

**PREVALENCE OF METABOLIC DISORDERS IN THE PATIENTS VISITING OPD -
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ABSTRACT

Introduction: Health as well as disease are the outcome of *Ahara*- Food we intake and *Nidra*-the healthy sleep pattern and *Vihara*- a healthy life style any variation in these can lead to vitiation of *Doshas* and on a long run can lead to altered metabolism in turn leading to Metabolic Disorders. **Aim:** To know the prevalence of metabolic Disorders in the patients visiting OPD of Adichunchangiri Ayurvedic Hospital (AMC). **Materials and Methods:** Survey study has been done on 90 subjects visiting the OPD of AMC for 1 day. **Results:** About 96.77% of subjects had one or the other metabolic disorders.

KEYWORDS: Metabolic Disorders, Survey Study, Prevalence, *Ahara –Nidra-Vihara*.**INTRODUCTION**

Metabolic Disorders are the major challenging health issues in the present era which can lead to sudden deaths due to Cardio-Vascular accidents or Disability Adjusted Life Years due to Stroke.^[1,2] The most common symptom of any metabolic disorders could be tiredness, weight gain or weight loss, nausea and vomiting. The present-day life-style with lack of physical activity along with stress is the major cause for Overweight and Obesity which in turn leads to other major disorders such as Diabetes, Dyslipidemia, Fatty Liver and Hypertension. Health as well as disease are the outcome of *Ahara*-Food we intake and *Nidra*-the healthy sleep pattern any variation in these can lead to vitiation of *Doshas* and on a long run can lead to altered metabolism in turn leading to Metabolic Disorders. Survey studies on Indian Urban Population shows that Metabolic syndrome was present in 345 (31.6%) subjects; prevalence was 122 (22.9%) in men and 223 (39.9%) in women ($p < 0.001$); the age-adjusted prevalence was 24.9%, 18.4% in men and 30.9% in women^[3], thus the present survey studies was conducted to see the prevalence of Metabolic Disorders among the subjects visiting OPD of Adichunchangiri Ayurvedic Hospital and if there is any relation noted between the disorders and *Ahara*, *Vihara* and *Nidra*.

AIMS AND OBJECTIVES

- To survey the prevalence of metabolic disorders among the patients attending the OPD of AMC.

- To find out the prevalence of Metabolic Disorders among the patients attending the OPD in relation to *Ahara*, *Vihara* and *Nidra*.

MATERIALS AND METHODS

The patients of outpatient department of Adichunchangiri Ayurvedic Hospital for 1 day have been surveyed using questioner with the help of student volunteers. Total 90 with age range of 20 – 70 were surveyed and among them. The method adopted in this study was simple randomized selection by interview method. A special proforma was prepared for the present study to collect the relevant data.

OBSERVATION

In the present survey comprising of 90 persons, 23.65% of the population belongs to 46–55 years. 19.3% of the population belongs to 36–45 years, 18.20% of the population belongs to 16–25 years, 17.20% of the population belongs to 56–65 years and 9.6% from the age group 26–35 years.

Gender distribution was almost equal 51.61% female and 48.38% male. The data revealed that maximum of the survey sample belonged to Hindu religion 97.8%.

The BMI was calculated by height and weight data obtained during the survey and it revealed that about 38.70% were overweight, 33.33% had normal BMI followed by 23.65% of obese and 4.3% being

underweight. It was noted that about 96.77% of the samples suffered from HTN and DM, 53.76% of them had the complaints of raised cholesterol, 33.33% of subjects suffered with other disorders such as hypothyroidism, low back pain, multiple joint pain, osteo-arthritis. Among the sample about 69.89% had no appreciable physical activity, 30.10% had a moderate amount of physical activity.

About 43% of them had the habit of watching TV or mobile for about 1-2 hrs per day, 22.5% watched TV or mobile for about 3-4 hrs a day, 7.55% and 3.22 % of them had a habit of watching TV and mobile for about 30 minutes and more than 5 hours respectively.

About 65.5% did not have any sports or recreational activities, 53.76% of survey sample involved in moderate sports or recreational activities for about 1-2 days a week, followed by 26.8% indulging in sports and recreational activities for 3-4 days a week, 2.15% involved in moderate sports or recreational activities only during weekends.

61% of survey sample non-vegetarian, 29% were vegetarian and 3% were eggetarian. 47.31% consumed non-veg 1-3 times per week, 13.97% consumed non-veg for 15 days once. About 90.32% of samples were non-alcoholic, 9.67% had the habit of consuming alcohol in which 4.30% had the habit of consuming alcohol 1-3 times, weekly or occasionally and 1.07% consumed alcohol daily. 97.84% of the sample were non-smokers and 2.15% had the habit of smoking.

About 65% of survey sample had the habit of watching TV, Mobile or speaking while consuming food. About 65% of survey sample had the habit of untimely food.

It was noted that about 44% of the sample survey had good sleep, 33.33% had disturbed sleep and 22.58% had moderate sleep. About 30.10% had habit of sleeping during day time and 18.27% indulged in day sleep on weekends.

RESULTS

About 38.70% were overweight and 23.65% are obese, 96.77% of the samples suffered from HTN and DM, 53.76% of them had the complaints of raised cholesterol which are the major metabolic disorders affecting the society at present. The major reason for this could be faulty habits followed in day to day life regarding to *Ahara*, *Nidra* and lack of physical activity.

DISCUSSION

In the present study it was noted that the maximum patients attending OPD on the days of Survey belong to age group 36-45 years this could be one of the reasons adding on for increased rate of prevalence as this age group is more prone to metabolic disorders.^[4] Among the population 38.70% and 23.65% were noted to be overweight and obese respectively this could be due to

the lack of any physical activity on daily basis and recreational or sports activities on regular basis and most of the study population were non-vegetarians which is said to increase the *Medo Dhatu* in the body leading to *Sthoulya* and *Medovaha Sroto Dushti* Disorders such as *Madhumeha* (Diabetes) and *Medo Roga* (Hyperlipidaemia) kind of conditions. Among the survey population about 30% of population had the habit of sleeping during day time which is the major cause for *Medovaha Sroto Dushti*.^[5] *Ahara* and *Nidra* are considered to be the main pillars of Healthy Life any disturbance in these two factors can pay forth to plethora of diseases, which being neglected can turn up to be a metabolic disorder, even though the present life style is easing the human works and cutting down the physical hardships it is paying a way to lack of physical activity which is the major cause for life style disorders.^[6] Lack of socializing and nuclear families, with lot of deadlines professionally and time constraint for personal life is building the stress levels among individuals which boosts up the disorders in the body.^[7]

CONCLUSION

This survey study being a preliminary one with limited subjects on outward look gives an impression that the present life style with improper dietary habits and sleep patterns with lack of physical activity could be the main reason for Metabolic Disorders yet further studies involving more population and elaborated questionnaire is suggested.

A survey study on the *Vyayama* and details pertaining to *Vyayama* such as time, type, hours spent can be assessed with prevalence of Metabolic Disorders in Subjects who are on regular *Vyayama* (Physical Activity).

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REFERENCES

1. <https://bmccardiovascdisord.biomedcentral.com/articles/10.1186/s12872-020-01825-2>. 19/10/22, 9:38am.
2. J R Bhardwaj, Boyd's textbook of Pathology, Published by Lea and Febiger, 10th Edition, 2013; Pg. No 559.
3. Dyslipidemia | National Health Portal of India <http://nhp.gov.in> > dyslipidemia_mtl, 16/10/23, 10:00am.
4. Bhalwar R. (2020). Metabolic syndrome: The Indian public health perspective. Medical journal, Armed Forces India, 76(1): 8-16. <https://doi.org/10.1016/j.mjafi.2019.12.001>.
5. Agnivesha, Charaka Samhita, Ayurveda Dipika commentary by Chakrapanidutta, edited by Vaidya Yadavji Trikamji Acharya 1941,Chawkamba publications, Sutrasthana, Chapter 28, Verse-9-10, Pg. No. 179.

6. https://scholar.google.co.in/scholar_url?url=https://citeseerx.ist.psu.edu/document%3Frepid%3Drep1%26type%3Dpdf%26doi%3D3149bec578c28a790c8e4d0fca8148bb500b9b47&hl=en&sa=X&ei=ZF0zZc-SGPiU6rQP3oqN2AY&scisig=AFWwaeZEDZPEV4ZESqTYDWq2by-9&oi=scholar, 21/10/23, 10:46am.
7. Krishnamoorthy, Y., Rajaa, S., Murali, S., Rehman, T., Sahoo, J., & Kar, S. S. (2020). Prevalence of metabolic syndrome among adult population in India: A systematic review and meta-analysis. *PLoS one*, 15(10): e0240971. <https://doi.org/10.1371/journal.pone.0240971>.