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Maternal & child health knowledge levels of married women from agrarian families

Dr. Nasreen Banu and Dr. K Yashoda

Abstract
Present study was taken up to find out the Knowledge levels of the Ruralwomen in the adopted villages of Maheshwaram mandal, RR district, Hyderabad with regard to Maternal & Child health issues. 75 Rural Married women (without children) formed the sample for the present study. Checklist was developed to find out the Knowledge levels of Ruralwomen. Based on the results, Knowledge based Intervention programmes were organized. Impact assessment showed significant improvement in the Knowledge levels of the sample, reflecting the effectiveness of the Intervention programme.

Keywords: maternal & child health; intervention programme; knowledge

Introduction
The Millennium Development Goals called for a reduction in the mortality rate of children under five years of age by two thirds between 1990 and 2015 (Goal 4), and a reduction in the maternal mortality ratio by three quarters over the same period (Goal 5). Between 1990 and 2015, under-five mortality rates dropped by 53%, and maternal mortality rates declined by 43%.In 2015, the global maternal mortality ratio was 216 maternal deaths per 100 000 live births, although a woman's chance of dying in childbirth remains 20 times higher in developing regions than in developed regions.
International law recognizes the vulnerability of women and children and their right to the highest attainable standard of health. The Universal Declaration of Human Rights recognizes that "motherhood and childhood are entitled to special care and assistance". The Convention on the Elimination of All Forms of Discrimination against Women specifically protects the status of motherhood and the special health needs of women, and requires Parties to provide access tomedical care and to other resources necessary for a safe pregnancy.
The Convention on the Rights of the Child recognizes that children are vulnerable in their health and that Parties must take steps to ensure that all children achieve the highest attainable standard of health. This includes taking steps to reduce infant and child mortality, to provide access to health care consistent with the needs of children, to combat disease and malnutrition, to provide maternal health care, and to ensure adequate health education for children and their families.

Introduction & Background
Women and children are entitled to the highest attainable standard of health: this necessarily includes access to adequate health care services and to a fair and adequate allocation of resources for maternal and child health. Women and children may face discrimination accessing health care due to the stigma associated with particular diseases and conditions, including HIV and AIDS, diabetes, and prolapse of the uterus.
Women face mistreatment from service providers, reducing their ability to access care or their willingness to engage with the health system. Women may also face discrimination or harassment that interferes with their right to breastfeed infants. Discrimination and inequality can impair women's ability to move freely, to own property and to control their fertility – each of which can threaten a woman's ability to access health care or to protect her health and the health of her children.
Adam & Babiker, (2008) [1], in his study showed that more than half of the study sample received folic acid and iron supplement during pregnancy. Anaemia diagnosed in pregnancy is associated with increased risks of low birth weight and preterm delivery. Iron deficiency is the

most commonly recognized nutritional deficit in either the developed or the developing world. Women need iron and folic acid to meet their own needs and also for those with developing fetus and growth weight (Rizwan *et al.,* 2013; Taseer *et al.,* 2011) [4, 5]. Rizwan *et al.,* (2013) [4] emphasized that Anemia in pregnancy constitutes a major public health problem in developing countries

Hyperemesis gravid arum (HG) often results in dehydration, electrolyte disturbance, and nutritional deficiency in many cases, mandating intravenous hydration and, in severe cases, the use of parenteral nutrition, and resulted in more post-traumatic stress, motion sickness, muscle weakness and infants with irritability, severe colic and growth restriction (Veenendaal *et al.,* 2011) [7]. This result was in agreement with a recent systematic review and meta- Analysis of existing studies which showed that infants of women who experienced hyperemesis gravid arum

is significantly more likely to exhibit a lower birth weight; be small for gestational age, and to be born prematurely. Mother who went untreated; HG can cause LBW, preterm labor, preeclampsia, and postpartum depression (Awoleke *et al.,* 2011) [3].

Operational definition

Knowledge: Knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning.

According to Webster's dictionary, knowledge is 'the fact or condition of knowing something with familiarity gained through experience or association'. In practice, though, there are many possible, equally plausible definitions of knowledge. A frequently used definition of knowledge is "the ideas or understandings which an entity possesses that are used to take effective action to achieve the entity's goal (s).

Intervention: An **intervention** is a combination of programme elements or strategies designed to produce behavior changes or improve health status among individuals or an entire population.

Maternal health: It refers to the health of women during pregnancy, childbirth and the postpartum period.

Child health: It is a state of physical, mental, intellectual, social and emotional well-being and not merely the absence of disease or infirmity. Healthy children live in families, environments, and communities that provide them with the opportunity to reach their fullest developmental potential.

Research methodology

Sample was identified from the adopted villages (5) of Maheshwaram mandal, RR District, Hyderabad, through field survey and focused group interviews with the help of the AWWs, ANMs, and Women Self-help Group leaders in the village.

It's a quasi-experiment study. It is an empirical interventional study used to estimate the causal impact of an intervention on its target population without random assignment.

There were 961 married women from the selected clusters of adopted villages, Maheshwaram mandal, RR district. Out of 961 married women, 8% (80) were without children and 75 formed the sample for the present study. Purposive sampling procedure was used. The following criterion was used to select the sample.

Criteria for sample selection:

- Women who were married and living with their husband
- Women who were married and without children
- Women who were willing to be a part of the project

General objective: Promoting Maternal & Child health Knowledge among Married Rural Women

Specific objectives

- To find out the demographic profiles of the Selected sample
- To find out the Knowledge levels of the Selected sample with regard to Maternal & Child health
- To develop suitable IEC material for promoting Maternal & Childhealth among the selected sample
- To conduct Knowledge based Intervention programme to the selected sample
- To assess the impact of Intervention programme on the Knowledge levels of the selected sample

Research strategy adopted: In order to achieve the above objectives, Knowledge based Intervention programmes (20) were organized for the Married women, using the developed IEC material.

Research tools details

1. SES scale developed by Aggrawal, *et al* (2005) was used to find out the SES of the Rural families. Scoring was given as per the norms provided in the manual. It is a standardized scale, used to assess the family background information of the individuals, which includes parameters like educational and occupational status of parents, number of siblings, material possession, kind of locality, presence of farm animals, land holdings, number of earning members in the family etc. The scale categorizes the sample on: Upper High; High; Upper middle; Lower middle; Poor and Very poor Socio Economic Status.

2. Maternal & child health awareness checklist was developed by AICRP-CD, Hyd Unit (2017) to find out the Knowledge levels of Married women with regard to Maternal & Child Health issues. The Reliability Value of the checklist is: 0.85. The checklist comprises of 3 dimensions:

i) Pregnancy related statements: It is the First dimension and has 48 statements. It measures the knowledge levels of the sample in the following 7 areas: Signs of Pregnancy (7 statements); Care during Pregnancy (9 statements); Factors affecting healthy pregnancy (6 statements); Health aspects of pregnancy (5 statements); Danger signs of pregnancy (11 statements); Complications that may arise during pregnancy (6 statements); Types of Delivery (4 statements).

ii) Maternal & Child Services and programmes: It is the Second dimension and has 33 statements. It measures the knowledge levels of the sample in the following 6 areas: Reproductive & child health programmes (5 statements); Purpose of R & CH programmes (6 statements); Antenatal care services (5 statements); Purpose of Antenatal care services (8 statements); Post-natal care services (5 statements) Purpose of Postnatal care services (4 statements)

iii) General statements: It is the Third dimension and has 13 statements. It measures the knowledge levels of the sample in the following 3 areas: Practices that jeopardize infant health, growth or survival (4statements); Care of the new born (3statements); Nutritional care of the child (6statements)
There are all together 94 statements (all 3 dimensions). Each statement is arranged on 3 point scale ieawareis marked as 3; aware but not sure 2; Not sure as 1. The total scores were further grouped as Low, Average and high. Higher the score, higher is the level of Knowledge in that particular dimension.

Research findings

Table 1: Age wise distribution of the sample (N=75)

16 -19 yrs	20– 25 yrs	26– 30yrs	31 –35yrs
N &%	N &%	N &%	N &%
42 (56%)	33(44%)	---	---

The above table depicts the Age wise distribution of the sample (Married women without children). Out of the total sample 75, slightly more than half of (59%) were in the age range of 16-19 yrs and remaining 44% were in the age group of 20-25 yrs.

Table 2: Education wise distribution of the sample (N=75)

Primary school	Secondary school	Inter	Degree Continuing
N &%	N &%	N &%	N &%
11 (15%)	30 (40%)	17 (22%)	11 (15%)

The above table depicts the Education wise distribution of the sample (Married women without children). Out of the total sample 75, less than half of (40%) completed secondary school; 22% completed Inter; 15% completed Primary school & 15% were pursuing their degree.

Table 3: Occupation wise distribution of the sample (N=75)

House wife N &%	Fully involved in agriculture N &%	Partially involved in agriculture N &%	Petit business N &%
15 (20%)	37 (49%)	20 (27%)	3 (4%)

The above table depicts the Occupation wise distribution of the sample (Married women without children). Out of the total sample 75, almost half of (49%) the sample were fully involved in agriculture; 27% were partially involved in agriculture; 20% were housewives and only 4% were running petit business.

Table 4: Socio Economic Status of the sample (N=75)

Socio economic status classification	Score	Married women without children (N=75)
Upper High	>76	-------
High	61-75	3 (4%)
Upper middle	46-60	12 (16%)
Lower middle	31-45	42 (56%)
Poor	16-30	18 (24%)
Very poor	<15	-------

The above table depicts the Socio Economic Status of the sample (Married women without children). Out of the total sample 75, more than half of (56%) the sample were in lower middle income level; 24% were in poor economic status; 16% were in upper middle income level and only 4% were in high income group.

Table 5: Maternal and Child Health Knowledge of Married women (without children) - Pretest

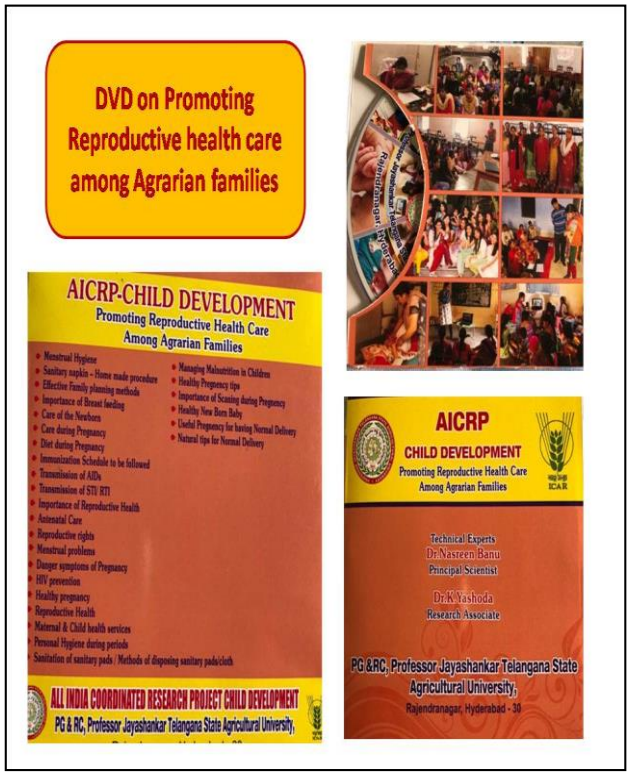
S. No	Maternal & child health awareness dimensions	Category	Score	Married women without children 75 (No &%)
A	Pregnancy related	High	97-144	15 (20%)
		Average	49-96	33 (44%)
		Low	< 48	27 (36%)
B	Maternal & Child Services & programmes	High	67 -99	17 (23%)
		Average	34 -66	30 (40%)
		Low	< 33	28 (37%)
C	General	High	27 - 39	16 (21%)
		Average	14 -26	30 (40%)
		Low	< 13	29 (39%)

The above table traces the pretest scores of married women with regard to Maternal Health & Child care Knowledge. The Self structured Checklist covers 3 dimensions.
With regard to Pregnancy dimension, out of 75 sample44% obtained Average scores; 36%obtainedLow scores and 20% obtained High scores.
With regard to Maternal & Child Services & Programmes dimension, out of 75 sample40% obtained Average scores; 37% obtained Low scores and 23% obtained High scores.
With regard to General dimension, out of 75 sample40% obtained Average scores; 39% obtained Low scores and 21% obtained High scores.

Planning & preparing educational material for conducting Awareness programmes on issues concerning Reproductive Health care among married women: Based on the bench mark issues and pre-assessment results, videos, brochures, leaflets, resource books and educational posters were planned / developed on selected thematic areas.

Educational posters mainly focused on: Balanced diet during Pregnancy; Birth control facts; Benefits of Breast feeding; Comprehensive nutrition; Reproductive health; Antenatal care; Immunization schedule; STI symptoms

Videos mainly focused on: Effective Family planning methods; Importance of Breast feeding; Care of the Newborn; Care during Pregnancy; Diet during Pregnancy; Immunization Schedule to be followed; Antenatal Care; Reproductive rights; Healthy pregnancy; Maternal & Child health services; Managing Malnutrition in Children



Conducting programmes on Maternal & Child health for the selected sample: Knowledge based Capacity building programmes (20) were conducted for married women from the adopted villages on issues concerning Maternal & Child health.

Some of the intervention strategies used for promoting **Reproductive Health Knowledge among the sample was:** group exercises, role plays, open ended stories, Brain storming, Group activities, Situation analysis, Case studies, Responding to real life situations and Group discussions etc.

Capacity building programmes

Impact of knowledge based intervention

Table 6: Maternal and Child Health Knowledge scores of married women (without children) - Post assessment Scores: (N=75)

s.no	Maternal & child health awareness dimensions	Category	Score	Married women without children (No &%)
A	Pregnancy	High	97-144	36 (48%)
		Average	49-96	32 (43%)
		Low	< 48	7 (9%)
B	Maternal & Child Services &programmes	High	67 -99	34 (45%)
		Average	34 -66	32 (43%)
		Low	< 33	9 (12%)
C	General	High	27 - 39	32 (43%)
		Average	14 -26	29 (39%)
		Low	< 13	14 (18%)

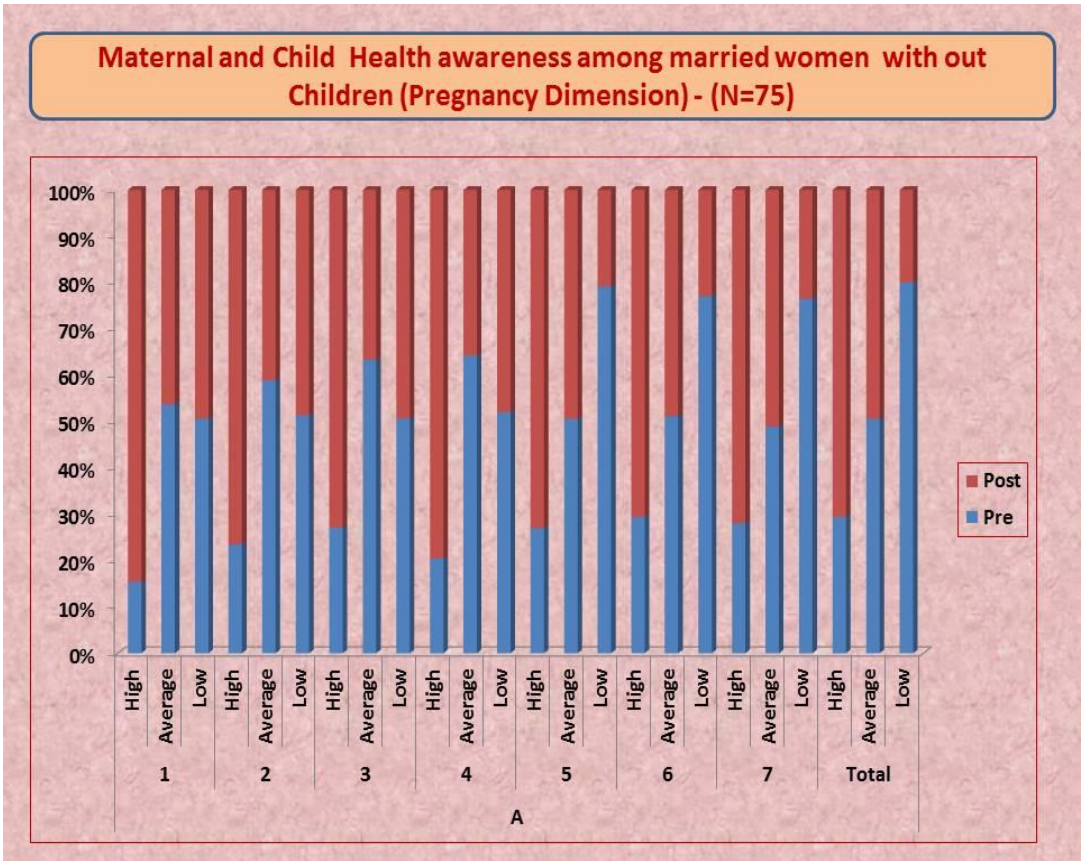
The above table traces the pretest scores of married women with regard to Maternal Health & Child care Knowledge / practices. The Self structured Checklist covers 3 dimensions. With regard to Pregnancy dimension, out of 75 sample 48%

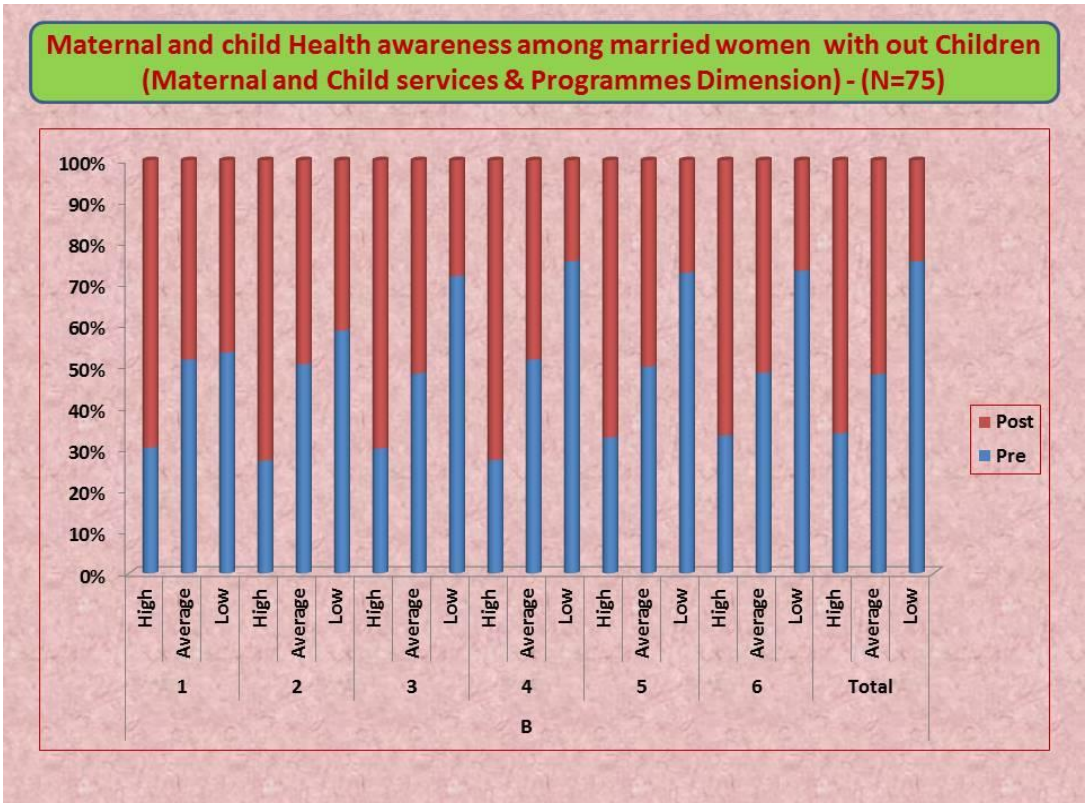
obtained High scores; 43%obtained Average scores and only 9%obtained Low scores.

With regard to Maternal & Child Services &Programmes dimension, out of 75 sample 45% obtained High scores; 43% obtained Average scores and only 12%obtained Low scores.

With regard to General dimension, out of 75 sample 43% obtained High scores; (39%) obtained Average scores and only 18%obtained Low scores.

Reproductive health knowledge scores of married women (Without children) – Dimension & category wise





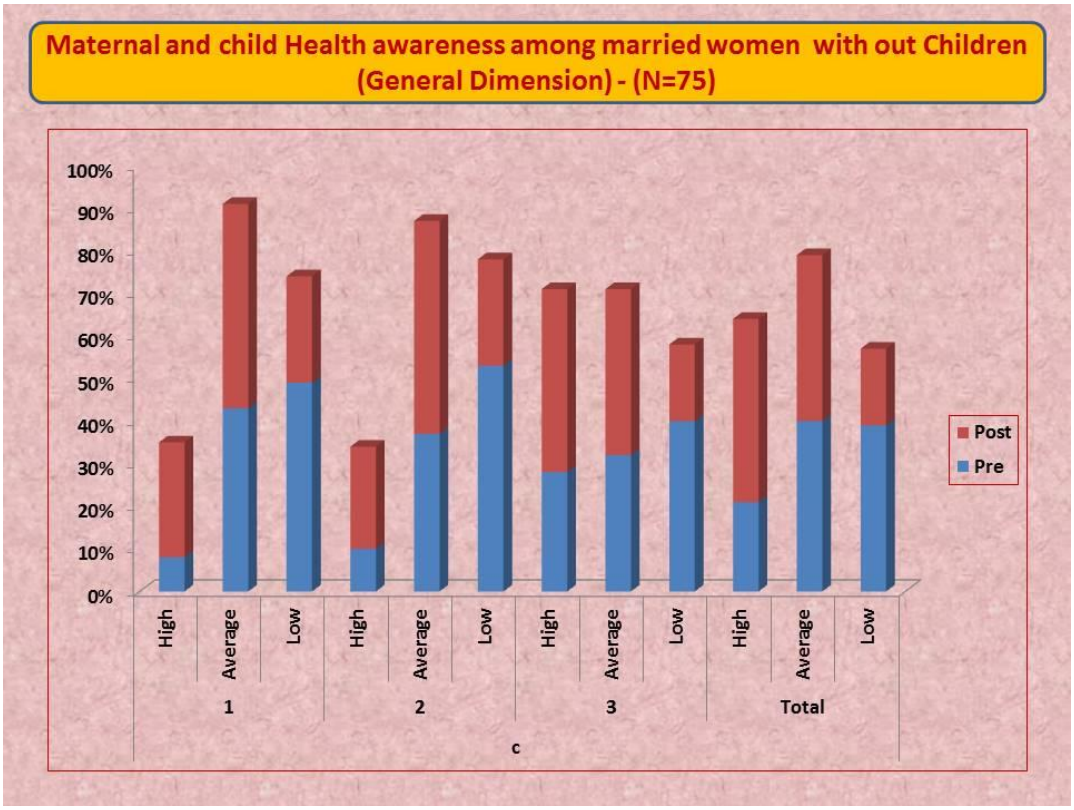


Table 7: Maternal and Child Health Knowledge scores (Pre & Post) of Married women (without children) (N=75)

Dimensions	Sub-Dimensions	Raw scores		Mean		SD		Mean differences (P1-P)	T values
		(P)	(P1)	(P)	(P1)	(P)	(P1)		
A. Pregnancy (48 statements)	A	691	747	9.21	9.96	2.19	3.06	0.75	0.02NS
	B	920	1043	12.27	13.91	3.37	4.89	1.64	0.01NS
	C	530	629	7.07	8.39	2.20	3.31	1.32	3.18**
	D	533	643	7.11	8.57	2.20	3.39	1.46	4.66**
	E	1248	1613	16.64	21.51	6.02	6.92	4.87	2.82**
	F	684	891	9.12	11.88	3.42	3.72	2.76	1.02**
	G	443	580	5.91	7.73	2.43	2.69	1.82	3.12**
	Total	5049	6146	67.32	81.95	20.24	25.14	14.63	1.01**
B: Maternal & Child Services and programmes (33 statements)	A	494	560	6.59	7.47	2.13	2.98	0.88	0.08NS
	B	596	726	7.95	9.68	2.75	3.90	1.73	2.09**
	C	546	715	7.28	9.53	2.69	3.43	2.25	1.27**
	D	931	1190	12.41	15.87	5.03	4.85	3.46	1.65**
	E	628	773	8.37	10.31	3.36	3.24	1.94	2.24**
	F	491	628	6.55	8.37	2.83	2.82	1.82	1.28**
	Total	3686	4592	49.15	61.23	16.68	18.12	12.08	3.14**
C: General (13 statements)	A	403	507	5.37	6.76	1.71	2.31	1.39	5.06**
	B	312	400	4.16	5.33	1.65	1.94	1.17	4.84**
	C	744	870	9.92	11.6	4.31	4.16	1.68	8.15**
	Total	1459	1777	19.45	23.69	6.77	7.50	4.24	8.82**

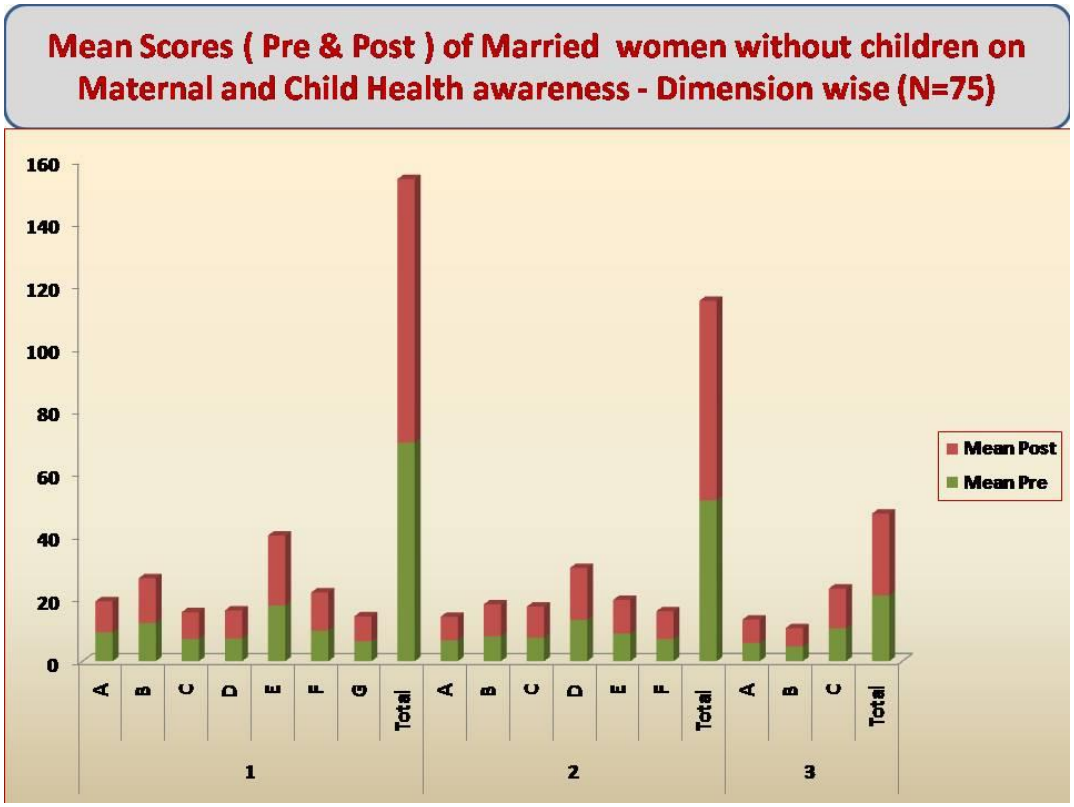
Note: ** at 1% level of significance

Abbreviations

1. Pregnancy	2.Maternal & Child health Services &programmes	3. General
A: Signs of Pregnancy	A: Reproductive & child health programmes	A: Practices that jeopardize infant health, growth or survival
B: Care during Pregnancy	B: Purpose of R & CH programmes	B: Care of the new born
C: Factors affecting healthy pregnancy	C: Antenatal care services	C: Nutritional care of the child
D: Health aspects of pregnancy	D: Purpose of Antenatal care services	
E: Danger signs of pregnancy	E: Postnatal care services	
F: Complications during pregnancy	F: Purpose of Postnatal care services	
G: Types of Delivery		

The above table presents the Pre & Posttest (Raw scores, Means, SD and T values) Scores of Married women (without children) with regard to Sub-dimensions under Maternal Health and Child Care. The table shows the progressive

increase in the total raw scores across pre-test to post-test, along with the increase in the mean differences, which shows the impact of intervention programme. T values between the two means of pre-test and post-test was found to be highly significant, as the calculated values were found to be greater than the tabulated value. The results reflect the effectiveness of Intervention programmes on the Knowledge levels of Married women with reference to Reproductive Health.



Conclusion

There is a dire need for conducting research on MNCH, to ensure we deliver the right packages of care at the right levels of care. Not only do we need to identify the most effective ways to deliver, scale up and sustain both basic and comprehensive emergency obstetric care, especially for postpartum hemorrhage and preeclampsia, but implementation research is also equally needed.

Furthermore, evaluation and implementation research of the delivery of MNCH interventions that focus on impact, specifically those assessing changes in morbidity or mortality, is advocated since they have been deemed critical to determine the effectiveness of programs being implemented.

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