interaction, transaction, and positive consequence.

i. **Perception:** It refers to the authors' assessments of the knowledge gap in this study about the benefits for mothers and the essential health care facilities offered by PHC.

ii. **Judgement:** The nurse investigator's assessment contains the belief that a booklet with information on the PHC's essential health care facilities and their advantages for mothers could enhance understanding.

iii. **Action:** The nurse investigator's action in this study includes the creation of an instructional booklet about the benefits for mothers and the essential health care facilities offered by PHC. It would be beneficial to refresh and enhance awareness about the benefits for mothers and the essential health care facilities offered by PHC.

iv. **Mutual goal setting:** The researcher aims to increase knowledge regarding the benefits for mothers and the essential health care facilities that PHC offers.

v. **Reaction:** In this study, the reaction includes developing and confirming the validity of a booklet and lesson plan to impart knowledge about the benefits to mothers and the essential health care facilities offered by PHC.

vi. **Interaction:** The nurse investigator interacts with women who are between the ages of 18 and 40 and have children ages 0 to 5.

vii. **Transactions:** It refers to the assessment of one's knowledge on the benefits for mothers and the essential health care facilities offered by PHC.

viii. **Positive outcome:** Adequate knowledge is shown by the substantial improvement in knowledge about the benefits for mothers residing in certain rural areas of Bangalore and the essential health care facilities offered by PHC.

4. METHOD

A cross-sectional study design was used for the assessment of knowledge regarding essential health care facilities provided by primary health care and benefits for mothers with a view to developing an information booklet in a selected community area in Bangalore. A simple random technique was adopted; sixty moms of children under five participated in the study and collected data through a well-structured questionnaire. Following an explanation of the study's objectives to the participants, each respondent provided informed consent.

5. DATA ANALYSIS AND INTERPRETATION

Both descriptive and inferential statistics were used in the data analysis process. In order to analyse the demographic characteristics, frequency and percentage distribution were employed. Tables and figures were used to display the demographic information. The knowledge was analysed using the standard deviation, mean, and median. The associations between mothers' mean knowledge scores on PHC's essential health care facilities and their benefits and the socio-demographic variables they had chosen were examined using a chi-square (χ^2) test.

Table 1: Association between demographic variables, i.e., age group, educational level, occupational status, and knowledge level of PHC's essential health care facilities

Demographic Variables	Category	Sample	Knowledge Level				χ^2 Value	*P* Value
			Inadequate		Moderate			
			N	%	N	%		
Age Group (years)	18-23	20	9	45.0	11	55.0	0.26	*P*>0.05
	24-29	32	13	40.6	19	59.4	NS	(5.991)

	30-35	8	4	50.0	4	50.0		
	Illiterate	40	14	35.0	26	65.0	6.65*	*P*<0.05
Educational Level	Primary	10	4	40.0	6	60.0		(5.991)
	Secondary	10	8	80.0	2	20.0		
Occupational	Self Employed	10	4	40.0	6	60.0	0.98	*P*>0.05
Status	Private	19	10	52.6	9	47.4	NS	(5.991)
	House Wife	31	12	38.7	19	61.3		
Combined		60	26	43.3	34	56.7		

* Significant at 5% Level, NS: Non-significant

Note: Figures in the parenthesis indicate Table value

With regards to the association between age group of participants, chi-square value was 0.26 which was found to be smaller than the table value *P*>0.05 (5.991) at 5% level of significance. These indicate that there is a non-significant association between mothers' level of knowledge about the essential health care services offered by PHC and their age group, hence accepting the null hypothesis while rejecting the research hypothesis.

Regarding the association between the participant's educational level and the chi-square value, the result was 6.65, which at the 5% level of significance was found to be greater than the table value *P*<0.05 (5.991). These indicate that there is a significant association between mothers' knowledge of the PHC's essential health care facilities and their educational level, hence rejecting the null hypothesis while supporting the research hypothesis.

Regarding the association between the participant's occupational status and the chi-square value produced, it was found that, at the 5% level of significance, 0.98 was smaller than the table value *P*<0.05 (5.991). These indicate that there is a non-significant association between mothers' level of knowledge about the essential health care facilities offered by PHC and their occupation status, hence accepting the null hypothesis while rejecting the research hypothesis.

Table 2: Association between demographic variables i.e. religion, type of family and knowledge level of PHC's essential health care facilities

Demographic Variables	Category	Sample	Knowledge Level				χ^2 Value	*P* Value
			Inadequate		Moderate			
			N	%	N	%		
	Hindu	10	4	40.0	6	60.0	0.10	*P*>0.05
Religion	Christian	31	14	45.2	17	54.8	NS	(5.991)
	Muslim	9	8	42.1	11	57.9		
	Joint	27	16	59.3	11	40.7	6.61*	*P*<0.05
Type of family	Extended	11	5	45.5	6	54.5		(5.991)
	Nuclear	22	5	22.7	17	77.3		
Combined		60	26	43.3	34	56.7		

* Significant at 5% Level, NS: Non-significant

Note: Figures in the parenthesis indicate Table value

Regarding the association between the participant's religion and the chi-square value, the result was 0.10, which, at the 5% level of significance, was found to be smaller than the table value $P<0.05$ (5.991). These indicate that there is a non-significant association between mothers' level of knowledge about the essential health care facilities offered by PHC and their religion, hence accepting the null hypothesis while rejecting the research hypothesis.

Regarding the association between the participant's type of family and the chi-square value, which was 6.61 at the 5% level of significance, it was found to be greater than the table value $P<0.05$ (5.991). These indicate that there is a significant association between the mother's level of knowledge about the essential health care services offered by PHC and the type of family, hence rejecting the null hypothesis while supporting the research hypothesis.

Table 3: Association between demographic variables i.e. number of children, family income and knowledge level of PHC's essential health care facilities

Demographic Variables	Category	Sample	Knowledge Level				χ^2 Value	*P* Value
			Inadequate		Moderate			
			N	%	N	%		
Number of Children	One	20	13	65.0	7	35.0	5.74*	*P*<0.05
	Two	40	13	32.5	27	67.5		(3.841)
Family Income/Month	<Rs.15000	8	4	50.0	4	50.0	1.47	*P*>0.05
	Rs.15001-20000	19	10	52.6	9	47.4	NS	(5.991)
	>Rs.20001	33	12	36.4	21	63.6		
Combined		60	26	43.3	34	56.7		

* Significant at 5% Level, NS: Non-significant

Note: Figures in the parenthesis indicate Table value

Regarding the association between the participant's number of children, the chi-square value was 5.74, greater than the table value $P<0.05$ (3.841) at the 5% significance level. There is a significant association between the number of children and the mother's level of knowledge about the essential health care services offered by PHC, indicating that the research hypothesis is supported and the null hypothesis is rejected.

Regarding the association between participant family income and chi-square value, the result was 1.47, which, at the 5% level of significance, was found to be smaller than the table value $P<0.05$ (5.991). These indicate that there is a significant association between mother's level of knowledge about PHC's essential health care facilities and family income, hence accepting the null hypothesis while rejecting the research hypothesis.

Table 4: Association between demographic variables i.e. received information, source of information and knowledge level of PHC's essential health care facilities

Demographic Variables	Category	Sample	Knowledge Level				χ^2 Value	*P* Value
			Inadequate		Moderate			
			N	%	N	%		
Received	Yes	29	17	58.6	12	41.4	5.34*	*P*<0.05

Information on Essential Health Care Facilities by PHC	No	31	9	29.0	22	71.0		(3.841)
Source of Information	Health Personnel	19	12	63.2	7	36.8	6.29*	*P*<0.05
	Family Members/ Relatives	7	3	42.9	4	57.1		(5.991)
	Friends	3	2	66.7	1	33.3		
	No	31	9	29.0	22	71.0		
Combined		60	26	43.3	34	56.7		

* Significant at 5% Level, NS: Non-significant

Note: Figures in the parenthesis indicate Table value

Regarding the association between the participant's essential health care facility and the information they received, the chi-square value was 5.34, greater than the table value $P<0.05$ (3.841) at the 5% significant level. These indicate that there is a significant association between the mother's level of knowledge about PHC-provided basic health care facilities and the information she obtained about these facilities, hence rejecting the null hypothesis while supporting the research hypothesis.

At the 5% level of significance, the association between the participant's source of information and the chi-square value of 6.29 was found to be greater than the table value $P<0.05$ (5.991). These indicate that the research hypothesis is accepted and the null hypothesis is rejected, indicating a significant association between the mother's level of knowledge about the essential health care facilities offered by PHC and her information source.

6. DISCUSSION AND CONCLUSION

The current study assessed the knowledge regarding essential health care facilities provided by primary health care and benefits for mothers with a view to developing an information booklet. The finding shows that 26 (43.3%) of the participants had inadequate knowledge, 34 (56.7%) had moderate knowledge, and none of the participants had adequate knowledge about the PHC's essential health facilities. Therefore, the results show that the descriptive study was successful in assessing the knowledge regarding the benefits for women living in rural Bangalore and the essential health care facilities offered by PHC. A similar descriptive study that assessed the knowledge, attitudes, and vaccination behaviours of 232 women in Jos North, Nigeria, provided support for the aforementioned findings. Chris-Otubor et al. (2015) found that 89.6% of respondents had good overall knowledge, 5.2% had fair knowledge, and just 2.6% had excellent knowledge about diseases that vaccination can prevent (Galadima et al., 2021). In an identical manner, cross-sectional research was carried out by Chaulagain & Parajuli (2018) to examine the knowledge of women in Biratnagar, Nepal, on safe water and sanitation. Of these women, 10.7% knew nothing at all, 45.3% knew somewhat, and 44% knew adequately. 45.3% of the respondents in this survey, or the majority, had moderate knowledge.

The study found that the knowledge of PHC and its benefits was moderate. Likewise, it has been found that the PHC facilities' healthcare system experienced numerous changes. As a result, the information booklet has been developed with a greater focus on the areas that need improvement, as described above.

6.1. Recommendations

In order to increase knowledge about PHC, the media should be engaged. They play a pivotal role in the promotion of knowledge in the community. The government should increase the opportunity to take on the job training for health care providers in order to make services more accessible through the provision of correct information on PHC facilities for mothers. To improve knowledge of mothers on PHC, health workers should use mass media and health education at ANC community outreach. Health professionals should try to raise knowledge of the importance and benefits of using PHC facilities. This could be achieved through the development and implementation of strategies that specifically target its use. A larger sample size could be used to repeat the same kind of research. It would be possible to compare literate, eligible mothers with illiterate mothers in a study.

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