

EFFECTIVENESS OF MIDWIFE LED EDUCATIONAL INTERVENTION ON KNOWLEDGE REGARDING ANTENATAL EXERCISES AND DIET COUNSELLING AMONG PRIMI MOTHERS IN A SELECTED RURAL AREA AT TIRUNELVELI DISTRICT

Mrs. Stella Nesa Mary* | Dr. Brintha Balakrishnamony**

*Research Scholar, Himalayan University, Itanagar, Arunachal Pradesh, India.

**Professor, Himalayan University, Itanagar, Arunachal Pradesh, India.

DOI: <http://doi.org/10.47211/indcij.2021.v08i04.016>

ABSTRACT:

Introduction: Pregnancy is one of the most profound times in a woman's life. It is marked by a variety of physical changes, as well as by thoughts and feelings that sometimes overwhelm the mother-to-be. Though pregnancy is generally a time of joy and well-being, complications can occur that cloud the experience and put the patient and her unborn child at risk. When primi mothers gain information about the antenatal exercises and diet, they become more able to understand of how to deal with the pregnancy and it will be easy for them to take care themselves. Materials and methods: A true experimental research design of pre and posttest with control group was adopted for the present study. Simple random sampling technique was used to allocate the groups as experimental and control group (N=100+100=200). Researcher developed the tool and midwife led educational intervention. Validity and reliability were found valid (cvr=1) and reliable (r=0.92). After the pretest midwife led educational intervention was administered to the experimental group whereas control group does not receive any intervention. After one month interval posttests were conducted using the same questionnaire as per schedule. Results: Descriptive and inferential statistics were computed. In the experimental group knowledge scores had consequently improved. ANOVA and Bonferroni were computed since it was repeated measures. The mean score of knowledge in experimental group was statistically significant ($p<0.05$) whereas in control group knowledge scores was not found in significant. Conclusions: Considering the results, midwife led educational intervention is effective in creating awareness of antenatal exercises and diet among primi mothers.

Key Words: Effectiveness, Midwife led educational intervention, antenatal exercises, antenatal diet, Primi mothers.

ABOUT AUTHORS:



Author Mrs. Stella Nesa Mary is Research Scholar in Himalayan University, Arunachal Pradesh, India. He has attended various Seminars and conferences.



Author Dr. Brintha Balakrishnamony has many publications in her name. She has attended and organized various National and International conferences and has given extensive lectures.

INTRODUCTION:

Pregnancy is one of the most profound times in a woman's life. It is marked by a variety of physical changes, as well as by thoughts and feelings that sometimes overwhelm the mother-to-be. Though pregnancy is generally a time of joy and well-being, complications can occur that cloud the experience and put the patient and her unborn child at risk.

Pregnancy a phase in a women's life plays a vital role bringing in subtle changes hindering their ability to carry out their daily routines, affecting their overall health-related quality of life reflecting on the physical and emotional stress. The goal of medical care during pregnancy aims at favourable outcome of the mother and the baby considering the health-related functional Pregnancy is a highly demanding period nutritionally. This period takes care of the mother and fetus both, where extra food required taking care of baby's weight followed by lactation, where once again extra nutrition is required for the production of milk. A healthy body tissue depends directly on essential nutrients in food. This is especially true during pregnancy because a whole new body is being formed. The diet of women before and during pregnancy has immense influence on the course of pregnancy and health of a child- both after its delivery and in the future. Lack of dietary knowledge and the knowledge about consequence of malnutrition among mother may result in lot of dietary indiscretion, which in turn can cause deficiency or exercise of energy and particular nutrition, as well as abnormal course of pregnancy. Hence, for keeping a proper diet and exercises during pregnancy a women must not only know the healthy eating guidelines, but also realize how a diet influence the course of pregnancy and child health.

METHODOLOGY:

True experimental research design with the study population comprised of experimental group (100) and control group (100). In cluster sampling technique simple random sampling technique was used to draw the samples from selected rural areas at Tirunelveli District. The tools used for the study were, part I - Demographic variables, Part II-Structured knowledge questionnaire regarding antenatal exercises and diet. This study was approved by the research development committee members from Himalayan University, Itha Nagar, Arunachal Pradesh. Formal permission was obtained from the rural area president, Tirunelveli District. The knowledge of primi mothers was assessed using pretest knowledge questionnaire. After the pre test was done, midwife led educational intervention was given to the primi mothers on an experimental group consists of 100 primi mothers. After one month duration of gap the post test was carried out consequently for three times to the primi mothers with the same questionnaire and midwife led educational intervention.

FINDINGS AND INTERPRETATIONS:

Descriptive statistics (mean and SD) and inferential statistics (ANOVA and Bonferonni) were computed for analyzing the results by using SPSS software version 16.

DESCRIPTION OF DEMOGRAPHIC DATA:

The highest percentage of mothers were belongs to age group between 26-30 years in experimental (45%) and control (42%) group. Highest percentage of mothers was belongs to Hindu religion in experimental (62%) and control (53%) group. Figure depicts that the highest percentage of mothers were belongs to Hindu religion in experimental (62%) and control (53%) group. Highest percentage of mothers had no formal education in experimental (44%) and control (40%) group. Highest percentage of mothers was agriculture in experimental (48 %) and control (43%) group. Highest percentage of mothers had family income of Rs 5000-10000 in experimental (37%) and control (43%) group. Highest percentage of mothers was belongs to nuclear family in experimental (63 %) and control (60%) group. Highest percentage of mothers was belongs to rural area in experimental (62%) and urban area in control (53%) group. Highest percentage of mothers had information from family/ friends/ relatives in experimental (40%) and control (35%) group.

Table 1: Frequency and percentage distribution of demographic variables of primi mothers. N= (100+100) =200

Demographic Variables		Experimental Group		Control Group	
		f	%	f	%
Age of the mother	21-25	18	18	37	37
	26-30	45	45	42	42
	31-35	25	25	13	13
	Above 35	12	12	8	8
Religion	Hindu	62	62	53	53
	Christian	28	28	42	42
	Muslim	10	10	5	5
Education	No formal education	44	44	40	40
	Primary	25	25	32	32
	Secondary	23	23	22	22
	Graduate & Postgraduate	8	8	6	6
Occupation	Government	3	3	5	5
	Private	27	27	21	21
	Agriculture	48	48	43	43
	Housewife	22	22	31	31
Family Income	< 5000	32	32	25	25
	5001-10000	37	37	43	43
	>10000	31	31	32	32
Type of Family	Nuclear	63	63	60	60
	Joint	27	27	30	30
	Extended	10	10	10	10
Place of living	Rural	62	62	47	47
	Urban	38	38	53	53
Source of information	Television/radio	30	30	23	23
	Magazine/books	7	7	9	9
	Hospital (nurses/doctors etc.)	23	23	33	33
	Family/ friends/relatives	40	40	35	35

Table .2: Comparison of pre and posttests knowledge scores before and after implementation of Midwife Led Educational intervention N=100+100=200

Level of Knowledge	Experimental Group								Control Group							
	K ₁		K ₂		K ₃		K ₄		K ₁		K ₂		K ₃		K ₄	
	F	%	f	%	F	%	f	%	f	%	F	%	f	%	f	%
Very Poor	100	100	47	47	32	32	10	10	100	100	92	92	72	72	63	63
Poor	0	0	20	20	13	13	9	9	0	0	8	8	15	15	10	10
Average	0	0	33	33	42	42	23	23	0	0	0	0	13	13	27	27
Good	0	0	0	0	13	13	35	35	0	0	0	0	0	0	0	0
Excellent	0	0	0	0	0	0	23	23	0	0	0	0	0	0	0	0

Table 2 shows that the all the mothers (100%) in the experimental group and (100%) in the control group had very poor knowledge in pre-test. In the experimental group knowledge scores had consequently improved after the implementation of midwife led educational intervention, i.e., good knowledge is 13.3% in post-test two (K_3), 35 % in post-test three (K_4). However, excellent knowledge is 22.3 % in post-test three (K_4).

Further, slight improvement in knowledge scores was found in the control group. It was observed that in post-test three (K_4) 63.3 % had very poor knowledge, 10 % poor knowledge, only 27 % had Average knowledge.

Table .3: ANOVA for repeated measure of knowledge scores of experimental and control groups to assess the effectiveness of Midwife Led Educational intervention among primi mothers. N=100+100=200

Observation	Experimental Group				Control Group			
	Mean	SD	F Value	P Value	Mean	SD	F Value	P Value
Pre-test K_1	6.73	1.94	545.09	0.000***	7.01	1.89	16.98	0.000***
Post-test I K_2	14.12	2.53			8.34	1.97		
Post-test II K_3	20.82	3.28			9.14	2.13		
Post-test III K_4	22.19	3.04			9.40	2.61		

The data presented in the above table 3 shows that the ANOVA for repeated measures for pre-test (K_1) and post –test (K_2 , K_3 , K_4) knowledge scores in experimental group showed that there was significant difference in knowledge scores among various observations ($F=545.09$, $p<0.000$). Hence midwife led intervention was effective in improving the knowledge of mothers in the experimental group. In control group ANOVA for repeated measures for pre-test (K_1) and post –test (K_2 , K_3 , K_4) knowledge scores among mothers showed that there was significant difference in knowledge scores among various observations ($F=16.98$, $p<0.000$). Hence, the investigator rejected the null hypothesis (H_0) and accepted the research hypothesis (H).

Table .4: Comparison of knowledge scores within and between experimental and control groups through post hoc Bonferroni test N=100+100=200

Observation		Experimental Group				Control Group			
		Mean Diff.	SE	F Value	P Value	Mean Diff.	SE	F Value	P Value
Pre-test K_1	Post-test I K_2	7.41	0.783	132.69	0.000***	1.33	0.131	2.19	0.891 NS
	Post-test II K_3	14.11	.632	353.47	0.000***	2.13	0.498	5.18	0.732 NS
	Post-test III K_4	15.46	.516	893.10	0.000***	2.39	0.533	14.19	0.000***

The post hoc analysis using Bon ferroni test presented in Table 4 shows that there were significant changes in mean difference at different times of observation in knowledge scores from pre-test to post-test in the experimental ($p<0.000$) and mean difference was from 7.41 to 15.46. The post hoc Bonferroni test showed the difference between pre-test and consequent post-test was not by chance and there was highly significant between the consecutive assessments. Hence Home-based intervention was effective in improving the knowledge of mothers in the experimental group. In control group, mean difference was from 1.33 to 2.39. There was no significant difference between pre-test and post-test two, pre-test and post-test two scores and there was significant between pre-test and post-test three $p<0.000$.

CONCLUSION:

The findings of the present study revealed that, on comparison, the post tests knowledge scores were significantly higher than the pretest knowledge score. This indicates that the midwife led educational intervention on antenatal exercises and diet was effective in increasing the knowledge of primi mothers. The study identified that, almost all the primi mothers were devoid of knowledge before implementation of midwife led educational intervention regarding antenatal exercises and diet. Hence midwife led educational intervention on antenatal exercises and diet for primi mothers will be helpful in increasing the knowledge.

REFERENCES:

1. Benetton Ruth, Brown. Myels textbook for midwives. 11th ed. Hong Kong: Churchill living stone; 1989. P-13, 880-82.
2. Oakley A.Hick D, Rajan L, Rigby A. Social support in Pregnancy. Does it have longterm effects? Journal of Reproductive and infant Psychology. 1986; 14: 7-22.
3. Malhotra AD. Recent advances in Obstetrics and Gynecology. New Delhi: JP Brothers Medical Publishers Pvt Ltd; (1). 1994
4. Michelle. Health and fitness in pregnancy, [serial online] 2004 March: available http://www.Pregnancyweekly.com/pregnancy_health_fitness/lower_stretches.htm.
5. Dorena. Pregnancy health, [serial online] 2006 Jan: available from <http://www.healthology.com/main/article>.
6. Paisley T.S, Joy EA. Exercise during Pregnancy; A practical approach. Journal of current sports Med Rep. 2003; 216.
7. Barbara. Exercise and fitness, [serial online] 2006 Feb: available from http://www.wyethnutritionals.com/moms/mom_exercise.htm.
8. Bouchez Colette. Your perfectly pampered pregnancy. 1st ed. USA: Broadway books, a division of random house, Inc; 2004; 130-45.
9. Edelman CL and Mandle CL. Health promotion throughout life span. 2nd ed. St. Louis, Missouri: CV Mosby; 1990.
10. Dickson, Silverman and Schult. Maternal and Infant nursing care. 2nd ed. St. Louis, Missouri: Mosby publications; 1994. Pg-191.
11. Dutta DC. Text book for obstetrics. 4th ed. New Delhi: Central book agency; 1998. P-105-7.
12. Clapp J. The course of labor after endurance exercise during pregnancy. American Journal of Obstetrics and Gynecology. 1990; 163 (6): 1799-1805.
13. Bullock JE, Jull GA. Relationship of low back pain to postural changes. Australian journal of physiotherapy. 1997; 33 (1): 107.