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The Journal of Community Health Management

Journal homepage: <https://www.jchm.in/>



Original Research Article

A study on health status of women faculty in Madurai

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ARTICLE INFO

Article history:

Received 28-01-2022

Accepted 08-02-2022

Available online 28-02-2022

Keywords:

Working women

Women faculty

Health status

Demographic profile

Life style pattern

ABSTRACT

Woman has lots of responsibilities and work in her daily life. The study aimed to identify high risk health factors to consider lifestyle modification and increase knowledge in regard to health and wellness and also it forms a base for future research.

Context: Health related physical fitness includes this aspect of physiological function that offers protection from diseases resulting from sedentary lifestyle. It can be improved or maintained through regular programme of physical activities.

Aims: With this context, study of the health status of 50 women faculty in Arul Anandar College is carried out.

Materials and Methods: In this regard the Demographic profile, socio economic background, life style pattern, medical history of women faculty were assessed and provide awareness about life style modification and stress free life.

Results: The results revealed most of them belonged to nuclear family and had four members in their families. Majority were in the age group of 35–44 years. Nearly 24 per cent were doctorates. Most of them were married, lives in rented houses and belongs to Middle income group. Major part of their income is spend on food. About 34.3 per cent were not doing any exercises due to lack of time. Most of them walk as their regular physical activity. Regarding beverages consumption, majority consume tea. Symptoms like fatigue, shortness of breath, backache and weakness were found. Some have obesity in their heredity most of them preferred allopathic treatment.

Conclusions: To improve the health status of women faculty, life style modification is essential.

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1. Introduction

Women are always at work. The condition of health of a person is influenced by the intake and utilisation of nutrients. Many factors such as types of works, workplace, working environment, work load, etc. are effective in the development of health. Eating properly and keeping a balanced diet support persons to be healthy and they contribute to increase work production. For these reasons, the determination of relations between working individuals'

eating habits is substantial for both protecting health and making contributions to improve work peace, productivity. The purpose of the study is to analyze the health status of women faculty working in the college. In this sense, it is necessary to carry out studies that evaluate the health status of women professors and life style modification will make them more healthier.

In view of the above considerations, the hypothesis of this work was to assess the health status of the women professors. Hence, A study on Health Status of Women faculty in Madurai" is framed and carried out with the following objectives.

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2. Objectives

1. Study the Health status of women faculty in Arul Anandar College
2. Assess the Demographic profile, socio economic background of women faculty.
3. Study on the life style pattern and medical history of the target group.

3. Materials and Methods

3.1. Formulation of the tool for the conduct of the study

According to Kothari (2011)¹ interview method of collecting data involves presentation of oral –verbal stimuli and reply in terms of oral- verbal responses. Personal interview is a survey method of data collection which employs a questionnaire. The components of the personal interview are the researcher, the interviewer, interviewee and the interview environment (Pannerselvam, 2006).² A well-structured interview schedule was formulated to elicit background information. To elicit information on socio-economic status, lifestyle and health status of the selected population, a specially designed interview schedule was developed, based on NNMB-NIN Schedule.

3.2. Assessment of socioeconomic and health status of women faculty

3.2.1. Conduct of socioeconomic survey

Socio-economic factors profoundly affect health status. Ethnic background and educational level of members of the household influence overall food availability and food choices. Levels of income also influence the diet (Rolfes et al.,1998).³ With the help of the Questionnaire, socio-economic details such as type and number of members of the family, age, educational background, economic status and monthly expenditure, marital status, religion, type of house they lived were collected. Information about life style habit such as exercise pattern, frequency of beverages consumed was elicited for all the 50 women faculty using an interview schedule. The details of family medical history, frequency of diseases, symptoms were also recorded.

3.2.2. Lifestyle modification

The World Health Organization and the National Institutes of Health have recommended that comprehensive program of lifestyle modification is considered as the first option. Lifestyle modification, also referred to as behavioral weight control, includes 3 primary components: diet, exercise, and behavior therapy.

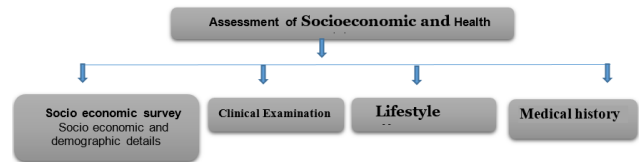


Chart 1: Assessment of socioeconomic and health status of women faculty

4. Results

4.1. Demographic profile of the selected women faculty

Social factors, educational level and economic indicators are strongly interrelated. These factors influence the nutritional habits, physical activity and healthy behaviors possibly affecting the clustering of metabolic disorders. The background information such as type of the family, number of members in the family, age, educational level, economic status, monthly expenditure, marital status, religion and type of house of the selected 50 women faculty were discussed in the following pages.

4.1.1. Type of the family

Type of family of the selected women faculty is presented in Figure 1.

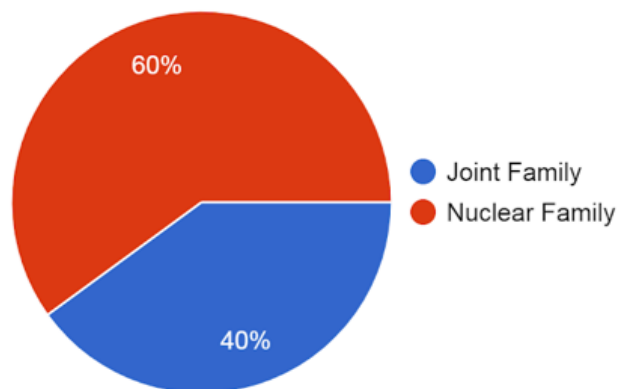


Fig. 1: Type of family

In the present study, the data gathered from 50 women faculty revealed that majority of the women faculty belonged to nuclear family system when compared to joint family system. On an average 60 per cent were in the nuclear family and 40 per cent were in the joint family system. The present study is in tune with the changing trend of family system in India. Also the technological growth due to industrialization leads to the disruption of joint family system in India. In search of better employment opportunities people tend to break away from the traditional joint family and move towards cities and towns. Revealed that more than 80 per cent of families in India are of nuclear

type now a days (Ashwani, 2011).⁴

4.1.2. Number of members in the family

Details on the Number of members in the family of the women faculty are presented in Figure 2.

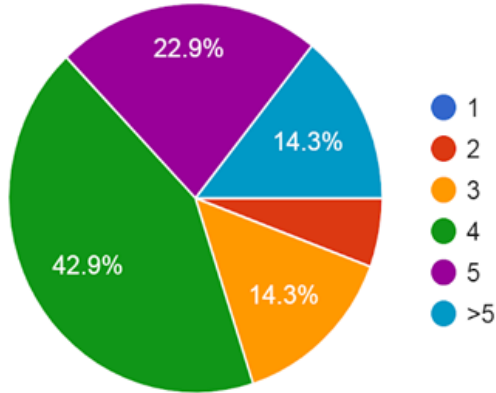


Fig. 2: Number of members in the family (N=50)

In the present study, there were only two members in 5.6 per cent of families, three members in 14.3 per cent of families, four members in 42.9 per cent of families, five members in 22.9 per cent of families, more than five members in 14.3 per cent of families respectively.

4.1.3. Age wise distribution

Age wise distribution of the selected women faculty were categorized and tabulated in Table 1.

Table 1: Age wise distribution

Age (in Years)	No.	%
25-34	18	36
35-44	29	58
45-54	03	6
Total	50	100

Among the 50 women faculty surveyed, the above table indicates that 36 per cent of them were in the age group of 25-34 years and 58 per cent were in the age group of 35-44 years and 6 per cent in the age group of 45-54 years respectively.

4.1.4. Educational background

The educational background of the selected women faculty was recorded into three categories. They are as follows: completed post graduate, master of philosophy and doctorate levels. The educational status of the women faculty is depicted below in Table 2.

With regard to the educational background among the selected women faculty 10 per cent of were postgraduates,

Table 2: Educational background

Educational level	Total	
	Number	Percent
Post Graduate	5	10
Master of Philosophy	21	42
Doctorate	24	48
Total	50	100

21 per cent of them had completed their M.Phil, 24 per cent were received their doctorates.

4.1.5. Marital status

Marital status of the selected subjects in the present study was given in Figure 3.

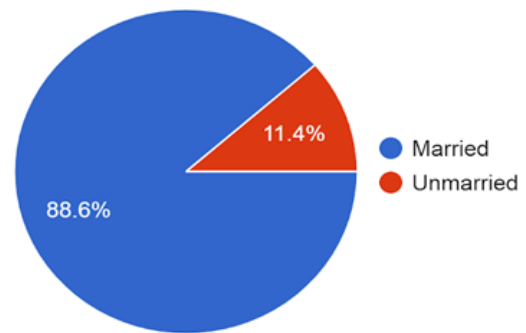


Fig. 3: Marital status

It was noted from the above table and figure that 88.6 per cent of women faculty were married and remaining 11.4 per cent were unmarried.

4.1.6. Religion

Religion of the selected subjects in the present study was given in Figure 4.

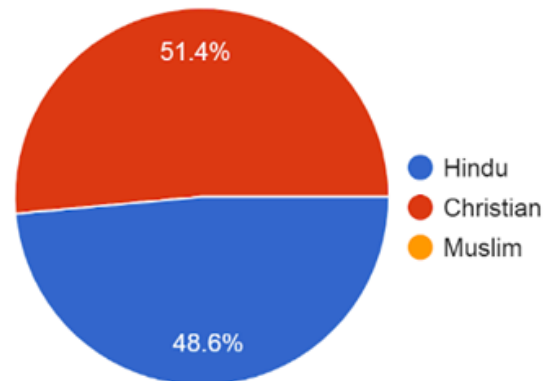


Fig. 4: Religion

It was noted from the above figure that 51.4 per cent of women faculty belong to the religion christianity and remaining 48.6 per cent belongs to hinduism.

4.1.7. Type of House

Type of House where the selected women faculty lives is presented in Figure 5.

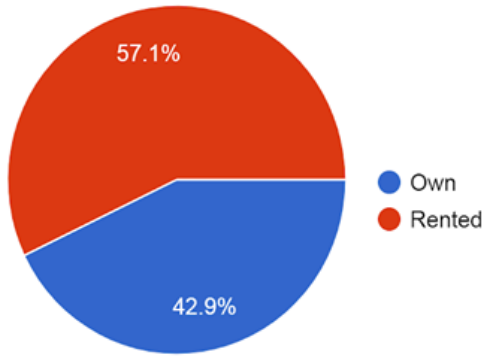


Fig. 5: Type of house

The Figure 5 indicates that 57.1 per cent of the women faculty lives in rented houses and remaining 42.9 per cent of them lives in own houses.

4.2. Economic profile of the selected women faculty

4.2.1. Economic status

Monthly income of the selected women faculty in the present study was categorized according to 11th five year plan technical report (2007-2012) income classification and is given in Table 3.

Table 3: Economic status

Monthly Income (Rs) *	Income Category	Total	
		Number	Percent
<25,000	LIG	2	4
25,000-50,000	MIG	32	64
>50,000	HIG	16	32
	Total	50	100

*HUDCO, 2010;⁵ LIG- Low Income Group, MIG- Middle Income Group, HIG- High Income Group

It was noted from the above table that 4 per cent of women faculty belongs to Lower income group and majority 64 per cent were in the Middle income group and 32 per cent were in the high income group.

4.2.2. Monthly expenditure pattern

Figure 6 gives the details of monthly expenditure of the women faculty.

In the present study, all the families spent a major part of their income on food. Nearly, 45.7per cent of the income

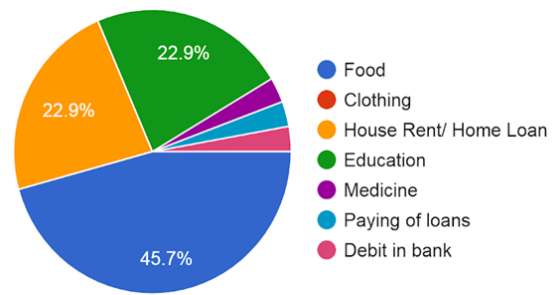


Fig. 6: Monthly expenditure pattern

was spent on food. While 24.9 per cent of income was spent on house rent/ home loans and the same per cent of income for education too. On the whole, 2.9 to 2.8 per cent of income was spent on various heads of expenditure namely, medicine, paying of loan, debit in bank. This tunes with study of Premakumari et al., (2011)⁶ where 58.8 per cent, 13.4 per cent, and 0.8 per cent of income was spent on various expenses namely, food, maintenance of household /repair work, and debts.

4.3. Lifestyle pattern of the selected women faculty

The lifestyle of the women faculty such as exercise pattern, frequency of beverage consumption are discussed in the following tables.

4.3.1. Exercise pattern

Physical exercise includes recreational or leisure-time physical activity, transportation (e.g walking or cycling), occupational (i.e. work), household chores, play, games, sports or planned exercise, community activities and exercise, in the context of daily life (WHO, 2013).⁷ Moderate exercises includes walking briskly, climbing steps, gardening, walking short distances, bicycling, yoga and playing with children. Vigorous exercises includes running/jogging (5 miles per hour), bicycling (more than 10 miles per hour), swimming (freestyle laps), aerobics, walking (4½ miles per hour), weight lifting (vigorous effort), competitive sports, and heavy yard work such as digging, cutting wood (ICMR, 2010).⁸

The exercise patterns followed by the selected obese subjects were given below in Figures 7, 8 and 9.

Physical activity helps to burn off excess fat. Regular physical activity combined with a healthy diet is the best way of healthy living. From the selected 50 women faculty 34.3 per cent were not doing any exercises due to lack of time and their inability to adopt heavy physical activities. Among the subjects of those who were practicing regular exercises it was observed that 33.3 per cent adopted light intensity exercise for less than 15 minutes and 37 per cent of them were doing moderate intensity exercise for 30 minutes. But only 57.7 per cent of the them are walking and 26.9 are

regular exercise

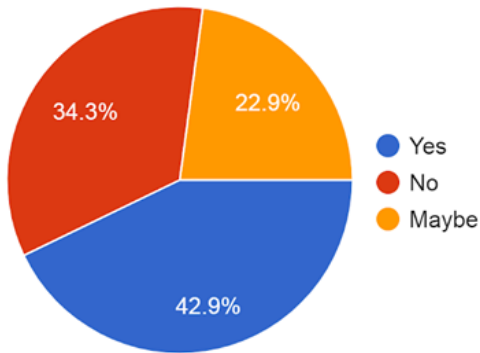


Fig. 7:

type of exercise

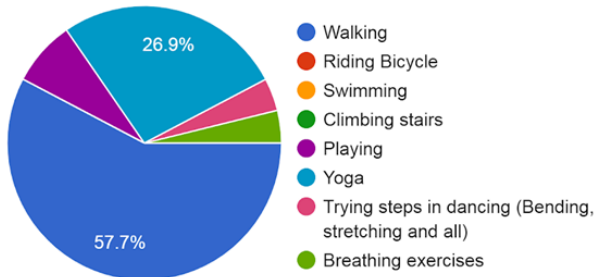


Fig. 8:

time you spend for exercise everyday

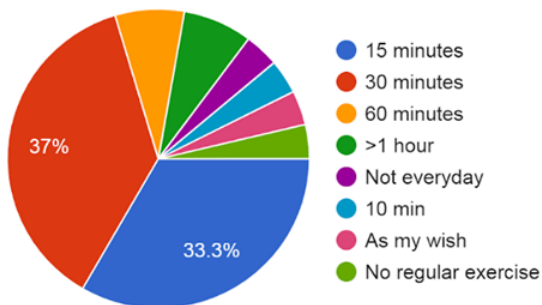


Fig. 9:

practicing yoga as their regular physical activity.

Strong evidence demonstrates that compared to less active obese subjects individuals who are more active have lower incidence of coronary heart disease, high blood pressure, stroke, Type 2 diabetes, metabolic syndrome, colon and breast cancer and depression. They are likely to have less risk of a hip or vertebral fracture, to exhibit a higher level of cardio-respiratory and muscular fitness and are more likely to achieve weight maintenance to have a healthier body mass and composition (WHO, 2013). Overall, people who do the recommended levels of physical activity can reduce their risk of premature death by 20-30 per cent (www.patient.co.uk).

4.3.2. Frequency of Bevarages Consumption

Figure 10 gives the frequency of Bevarages consumed by the women faculty.

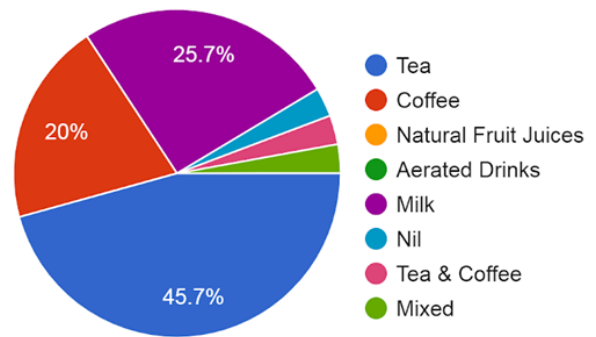


Fig. 10: Frequency of bevarages consumption

Data collected regarding the beverage consumption pattern of the selected women faculty revealed that majority of them consume tea. About 45.7 per cent of them drink tea, similarly 20 per cent of them drink coffee and 25.7 per cent consumed milk and remaining 8.6 per cent consumed other bevarages. None of them had natural fruit juices and aerated bevarages regularly.

4.4. Medical history of the selected women faculty

4.4.1. Personal history

The personal history of the subjects includes various health problems faced by them such as obesity, asthma, angina, blood pressure, high cholesterol, epilepsy, arthritis, thyroidism, diabetes, etc. The personal history of the subjects was tabulated in the Table 4 and Figures 11 and 12.

From the Table 4 it was shocking to note that nearly 21.3 per cent of them had high blood cholesterol levels. Among the selected subjects 25.4 per cent were having high blood pressure levels. Low blood pressure was observed among 7.4 per cent of female. Diabetes which is said to be the major health problem among obese individuals was

Table 4: Personal history

Details*	(%)
High cholesterol	21.3
High blood pressure	25.4
Diabetes	19.4
Low blood pressure	7.4
Angina	1.6
Arthritis	4.9
Asthma	1.9
Thyroidism	2.3
Epilepsy	0.4

*Multiple responses

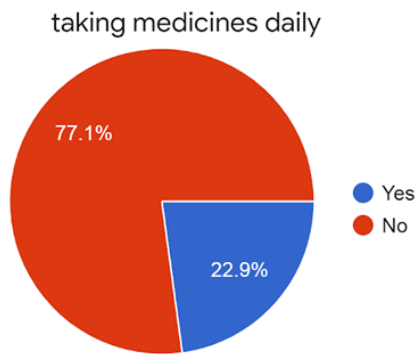


Fig. 11:

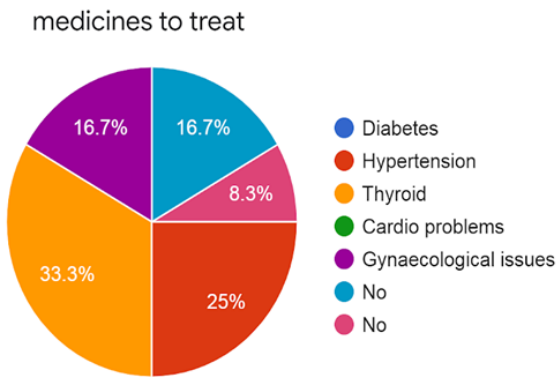


Fig. 12:

observed among 19.4 per cent. In the order of 2.3 per cent of female suffered from thyroidism and 4.9 per cent of female suffered from arthritis. Meagre percentages of female were suffering from epilepsy. From the data gathered it was observed that high blood cholesterol was more prevalent among the selected subjects.

Overweight individuals also had higher risk for diabetes and hypertension and those with morbid obesity had the highest risk. As there is a significant linear relationship between body weight and these two diseases, control of

excess bodyweight is important for their prevention and treatment (Pappachan, 2011).⁹ The health consequences of obesity are many and varied ranging from an increased risk of premature death to severe non-fatal but debilitating complaints that have an adverse effect on quality of life (WHO, 2013).

4.4.2. Type of treatment

The type of treatment undertaken by the obese subjects was given below in Table 5.

Table 5: Type of treatment

Details	Female (%)
Allopathy	56.2
Homeopathy	9.8
Ayurvedic	5.1
Siddha	1.9
None	27.0
Total	100

Various types of treatment were undertaken by the women faculty if they have any health risks. Among the women faculty 56.2 per cent preferred allopathic treatment, whereas only 9.8 per cent preferred homeopathy and nearly 5.1 per cent preferred ayurveda. It was surprised to note that none of them follow unani and naturopathy. Though varied forms of medicine are available with little side effects, people don't try them due to lack of clinical trials and therapeutic proof. Twenty seven per cent were not taking any type of treatment.

4.4.3. Signs and symptoms

The Table 6 highlights the clinical signs and symptoms.

Table 6: Signs and symptoms

Details*	(%)
None	17.7
Fatigue	7.9
Shortness of breath	23.1
Backache	17.2
Weakness	30.1
Palpitations	7.4
Dizziness/fainting	2.8
Vomiting, Nausea, Chillness	Nil

*Multiple responses

Among the selected female subjects, 7.9 per cent were having fatigue, 23.1 per cent suffer from shortness of breath, 17.2 per cent had backache and 30.1 per cent have weakness, It was heart-warming to note that 17.7 per cent did not have any of the above symptoms.

4.4.4. Family history of the selected subjects

Table 7 highlights the family history with reference to specific health problem.

Table 7: Family history of the selected subjects

Details*	Father (%)	Mother (%)	Sister (%)	Brother (%)	Grandparents (%)
Obesity	12.3	16.7	15.7	23.1	9.8
Diabetes	10.6	9.9	13.2	19.6	4.5
Cardio Vascular Disease	11.1	9.8	7.6	8.2	1.8
Coronary Heart Disease	3.2	2.9	0.3	0.9	3.5
Strokes	2.9	2.1	Nil	Nil	0.9
Cancer	1.7	3.2	Nil	0.7	1.6

*Multiple response

Obesity is a complex disease resulting from the interactions of a wide variety of hereditary and environmental factors. The family history depicts the risks or complications of the first degree or second degree relatives of the selected obese subjects. The family history may have an important role in determining the occurrence of obesity and other disorders among the public.

Out of the total 50 subjects 12.3 per cent of their father, 16.7 per cent of their mother, 15.7 per cent of sisters and 23.1 per cent of brothers were obese. The hereditary factor doesn't stop with the parents but continues further; also 10 per cent of obese subjects had obese grandparents. Similarly they also suffered from diabetes, cardiovascular disease, coronary heart disease, strokes and cancer but their percentages were very low. The data gathered concluded that hereditary is playing a vital role for the precipitation of obesity among the younger age groups.

Studies that have focused upon inheritance patterns rather than upon specific genes have found that 80 per cent of the offspring of two obese parents were obese, in contrast to less than 10 per cent of the offspring of two parents who were of normal weight (Yang et al., 2007).¹⁰

5. Discussion

On an average 60 per cent of the women faculty belongs to nuclear family and remaining 40 per cent were from joint family. This tunes with the changing trend of family system in India. There were four members in 42.9 per cent of families, five members in 22.9 per cent of families respectively. Thirty six per cent of them were in the age group of 25-34 years and 58 per cent in 35-44 years and 6 per cent in 45-54 years respectively. Twenty one per cent had completed their M.Phil and 24 per cent received their doctorates. About 90 per cent of women faculty were married and 51.4 per cent of them belong to christianity and remaining 48.6 per cent belongs to Hinduism. About 57.1 per cent of them lives in rented houses and remaining 42.9 per cent in own houses. Majority 64 per cent were in the Middle income group and 32 per cent were in the high income group. Major part of their income was spend on food. Nearly 40 per cent were not doing any exercises due to lack of time and their inability to adopt heavy physical

activities. Among those practicing regular exercises 33.3 per cent adopted light intensity exercise for less than 15 minutes and 37 per cent were doing moderate intensity exercise for 30 minutes. But only 57.7 per cent of the them are walking and 26.9 are practicing yoga as their regular physical activity. Most of them drink tea and none of them had natural fruit juices and aerated bevarages regularly. Among them high blood pressure, low blood pressure, diabetes, thyroidism and arthritis were found. Most of them preferred allopathic treatment, It was surprised to note that none of them follow unani and naturopathy. Though varied forms of medicine are available with little side effects, people don't try them due to lack of clinical trials and therapeutic proof. Twenty seven per cent were not taking any type of treatment. Some of them were having fatigue, shortness of breath, backache and weakness. It was heart-warming to note that 17.7 per cent did not have any of the above symptoms. The data gathered concluded that hereditary is playing a vital role for the precipitation of obesity among the younger age groups.

6. Source of Funding

None.

7. Conflict of Interest

The authors declare no conflict of interest.

References

1. Kothari CR. Research Methodology- Methods and Techniques. New Delhi: Wishwa Prakshan; 2011.
2. Pannerselvam R. Data collection and presentation. Research Methodology, Prentice Hall of India Private Limited, New Delhi; 2006.
3. Rolfes S. Life-Span Nutrition: Conception Through Life. Belmont: International Thomson Publishing Company; 1998. p. 36–106.
4. Ashwani K. The Changing face of family and its implications on the mental health profession in Delhi; 2011. Available from: <https://pesquisa.bvsalud.org/portal/resource/pt/sea-159321>.
5. HUDCO, 2010, Housing finance publishing division, Patiala house, New Delhi, P. 232. *Hum Ecol.* 1992;(1):35–8.
6. Premakumari P, Subapriya S, Thilakavathy, Krishna P. Spirulina Action Reserch Project, Child Fund India; 2011.
7. World Health Organisation (2013). WHO Technical Report Series 916. Diet, nutrition and the prevention of chronic diseases.

- Report of a joint WHO/FAO expert consultation, Geneva: World Health Organisation. Available from: http://apps.who.int/iris/bitstream/handle/10665/42665/WHO_TRS_916.pdf;jsessionid=CA5ED238FB45F5CDC2D62BAAD743E3D8?sequence=1.
8. Dietary Guidelines for Indians. A Manual by ICMR. Hyderabad: National Institute of Nutrition; 2010. Available from: <https://www.nin.res.in/downloads/DietaryGuidelinesforNINwebsite.pdf>.
 9. Pappachan MJ. Increasing prevalence of lifestyle diseases: high time for action. *Indian J Med Res.* 2011;134(2):143–5.
 10. Yang W, Kelly T, He J. Genetic epidemiology of obesity. *Epidemiol Rev.* 2007;29:49–61.

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Cite this article: Krishna KUP, Dhas ES. A study on health status of women faculty in Madurai. *J Community Health Manag* 2022;9(1):13-20.