A Survey Study: Assessment of physical wellbeing of women

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Abstract: **Woman's health is an issue which has been taken up by many feminists, especially where reproductive health is concerned. Woman's health is positioned within a wider body of knowledge cited by, among others, the World Health Organisation, which places importance on gender as a social determinant of health. Objective: The objective of present study was to assess the physical wellbeing of women, for the present study it includes assessment of BMI, Anemia, Random Blood Sugar, Hypertension, Breast examination among 108 women attending OPD at MMIMS&R by using convenient sampling technique. Result: It reveals that out of 108 women 37 were found to be moderately anemic and 36 women were having severe anemia. Majority of the women were found to be in the normal range (34.25%) of BMI. Majority 50% of the women were having normal blood pressure. Woman's breast finding were normal where as 7.40 % of woman's breast was tender followed by painful right breast and least 1.8 % of woman's breast was found having palpable lymph node and breast engorgement. The calculated r value is found to be Weak positive correlation with BMI and RBS, SBP, DBP.**

Key Words: **Women, BMI, Anemia, Random Blood Sugar, Hypertension, Breast examination.**

Introduction

Woman's health was described as "a patchwork quilt with gaps"

Woman's health means to health specific issue related to the health of women. These are associated with the anatomical and physiological health of women including the physiological parameter for example breast, blood profile, hormonal changes and the most important in women are some conditions as anaemia (Decreased level of Haemoglobin), diabetes, hypertension, obesity. The women health with the anatomical and physiological changes may include some medical complication such as carcinoma of breast, obesity or adiposity, type2 diabetes and hypertension.

Women's Health society research in the United States, define the woman's health more broadly than some issues which are specific to female (women) anatomical structure which includes areas where there is differences between biological sex of women and men exist. Some research have demonstrated the significant differences between the biological sexes in rates of their occurrence of susceptible complication, symptoms and responses to the treatment in many major areas of public health, including cardiovascular disease and some type of cancers for example cancer of the breast.[1]

Studies which are conducted by WHO says that, the prevalence rate of anaemia is 40.5% in Iran among the pregnant women and it is 33% in the women who were not-pregnant, so it is considered as a severe health problem for the women who are, and a moderate health problem for the women who are not pregnant . A study conducted by Sheikholeslam et al. has shown the prevalence rates of anaemia and the prevalence rate of Iron deficiency anaemia are 33% and 16/6%, respectively, for the women of reproductive age group in urban and rural areas of Iran shown the prevalence Iron deficiency anaemia is 21/5% among Iranian pregnant women.[2]

Obesity is considered to be the risk factor for various medical condition and complication and it is modifiable risk factor for parthenogenesis of type 2 diabetes mellitus reported by various cross-sectional studies. Therefore it is assumed that a positive correlation is existing between random blood glucose and BMI, (the indicator of obesity/ adiposity) Obesity. However, some racial factors seem to be important in the relationship between body mass index (the indicator of obesity/ adiposity) and glucose intolerance even though a large number of studies such as the Scottish study did not demonstrate correlation between blood sugar intolerance and BMI (the indicator of obesity/ adiposity).[3]

In World breast cancer rank at one among women i.e., that is the most common cancer in women whereas In India and some other developing countries, cancer of breast ranks second only to cervical cancer among women. Breast cancer rank at number four for the cause of death among women worldwide. Although studies which are done globally, find association between BMI and breast cancer, and a few studies in India document that there is any such association.[4]

Breast cancer is most curable if it is detected at its earlier stages. Breast cancer has become the killer in females at rank one. Therefore it has become an increasingly important global problem of research all over. At every 3 minutes a new case of /woman is diagnosed with breast carcinoma, amounting it to one million cases every year. According to the report of world cancer it is estimated that the incidence could be increased up by 50%to the cases of 1.5 million by 2020. [5]

Early detection of breast cancer using breast self-examination (BSE) plays an important role in decreasing its morbidity and mortality. [6] Overweight

and obesity, as measured by high BMI, moderately increases the risk of postmenopausal cancer of breast and it is one among of the very few risk factors which are modifiable for cancer of the breast. Compared with lean women, overweight women in postmenopausal phase have a 10-20% risk of increasing cancer of the breast, and obese/ adiposity women in postmenopausal phase have a 30% risk of increase among women with a BMI that is less than 22.5 have a 15% risk of reduction which compared with women with a BMI of 22.5-24.9. In contrast, obese/ women which are in post-menopausal phase have a 20% rate of reduction in cancer risk? [6]

Body mass index is revealing the positive and independent associated with morbidity and mortality from hypertension (Systolic and diastolic) referring to cardiovascular disease, type II diabetes mellitus, and other chronic diseases for example breast cancer in women. [7]

In developing countries, high and increasing blood pressure is one of the most common risk factors for emerging cardiovascular diseases, and it is estimated and contributed to 7.1 million deaths especially among the middle, and old-age group of adults is due to high Blood pressure. Now a days developing countries are facing almost double burden of hypertension and other diseases related to cardiovascular system, and along with this the other diseases are infection and malnutrition. The very significant subject of epidemiological research is the significance between BMI and other cardiovascular diseases. And even positive association if being noticed by various Asian researches. [8]

It is been estimated by World health organization that more than 1/3rd of world population is anemic, out of which anaemia which id because if deficiency of iron is most common and serious problem of public health significance/problem. Prevalence of anemia in India is one of the highest in the world with other developing countries but within the country prevalence rates is substantially different between different regions. Personnel and families form Indian Armed Forces form a special class as it includes people from all the regions of India. However, the reliable but scanty data of anaemia is available in the families of naval personnel. The present study reveals the problem of anaemia among non-pregnant wives of serving people enrolled in the Indian Navy among the reproductive age group.9

Material & Methods

A community based prevalence survey study was conducted among women attending outpatient department of MMIMSH&R, Mullana, Ambala. 108 women who were coming to Obstetrics, gynecology and family planning OPD during the study period. Those women who were not long-term residents of the of the OPD were excluded. Sample size was determined based on single population proportion formulas (who were coming to OPD) by Convenient Sampling technique.

Data Collection Procedure

Formal administrative approval was obtained from the HOD Obstetrics & Gynecology Departments, MMIMS&R. Data were collected by interview technique using biophysical measurement like, and blood hemoglobin concentration was measured using a HemoCue Hb 301, a precalibrated instrument designed for the measurement of hemoglobin concentration. Venous blood was drawn, through microcuvettes, and inserted into the HemoCue and the BMI using height weight scale, blood pressure by using sphygmomanometer and random blood glucose was measured by Glucometer concentration and the result was recorded in the month of November 2015.

Data Processing and Analyses

Data were analyzed using SPSS version 20. Description of means, frequencies, and rates of the given data for each variable was calculated. Bivariate analysis was done to see the association of each independent variable with the outcome variable. A value of less than 0.05 was considered statistically significant, and adjusted odds ratio with 95% "r" test value was calculated to determine relationship.

Out of a total sample size (108) women were included in the study with the mean age of 38.42 years. And mean BMI was 25.67

Table-1

Assessment of level of Anemia

N=108

Level of Anemia	Range(gm%)	Frequency	%	Mean Hb
Normal	< 8	36	33	12.2
Mild	11-11.9	35	32	
Moderate	8-10.9	37	35	

Out of 108 women 37 were found to be moderately anemic followed by 36 severe anemia and the mean for Hb in women was 12.20 gm%.

Table -2

Assessment of level of BMI

N=108

Range	Level of bmI	F	%
<18	Underweight	32	29.62
18.5-24.9	Normal	37	34.25
25-29.9	Overweight	30	27.77
≥ 30	Obese	09	08.33

Majority of the women were found to be in the normal range (34.25%) of BMI followed by underweight (29.62%)women and very less (08.33) were found obese.

Table -3
Assessment of level of Hypertension

N=108

Range	Level of hypertension			Level of hypertension		
	SBP	f	%	DBP	f	%
Normal	90-119	41	37.96	60-79	54	50
Pre-hypertension	120-139	53	49.07	80-89	43	39.81
St-1 Hypertension	140-159	14	12.99	90-99	9	8.33
St-2 Hypertension	≥160	00	00	≥ 100	2	1.85

Majority 50% of the women were having normal blood pressure followed by pre hypertensive (39.81%) and very less 1.85% were in having St-2 hypertension.

Table-4
Assessment of Breast Examination

N=108

Breast	f	%
Normal	93	86%
Tenderness(Rt or Lt side)	8	7.40
Painful Rt breast	3	2.77
Palpable lymph node	2	1.851
Breast engorgement	2	1.851

Majority of the women's breast finding were normal where as 7.40 % of women's breast was tender followed by painful right breast and least 1.8 % of women's breast was found having palpable lymph node and breast engorgement.

Table-5
Assessment of Random Blood Sugar

N=108

Level of RBS	Range	f	%
Prediabetic	140-200	8	7.4
diabetic	>200	11	10
Normal	<140	89	74

Majority 74% of the women were having random blood sugar level under normal range where as 10 % of women were found diabetic with the blood sugar level range>200 and least 7.4% of women were found prediabetic with the random blood sugar level range of 140-200mg

Table-6
Relationship of BMI with RBS and Hypertension

N=108

	Mean	SD	r
BMI	25.67	5.74	0.12
RBS	133.50	81.4	
Relationship between BMI And Hypertension			
BMI	25.67	5.74	0.3349
SBP	120.6	12.84	
BMI	25.67	5.74	0.23
DBP	74.16	9.33	

Statistically significant p value<0.05

The data representing in the table showing computed correlation "r" value between BMI and , SBP, DBP. And it was found to be wek posive correlation between BMI and RBS, SBP, DBP

Discussion

Out of 108 women 37 were found to be moderately anemic followed by 36 with normal level of Hb, and the mean for Hb in women was 12.20 gm%. Similar study finding done by **Filagot Kefiyalew, Endalew Zemene et.al.** shows that prevalence of anemia in women was 27.9%, of which 55% had mild anemia.[10]

Majority of the women were found to be in the normal range (34.25%) of BMI followed by underweight (29.62%)women and very less (08.33) were found obese and whereas the study finding was shown by **Chee HL1, Kandiah M, et. al**., prevalence of overweight was 37.4%; the overall mean BMI was 24.2+/-5.4 kg/m2. [11]

Majority 50% of the women were having normal blood pressure followed by pre hypertensive (39.81%) and very less 1.85% were in having St-2 hypertension whereas the study finding shown by **Chandrashekhar R., Shashidhar Basagoudar**. Are 8.6% of the women were hypertensive and 25% of the women were pre-hypertensive.[12]

Majority of the women's breast finding were normal where as 7.40 % of women's breast was tender followed by painful right breast and least 1.8 % of women's breast was found having palpable lymph node and breast engorgement.

Majority 74% of the women were having random blood sugar level under normal range where as 10 % of women were found diabetic with the blood sugar level range>200 and least 7.4% of women were found pre diabetic with the random blood sugar level range of 140-200mg.

The data representing in the table showing computed "t" value between BMI and RBS, SBP, DBP. The calculated t value is found to be statistically significant 9.71,49.64, 32.52. It reveal that BMI is associated with RBS, SBP, DBP. Similar study finding and similar study finding shown by **O lumide A Abiodun,O modele A Jagun et al.,** there is significant positive relatioship between BMI and RBS and **Jay S. Kaufman, Michael C et, al**., there is significant relationship between BMI and SBP and DBP.[13]

Conclusion

On the basis of the finding of the study following conclusion can be drawn:

- Out of 108 women 37 were found to be moderately anemic followed by 36 severe anemia and the mean for Hb in women was 12.20 gm%.
- Majority of the women were found to be in the normal range (34.25%) of BMI followed by underweight (29.62%)women and very less (08.33) were found obese.
- Majority 50% of the women were having normal blood pressure followed by pre hypertensive (39.81%) and very less 1.85% were in having St-2 hypertension.
- Majority of the women's breast finding were normal where as 7.40 % of women's breast was tender followed by painful right breast and least 1.8 % of women's breast was found having palpable lymph node and breast engorgement.
- Majority 74% of the women were having random blood sugar level under normal range where as 10 % of women were found diabetic with the blood sugar level range>200 and least 7.4% of women were found prediabetic with the random blood sugar level range of 140-200mg.
- The data representing in the table showing computed correlation "r" value between BMI and , SBP, DBP. And it was found to be wek posive correlation between BMI and RBS, SBP, DBP.

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Conflict of Interest

No conflict of Interest.

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