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Dietary pattern and nutritional status of working and non-working women (25-45 years)

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ABSTRACT

The present study was carried out to assess the "Dietary Pattern and Nutritional Status of Working and Non-Working Women". The study was conducted among hundred samples of women consist of 50 working and 50 non-working women from the Thrissur district in the age group of 25-45 years.

The objectives of the study were to understand the socio-economic status of working and non-working women and to study dietary pattern and nutritional intake of working and non-working women and to assess the nutritional status of working and non-working women and to find out the nutritional knowledge of working and non-working women.

The data was collected from the subjects by using questionnaire in Google form, due to the pandemic situation of Covid-19. The collected data contains details regarding the Socio-personal and economic status, dietary profile, snacking behavior, food consumption pattern, nutrient intake, nutritional status and nutritional knowledge of the subjects were collected. Basic anthropometric measurements like height, weight and BMI were also assessed for all the subjects. The hemoglobin level of the subjects was also collected. The information about dietary intake was collected by 24-hour dietary recall method. Nutrient intake was calculated and compared to RDA. The results were statistically analysed using normal standard test.

The study revealed that Out of 100 respondents forty eight percent of working and sixty percent of non-working women belonged to the age group of 25–35 years and fifty-two percentage of working and thirty-four percentage of non-working women belonged to the age group of 35-45 years. Sixty percent of working and seventy percent of non-working women were married whereas about one-third from each group was unmarried. Majority of working and non- working women had nuclear families and forty four percent of working and twenty percent of non-working women had joint family system respectively. The educational levels reveal that most of the women in both working and non-working were highly educated.

On the basis of food habits, majority of women in both working and non-working were non-vegetarian. A highest percent of the subjects was used to take breakfast, lunch and dinner regularly. And majority of both the respondents were used to take evening snacks than the snacks in the mid-morning. A higher percent of non-working women was irregular in meals than the working women. The majority of working women were used to skip meals in the morning and the non-working women in the lunch time.

Result of food frequency consumption pattern includes; the major chunk of subjects was selected rice as the most preferred cereals for daily intake. The rests of the cereals were consumed in weekly and monthly. Both the working and non-working women were using pulses as weekly and monthly basis. The green leafy vegetables were used at least weekly once or monthly in their diets in

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both working and non-working women. The consumption of fruits and vegetables were more taken in weekly and monthly basis, some taken as daily. The seasonal fruits were taken in occasionally or seasonally by both working and non-working women. The both respondents were like to have milk, as daily or weekly and some were taken as monthly and occasionally. Tea was consumed frequently. They were also used to consume curd, butter milk, paneer as weekly or monthly basis. Most working and non-working women were preferred non vegetarian diets used in weekly or monthly. Sugar is consumed by both working and non- working women daily. Fats and oils were also used by working and non-working women daily.

The average daily nutrient intake by working and non-working women reveals that energy, calcium, iron, vitamin C was significantly lower than the RDA. There was no significant difference in the intake of protein by working but in non-working women, it is significantly lower than the RDA. The intakes of β carotene by both groups were not significant to their RDA and also in between them. The mean height, weight, BMI level and Hemoglobin level of working women and non-working women were not significant to each other. Majority of non-working women had a BMI within the normal range. And the majority of respondents of both working and non-working were non anemic.

Out of the 100 samples, the majority of working women had good knowledge than the non-working women regarding the selection of food items, nutrient conservation, normal nutrition, therapeutic nutrition and human nutrition. Data revealed that both the working and non-working women follow good nutritional practices regarding pre-processing methods, cutting, cooking, nutritional improvements and serving.

Regarding the dietary pattern and nutritional status, the working women were more non-working women

1. INTRODUCTION

"Women are the real architects of society" Harriet Beecher Stove

Women play an important role at home as well as in the society. They form a major part of our society. Women are the primary caretakers of children and elders in every country of the world. A woman plays a key role in supporting their household and communities in achieving food and nutrition security, generating income and improving rural livelihoods and overall well-being.

According to census (2011), out of total population of our country women were 48.03 % and in Kerala state contents 17,378,649 women population.

A woman plays total role in National development. She is the centre figure for the health and family welfare of the family. Housewives are entirely responsible for nutritional status of the family and there by the nation. Thus, it becomes necessary for the women to maintain good health and nutritional status for the development of the society.

A woman has been the focal point for family health. Many programs in maternal and child health, family planning, nutrition and health education have been directed towards the health of women as 'producers. She has also been referred to as the producer of health and nutrition for her family.

OBJECTIVES

Hence, the present study entitled "Dietary patterns and nutritional status of working and non-working women" was under taken with following objectives: -

- To study the socio-economic status of working and non-working women.
- To study dietary pattern and nutritional intake of working and non-working women.
- To assess the nutritional status of working and non-working women.
- To find out the nutritional knowledge of working and non-working women.

2. METHODOLOGY

The materials and method used for the study entitled "Dietary Pattern and Nutritional Status of Working and Non-working women (25-45 years)" are explained under the following headings:-

2.1 Selection of Area

2.2 Selection of Subjects

2.3 Formulation of Questionnaire

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2.4 Statistical Analysis and Interpretation of Data

2.5 Research Design

2.1 SELECTION OF AREA

Selection of relevant area becomes an inevitable part of every study. Present study was conducted at Thrissur district which was selected purposively.

2.2 SELECTION OF SUBJECTS

For the present study, random sampling was selected. 'Random sampling is also known as chance sampling or probability sampling where each and every item in the population has an equal chance of inclusion in the sample and each one of the possible samples, in case of finite universe, has the same probability of being selected' (Kothari,2011).

Total of 100 women in the age group 25 to 45 years were selected for the study. The sample comprised of 50 working and 50 non-working women. Sample of working women include Teachers, Lectures, Nutritionists, Dietitians, hospital staffs, workers from IT field, Entrepreneurs, official workers from private sectors etc. Fifty non working women were selected having total family income, age similar to their counterparts.

2.3 FORMULATION OF QUESTIONNAIRE

- General information: General information regarding age, marital status.
  - Back ground: This part contained information like family background, type and size of family, educational level, occupation and total monthly income of family.
  - Dietary history: This part contained information regarding snacking behavior, food habits, food consumption pattern and 24 hour dietary recall.
  - Nutritional status: Nutritional status included anthropometric measurements (height, weight) and biochemical examination consisted of testing the hemoglobin level.

- Another interview schedule (Appendix II) was prepared to test nutritional knowledge and nutritional practices of respondents regarding food and nutrition.
  - Nutritional knowledge: The nutritional knowledge of working and non-working women was also assessed by formulating a list of statements on selection of food items, conservation of nutrients, normal therapeutic and human nutrition. The replies of the working and non-working women were noted on the proforma.

Table 1

BMI range indicators

Classification	BMI (kg/m²)	
	Principal cut-off points	Additional cut-off points
Underweight	<18.50	<18.50
Severe thinness	<16.00	<16.00
Moderate thinness	16.00-16.90	16.00-16.90
Mild thinness	17.00-18.49	17.00-18.49
Normal range	18.50-24.99	18.50-22.90 23.00-24.99
Overweight	≥25.00	≥25.00
Pre-obese	25.00-29.99	25.00-27.49 27.50-29.99
Obese	≥30.00	≥30.00
Obese class I	30.00-34.99	30.00-32.49

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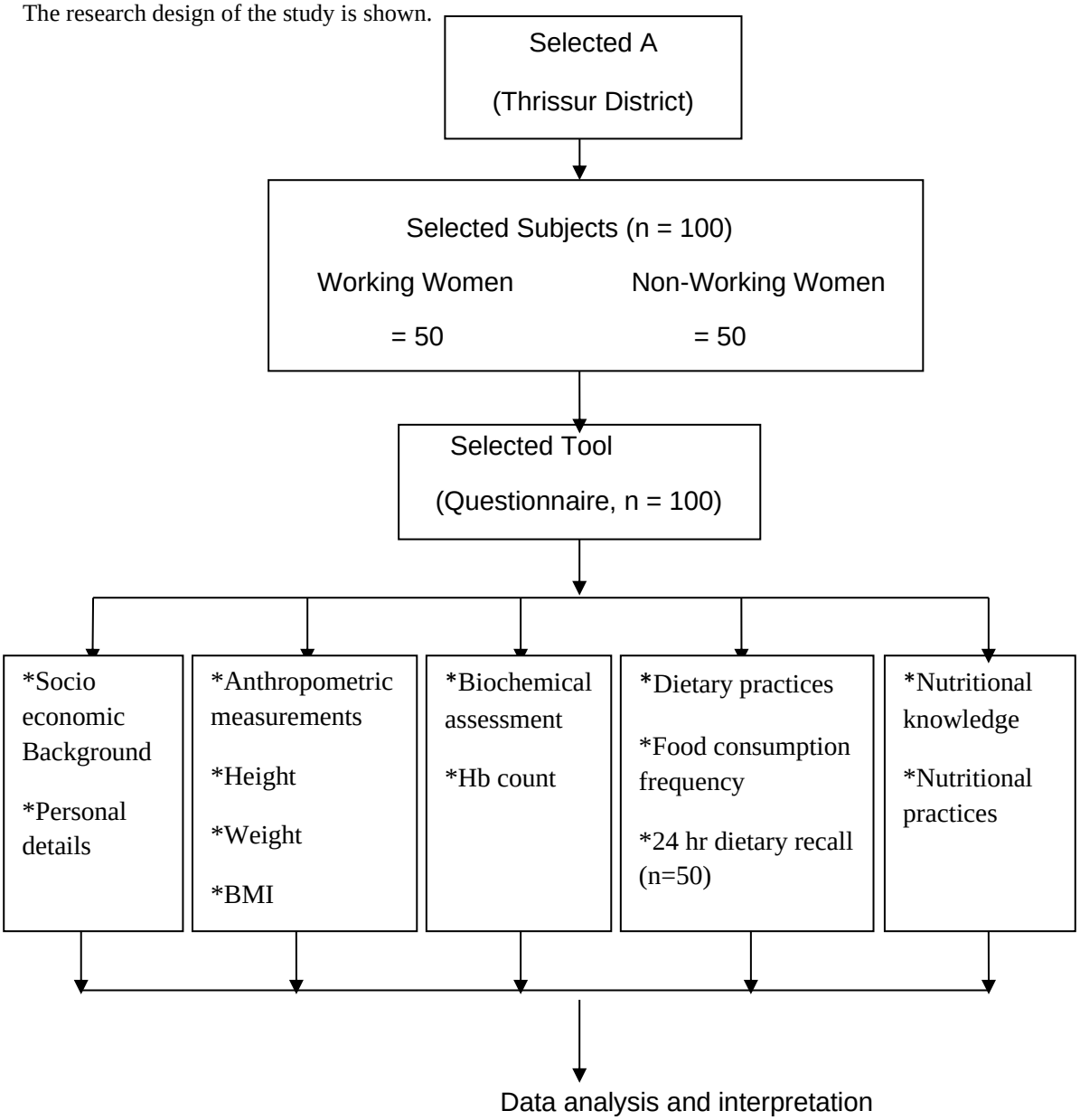
		32.50-34.99
Obese class II	35.00-39.99	35.00-37.49 37.50-39.99
Obese class III	≥40.00	≥40.00

RESEARCH DESIGN

The research design of the study is shown.



3. RESULTS AND DISCUSSION

The study was conducted to assess the "Dietary Pattern and Nutritional Status of Working and Non-Working Women". The results obtained in the present study are presented under the following headings.

3.1 General Information

3.2 Dietary Profile

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3.3 Snacking Behavior

3.4 Food Consumption Pattern

3.5 Nutrient Intake

3.6 Nutritional Status

3.7 Nutritional Knowledge

3.8 Nutritional practices

Table 2: Average daily nutrient intake by working and non-working women compared to RDA

Nutrients	RDA	Working (n=50)			Non-working (n=50)			't1' value
		Nutrient Intake / day	% RDA	't' value	Nutrient Intake / day	% RDA	't' value	
Energy (Kcal)	1660	1154.30 ± 79.96	69.53	12.393**	1341.22 ± 106.91	80.80	5.844*	2.744*
Protein (gm)	36	35.30 ± 2.07	98.05	NS	47.25 ± 3.21	131.25	6.866*	6.127*
Calcium (mg)	800	76.11 ± 6.27	9.51	226.02**	107.16 ± 9.69	13.395	140.046**	5.268*
Iron (mg)	21	7.30 ± 1.1	34.76	26.573**	10.38 ± 1.30	49.43	16.036**	3.663*
β Carotene (µg)	390	395.20 ± 118.65	101.33	NS	578.10 ± 204.99	148.23	NS	NS
Vitamin C (mg)	55	32.79 ± 3.75	59.56	11.579**	17.72 ± 1.51	32.22	48.374**	7.293*

Values are mean ± SD calculated for intake
RDA - Recommended Dietary Allowance of ICMR, (2020)
t value - Comparison of nutrient intake with RDA
t1 value - Comparison of nutrient intake by working and non-workingwomen
NS - Non-significant
* - Significance at 5% level

Table 3 :Average Anthropometric measurements and hemoglobin level of working and non-working women

	Working (n=50)	Non-working (n=50)	't' value
	SD	SD	
Height (cm)	158.140 ± 6.542	157.980 ± 5.652	0.131
Weight (kg)	58.440 ± 12.313	58.460 ± 9.313	0.009
BMI (kg/m²)	23.354 ± 4.607	23.404 ± 3.554	0.060
Hemoglobin (g/dL)	11.528 ± 1.286	11.268 ± 1.467	0.942

4. SUMMARY AND CONCLUSION

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The present study was carried out to assess the "Dietary Pattern and Nutritional Status of Working and Non-Working Women". The study was conducted among hundred samples of women consist of 50 working and 50 non-working women from the Thrissur district in the age group of 25-45 years. The information about dietary intake was collected by 24 hour dietary recall method. Nutrient intake was calculated and compared to RDA. The mean height, weight, BMI level and Hemoglobin level of working women and non-working women were not significant to each other. Majority of non-working women had a BMI within the normal range. Majority of the respondents of both working and non-working were non anemic. Out of the 100 samples, the majority of working women had good knowledge than the non-working women regarding the selection of food items, nutrient conservation, normal nutrition, therapeutic nutrition and human nutrition. Data revealed that both the working and non-working women follow good nutritional practices regarding pre-processing methods, cutting, cooking, nutritional improvements and serving.

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