

Assessment of Nutritional Status & Physical Activity Pattern of Working Women

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Abstract

The main purpose of the present study was to find out the nutritional status and physical activity patterns of working women. The sample consists of 100 working women, which were randomly selected from Modinagar City. The data were collected by using a questionnaire cum interview method including their personal profile, anthropometric assessment and physical activity pattern. The result was highlighted from the work profile of subjects that the majority (67%) of subjects were teachers, lecturers and professors, while 11, 10, 7 and 5 percent were dietitians and nurses in hospital, others include beautician, police and book lifter, engineer and office worker such as accountant, clerk, assistant, etc, respectively. The data relating to BMI showed that 67% of working women were came under the normal range of BMI (18.5 to 24.99), 18 and 13 percent of subjects were overweight (25.00 to 29.99) and underweight ($d < 18.49$), respectively and only 2% of subjects were obese, having BMI range $e > 30.00$. The findings related to physical activity patterns revealed that 57% of working women were doing exercise regularly, 30% of subjects were doing exercise only for sometimes and 13% of working subjects were not doing exercise. The mean value of Physical Activity level, Body Metabolic Rate and Total Energy Expenditure were observed at 384.8, 1302.3 and 2113.6, respectively.

Keywords

BMI, Physical activity, Working Women

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Introduction

For recognizing women the best way to organize the role as professionals and house makers is flawless. Organizing costs much stress and requires management. Stress is a type of psychological disease that affects the entire health of a person and causes physical disorders too. Now a day the wide strength of the women suffers from stress. They also find the options by browsing have to overcome on stress. There are so many reasons for the stress include – family office or children. (1)

Salary or wages is the earning source and the part of modern times. Earning money for women was so much challenging due to inequality. Legal & cultural practices are being denied to women due to restrictions on participation. (2)

The history tells us that man is much superior in comparison to women are for caring for their family members. The men are the breadwinners of the family. In the proper development of children, the mother plays an important role. The fact is that the man was praised for the financial needs of the family.

Review of Literature

Singh P et. al (2014) studied the “Nutritional intake & energy expenditure of working obese women”. The result showed that the consumption of carbohydrates & iron was much lesser according to the RDA. The intake of fat & calcium was much higher according to the RDA, especially in obese women. The protein consumption was almost balanced according to the RDA.

Kaushal Shilpa et. al (2012) studied the ‘Sociological obstacles increase the stress of working women’. The result shows that working women are majorly stressed due to work pressure, low salary and differences in time of salary. Teachers & engineers were much more stressed due to the workplace environment & family.

Sultana Papia (2014) studied the “Energy intake & energy expenditure pattern of female readymade Bangladeshi garment workers”. The energy & protein consumption was lesser than the RDA whereas the energy expenditure was much high which shows a negative or imbalance of energy intake.

Mathur Meenakshi et. al (2015) studied the “Diet pattern & Nutritional status of women working in call centers in India”. The results show that the cereal group was consumed in higher amounts. Pulses consumption was in moderate amount & fruits & vegetable consumption were in lesser amount. Milk & Milk products were totally dependent on junk food.

Pallavi R. et. al (2020) studied the “Assessment of Nutritional Status & Nutritional Knowledge of Working women residing in Hostels at Mysuru City”. The data collected after research is Calorie intake (93%), protein intake (87%), and

zinc (64%) were lesser according to the RDA but fat consumption (188%), and calcium (125%) were more according to the RDA. Respondents were aware of the balanced diet (70%) and health Status (59%).

Objectives

1. To study the general profile of working women.
2. To assess the nutritional status of working women.
3. To assess the physical activity pattern of working women.

Methodology

Selection of Respondents

The working women of age (25-45 years) were selected from the Modinagar City.

Sample Size

A total of 100 respondents, who were non pregnant, non-lactating, non-hypertensive and non-diabetic were selected.

Sampling Procedure

The sampling procedure used in this study was stratified random sampling.

Tools for Data Collection

Data collected for this study by the survey included personal profiles, anthropometric measurement and daily physical activity patterns. Anthropometric measurements like height, and weight to assess nutritional status using standard techniques. In the present study, height was measured using a metric measuring tape. For measuring the body weight of the respondents, bathroom scales were used.

BMI was calculated & then respondents were categorized as undernourished, normal, overweight & obese using the WHO classification. BMR & TDEE was calculated by using the factorial method. PAL was calculated using the following formula:

$$\text{PAL} = \text{TDEE}/\text{BMR}$$

Results & Discussion

Various data were collected regarding personal profile, family profile and anthropometric measurements and the results are presented herewith.

Table - 1 General Profile of Respondents

(n=100)

Characteristics	No. of Subjects	Percentage (%)
Age group (Year)		
25-30 years	68	68
31-35 years	13	13

36-40 years	10	10
41-45 years	9	9
Marital status		
Married	51	51
Unmarried	46	46
Divorce	2	2
Widow	1	1
Educational Qualification		
Intermediate	5	5
Graduate	33	33
Postgraduate	55	55
PhD	7	7
Occupation		
Teachers	67	67
Nurse and dietitian	11	11
Engineer	7	7
Office worker	5	5
Other (Beautician, book lifter, etc.)	10	10

Table 4.1 reveals that the majority of the subjects sixty-eight percent were in the age group of 25-30 years, thirteen percent of subjects were in the age group of 31- 35 years, ten percent of subjects were in the age groups of 36-40 years and nine percent of subjects were in the age group of 41-45 years, respectively. It was observed that fifty-one percent of subjects were married, forty-six percent of subjects were Unmarried, two percent of subjects were divorced and the remaining one percent of subjects were widows in the working group. For the majority of subjects, fifty-five percent were educated at post graduation level, thirty-three percent of subjects were educated at the graduation level, seven percent were educated at Ph.D. (Doctor of Philosophy) and five percent were educated at intermediate level. The majority of subjects (67%) were worked as a teacher, lecturers and professors in schools and colleges, eleven percent were working as a dietitian and nurses in hospitals, ten percent were working as others including beauticians, police and book lifter, seven percent of the subjects were working as an engineer and remaining five percent were working as an office worker.

Table 4.2: Distribution of subjects on the basis of their Body mass index (BMI) (n=100)

Anthropometry Variables	No. of Subjects	Percentage (%)
≤18.49	13	13
18.50-24.99	67	67

25.00-29.99	18	18
≥30.00	02	2

Table 4.2 shows the distribution of subjects on the basis of BMI. The majority of subjects (67%) came under the normal range of BMI from 18.5 to 24.99, eighteen percent of subjects were overweight from 25.00 to 29.99, thirteen percent of subjects were underweight i.e. ≤ 18.49 and the remaining two percent of subjects were obese, having BMI range ≥ 30.00 .

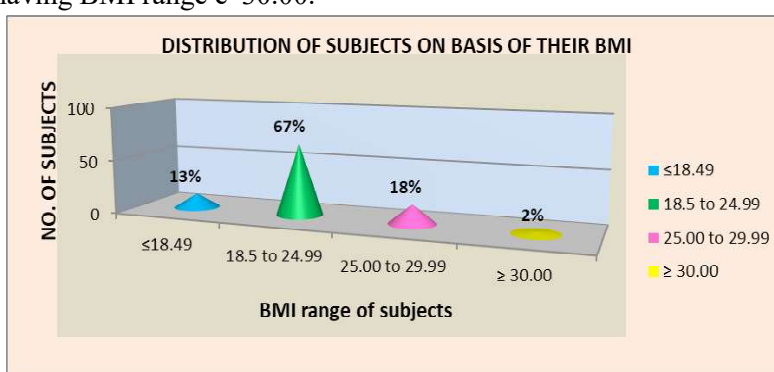


Figure 4.1

Table - 3 Physical activity pattern of working women

Characteristics	No. of Subjects	Percentage (%)
Exercise		
Yes	57	57
No	13	13
Sometimes	30	30
Frequency of exercise		
15 min.	28	49
30 min.	17	30
60 min.	5	9
More than 60 min.	7	12
Activity level		
Sedentary	77	77
Moderate	23	23
Working hours		
5	15	15
6	43	43
Other (8 to10)	42	42
Mean PAL	384.8±3.078	
Mean BMR	1302.3±88.11	
Mean TEE	2113.6±110.40	

*PAL- Physical Activity Level

*BMR- Basal Metabolic Rate

*TEE- Total Energy Expenditure

Table no. 4.3 showed that fifty-seven percent of working women were doing exercise regularly, while thirty percent of subjects were doing exercise only for some time. Apart from them, thirteen percent of working subjects were not doing exercise. On the basis of frequency of exercise, it was revealed that forty-nine, thirty, nine and twelve percent of respondents were doing exercise for 15, 30, 60 and more than 60 minutes. It was revealed that seventy-seven percent of subjects were sedentary workers, while twenty-three percent of working women were moderate workers, with the working of 5 hours (15%), 6 hours (43%) and 8 to 10 hours (42%), respectively. The mean value of Physical Activity level, Body Metabolic Rate and Total Energy Expenditure were observed at 384.8, 1302.3 and 2113.6, respectively.

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