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Abstract:
The purpose of present study is to identify the effectiveness of yoga asanas and yogic diet among the group of obese people. For the present study a pre-information and a post information was collected by Height, Weight and BMI. The purposive sample consisted of 40 females of age group between 25-40 years. The data obtained were analysed by means of t test and paired sample t test were shown significantly varied. It was observed that the obesity of the group was reduced to overweight significantly in the selected group.

Keywords: Yoga, yogic diet, obesity,

Introduction
Obesity is an abnormal accumulation of body fat, usually 20% or more over an individual's ideal body weight. Obesity is associated with increased risk of illness, disability, and death. The branch of medicine that deals with the study and treatment of obesity is known as bariatrics. As obesity has become a major health problem in the United States, bariatrics has become a separate medical and surgical specialty (According to medical Dictionary).

All living beings on this earth need food. Most of them eat a particular type of food, just as a horse eats grass and gain, and a lion eats raw meat. These species intuitively know what they should eat. But paradoxically, man although the most intelligent of them, usually does not eat what he needs. While other species eat only a few varieties of food, man eats innumerable types of cooked and uncooked foods. Another strange fact commonly observed is that is man, in spite of all his knowledge, does not eat his food well. The human being always give preference to eat sweet and testy food, this food supplies more and more unnecessary fats, carbohydrates and other, its leads obesity.

Obesity can lead to social stigmatization and disadvantages in employment. When compared to their normal weight counterparts, obese workers on average have higher rates of absenteeism from work and take more disability leave, thus increasing costs for employers and decreasing productivity.

Some research shows that obese people are less likely to be hired for a job and are less likely to be promoted. Obese people are also paid less than their non-obese counterparts for an equivalent job; obese women on average make 6% less and obese men make 3% less.

Specific industries, such as the airline, healthcare and food industries, have special concerns. Due to rising rates of obesity, airlines face higher fuel costs and pressures to increase seating width. The healthcare industry has had to invest in special facilities for handling severely obese patients, including special lifting equipment and bariatric and ambulances. Costs for restaurants are increased by litigation accusing them of causing obesity.

What is Body Mass Index (BMI)
The BMI is a statistical measurement derived from your height and weight. Although it is considered to be a useful way to estimate healthy body weight, it does not measure the percentage of body fat. The BMI measurement can sometimes be misleading - a muscleman may have a high BMI but have much less fat than an unfit person whose BMI is lower. However, in general, the BMI measurement can be a useful indicator for the ‘average person’.
<table>
<thead>
<tr>
<th>BMI</th>
<th>Weight Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18.5</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.5-24.9</td>
<td>Normal</td>
</tr>
<tr>
<td>25.0-29.9</td>
<td>Overweight</td>
</tr>
<tr>
<td>30.0-34.9</td>
<td>Obese (Class I)</td>
</tr>
<tr>
<td>35.0-39.9</td>
<td>Obese (Class II)</td>
</tr>
<tr>
<td>40.0 and higher</td>
<td>Extreme obesity (Class III)</td>
</tr>
</tbody>
</table>

**What are overweight and obesity?**

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health.

Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. It is defined as a person's weight in kilograms divided by the square of his height in meters (kg/m²).

The WHO definition is:

- a BMI greater than or equal to 25 is overweight
- a BMI greater than or equal to 30 is obesity

BMI provides the most useful population-level measure of overweight and obesity as it is the same for both sexes and for all ages of adults. However, it should be considered a rough guide because it may not correspond to the same degree of fatness in different individuals.

**Obesity Reasons**

- Physical inactivity (lack of proper physical exercise)
- Eating habits
  - Eating in between meals
  - Preference to sweets, refined, fats, preserved food
  - Composition & periodicity of meals
- Sedimentary life style
- Psychological Factors
  - Emotional disturbance
  - Depression and anxiety
  - Frustration and loneliness
- Problems of Endocrine glands
- Genes and Family History
- Medicines: Certain medicines may cause you to gain weight. These medicines include some corticosteroids, antidepressants, and seizure medicines.
- Smoking: Some people gain weight when they stop smoking. One reason is that food often tastes and smells better after quitting smoking.
- Lack of sleep

**Consequences of Obesity:** The obesity causes number of diseases. Some of them are:

- Bone and Cartilage degeneration (Osteoarthritis)
- Coronary Heart Disease
- Gallbladder Disease
- High blood pressure (Hypertension)
• High total cholesterol, high levels of triglycerides (Dyslipidemia)
• Respiratory problems
• Several cancers
• Sleep apnea
• Stroke
• Type 2 diabetes

This is specially designed food programme for reduction of weight. It includes the diet for three days as follows.

- First day – only fruits and raw vegetables. (no other food to be taken)
- Second day – only water with lemon juice & salt
- Third day – only juice & soups (liquid diet only)

Diet and exercise and yoga practice represent the mainstays of obesity treatment.

Food Habits

Normal food with less fat & carbohydrates but with high fibers. Best food is fruits (except banana, mango & grapes) vegetables.

Avoid non-vegetarian food, milk products (skimmed milk can be taken), rice, oily & spicy food, refined foods. Food in rich in calories, sugar.

Method

Objectives of the Study

- To examine the impact of yoga practice for reducing obesity.
- To examine the influence of yogic diet for reducing obesity
- To examine obesity with height, weight and BMI to find out the significance difference between obesity with yoga asanas/ yogic diet with height weight and BMI.

Sample

The sample consisted of 40 women of age between 25 to 45 years old who are obese

Tools: Height is measured by height scale, Weight is measured by weight scale

Procedure

The present study consist of three phases (The study follow quantitative research report).

In phase one permission was obtained from the department of yoga and consciousness of Andhra university and explain about the study.

The data was collected from the obese yoga class, sample of 40 obese females were data was taken for the study, on bases on their height weight and BMI they were given complete information about the study.

In the phase two, based up on the findings of base one data, a yogasana module and yogic diet interventions were designed. Yogaasanas and yogic diet is given for a period of 45 days.

Yogasanas(yoga postures)

In this study the researcher adapted and taught under the following Asanas, pranayama and diet, they are

- Basic preparatory movement
Suryanamaskaras 12 rounds. Asanas are Salabasana(locust pose), Bhujangasan(crobrapose), Dhanurasan(bow pose), Halasana(plough pose), Ardhamatsyendrasana(half spinal twist pose), Jataraparivrittanasana(revolved abdomen pose), Navasan(boat pose), Ushtrasana(camel pose), Viparitakarani(inverted pose), Matsyasana(fish pose), Pachimottanasana(back stretching pose), Pavanmuktasana(gas release pose), Chakrasana(wheel pose), Sethubandasana(bridge pose) and Savasana(corps pose).

Pranayama(Regulation of Breath)

Anuloma viloma pranayama(alternative breath), bhashrika(breath of fire), nadisodhana(alternative breath with holding).

Diet

- Early morning one glass of lemon with honey luke warm water.
- Breakfast fruits, salads and sprots.
- Afternoon cup of rice with steamed vegetable curry and one cup of dhal.
- Night large amount of fruits.

In phase three testing of effectiveness of the developed yogasana modules and yogi diet interventions were done on the group soon after completion of intervention of 45 day duration height weight and BMI

Results and Discussion

The data collected from the sample of yoga practitioners was analyzed to examine changes in weight, BMI and age obese. The results of the study are presented. It contains findings related to changes in BMI, weight and obese.

The data related to demographic variables, weight, height and BMI was analyzed at baseline and after yoga practice. A description of the sample is provided prior to the presentation of the results.

**TABLE – 1: Weight, BMI and Yoga practice**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Baseline</th>
<th>After yoga practice</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>Mean</td>
<td>74.95</td>
<td>71.25</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>5.18</td>
<td>5.15</td>
</tr>
<tr>
<td>BMI</td>
<td>Mean</td>
<td>31.01</td>
<td>29.31</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>0.65</td>
<td>0.53</td>
</tr>
</tbody>
</table>

P<0.01

From table 1 we can observe that yoga bought improvement in weight, BMI after yoga practice, though they are statistically significant difference in weight and BMI. Even in the yogic diet also shows the impact of weight and BMI.

**TABLE – 2: Weight, BMI and age group between 25-36 years**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>baseline</th>
<th>After yoga practice</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>Mean</td>
<td>73.30</td>
<td>69.30</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>3.71</td>
<td>3.84</td>
</tr>
<tr>
<td>BMI</td>
<td>Mean</td>
<td>30.93</td>
<td>29.13</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>0.65</td>
<td>0.59</td>
</tr>
</tbody>
</table>

P<0.01
The above table 2 shows the significance value of weight and BMI of age group of the yoga practitioner following with diet of age group 25 to 36 years old. There is more significant in weight and BMI of this age group comparatively the dimension of weight is more significant than the BMI.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Baseline</th>
<th>After yoga practice</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>Mean</td>
<td>76.60</td>
<td>73.20</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>5.97</td>
<td>5.64</td>
</tr>
<tr>
<td>BMI</td>
<td>Mean</td>
<td>31.08</td>
<td>29.49</td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>0.67</td>
<td>0.40</td>
</tr>
</tbody>
</table>

P<0.01

The above table 3 shows that the significance value of weight and BMI age group between 36 – 45 age group of female. The significance is more in the both dimensions the weight and BMI. The significance value is almost equal in both dimensions(Deboer, Lindsey Brooke Hopkins, 2014).

**Conclusion**

Although yoga may help manage conditions with overweight and obesity, such as low back pain, whether yoga helps with weight loss or maintenance beyond that which can be achieved with diet and exercise remains unclear. A search of multiple databases was undertaken identifying peer-reviewed studies on yoga, meditation, mindfulness, obesity, and overweight.

Studies on yoga and weight loss are challenged by small sample sizes, short durations, and lack of control groups. In addition, there is little consistency in terms of duration of formal group yoga practice sessions, duration of informal practices at home, and frequency of both. Studies do however suggest that yoga may be associated with weight loss or maintenance. Mechanisms by which yoga may assist with weight loss or maintenance include the following: (a) energy expenditure during yoga sessions; (b) allowing for additional exercise outside yoga sessions by reducing back and joint pain; (c) heightening mindfulness, improving mood, and reducing stress, which may help reduce food intake; and (d) allowing individuals to feel more connected to their bodies, leading to enhanced awareness of satiety and the discomfort of overeating. Thus, yoga appears promising as a way to assist with behavioral change, weight loss, and maintenance.

The study conducted on yoga and diet is an alternative therapy for reducing obesity.

**Major findings of the Study**
1. The practice of yoga bought improvement in weight, BMI, they are statistically significant difference in weight and BMI. Even in the yogic diet also shows the impact of weight and BMI.
2. Results shows the significance difference between weight and BMI of age group of the yoga practitioner of age group 25 to 36 years. There is more significant in weight and BMI of this age group comparatively the dimension of weight is more significant then the BMI.
3. The results shows that the significance value of weight and BMI age group between 36 – 45 age group of female. The significance is more in the both dimensions the weight and BMI. The significance value are almost equal in both dimensions.

From the above study it can be conclude that continuous practice of yoga and following yogic diet can reduce the weight and BMI, and also strengthen physical and mental health.
References:


