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Research Article

Effectiveness of Structured Teaching Programme on Knowledge of Married Women Regarding Intra Uterine Devices

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Abstract

India's population, which crossed 1.21 billion in 2011, is projected to reach 1.53 billion by 2050, making it the most populous country in the world. Women of reproductive age group (15-45 years) make up approximately 248 million. The current strategy in Family Planning emphasizes importance on providing high quality contraceptive services among eligible clients on a voluntary basis. The main aim of the program is promoting adequate spacing of births and thereby promoting the health and wellbeing of the mother and child. India was the first country to launch a family planning programme in 1952. The gap between attitude towards the small family norm and knowledge and practice of family planning among Indian couple is intriguing. So this led the investigator for selecting this study on structrured teaching programme regarding Intra Uterine Devices, It was a Quasi-experimental one group pre-test and post-test study conducted in Kadusonnappanahalli community, Bengaluru. The sample size was 60, selected through convenient sampling technique. Among the 60 women 42(70%) of married women were having inadequate level of knowledge, 18(30%) of married women were having moderate knowledge regarding intra uterine devices before administering structured teaching programme. In post test, 52(86.7%) had adequate knowledge, 8(13.3%) had moderate knowledge and none of them had inadequate knowledge regarding intra uterine devices after the administration of the structured teaching programme.

Keywords: Family Planning; Intra Uterine Devices; Small Family Norm; Knowledge

Introduction

Over population is the major problem in developing countries like India that has gained importance because of its inter-relationship between health and economic development. Rapid and continuous growth in population is creating a gap between India's impressive profile of progress and its gains [1]. India's population, which crossed 1.21 billion in 2011, is expected to cross 1.53 billion by the year 2050, and risk of making it the most populous country

in the world [2]. Intra uterine devices (IUDs) provide a long-term contraceptive protection and can be inserted easily at any time including during the postpartum and post abortion periods [3].

Spacing is one of the important factors in reproductive life which helps to promote health and well-being of mother and child [4]. Family planning plays a vital role in safe guarding and promoting the health of women. Family planning despite its limitations has universally been accepted as the most direct intervention to reduce fertility and hence population growth. Intra Uterine Device (IUD) is one of the most commonly used long term and reversible methods of contraception among women of reproductive age worldwide. Recent studies and literatures have confirmed that IUDs provide long term, very effective and safe protection against conception and the associated health risks with the use of IUDs are negligible [2].

Need for the study

"Maternal health is nation's wealth. There is chance for the welfare of the world only when the conditions of women improve. It is not possible for a bird to fly on only one wing".

(Swami Vivekananda)

A little over a billion people (1,065,070,607) reside in 29 states and six union territories of India. Over population has been a major problem in India since the time of Independence. It is a major barrier to the overall development of the nation. Acceptance and adoption of family planning method is one of the prime remedy to solve this problem [5]. India was the first country to launch the nationwide family planning program in 1952. Despite of the initiatives taken in India, about 50% of the eligible couples are still unaware and unprotected against conception. Attitude studies have shown that awareness of family planning is wide spread and over 60% people have attitude favorable to restricting or spacing births. Yet the contraceptive use rate by eligible couples in India is only 43.5% as opposed to 87% in other countries like Japan and China [6].

In 1975 a WHO expert committee has defined five methods to evaluate the success of Family planning programme [7]. A total of 4647 married women of reproductive age (15-49 years) were interviewed in greater Bombay about knowledge and practice of family planning. Among them 54% had no knowledge of any family planning methods, remaining 1% knew about vasectomy, 13% about tubectomy, 26% about the IUD, two percent about oral pills and 26% knew more than one method. The investigator concluded that the majority of the respondents did not have knowledge about family planning methods [8].

Many women still believe that any IUD is a dangerous method to use, independent of their sexual behaviour and of the quality of the services provided by the clinic. The lack of updated information on IUD effectiveness, its mechanism of action explains incorrect opinion regarding the use of IUD. Our current understanding of the mechanism of action for copper IUDs indicates that the primary mechanism is the prevention of fertilization. In many countries, use of this method is being discouraged by incorrect perceptions about its safety, effectiveness and mechanism of action [9].

Statement of the problem

Effectiveness of Structured Teaching Programme on Knowledge of Married Women regarding Intra Uterine Devices.

Objectives

- To assess the level of knowledge of married women regarding Intra Uterine Devices before administering Structured Teaching Programme.
- To assess the level of knowledge of married women regarding Intra Uterine Devices after administration of the Structured Teaching Programme.
- To find the association between the pre test and post test knowledge of married women regarding Intra Uterine Devices.
- To find out the association between the knowledge of married women regarding intra uterine devices with selected demographic variables.

Hypothesis

- H_1: There will be significant difference between the mean pre test and post test knowledge scores of married women on knowledge regarding Intra Uterine Devices.
- H_2: There will be significant association between the mean pre test knowledge scores of married women on Intra Uterine Devices with selected demographic variables.

Methodology

A Quasi-experimental one group pre-test and post-test was conducted; the study was conducted in Kadusonnappanahalli community, Bengaluru. The sample size of 60 was selected through the convenient sampling technique. Pre-test was administered to 60 married women and they were given structured teaching programme and post-test was conducted within one week using the same tool. The independent variable under study was a structured teaching programme, and dependent variables were knowledge scores of married women, and attributed variables were the demographic variables. Attributed or demographic variables are the characteristics of the subjects that are collected to describe the samples. The researcher prepared the structured knowledge questionnaire to assess the level of knowledge regarding the use of Intra Uterine Devices. The tool consists of 3 sections, SECTION-I: It deals with the socio- demographic data such as age, religion, education of woman, occupation, family monthly income, type of family, years of married life, number of pregnancies and living children and source of information regarding the use of family planning methods. SECTION–II: Structured questionnaire to assess the level of knowledge regarding Intra Uterine Devices. It consists of 25 items. The correct response that carries one mark and the wrong response carries zero. The total score is 25 for 25 items. The Structured teaching programme was prepared to enhance the knowledge of married women regarding Intra Uterine Devices. The content validity of the instrument was assessed by obtaining opinion from six experts in the field of nursing, medicine, and education. Appropriate modifications were made accordingly and tool was finalized. After obtaining permission from the concerned authority the medical officer, Kadusonnappanahalli PHC, Bangalore, a pilot study was conducted. Ten married women were selected for the pilot study and were administered the structured knowledge questionnaire. These women were not included in the main study. The mean post-test scores were higher than mean pre-test scores. The reliability of the tool was found to be 0.84 which indicated that the tool was reliable, and found the feasibility, practicability and possibility of conducting main study. Informed consent was obtained from the study samples. Explanation regarding the purpose of the study was given. The subjects were informed that the confidentiality of the data will be maintained. The data obtained were analyzed in terms of objectives of the study by using descriptive and inferential statistics.

Results

S. No	Characteristics	Category	Married Women	
			Number (f)	Percent (%)
1	Age group (years)	20-29	23	38.3
		30-39	35	58.4
		Above 40	2	3.3
2	Educational status	No formal education	2	3.3
		Primary	12	20
		Secondary	12	20
		Higher secondary	24	40
		Graduation	10	16.7
3	Religion	Hindu	27	45
		Christian	24	40
		Muslim	9	15
		Others	-	-

4	Family Income per month in rupees	1000-3000	1	1.7
		3001-5000	6	10
		5001-7000	16	26.7
		7001-9000	23	38.3
		>9000	14	23.3
5	Type of family	Joint family	6	10
		Nuclear family	54	90
		Extended family	-	-
6	Years of marital life	0-2	8	13.3
		3-5	15	25
		6-8	25	41.7
		Above 8	12	20
7	Number of pregnancies	0	4	6.7
		1	12	20
		2	40	66.6
		3 and above	4	6.7
8	Family planning method used	Diaphragm	-	-
		Copper-T	6	10
		Oral pills	15	25
		Emergency contraception	-	-
		Calendar method	7	11.7
		None	32	53.3
9	Sources of information about contraception	Family	22	36.7
		Friends	16	26.7
		Media and literature	4	6.6
		Health team members	18	30

Table 1: Frequency and Percentage distribution of married women according to their Socio-demographic variables (n = 60).

Table 1, shows Majority 27(45%) of married women were in the age group of 30-34 years, Majority 24(40%) of married women were having higher secondary education, Majority 27(45%) of married women were Hindus, Majority 24(40%) of married women family income was Rs.7001- 9000 per month, Majority 54(90%) of married women were belongs to nuclear family, Majority 25(42%) of married women married life ranged from 6-8 years, Majority of the married women 40% (66%) were undergone two pregnancies and have two children, Majority 32% (53%) of married women have not used any method of temporary family planning, Majority 23(38%) of married women got the information about family planning from family members.

S. No.	Knowledge Area	Knowledge (%) of married women					Paired 't'
		Pre test		Post test		Enhancement	Test
		Mean	SD	Mean	SD	Mean	
I	General information about Family Planning	44	15.6	87.33	16.3	43.33	14.46
II	Methods of family Planning	59	14	88	10.5	29	13.17
III	Intra Uterine Devices	52.83	20.2	77	13.3	24.17	8.05
IV	Indications	45.5	25.8	82.5	12.4	37	9.81
V	Contra- indications	26	29.5	99.15	6.45	73.15	18.22
VI	Benefits for the woman	39	32	88.3	21.3	49.3	9.37
VII	Benefits for the family	52.5	37.3	91.65	18.8	39.15	7.97
VIII	Benefits for the Nation	32	47	85	36	53	7.35
	Combined	47.8	11.5	85.4	9.98	37.6	19.47

Table 2: Area wise mean Pre test and Post test Knowledge of married women regarding intra uterine devices (n = 60).

* Significant at 5% level, t (0.05, 59df) = 1.960.

Knowledge Level	Category	Classification of married women			
		Pre test		Post test	
		Number	Percent	Number	Percent
Inadequate	< 50 % Score	42	70	-	-
Moderate	51-75 % Score	18	30	8	13.3
Adequate	> 75 % Score	-	-	52	86.7
Total		60	100	60	100
X^2 Value		23.75*			

Table 3: Classification of married women on Knowledge level on intra uterine devices (n = 60).

* Significant at 5 % Level, X^2 (0.05, 2df) = 5.991.

Aspects	Max score	Knowledge of married women			Paired' 't' Test
		Mean	Mean (%)	SD (%)	
Pre test	25	11.96	47.8	11.5	19.47*
Post test	25	21.35	85.4	9.98	
Enhancement	25	9.39	37.6	1.52	

Table 4: Over all Pre test and Post test Mean Knowledge on intra uterine devices (n = 60).

* Significant at 5% level, t (0.05, 59df) = 1.960.

S No	Demographic Variables		Knowledge Level of Married Women						X^2
			Inadequate		Moderate		Total		
			N	%	N	%	N	%	Value
1	Age group (years)	20- 30	19	31.7	4	6.6	23	38.3	43.20[S]
		31-40	22	36.6	13	21.7	35	58.4	
		> 40	1	1.7	1	1.7	2	3.3	
2	Educational status	No formal education	1	1.6	1	1.7	2	3.3	20.667[S]
		Primary education	10	16.7	2	3.3	12	20	
		Secondary education	7	11.7	5	8.3	12	20	
		Higher secondary education	15	25	9	15	24	40	
		Graduation and above	9	15	1	1.7	10	16.7	
3	Religion	Hindu	21	35	6	10	27	45	22.8[S]
		Muslims	15	25	9	15	24	40	
		Christian	6	10	3	5	9	15	
		Others	-	-	-	-	-	-	
4	Family Income in Rupees	1000-3000	1	1.7	-	-	1	1.7	28.73[S]
		3001-5000	4	6.6	2	3.4	6	10	
		5001-7000	14	23.4	2	3.4	16	26.7	
		7001-9000	13	21.7	10	16.6	23	38.3	
		> 9000	10	16.6	4	6.6	14	23.3	
5	Type of Family	Joint family	5	8.3	1	1.7	6	10	52.24[S]
		Nuclear family	37	61.7	17	28.3	54	90	
		Extended family	-	-	-	-	-	-	
6	Years of Marital Life	0-2 years	7	11.6	1	1.7	8	13.3	10.533[S]
		3-5 years	10	16.7	5	8.3	15	25	
		6-8 years	19	31.7	6	10	25	41.7	
		> 8 years	6	10	6	10	12	20	
7	Number of Pregnancies	0	3	5	1	1.7	4	6.7	13.52[S]
		1	11	18.3	1	1.7	12	20	
		2	24	40	16	26.6	40	66.6	
		3 and above	4	6.7	-	-	4	6.7	

8	Family Planning Methods Used	Diaphragm	-	-	-	-	-	-	28.933^S
		Copper-T	4	6.7	2	3.3	6	10	
		Oral pills	9	15	6	10	15	25	
		Emergency contraception	-	-	-	-	-	-	
		Calendar method	6	10	1	1.7	7	11.7	
		None	23	38.3	9	15	32	53.3	
9	Source of Information	Family	15	25	7	11.7	22	36.7	12.00^S
		Friends	11	18.4	5	8.3	16	26.7	
		Media and literature	4	6.6	-	-	4	6.6	
		Health team members	12	20	6	10	18	30	

Table 5: Association between demographic variables and knowledge level of married women regarding intra uterine devices (n = 60).

KEY: SS- Statistically Significant, χ^2- Chi square.

Discussion

The investigator discussed the results under the following.

The first objective of the study was to assess the level of knowledge of married women regarding the Intra Uterine Devices before administering Structured Teaching Programme.

Table 2, 3 revealed that the level of knowledge among married women regarding Intra uterine Devices before administration of the structured teaching programme, among 60 married women 42(70%) had inadequate knowledge, 18(30%) had moderate knowledge and none of the married women had adequate knowledge regarding intra uterine devices. The overall mean pre test knowledge score regarding the benefits for the nation was found to be 11.96, mean percentage 47.8% with SD value 11.5% among the samples. Therefore knowledge was improved in post test.

The second objective of the study was to assess the level of knowledge of married women regarding the Intra Uterine Devices after administration of the Structured Teaching Programme.

Table 2, 3 revealed among 60 married women 52(86.7%) had adequate knowledge, 8(13.3%) had moderate knowledge and none of them had inadequate knowledge regarding intra uterine devices after the administration of the structured teaching programme. The overall mean post test knowledge score was found to be 21.35, mean percentage 85.4% with SD value 9.98% among the samples was high compare to pre test.

The third objective of the study was to compare the pre-test and post-test scores of knowledge of married women regarding Intra Uterine Devices.

Table 4 revealed that among 60 married women the mean pre test knowledge score was 11.96(47.8%) with the mean standard deviation 11.5% and the mean post test knowledge score was 21.35(85.4%) with the standard deviation 9.98%. The statistical paired t-test indicates that the difference between the pre test and the post test knowledge score found statistically significant at 5% level ($p > 0.05$). The 't' value obtained was 19.47 ($p < 0.05$), which shows that there was a significant increase in the knowledge among the selected community of Bangalore married women regarding the intra uterine devices. The formulated hypothesis H_1, There will be significant difference between the mean pre test and post test knowledge scores of married women on knowledge regarding Intra Uterine Devices is accepted.

The fourth objective of the study was to find out the association between the knowledge of married women regarding Intra Uterine Devices selected demographic variables.

Table 5 revealed that association of selected demographic variables with knowledge using chi-square test revealed that there is a significant association between level of knowledge and selected demographic variables such as age of the married women, educational status, religion, family income, type of the family, number of pregnancies, number of living children, family planning method used and the sources of information. The formulated hypothesis H_2, There will be significant association between the mean pre test knowledge scores of married women on Intra Uterine Devices with selected demographic variables is accepted. The study results were supported by following articles, A.I. Mahadeen (2012) conducted a study to explore the prevalence of use and knowledge and attitudes towards family planning among rural Jordanian women among 807 ever-married women. The results highlighted need of health education among this women [10]. P Monji Builu (2015) conducted a study to explore knowledge about the IUCD among women using the public health sector and identify any misconceptions among 150 women attending antenatal/postnatal clinics. This survey documented poor knowledge about the IUCD among women [11]. Devi AM (2017) conducted a study to assess the knowledge regarding temporary family planning methods among the women of experimental and control group. The samples were selected by using convenience sampling technique, 30 sample as control group and 30 as experimental group samples. Structured questionnaire was prepared to determine the knowledge regarding temporary family planning methods. Mean of experimental group in pre test was 9.9 and in post test was 18.76 at 0.05 significant level [12]. Nidhi Vishnoi (2021) conducted a on women under the age of 30 years in rural area to improve the knowledge regarding temporary family panning methods. Results showed, The mean of post test (18.5) score was higher than pre test mean score (6.5), structured teaching programme was effective [13]. A study was conducted by Juhi Esther Lodge (2022) to assess the existing knowledge regarding temporary contraceptive methods among primigravida women. A total of 30 samples were selected to participate in this study. Convenience sampling technique was used to select samples and one group pre-test post-test design was used, and the researcher observed that initially the primigravida (Women with one child) women had inadequate knowledge on the temporary contraceptive methods after which their level of knowledge increased after administration of STP [14].

Conclusion

Based the study conducted, the investigator concluded that, majority of the married women actively participated in the study. The women gave free and frank answers regarding intra uterine devices. The study was conducted based on the modified General System Model. Knowledge of the women regarding intra uterine devices was inadequate. The investigator found a significant improvement when compared, pre test knowledge and post test knowledge level scores of married women regarding intra uterine devices. As well statistically significant association was observed between knowledge levels and socio demographic variables of married women.

Recommendations

On the basis of the findings of the study the following recommendations has been made:-

- A similar study can be conducted on large sample to generalize the findings.
- A comparative study can be recommended to compare rural and urban community to study the influencing factors and non-acceptance.
- A similar comparative study can be conducted to compare the knowledge of intra uterine devices among married and unmarried women.
- A study can be conducted to know the problem related to acceptance of intra uterine devices.
- An investigative study can be conducted to assess the knowledge, attitude and practices of intra uterine devices.
- A similar study can be recommended by using different methods of teaching.

Recommended to include effective family planning methods in the general curriculum of pre-university to avoid adolescent pregnancies and to reduce maternal mortality rate.

Summary

Currently India's demographic stage is characterized by high fertility and moderate mortality rates due to the advancement of medical services and lack of awareness on contraceptive devices. The country's population is growing rapidly due to the high fertility rate with about 18 million people being added to it annually,

to give a 2.1 increase per annum. The gap between knowledge towards the small family norm and practice of family planning among Indian couple is compelling. Hence, the investigator felt the need for selecting this study, Effectiveness of Structured Teaching Programme on knowledge of married women regarding Intra uterine devices.

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