

Lifestyle management and eating disorder among college going students

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Abstract

This study was grounded on the assessment of lifestyle management and eating disorder of fat person. Obesity is a multifactorial disease that accumulates excess body fat leads to negative effect on health. Obesity continues to accelerate resulting in an unprecedented epidemic that shows no significant signs of decelerating down any time soon. The main cause of obesity is long-term energy imbalance between consumed calories and expended calories. Anthropometry is a screening tool that determine obesity in a general population. Obesity detection can be done by assessing BMI ranges. This survey represents the age of the participants ranged between 18-30 years. The age was grouped into the table between two categories i.e., 18-24 and 25-30 years. 18-24 years participants population was greater than 25-30 years. Male participants were greater than female participants. Male were 41.7% and female were 58.3%. Most of the students stays in paying guest accommodation. Students stays in paying guest accommodation 37.5%, hostel 33.3% and home 29.2%. According to survey, the BMI range showed, many of respondent's were overweight. About 44% respondent's were overweight, 34% respondent's were obese, 20% respondent's were normal and 2% respondent's were underweight. Usually respondent's consumes non-healthy foods which contains high fat content, according to survey report 75% respondent's consumes healthy foods, 31.30% respondent's daily consume beverages, 25% respondent's consume high fat food, 43.80% respondent's consume junk food and 37.50% respondent's consume high saturated food as their meals which shows eating pattern of them. Respondent's have a lifestyle with low physical activity and disordered eating habits, which promotes them to a risk of being overweight and obese. 65.5% respondent's goes to gym and 34.5% do yoga to make themselves physically fit and healthy.

Keywords: eating disorder, gym, yoga, meditation, depression, lifestyle, college student

1. Introduction

Obesity is extending, globally as public health issue. Patients with obesity are at high risk for expanding a scale of coexisting conditions, which includes diseases like cardiovascular disease (CVD), gastrointestinal disorders, type 2 diabetes (T2D), joint and muscular disorders, respiratory problems, and psychological issues, which may seriously affect their daily lives as well as raising mortality risks. The World Health Organization (WHO) outlines obesity as unusual or extreme fat aggregation that presents a risk to health (Fruh, 2017). Obesity render a significant expostulation to prone disease prohibition and health beyond the life strategy at the world. Usually obesity is defined thoroughly as spare body weight for height, but this simple definition misrepresents an etiologically complex phenotype essentially correlated with surplus adiposity, or body fatness, that can clear metabolically and not just in terms of body size (Hruby & Hu 2015).

Regardless worldwide interest in body-weight control, the frequency of obesity carry on with rise worldwide. Prevalent public health counsel for obesity avoidance is clearly weakening. Prevention of obesity clearly states about the relevance of every day public health advice for body-weight control, i.e. to degrade utilization of fatty foods, to eliminate utilization of sugar and to evade snacking between meals. An excessive intake of carbohydrate : fat ratio should enhance body-weight control, as high-carbohydrate low-fat diets are less probable to steer to overeating, and if overeating does happen, less of the surplus energy is probable to be stored as fat. However, it is endorsed that for the long-term prohibition of weight gain, suggested to increase the utilization of carbohydrate-rich foods may be more efficient than advice, which concentrates on reducing utilization of fatty food. Moreover, in view of the converse kinship between fat and sugar consumption, sugar may have a approval to play in body-weight regulator in assisting in expanding carbohydrate : fat ratio. Nibbling for most humans appears not to unfavourably influence body-weight control, and for some it may improve control. This condition may persist because frequent eating aids appetite control, thus avoiding

overeating at meals, and as snacks generally incline to be higher in carbohydrate and lower in fat than meals, frequent eating may be a plan for expanding carbohydrate : fat ratio. It is also advised that eating 'little and often' may be a more cooperative condition of eating for a physically-active legacy than eating large meals. Perhaps the most suitable suggestion on food intake that would work mutually with synchronous advice to strengthen physical activity is to eat more carbohydrate, and to eat frequently (**Kirk, 2007**).

Eating disorder symptoms are widespread among college students. Bearing eating disorder and unhealthy weight instruction methods turn up to have increased in this population during the last decade and involve even greater number of students. Subclinical indications are interrelated with meaningful discomfort and dissability, and carry on over time (**Jones et al., 2012**).

Eating disorders are one of the highly under-researched and complicated to identify psychiatric illness, with a greater mortality rate, particularly between the adolescent age group. Binge eating disorder, bulimia nervosa, and anorexia nervosa are set down to be the most prevalent forms of eating disorders, but in India they present in a less defined manner. Eating disorders are incredibly severe health issues that involve people of all ages but generally seen among adolescents and students. Eating disorders are primarily visualised by the mental effects of obsession with body weight, shape, and diet. There is a flock of factors that consequence these disorders, like socioeconomic status, stress, media, and so on. They can also be related with other psychiatric disorders, like depression and anxiety, making them more dangerous and probably destructive. To introduce to the load, the diagnosis of eating disorders can be inaccessible, and more than one-half of all cases go unrevealed. (**Iyer & Shriram., 2021**).

Anorexia nervosa has the maximum mortality of any psychiatric disorder. It has a frequency of about 0.3% in young women. It rises than twice as usually in teenage girls, with an average age of onset of 15 years; 80-90%, most of the patients with anorexia nervosa are female. Anorexia is the most ordinary state of mind of weight loss in young women and of acknowledgement to child and adolescent hospital services. Generally primary care practitioners confronts few cases of severe anorexia nervosa, but these consider enormous distress and frustration in carers and professionals.

The core psychological feature of anorexia nervosa is the excessive overestimate of shape and weight. People with anorexia also have the physical ability to endure excessive self assessed weight loss. Food limitation is only one phase of the practices used to lose weight. Most of the people with anorexia use over exercise and over activity to burn calories. They generally choose to stand either sitting; develops chances to be physically active; and are dragged to sport, athletics, and dance. Purging pattern include self induced vomiting, together with misapplication of laxatives, diuretics, and "slimming medicines." (**Morris & Twaddle., 2007**).

Bulimia nervosa is a disorder that is identified by binge eating and unsuitable offset action to control weight with probably dangerous sequelae. It is necessary to distinguish and assess this condition immediately and to treat the patient adequately while observing progression and potential medical complexities. This activity portray the assessment and handling of bulimia nervosa and emphasizes the role of the inter professional team in the care of patients with this disorder. (**Jain & Yilani., 2022**)

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Regular physical activity is necessary to build good health, happiness and to stay fit. As individuals become more conscious to know the benefits of fascinating in physical activity, the occurrence of people prevailing to the gym or fitness centers is accelerating. The quick development in the market for fitness devices and apps poses the possibility of supplying calibrated perception into an individual's exercise routine and facilitating personalized interventions.

(Radhakrishnan et al., 2020)

Yoga is an ancient science, practicing yoga could make our brain retaining activity and physical function delivering to symmetric unity, thus tempting our physical health and enhancing the emotion of happiness. The World Health Organisation (WHO) states, yoga as a complete physical, mental, and social welfare and not simply the absence of disease or ailment. Yoga has turn as the one of the most sophisticated body building exercises and is very popular in youngsters **(Perur & Kenchammar., 2019)**. Meditation and yoga is a merger of meditation and its surrounding which have achieved craze in concurrent scientific research and have been used for numerous mental health like stress, anxiety, depressive disorders, etc. and physical conditions like pain, etc. Worldwide, yoga and meditation are examined as a preference and reciprocal approach to the treatment for both psychological and physical disorders, and to achieve a better quality of life **(Gupta & Dhawan, 2022)**.

Individuals with obesity have high risk of depression: a 55% higher risk was recorded by a meta-analysis of longitudinal studies in which depression was evaluated several years after obesity was estimated among individuals with no depression at baseline. If obesity does predispose to depression and other signs of psychological distress, which includes anxiety and somatic complaints, the raising rates of obesity might deteriorate overall population mental health the same way it has been shown to reduce population physical health. **(Jokela & Laakasuo, 2023)**. According to World Health Organization (WHO) nearly 800,000 people die due to depression, every year. Depression haunts almost 350 million people in the world. It has recently found that depression as a chronic psychological distress, plays an significant role in the accelerating vogue of obesity throughout the world **(Rabiei et al., 2023)**.

There are three major determinants for whether an individual remains healthy or develops illness: genetics, lifestyle and chance. Little if nothing can be done to influence genetics and chance but changes in lifestyle both good and bad, can have substantial impact on health. Life sustaining activities include proper nutrition and exercise, healthy sleep patterns and adequate rest, healthy coping with stress and ability to use family and community supports and resources **(Ahmed, 2009)**.

2. Objectives

- 2.1. To study associated factors like frequent eating, anorexia nervosa, bulimia nervosa, gym, yoga, meditation, depression in obese person.
- 2.2. To study about lifestyle management involving in eating and obesity.

3. Material and Methods

3.1. Research method: a cross-sectional method, Observation test.

3.2. Locale of the study: the experiment was carried out in the BBAU campus of Lucknow.

3.3. Period of the study: august 2022- may 2023.

3.4. Sampling method: probability systematic sampling method.

3.5. Criteria of the study: study was carried out through survey in the google forms.

3.6. Sample: students of BBAU Lucknow city.

3.7. Sampling technique: The selection of sample will be done on the basis of random sampling.

3.8. Anthropometry: Body Mass Index (BMI) has traditionally been used to identify individuals who are the most likely to be overweight or obese. It is calculated by dividing weight in kilograms by the height in m². Generally a high value indicates excessive body fat and consistently relates to increased health risk and mortality.

Calculation: Weight (kg)

$$\frac{\text{Weight (kg)}}{\text{Height m}^2}$$

BMI ranges:

BMI	WEIGHT STATUS
Below 18.5	Underweight
18.5-24.9	Normal
25.0-29.9	Overweight
30.0 and higher	Obesity

Underweight : it is the body weight which is too low for a normal healthy adults or child. It is caused by multiple factors like lake adequate nutrition in the body.

Normal weight:

Overweight: it is the condition where the body weight is 10%-20% greater than the mean standard weight for age, height and sex.

Obesity: it is a complex chronic disease developing from interactive influences of numerous factors like social, behavioural, psychological, metabolic, cellular and molecular.

Aetiology of obesity:-

Genetic factors: genetically there is a chance of 50-70% person's becoming fat more than any other factor. The chances of becoming 80% obese when both the parents are obese while chances becomes 50% when only one of both the parent was obese.

Age and sex: it can take place at any age in any sex as long as the person is under positive energy balance. Nutrition Foundation of India studies shows that females are more overweight than males.

Eating habits: certain types of eating habits may lead to overweight and obesity like- excessive eating, continuously eat fast or junk foods, consumption of sugar added products, consumption of carbonated drinks, etc.

Physical activity: mostly obesity is seen under person living sedentary lives and give less time to physical activities. Physical activities plays an important role in day to day life through which person becomes fit and healthy.

Stress: having stress, depression, anxiety may lead to excess calorie intake. According to some studies people consumes more fatty foods as their lives grow stressful.

N OF TERMS**1.1. Lifestyle****1.1.1. Theoretical definition:**

The term "lifestyle" generally means a pattern of individual practices and personal behavioral choices that are related to elevated or reduced health risk (Health line dictionary, 2009). The WHO (1999) defined lifestyle as the way of living that lowers the risk of being seriously ill or dying early. It is also about physical, mental, and social wellbeing.

1.1.2. Operational definition:

The self reported responses of 1000 college students (who participated in this study) regarding 104 health habits in term under six lifestyle domains including physical activity, dietary, self care and safety, stress, social and emotional wellness, and sleep patterns.

1.2. Risk behaviors**1.2.1. Theoretical definition:**

Behavioral pattern associated with a high risk of developing a chronic illness (Payne et al, 2007).

1.2.2. Operational definition:

The self reported unhealthy behavioral patterns by 1000 students who participated in this study with respect to physical activity, dietary, self care and safety, stress, social and emotional wellness, and sleep patterns

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Lifestyle: defined as a pattern of people's practices and personal behavioural choices that are related to elevated or reduced health risk.

Risk behaviours: associated with a high risk of developing a chronic illness. The self reported unhealthy lifestyle pattern by 50 students of the college who participated in this study with respect to physical activity, dietary, self care, stress, social and emotional wellness and sleeping pattern.

Participants and procedure:

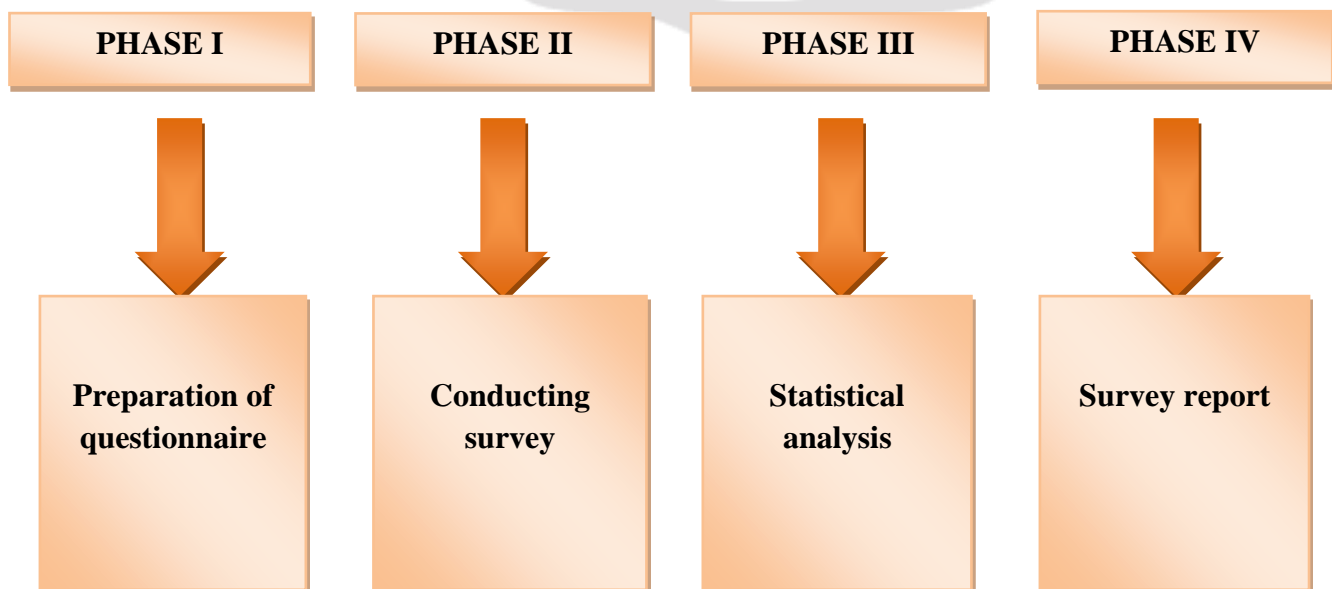
People were emailed, whatsapp, an invitation to complete an online survey invites connect to join the questionnaire was circulated in social media apps like whatsapp. The study goal was to see the lifestyle management of obese people among the number of participants who fill this survey form.

The survey was conducted in English language. Participants are from 18-24 and 25-30 age group from the BBAU campus itself. The participant's identification were kept secret.

Demographics: participants were asked to self-report their name, age, gender, e-mail, address, phone number, qualification, living arrangements and anthropometry measurements like height and weight.

Lifestyle pattern: participants were asked a variety of questions related to their lifestyle like their eating pattern, physical activities..

Flow chart:



4. Result and discussion

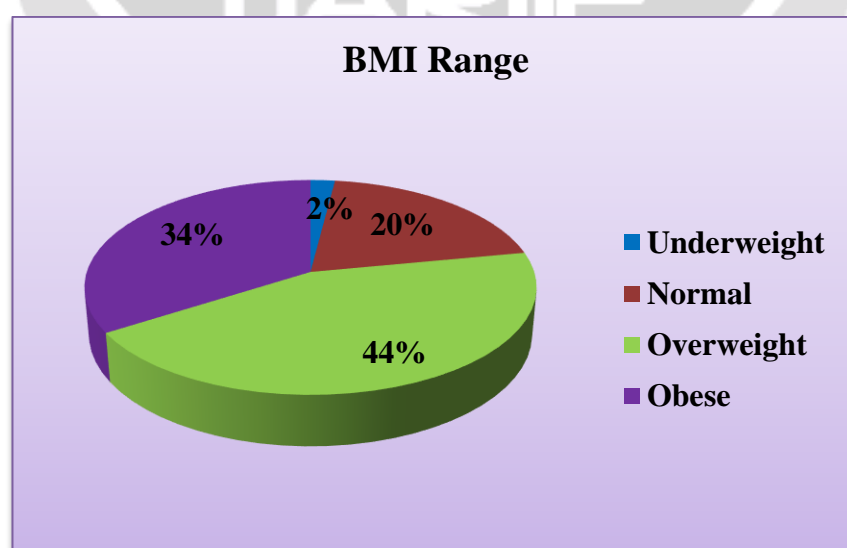
Table 4.1. Data of participants

Variables	Percentage
Age in years	
18-24	30%
25-30	67.7%
Gender	
Male	41.7%
Female	58.3%
Living arrangement	
Hostel	33.3%
Paying guest accommodation	37.5%
Home	29.2%

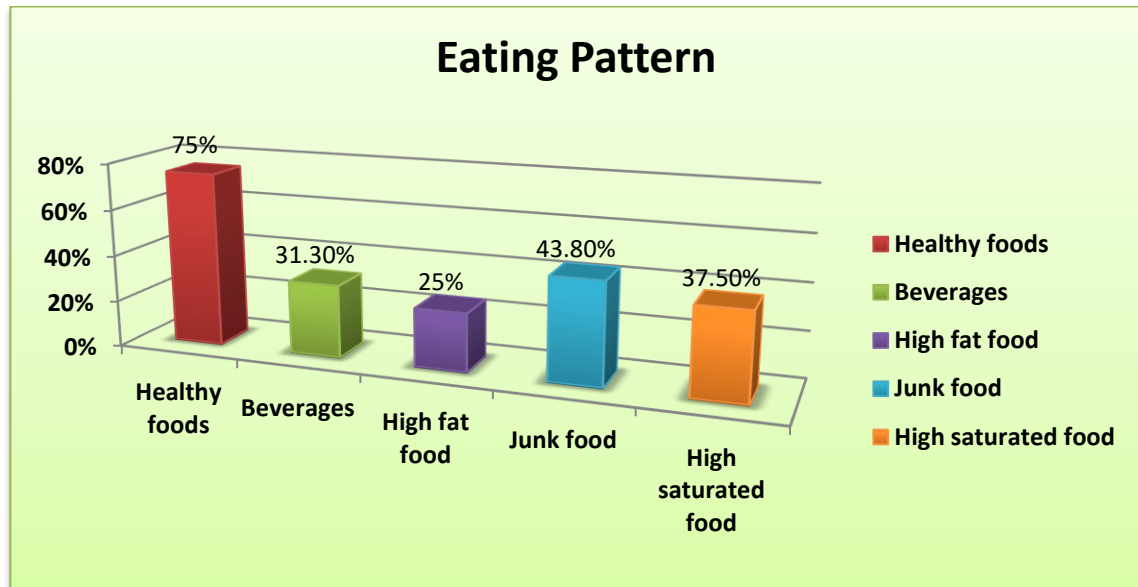
Table 4.1. Represents the demographical data of participants. The age of the participants ranged between 18-30 years. The age was grouped into the table between two categories i.e., 18-24 and 25-30 years. 18-24 years participants population is greater than 25-30 years. Male participants were greater than female participants. Male were 41.7% and female were 58.3%. Most of the students stays in paying guest accommodation (PG). Students stays in paying guest accommodation 37.5%, hostel 33.3% and home 29.2%.

Statistical analysis:

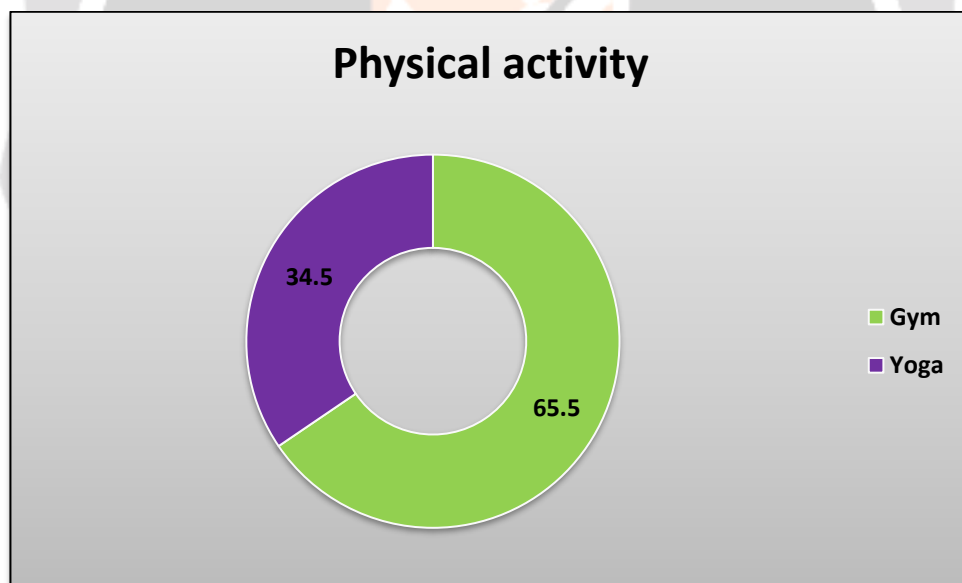
Fig. 4.1 BMI Range:



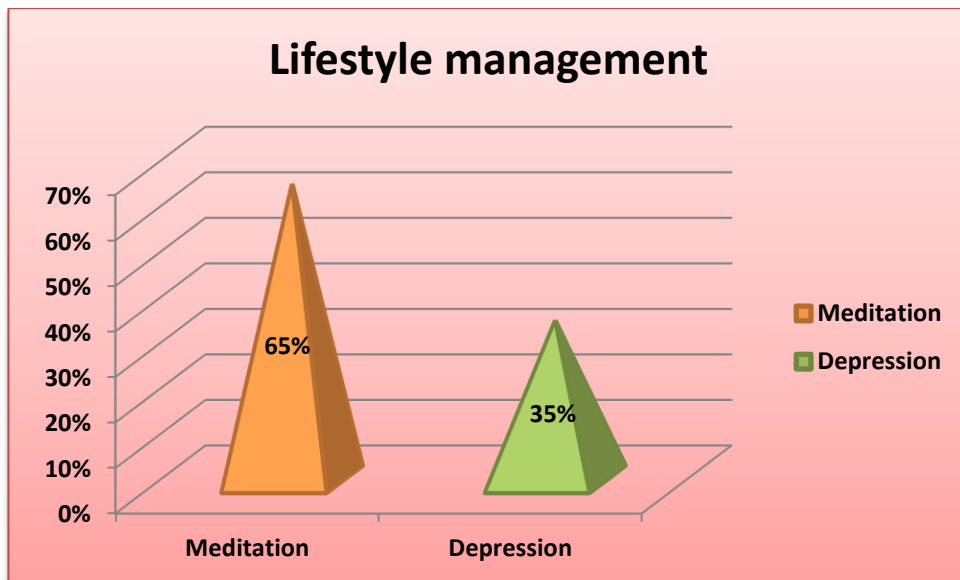
This chart shows that many of the respondent's are overweight. As per the survey suggests that 44% respondent's are overweight, 34% respondent's are obese, 20% respondent's are normal and 2% respondent's are underweight as per the BMI range.



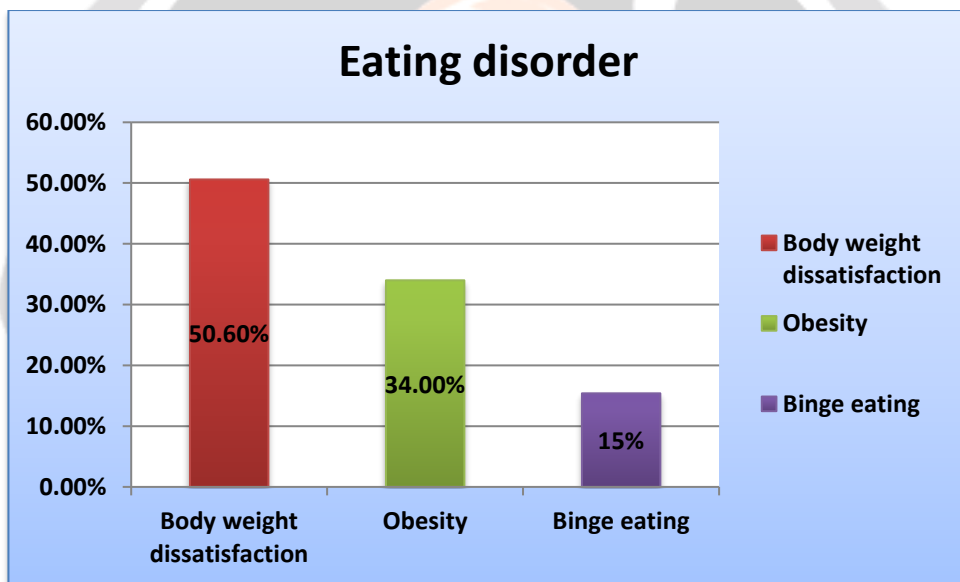
This chart presents information about eating habits of the respondent's 75% respondent's fall into the category of consuming healthy foods, 31.30% respondent's consumes beverages daily, 25% respondent's falls on consuming High fat food, 43.80% respondent's falls into the category of consuming junk food on daily basis and 37.50% respondent's consumes more high saturated food to fulfil their daily need.



This chart gives information about the physical activity participated by the respondent's. About 65.5% respondent's do yoga to keep them physically fit and healthy. About 34.5% respondent's go to gym to look or feel better, loose weight and for body building.



This chart shows the lifestyle management involving mental health and fitness of the respondent’s. 65% respondent’s fall in the category of doing meditation while 35% respondent’s facing depression due to their hectic lifestyle management.



This chart shows the eating disorder among the respondent’s. 50.60% respondent’s falls in the category of body weight dissatisfaction. 34% respondent’s are obese and 15% respondent’s falls in the category of binge eating.

Yoga is an ancient science derived from India. Practicing Yoga could make our brain keeping activity and physical function reaching to harmonious unity, thus promoting our physical health and improving the feeling of happiness [1,2]. Therefore, Yoga is being recognized more and more important as an old

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broader sense in 1946 as “a state of complete physical, mental, and social well-being and not merely the absence of disease or

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mental and social well-being. Today, Yoga has become ancient health culture. As a relieving and relaxing exercise, Yoga has become one of the most fashionable body building exercises and is very popular with youngsters. As a static exercise, Yoga regulates bodies into good condition through posture,

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