



A comparative study on the selected Physical Health variables of women working in different occupations

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Abstract:

For the need of the research a total of 450 women working in different professions (Teacher, MNC, s, banking, fitness and health and other professions) were selected to act as subjects for the study. The age of the subjects ranged between 30-60 years. The subjects were selected from Delhi state, for assessing the physical health Body mass index and waist hip ratio were assessed. The collected data was analyzed by computing descriptive analysis, one way analysis of variance and Pearson's product moment correlation. The results show that the physical health of the women working in different professions differ with respect to the working conditions and shift hours of their profession.

Keywords: Body mass index, waist hip ratio

Introduction

Men and women, the two halves of humanity are complimentary to each other. In India, women have been held in high esteem at all times. Manu writes, "A father excels ten Upadhayas in glory but a mother excels a thousand fathers." But all that glory unfortunately depended on women ability to sacrifice. The concept of Ardhnareeshwar as that of the creator (half man half woman) is unique to Indian mythology. Hinduism presents a fundamental duality for women. On the one hand she is fertile and benevolent (the deity Lakshmi - the bestower) on the other hand she is aggressive and malevolent (the deity Kali - the destroyer) (**Altekar, 1958**).

In the early stage of civilization, when man was leading a nomadic life in a group, women enjoyed equal Position and status. The group worked on the principle of division of labor. It could even be said that woman was actually the central figure of the group. The arts of cultivation, sowing seeds etc. were developed by women. "All the development of essential commodities of life was a result of women's skillful organization and direction, e. g. cooking, designing, pottery making, weaving etc" With the development of stabilized life as a cultivator, originated the Patriarchal family system placing man as the chief provider and protector and thereby placing women in the secondary position (**Babar, 1968**).

From the available sources it seems that primary education of youngsters was imparted in families by the elder members of the family and Gurukulas or "Charans" imparted higher education. It means that girls aspiring for higher education were sent to the centers of higher education, if possible, to a competent lady teacher, after the completion of primary education at home. The concept of co-education, it seems, was accepted in the society if the girls were allowed to attend centers of higher education along with boys under a male teacher. The requisite of "Upanayan" sanskar limited the right of obtaining education to the girls of high placed specific classes, resulting in the illiterate state of most of the womenfolk. The exact extent of education among women, during this period,



cannot be determined, however anxious parents must have paid due attention to have scholarly daughters at home. Education was never looked upon as obligatory to earn a livelihood but it was considered as a Tapasya. Naturally the girls obtaining this stage were held in high esteem in the society (**Khanolkar, 1965**).

Apart from pursuing the theoretical subjects the girls mastered various fine arts i.e. music, painting, dancing, and technical subjects like Chariot driving, warfare, spinning etc. which enabled them to earn their livelihood in the times of family distress. The girls from royal families were even trained in military and administrative cores and there is mention of a number of expert women warriors, chariot drivers and efficient administrators. In the absence of an immediate male heir, they had acted as competent trustees of the throne e.g. Queen Nayanika, Prabhavati, Gupta, Vijayabhattacharika or Sugandha and Didda, respectively of Satavahan, Vakataka, Chalukya and Kashmir dynasties (**Kaur, 1985**).

But from the third century B.C. there was a marked deterioration in women's status, position and freedom due to several reasons. The thought that women did not deserve freedom was firmly rooted and was predominant in the society, resulting in restricting women's freedom in various fields. They were pushed behind the four walls more and more and lost even the right of obtaining education. The emergence of the practice of child marriage further increased their illiteracy and backward conditions. The possibility of obtaining even primary education was a foregone chance for them since the pre marriage period was utilized for domestic training.

Today, the state has accepted women's empowerment, and women as active agents participating in their own development. Most of the countries now recognize the need for gender justice and equality. Women can change the nature of power rather than power change the nature of women. Women try to devote most of their time for maintaining their living standard with the help of earnings through employment in urban areas. Emancipation of women is one of the indicators of economic development and social changes. The position of women in a society is an index of its level of civilization. Women constitute one half of the population, which is one half of the country's human resources. Apart from the fact that they constitute one half of the country's 'man power', women play an important role in shaping the personalities of the nations' young human resources (**Moses, 1992**).

The position of women has changed not only in the sphere of marriage and family but also in the spheres of education, employment and political life. Women's employment has an important role in women's empowerment. Employing of women particularly in the organized sector ensures better living conditions for herself and her family. If women are to empower themselves, they have to be provided with wholesome opportunities and rights, access to basic civic amenities, right to education, right to earn a livelihood, right to equal wages, right to question, and fight justice, right to decision-making to live way they want, protection against violence and injustice to them. They need the strength to free themselves from the oppressive and dependent conditions of living. If national development and women on development have to be purposive and relevant, women have to be equal partners with men and participants. The powerful and deep-rooted cultural forces, outdated value systems, discriminatory socialization process, and oppressive social structural forces that obstruct such an access need to be confronted and reversed (**Singh, 1979**).

A woman who juggles with a home and career often does so at the cost of her health. She has no time to relax, to unwind and enjoy the simple pleasures. As Dr. Rathi Devi (2003) writes in "Health Hazards of Women Workers", many jobs are potentially dangerous to the health of men and women workers. But some are more dangerous to women for two reasons i.e. women are less strong than men and they have babies. Most women who entered into the labor force are in clerical work

including typists, stenographer, secretaries and book keepers. The new technology in these works can produce a variety of delirious effects including eye strain, head ache and pains in back, neck and shoulder **(Rathi, 2003)**.

Apart from the occupational related factors, there are also some-common factors which affect the health of working women. It is said that (Dr. Rathi Devi 2003) shift system is more disruption to the body. The continuous night work because of shift work upsets the body's routine and the body clock has no time to get adjusted to new work or sleep pattern before it has to change again. It is a fact that unsupportive and short-tempered co-workers create tension, fear, anxiety, stress and strain, which finally result in head ache, BP etc. The stress diseases that strike over working women impede her working capacity. "The most common chronic ailments of middle age are asthma, bronchitis, diabetes, nervous and mental disorders, arthritis, rheumatism, impaired sight and hearing and malfunctions of the circulatory, digestive and genitourinary systems. These ills do not necessarily appear in Middle Ages, however, and while three fifths of 45-65 years old have one or more of them, so do two-fifths of people between ages 15 and 44. One major health problem of middle age is hypertension. Her hectic life compels her to skip food or use more expensive, less nutritious and below standard fast foods which affect her health. Some inbuilt aspects like menstruation, pregnancy, childbirth, lactation, menopause and their complication are difficult stages for working women **(Rathi, 2003)**.

Objectives and Hypothesis

The following objectives were framed for the study:

- To study the present status of physical health of women involved in different occupations.
- To study the effect of occupations on selected physical health variables of working women.
- To survey the effect of working hours on women's physical health

Based on the objectives following hypothesis are framed:

- There will be a difference among different occupations on physical health of working women.
- Women who have more sedentary working hours at workplace tend to have bad physical health status.
- There will be an association between working shifts and physical health status of working women.

Procedure and methodology

For the need of the research a total of 450 women working in different professions (Teacher, MNC, s, banking, fitness and health and other professions) were selected to act as subjects for the study. The age of the subjects ranged between 30-60 years. The subjects were selected from Delhi state, for assessing the physical health Body mass index and waist hip ratio were assessed. The collected data was analyzed by computing descriptive analysis, one way analysis of variance and Pearson's product moment correlation.





Results and Discussions

Table No. 1: Descriptive analysis of the variable Body mass Index for the women working in different professions

					95% Confidence Interval for Mean			
	N	Mean	Standard Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
Teacher	90	23.46	3.01	0.318	22.82	24.09	19	32
MNC	90	26.87	2.94	0.310	26.25	27.48	21	35
Banking	90	25.40	2.60	0.274	24.86	25.94	21	32
FH	90	22.56	2.80	0.296	21.97	23.14	15	32
Others	90	26.46	3.06	0.323	25.81	27.10	20	34
Total	450	24.95	3.33	0.157	24.64	25.26	15	35

Table No. 1, clearly indicates the values for descriptive analysis of body mass index for the women working in different professions, which shows that the mean and standard deviation of women in professions of teaching, MNC, banking, Fitness and Health expert and others are found to be 23.46±3.01, 26.87±2.94, 25.40±2.60, 22.56±2.80 and 26.46±3.06 respectively. The graphical representation has been shown in fig no. 1.

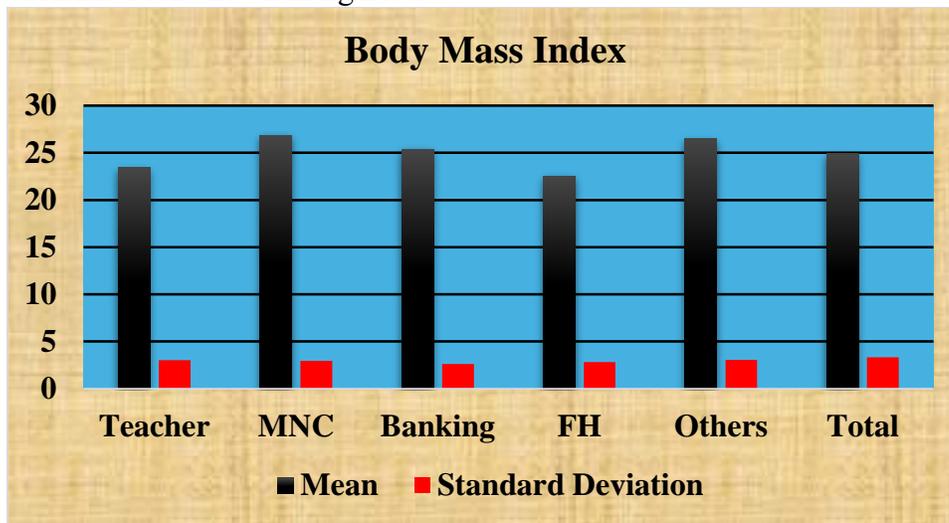


Fig No. 1: Graphical representation of Descriptive analysis of the variable Body mass index for the women working in different professions

Table No. 2: One way Analysis of Variance of body mass index between the women working in different professions

Body mass Index	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1269.853	4	317.463	38.008	0.000
Within Groups	3716.867	445	8.353		
Total	4986.720	449			

Table No. 2 clearly indicates the values of one-way analysis of variance of body mass index between the women working in different professions, which shows that there is significant difference between the body mass index of the women working in different professions, as the value is found to be 38.008 against the tabulated value, which is significant at 0.05 level.



Table No. 3: Post Hoc Analysis of body mass index between the women working in different professions

Body mass Index		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Teacher	MNC	-3.411*	.431	.000	-4.26	-2.56
	Banking	-1.944*	.431	.000	-2.79	-1.10
	FH	0.900*	.431	.037	.05	1.75
	Others	-3.000*	.431	.000	-3.85	-2.15
MNC	Teacher	3.411*	.431	.000	2.56	4.26
	Banking	1.467*	.431	.001	.62	2.31
	FH	4.311*	.431	.000	3.46	5.16
	Others	0.411	.431	.340	-.44	1.26
Banking	Teacher	1.944*	.431	.000	1.10	2.79
	MNC	-1.467*	.431	.001	-2.31	-.62
	FH	2.844*	.431	.000	2.00	3.69
	Others	-1.056*	.431	.015	-1.90	-.21
FH	Teacher	-0.900*	.431	.037	-1.75	-.05
	MNC	-4.311*	.431	.000	-5.16	-3.46
	Banking	-2.844*	.431	.000	-3.69	-2.00
	Others	-3.900*	.431	.000	-4.75	-3.05
Others	Teacher	3.000*	.431	.000	2.15	3.85
	MNC	-0.411	.431	.340	-1.26	.44
	Banking	1.056*	.431	.015	.21	1.90
	FH	3.900*	.431	.000	3.05	4.75

Table No. 3 clearly indicates the values for post hoc test, which shows that a significant difference has been found between all categories of working women for body mass index, only an insignificant difference was observed in the body mass index of women working in MNC and other professions, as the value is found to be 0.411, which is not significant at 0.05 level.

Table No. 4: Descriptive analysis of the variable waist hip ratio for the women working in different professions

					95% Confidence Interval for Mean		Minimum	Maximum
	N	Mean	Standard Deviation	Std. Error	Lower Bound	Upper Bound		
Teacher	90	0.74	0.049	0.005	0.73	0.75	1	1
MNC	90	0.79	0.075	0.008	0.78	0.81	1	1
Banking	90	0.77	0.056	0.006	0.76	0.78	1	1
FH	90	0.72	0.037	0.004	0.71	0.72	1	1
Others	90	0.79	0.059	0.006	0.78	0.81	1	1
Total	450	0.76	0.064	0.003	0.76	0.77	1	1



Table No. 4, clearly indicates the values for descriptive analysis of waist hip ratio for the women working in different professions, which shows that the mean and standard deviation of women in professions of teaching, MNC, banking, Fitness and Health expert and others are found to be 0.74 ± 0.049 , 0.79 ± 0.075 , 0.77 ± 0.056 , 0.72 ± 0.037 and 0.79 ± 0.059 respectively. The graphical representation has been shown in fig no. 2.

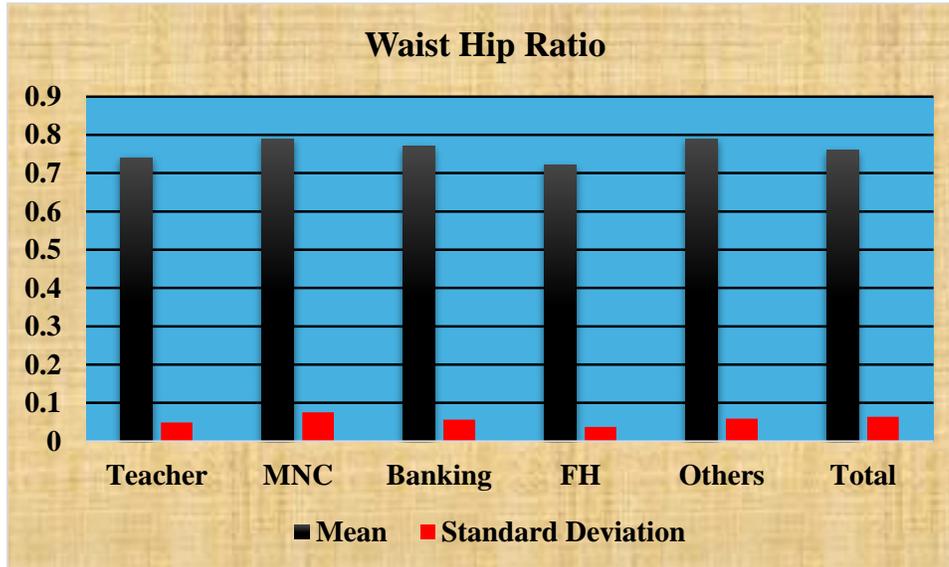


Fig No. 2: Graphical representation of Descriptive analysis of the variable waist hip ratio for the women working in different professions

Table No. 5: One way Analysis of Variance of waist hip ratio between the women working in different professions

Waist hip ratio	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.431	4	0.108	33.448	0.000
Within Groups	1.434	445	0.003		
Total	1.865	449			

Table No. 5 clearly indicates the values of one-way analysis of variance of waist hip ratio between the women working in different professions, which shows that there is significant difference between the waist hip ratio of the women working in different professions, as the value is found to be 33.448 against the tabulated value, which is significant at 0.05 level.



Table No. 6: Post Hoc Analysis of waist hip ratio between the women working in different professions

Waist hip ratio		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Teacher	MNC	-0.056*	0.008	0.000	-0.07	-0.04
	Banking	-0.033*	0.008	0.000	-0.05	-0.02
	FH	0.022*	0.008	0.009	0.01	0.04
	Others	-0.056*	0.008	0.000	-0.07	-0.04
MNC	Teacher	0.056*	0.008	0.000	0.04	0.07
	Banking	0.022*	0.008	0.009	0.01	0.04
	FH	0.078*	0.008	0.000	0.06	0.09
	Others	0.073*	0.008	0.006	-0.02	0.02
Banking	Teacher	0.033*	0.008	0.000	0.02	0.05
	MNC	-0.022*	0.008	0.009	-0.04	0.00
	FH	0.056*	0.008	0.000	0.04	0.07
	Others	-0.022*	0.008	0.009	-0.04	0.00
FH	Teacher	-0.022*	0.008	0.009	-0.04	0.00
	MNC	-0.078*	0.008	0.000	-0.09	-0.06
	Banking	-0.056*	0.008	0.000	-0.07	-0.04
	Others	-0.078*	0.008	0.000	-0.09	-0.06
Others	Teacher	0.056*	0.008	0.000	0.04	0.07
	MNC	0.073*	0.008	0.000	-0.02	0.02
	Banking	0.022*	0.008	0.009	0.01	0.04
	FH	0.078*	0.008	0.000	0.06	0.09

Table No. 6 clearly indicates the values for post hoc test, which shows that a significant difference has been found between all categories of working women for waist hip ratio, as the values are significant at 0.05 level.

Table No. 7: Pearson’s Product moment correlation between working hours and selected physical variables

S. No.	Variables	Working hours	Pearson’s Correlation	Sig. (2-tailed)
1	Body mass Index	Working hours	0.436**	0.000
2	Waist hip ratio	Working hours	0.528**	0.000

Table No. 7 depicts that a significant relationship had been between the working hours of women in different profession with the body mass index (0.436**), and waist hip ratio (0.528**), as the values are significant at 0.05 level.

Conclusions:

Following conclusions may be drawn from the obtained results

- The mean and standard deviation of Body mass index for women in professions of teaching, MNC, banking, Fitness and Health expert and others are found to be 23.46±3.01, 26.87±2.94, 25.40±2.60, 22.56±2.80 and 26.46±3.06 respectively.



- A significant difference between the body mass index of the women working in different professions, as the value is found to be 38.008 against the tabulated value, which is significant at 0.05 level, only an insignificant difference was observed in the body mass index of women working in MNC and other professions, as the value is found to be 0.411.
- The mean and standard deviation of Waist hip ratio for women in professions of teaching, MNC, banking, Fitness and Health expert and others are found to be 0.74 ± 0.049 , 0.79 ± 0.075 , 0.77 ± 0.056 , 0.72 ± 0.037 and 0.79 ± 0.059 respectively.
- A significant difference between the waist hip ratio of the women working in different professions, as the value is found to be 33.448 against the tabulated value, which is significant at 0.05 level.
- A significant relationship had been observed between the working hours of women in different profession with the body mass index (0.436^{**}), and waist hip ratio (0.528^{**}), as the values are significant at 0.05 level
- The physical health of the women working in different professions differ with respect to the working conditions and shift hours of their profession.

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