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Study of health behavior, dietary habits, physical activity and body mass Index of farm men & women

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Abstract

Healthy lifestyle and high intake of nutritious food can provide good health throughout life to the humans. The poor nutrition and unawareness on the utilization of health facilities during their childhood and reproductive age are the major factors responsible for the high maternal mortality this study tested by the help of KARDA scan machine to estimate the body composition of selected 25 beneficiaries between the age range 20 to 55. Body fat percent, Visceral Fat, Body Age, RMR, BMI, Skeletal muscle percent analyzed by machine. Rural women have high fat percent and low muscle percent because people are not getting the adequate amount of protein from diet Though government of India has been taking several efforts to improve the health status of the women, poverty, gender discrimination and illiteracy in the population are the major problems associated with the implementation of appropriate interventions. The present overview focuses the major factors, which influence the health concerns of the women in Beed.

Keywords: Habits, physical, health behavior, farm men & women

Introduction

India lives in its villages. India is one of the world's most diverse countries, not only socially, geographically and historically but also economically. Women's health concern is influenced by interrelated biological, social, and cultural factors. It is generally expected that women can live longer than men it does not necessarily ensure a better quality of life. Profound studies reported that women are more sickly and disabled than men throughout the life cycle. Health of the rural people is the major issue around the world. The health status of people in rural area is generally worsened than in the urban areas. It may be due to unawareness among villagers, Poverty & unavailability of health facilities. It has been observed that the health and nutritional status of Indian women becoming worse due to the prevailing culture and traditional practices in India. Indian women are generally vulnerable born to mothers with under nutrition and poor health. Anemia is one of the major leading nutritional deficiencies in rural area. Now a day's disease like diabetes, Hypertension, Thyroid, obesity, heart disease increasing day by day in rural area also. Diet management can play very crucial role to avoid this type of disease. The incidence of anemia was found to be highest among lactating women followed by pregnant women and adolescent girls. Epidemiological studies pointed out that worldwide 50 percent of all pregnant women are anemic, and at least 120million women in less developed countries are underweight.8 In South Asia, an estimated 60 percent of women are underweight. Pregnant adolescents, especially who are underweight, are at greater risk of various complications such as obstructed labor and other obstetric complication. Unawareness on health care during pregnancy thus results in negative outcomes for both the mother and the child. Right and proper education to the mothers had a significant influence on their nutritional status and their health. The definitive steps should be taken to educate women about the importance of health care for ensuring health pregnancies and safe childbirths.

As an old saying "Precaution is always better than the cure" but rural people are unaware about this as well as not getting health facilities at their door step or surroundings. Only training program and one day health check-up camps will not work to improve their health status. For creating awareness among them we have to provide scientific information about strengths & weakness of their internal body. We have to make aware them about the bad consequences of weakness in future. Considering all these point KVK, Beed-I has decided to start the Diet Counseling Centre.

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Objectives

The main objectives of the study are as follows

- 1. To know the underlying diseases of the beneficiaries.
- 2. To analyze body composition status of beneficiaries.
- 3. To know the physical status of the selected population of Ambejogai villages

Material and Methods

The research study was carried out in the purposely selected two villages of Ambejogai taluka i.e. Kodari and Kanadibadan. The study was conducted in the diet counseling cell of DRI, Krishi Vigyan Kendra, Ambagojai of district Beed. Sample of 25 beneficiaries were chosen randomly from the selected villages. Four males and 21 females in the age group of between 21 to 55.

Tools and techniques

Karada scan machine was used to assess the body composition of all the beneficiaries. Before assessing the body composition anthropometric measurements like height & weight were measured. Date of birth, height and sexfaded in Karada scan machine and asked to beneficiaries to stand on Karada scan machine and reading were recorded.

Result and Discussion

Body fat (%) of the respondents

Table: 1 reveals that out of 25 beneficiaries all 04 (16%) male comes under the very high body fat %. However, out of 21 females 03 (12%) are having normal body fat percentage. Rest of the females 08 (38%) and 10 (47%) falls in high and very high body fat % respectively. Which indicates that females who are engaged only in house hold works are having very high fat % than the working women like Anganwadi Sevika, Asha worker, tailoring types of Jobs. Same results were also observed by (Bradbury KE, Guo W, Cairns BJ *et al.* (2017)) [1].

Resting metabolic rate

Table: 1. Revels that 100 percent beneficiaries are having lower metabolic rate due to high gap in two meal like most of the famer are having the tendency of taking heavy breakfast and they generally skip the lunch and another reason is rural women are more prone to hypothyroidism. Resting metabolic rate shows that whether body is working during resting period (sleeping, lying) or not. If RMR is low, means calories are not

burning by the internal organs that is why those calories will be converted in to body fat and also Weight gain also seen in people (Pimjai Anthanont and Michael D Jensen, 2016) [4]. If RMR is high, it means body is burning fat during resting period means calories will not be converted into fat. Table is also showing that persons who are having lower RMR are having high body fat %.

Body age

Indicates that 100% beneficiaries have more body age as compare to the biological age it may be due to heavy physical works, high stress level because of low economy status and lack of balance diet in daily routine.

Visceral fat

It is good sign that out of 21 females 15 (71.4%) females having normal visceral fat fallowed 5(23.8%) and 1(4.7%) having high and very high Visceral fat respectively. Out of 4 males 2(50%) having normal visceral fat and followed 1(25%) and 1(25%) having high and very high visceral fat. results indicate that physical exercise plays an important role to keep the visceral fat in normal range. Rural women doing house hold work and also involved in farm activities may be the reason to keep the visceral fat normal. Brian A. *et al* (2008) [2] found same results in visceral fat contest.

BMI (Body mass index)

The level of BMI denotes that only 4% beneficiaries having low BMI, 68 % beneficiaries having normal BMI followed by 24% beneficiaries are overweight and only 4% beneficiaries comes under the range of obesity. This may be due to the physical work is more for rural people they are also involve in day to day farm activities and also unavailability of junk food.

Skeletal muscle

Above table indicate that out of 21 females 12(57%) female falls under the low skeletal muscle percent and 7(33.33%) females come under the normal category followed by 1(4.7%) and 1(4.7%) female come under the high and very high category respectively. Considering male 0ut of 4 males 3 males (75%) come under the low muscle percent category and 1(25%) come under the normal category. It is observed that rural people not taking adequate amount of protein in daily routine diet so majority of rural having low muscle percent.

 Table 1: Body composition analysis results

S. No	Patient	Age	Weight	DOB	Height (cm)	Occupation	Gender	FAT (%)	FAT% Result	V. Fat	V. Fat Results	BMI	BMI Result	Skeletal Muscle (%)	Skeletal Muscles Results	Body Age	RMR* Range
1	F1	36	57.5	08-05-82	148	Farmer	Female	34.1	High	8	Normal	26.3	Over Weight	23.3	Low	47	1212
2	F2	21	51.5	24-03-98	153	Farmer	Female	23.2	Normal	3	Normal	22	Normal	28.5	High	24	1167
3	F3	33	53.4	10-03-85	159	Job	Female	37.4	Very High	6	Normal	21.1	Normal	28.2	High	37	1285
4	F4	23	53.2	07-06-95	149	Tailor	Female	31.1	High	5	Normal	24	Normal	24.7	Normal	33	1160
5	F5	59	50	07-09-65	149	Farmer	Female	35	Very High	7	Normal	23.9	Normal	22.2	Low	56	1139
6	F6	55	54.1	03-08-82	159	Farmer	Female	31.8	High	3.5	Normal	21.4	Normal	24.7	Normal	39	1172
7	F7	35	53.8	03-08-85	152	Farmer	Female	30.8	High	5	Normal	23.3	Normal	24.8	Normal	39	1170
8	F8	55	49.3	04-05-60	148	House wife	Female	38.3	Very High	6.5	Normal	22.5	Normal	22	Low	61	1145
9	F10	32	50.4	26-05-85	153	Farmer	Female	31.6	High	6.5	Normal	21.5	Normal	24	Normal	28.6	1252
10	F11	49	54.6	04-03-60	156	Farmer	Female	33.2	High	6	Normal	22.4	Normal	17.9	Low	58	1172
11	F12	35	54.1	09-04-84	148	Farmer	Female	39.9	Very High	7	Normal	24.7	Normal	21.1	Low	46	1138
12	F14	44	43	01-11-75	146	Business	Female	28.6	Normal	4	Normal	20.9	Normal	23.8	Low	41	1031
13	M15	29	69.3	01-10-89	176	Autoriksha	Male	25.6	Very High	3	Normal	22.4	Normal	29.9	Low	33	1453
14	M16	32	69.4	18-07-87	180	Job	Male	27.6	Very High	5.5	Normal	21.4	Normal	32	Low	35	1581
15	F18	30	45.6	25-12-88	150	Job	Female	31	High	3	Normal	20.3	Normal	24.3	Normal	30	1042
16	F21	33	49.6	07-09-85	153	Job	Female	30	High	3.5	Normal	21.2	Normal	25	Normal	35	1108
17	F22	34	45	04-03-83	158	Farmer	Female	19	Low	3	Normal	18	Under Weight	23	Low	36	1098
18	F9	49	55.9	07-05-60	146	House wife	Female	39.7	Very High	10	High	26.2	Over Weight	33.2	very high	65	1160
19	F13	37	70.3	03-02-82	154	House wife	Female	36.9	Very High	11	High	29.6	Over Weight	23	Low	54	1396
20	M17	50	90.6	05-06-69	166	Job	Male	34	Very High	22.4	V High	32.9	Obsese	23	Low	66	1856
21	M19	27	71.4	06-12-91	165	Job	Male	26.5	Very High	10.5	High	26.2	Over Weight	30.7	Low	41	1608
22	F20	40	67.8	27-06-78	150	Job	Female	36.2	Very High	12	High	30	Over Weight	22.8	Low	56	1357
23	F23	39	60	07-09-77	150	House wife	Female	33	High	11	High	26.7	Over Weight	24	Normal	45	1267
24	F24	42	62	28-05-75	148	House wife	Female	35	Very High	14	High	28.3	Over Weight	23	Low	50	1222
25	F25	40	68	04-03-76	153	House wife	Female	39	Very High	15	V High	27.11	Over Weight	23	Low	49	1156

^{*}RMR-Resting metabolic Rate

Conclusion

Rural women have high fat percent and low muscle percent because people are not getting the adequate amount of protein from diet. Mostly abundant amount of milk is available in home but they are more interested in sold and they are unaware about the importance of protein Melanie J $et\ al.$ $2008^{[3]}$ also reveals the same results.

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