

“EFFECT OF NUTRITIONAL ADVISING AND EDUCATION ON THE HEALTH AND FITNESS OF THE PREGNANT MOTHERS DURING PREGNANCY”

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Abstract

The need to provide proper advising and education to pregnant mothers to maintain their health and fitness is mainly felt here, because lack of awareness about their fitness and health during the pregnancy. It is important for pregnant mothers to engage in daily exercise and daily activities to maintain good health and fitness. But in India there is also a belief that pregnant mothers should not exercise too much. Therefore, pregnant mothers are rarely active in daily exercise or movement. Pregnancy is a very important moment in a woman's life, so she should daily exercise and kept engage in activity. For this they need proper advising and education which can improve their quality of life and that of the baby. Nutritional advice and proper education on how and what exercise to do will help them maintain their health and fitness. Pregnant mothers should be advised and educated to exercise cautiously. It is necessary to them under the guidance of Expert if possible. 52% of pregnant women agreed to moderate exercise. Almost all pregnant women agreed to light exercise. It is significant increased in the percentage of agree to engage in daily activity as well as more improvement in daily consumed the nutrition diet. A study schedule was conducted on 480 pregnant mothers by planning for nutritional advising and education. The present study was planned so as not to face to creating health related problem in during pregnancy and in future. And the study revealed that they showed a significant improvement in fitness with a reduction in anemia, and a significantly increased in fetal weight during pregnancy, also most importantly in the risk of preterm delivery has reduced.

Keyword: Nutritional Advising and Education, Health and Fitness, Pregnancy, Antropometry Measurement, Adequate nutritional Diet, Exercise etc.

Objective: To assess effect of nutritional advising and education on the Health and fitness of pregnant Mothers in Ahmednagar District.

INTRODUCTION: Through nutritional advising and education, their household heads became aware of nutritious diet. And there was a significantly increased in the amount of special attention given to pregnant mothers from the point of view of health and fitness. Nutritional advising and education play a huge part in promoting the health and fitness of pregnant mothers. Especially here through NAE follow up for pregnant mothers will definitely increase the tendency of women to intake micronutrient supplement and adequate diet. And women will be provided with a security cover of nutrition. Lack of health and fitness is observed among pregnant women in rural areas of Ahmednagar district and awareness about what kind of diet and what do the exercise to take is still not evident. Factors contributing to this are low education, economic disparity and low awareness about their health and fitness. A proper research is needed to provide a safety cover for the health and fitness of pregnant women. Such a message can be conveyed from the above research. Anemia affects nearly 37% on health of pregnant mothers in Ahmednagar district, out of 50.3% in Maharashtra state according to NFHS-4. Even today rural areas pregnant mothers are not more aware of their nutritional diet before and after conception than urban areas. The main reason for such a situation is economically and socially disparity and also ignorance of their fitness and health as well as lack of awareness about consumption of adequate micronutrients, nutritional diet and ignorance of exercise can be mainly responsible. The present study was planned and studied to bring about a corrective change and development in this situation. Present study, 480 pregnant women of Ahmednagar district were selected and they were selected by simple random method and their information was collected through survey method and interview and questionnaire briefly about their age, education, marriage age, religion, and their occupation and income. Height and weight data were also collected for anthropometry measurement, dietary intake and daily mode of activity about health and fitness data was also collected. And finalized such collected data to find out the value with technically by SSPS-2018 software and it has evaluated. Nutritional diet and physical exercise advising and education can be more useful for pregnant women as women sustainable lack of knowledge about their health and fitness and they are not seriously conscious about health and fitness. Nutritional advising and education are proving to be useful in preventing diseases of pregnant mothers. As well as, it useful to prevent anemia can be benefit as many pregnant women as possible and make them safer during pregnancy. Also it will definitely prove useful in taking care of their family. - (NY, 2006).

Definition of Health and fitness: "Maternal health means refers to the health and fitness of women during pregnancy, childbirth and the postnatal period . Each stage has to be a positive

experience, ensuring women and their babies reach their full potential for health and well-being". - WHO

RESEARCH METHODOLOGY: The current survey, prospective, and descriptive study a total of 480 pregnant mothers of Ahmednagar District as participants showing willingness towards the study were included and others were excluded. After collecting data, it was finalized for analysis, and cross sectional study and experimental method were used for analysis. All the values in obtained in study were compared against standard statistical tool used was WHO Nutri Survey- 2007 and RDA calculator of RDA.

RESEARCH DESIGN: Survey, observed and interviewed methods are using to collect data: it was a convenient sample included 480 pregnant mothers from antenatal care (ANC) of Ahmednagar District (Maharashtra states).

Sample size finalized according to Anika Nishant Formula:

Z = Scores for the most common confidence intervals are

95% Level confidence = 1.96

N= Population

p = Standard Deviation - 0.5

e = Margin of error - 0.05

Z score = 1.96

N= Sample size

$$N = \frac{\frac{Z^2 \times P(1-P)}{e^2}}{1 + \left(\frac{Z^2 \times P(1-P)}{e^2 N} \right)}$$

N = 213.16

Sample size confidants 95% level minimum is 213.16 so validates more samples of pregnant mothers in the present study.

Research Tool: Research Tool: Three tools were used for data collection; Survey, interviewing and questionnaire method that consisted of 3 parts; the socio-demographic profile of pregnant women, and their health and fitness related physical exercise as well as BMI status investigation. SPSS software 2018 was technically used to find out the value and analyze this authentic data.

Inclusion Criteria: Pregnant mothers whose given response consenting.

Exclusion Criteria: Pregnant Mothers who did not attend ANC during data collection period.

Table No. 1: Socio-demographic characteristics of the respondents. (n=480)

Variables	Frequency	Percent
1. Age of the pregnant mother (21-30)	208	81
2.No of Pregnancy 1 st	260	54.2
3. Trimester of Respondent (I)	392	81.7
4. Education (UG)	192	40
5.Religion (Hindu)	328	68.3
8. Occupation of Respondents (House wife)	108	22.5
10. Household Income <10000	340	70.8

Table No.1: Socio-demographic status of pregnant mothers shows that in the present study that consisting majority of respondents characteristics only ; Age between 21-30 were 208(81%), No of Pregnancy 1st were 260 (54.2%), Trimester of Respondent (II) were 392(81%), Education (UG) were 192 (40%), Religion of Hindu were 328((68.3%), Occupation of Respondents(House wife) were 108(22.5%) and Indicated Household Income <10000 were 340(70.8%) respectively.

Table No.2: BMI Characteristics of the subject.

BMI Characteristics	Frequency	Percent
Normal (18.5 - 24.99 kg/m ²	222	46.25
Under Weight (< 18.5 kg/m ²	194	40.42
Overweight(25 - 30 kg/m ²	64	13.33
Total	480	100

Table No.2 : The anthropometric measurement of the respondent i.e, height in cm and weight in kg were taken and BMI was also calculated and Reveals that out of 480 pregnant women 222(46.25%) of respondents had normal (18.5 - 24.99 kg/m²) BMI,194 (40.42%) had underweight (< 18.5 kg/m²), and 64 (13.3%) had Overweight(25 - 30 kg/m²) it was taken after conceiving..

Table No.3: Distribution of the subject on the base of Physical Exercise:

Characteristics of Physical Exercise	Pre Test		After Advising and Education means post Test	
Variables	Frequency	Percent	Frequency	Percent
Normal/ Light Exercise	464	96	267	55.62
Moderate Exercise	249	52	152	31.67
Heavy Exercise	46	9	61	12.71

Table No.3: Reveals that out of total 480 respondents, Majority 464(96%) pregnant mothers were normal/ light exercise, 249(52%) were moderate exercise and very less 46(9%) were daily practice of heavy Exercise respectively. And After Advising and Education in the pregnant mothers status showed that improvement and changed it performs as per follows Majority 267(55.62%) pregnant mothers were normal/ light exercise here is reduced in deficit, 152(31.67%) were moderate exercise and 61(12.71%) were daily practice of heavy Exercise respectively.

Table No. 4: Distribution of subject regarding duration of engaging in daily activities:

Duration	Frequency	Percent	Mean
1 - 2 Hours	19	7.92	0.08
3 - 5 Hours	76	16	0.16
6 - 8 Hours	281	58	0.58
> 8 Hours	104	22	0.22
Total	480	100	

Table No.4 : Reveals that out of total 480 respondents engaging duration (hours) in daily activities, Majority 281(58%) pregnant mothers were 6 – 8 hours, 104(22%) were more than 8 hours and 76(16%) were 3 – 5 hours, and only 19 (7.92%) were found lazy they activate 2 hours.

Table No.5: Distribution Subject regarding effect level of Advising and Education on Health and Fitness.

Effect of Advising & Education	Before Test		After the A/E Test	
Category Level	Frequency	Percentage	Frequency	Percentage
20 - 30	34	7.08	19	3.96
31 - 50	138	28.75	56	11.67
51 - 70	153	31.87	237	49.37
71 - 90	111	23.12	103	21.46
> 90	44	9.17	65	13.54
Total	480	100	480	100

Table No.5 : Reveals that out of total 480 respondents before health and fitness status of pregnant mothers shows that Majority 153(31.87%) pregnant mothers were 51 – 70 category level, hours, 138(28.75%) were 31 – 50 category level and 111(23.12%) were 71 – 90 category level, and only 44 (9.17%) were found more than 90 category level.

Effect level of Advising and Education on Health and Fitness of pregnant mothers after test observed that improvement in the status majority 237(49.37%) pregnant mothers were 51 – 70

category level, hours, 103(21.46%) were 71 - 90 category level, and 65(13.54%) were more than 90 category level, and 56(11.67%) were found 31 -50 category level, and indicated that the only 19(3.96%) were found 20 – 30 very low category level.

Table No.6: Daily Mean Consumption of Food (Diet Pattern) by the subject:

After Advising and Education				
	RDA	After Advising		Mean Diff
Food group	Quantity	Mean	S.D	
Cereals (gm)	275	247.49	29.09	-35.82
Pulses And Legumes (gm)	60	47.12	10.89	-7.95
Green leafy vegetables (gm)	150	139.75	9.97	-5.42
Nuts and oil seeds (gm)	30	19.95	7.41	-2.58
Fruits (gm)	200	150.08	22.45	-4.58
Milk and milk product (ml)	500	190.5	82.73	-42.5
Eggs (gm)	50	29.75	9.14	-3
Meat and Poultry (gm)	30	20.2	10.59	-1.42
Fats edible oil (gm)	30	19.21	9.59	-1.64

Table No.6: shows results regarding the food consumption deficit of various food as per RDA by the Pregnant mothers selected in this study. The results indicated that Pregnant mothers belonging to age group 20 - 40 yrs consumed deficit in Cereals (gm) -35.82, Pulses And Legumes (gm) -7.95, Green leafy vegetables (gm) -5.42, Nuts and oil seeds (gm) -2.58, Fruits -4.58, Milk and milk product (ml) -42.5, Eggs (gm) -3, Meat and Poultry (gm) -1.42, and Fats edible oil (gm) -1.64. Pregnant mothers significantly ($P < 0.05$) less various food consumption as per above tables per day was observed when compared with the RDA.

RESULT: The anthropometric measurement of the respondent i.e, height in cm and weight in kg were taken and BMI was also calculated. Out of 480 pregnant women 222(46.25%) of respondents had normal ($18.5 - 24.99 \text{ kg/m}^2$) BMI, 194 (40.42%) had underweight ($< 18.5 \text{ kg/m}^2$), and 64 (13.3%) had Overweight($25 - 30 \text{ kg/m}^2$)) it was taken after conceiving. Mean weight gain of respondents of second trimester were 4.29 kg and first trimester were 0.93 kg respectively in their present month. Average nutrient intake of the respondents found to be less with regard to protein, iron, calcium and folic acid as compared to RDA parameter before pre-advising and education and later in post of education study report of the respondents was changed and also improved among the respondents. The difference between the intake and RDA was significant reducing in deficit of food consumption for all type of nutrients. Also significantly improve in daily activity spent hours and in category of Physical exercise.

DISCUSSION: The aim of current study was to assessed the effect of advising and education on nutritional diet, and Physical fitness and health related exercise during pregnancy among pregnant mothers visited in various Hospital, PHC of Ahmednagar District. 480 women were selected on basis of the selection criteria and used a self administrated questionnaire to assess awareness of Physical Fitness and dietary belief of them. The pregnant mothers in this study were in wide group of age 18 - 40 years and were generally majority between the age of 21-30 years (81%). Majority of them had a UG (40%) and are housewife (22.5%) were and the study of Ahmednagar District. 68 % of study population were Hindu. And most of the pregnant mothers in this study had normal (light) exercises were 55.22%, breathing exercises and back exercises, 58%, 33% respectively however abdominal and aerobics, 31%, 19%. The practice of simple and regular exercise in pregnancy will significantly improve physical well being in pregnancy and good prenatal outcome. The cost is insignificant, but the benefits in terms of gestational wellbeing and health are considerable. The fact that, awareness about nutritional diet and health and physical fitness, increasing at practice of exercise during pregnancy among the study population were significantly improve when compared to Pre- test, the reason for this outcome is easily identified as lack of awareness is the issue. Hence, healthcare programs should be organized to improve the awareness of antenatal mothers on exercise during pregnancy.

CONCLUSION: Affected from various problem during pregnancy half out of all pregnant mothers in India. and observed anemia affects nearly 37% of pregnant mothers in Ahmednagar district, out of 50.3% in Maharashtra state. Mostly of pregnant mothers in Ahmednagar district do not consume enough food to maintain their healthy life and lack of awareness about healthy diet and Physical Fitness ,the main reasons for this are illiteracy, low income and social disparity, misunderstanding and ignorance etc. Nutritional advising and education based interventions and strengthening about the improvement in the healthy diet, health and fitness of pregnant mothers. Programme of nutritional Advising and education should be implemented to reduce the high burden of Pregnant mothers related problem in Maharashtra, Sociodemographic study a majority of respondents are Hindus (80%), while 12 percent are Muslims, and 6 percent are Buddhists/Neo-Buddhists. And family income of the pregnant women showed that majority income below 10000 were 70.8% and 17% income were between 20000 to 40000. As well as in daily food consumption is observed deficit as per RDA, and physical fitness situation was satisfactory.

RECOMMENDATIONS: This study recommends that through there are need to conduct health and fitness related programs in community, Pregnant mothers still do not pay attention

to their healthy diet and fitness, can be attributed reason that to insufficient knowledge, ignorance, misunderstandings in the society and economical conditions. Therefore, pregnant women need to pay more attention to maintaining their health and fitness. Nutrition advising and fitness education are needed to make more women aware of this. Thus this study recommended that there is a need in the society to implement the education and advising programs of healthy diet and fitness to create awareness among pregnant mothers.

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