ROLE OF SIMPLIFIED KUNDALINI YOGA PRACTICES IN PREVENTION OF OBESITY AMONG WOMEN

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ABSTRACT
The aim of the study was to assess the final outcome of the effects after 3 months simplified kundalini yoga practices on obesity of women in Nilgiris Dist. In this randomized controlled study, 60 obese women patients in the age group of 30 to 45 were selected as subjects and assigned to three groups (SKY group n=20), (Walking Group n=20) and (Control Group n=20), among them 20 participants in the SKY experimental group were asked to attend one hour SKY yoga class for weekly 6 days except Sunday for a period of 3 months. Another 20 participants were given walking practices for daily one hour for a period of 3 months and no specific activity was given to Control group. The SKY yoga consists of meditation, Simplified exercises, Introspection and relaxation practices. Pre- and post-tests were measured before and after the session from the above three groups. Result found that the subjects of SKY yoga groups shown a very high significant change in Physiological variables than the walking group and control group. The study concluded that SKY yoga and relaxation techniques are better and beneficial therapy in the treatment of reduction and prevention from obesity among women.

KEYWORDS: Obesiry, Stress, Anxiety, Meditation, Simplified Kundalini Yoga.

INTRODUCTION
Our modern day lifestyle is too hectic and puts a lot of stress on us which in turn causes a lot of lifestyle problems like obesity, hypertension, high cholesterol, back pain, diabetes, heart disease, arthritis etc. Yoga is the answer to all these problems. It offers harmless solutions to these problems in the form of relaxation. Studies in the field of medicine suggest that Yoga is the only form of physical activity that provides complete exercise to the body as it incorporates different aspects of science, philosophy and art. It is one of the most effective and integrated systems for gaining control and experiencing supreme joy in life.

SIMPLIFIED KUNDALINI YOGA
If our life must be happy, successful and harmonious, good physical health is indispensable. Realizing the importance of proper exercise and meditation, Thathuvagnani Vethathiri Maharishi has synthesized and simplified the earlier ones and dedicated it to the humans through Simplified Kundalini Yoga meditation, Physical Exercises, Kaya Kalpa Yoga and Introspections. The Simplified Kundalini Yoga (SKY) is also called as Manavalakalai Yoga.

OBESITY
The term obesity implies an excess of adipose tissue, but the meaning of excess is hard to define. Obesity is an over accumulation of body fat that adversely affects physical and mental health. There has
been an increase in adult obesity in the United States. Signs of acceleration of obesity have been noted in most countries (Stevens et al., 2012). In the US, the prevalence of obesity rises from 20 to 60 age group and decreases thereafter (Flegal et al, 1998; Mokdad et al., 2001).

REASONS FOR OBESITY

- Lack of physical activity
  1. Lack of exercise, No physical movement, driving cars and other vehicles.
  2. Sitting and watching TV, movies, working on computers
- Eating habits:
  1. Eating in between meals
  2. Composition and periodicity of meals
  3. Consuming cold food from fridge all the time
  4. Preference to sweets, refined food, fats, preserved food
- Psychological factors as:
  1. Emotional disturbances
  2. Depression and anxiety
  3. Frustration and loneliness
  4. Hormonal problem
  5. Family tendency

Assessment of Obesity

1. Body Mass Index = Weight in kg/(Height in meter)\(^2\) (Height in meter)
   - If the BMI is in between 19 to 23, it is considered as normal and it is more than 23 it is obesity.
2. Waist to Hip Ratio = If it is more than 1 in male is Obesity and 0.85 in females.

Ways to get rid of obesity:

1) Regular exercise, yoga asana, meditation etc.
2) The timing of the Lunch and dinner should be fixed
3) Intake of low fat meal, fiber rich vegetables and fruits
4) When taking meals reduce fats, excess calories, sweets, milk, butter etc.
5) Not to sleep for more than 6 to 7 hours
6) Addiction such as smoking, drinking alcohol or any other drugs should be stopped
7) Daily diet schedule from dietician shall be followed.

Simplified Kundalini Yoga practices and Obese:

Yoga is a natural and holistic remedy obese patient. SKY therapy is a multifunctional exercise modality with numerous benefits. Regular practice of simplified exercise such as hand, leg, breathing and maharasana exercises along with regular meditation results to reduction of overweight. The meditation and relaxation in SKY yoga initiate a “relaxation response” in the neuro endocrinal system that harmonizes the physiological system. This consists of decreased metabolism, decreased rate of breathing, decreased blood pressure; decrease tension of muscle, decrease heart rate and the brain waves comes Beta to Alpha level. Regular practice of Simplified Kundalini Yoga exercise, kayakalpa practice and meditation works on all aspects of obesity or excess weight (physical, emotional and mental).

SKY yoga changes the life style and reduces, depression, anxiety and it leads to reduction of overweight.

MATERIAL AND METHODS
In this randomized controlled study, 60 patients in the age group of 25 to 45 with obese women patients were selected as subjects from The Nilgiris District, Tamil Nadu, India and assigned to three groups, among them SKY group n=20, walking group n=20 and control group n=20. Participants in the experimental group were asked to attend one hour SKY yoga class for weekly 6 days except Sunday for a period of 3 months in the Yoga centre. Consent was obtained from study participants and the subjects were familiar with the aims and objectives of the study. The study groups are practicing 20 minutes of Simplified exercise (Yoga), 20 minutes of meditation; 10 minutes relaxation practices and 10 minutes introspection awareness class were given. The 20 patients from walking group were given walking practices daily one hour in the morning for three months and the 20 patients from control group were did not receive any yoga interventions. Each group was evaluated after 3 months. Pre test and post test from the data of physiological variables on both the groups at the beginning and at the end of 3 months.

Data Analysis

Table 1: Analysis of Covariance for the Pre and Post-Test on BMI of SKY Yogic Practices Group, Walking Group and Control Group

<table>
<thead>
<tr>
<th>Test</th>
<th>Group1</th>
<th>Group2</th>
<th>Group3</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>30.175</td>
<td>29.66</td>
<td>26.57</td>
<td>2</td>
<td>152.0623</td>
<td>76.03117</td>
<td>0.142727</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>57</td>
<td>618.5475</td>
<td>10.85171</td>
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<td></td>
<td>57</td>
<td>454.4835</td>
<td>7.973395</td>
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</tr>
<tr>
<td>Adjusted</td>
<td>25.62226</td>
<td>27.63454</td>
<td>28.7482</td>
<td>2</td>
<td>86.10584</td>
<td>43.05292</td>
<td>11.77883</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>56</td>
<td>204.6862</td>
<td>3.655111</td>
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<td></td>
<td></td>
<td></td>
<td>290.792</td>
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<tr>
<td>Mean Difference</td>
<td>3.68</td>
<td>1.48</td>
<td>-0.76</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Significance at 0.05 level with df 2 and 57 and 2 and 56 are 3.15 and 3.16 respectively.

Table-1 shows that the adjusted post-test means values of BMI for simplified kundalini yoga group, walking group and control group are 25.622, 27.634 and 28.748 respectively. The obtained F-ratio of 11.77 for adjusted posttest mean is greater than the table value of 3.16 for df 2 and 56 required for significant at 0.05 level of confidence. It indicates that there is significant difference among the adjusted post-test means of simplified kundalini yoga group, walking group and control group on the BMI.

To determine which of the paired means had a significant difference, the Scheffe’s test was applied as Post hoc test and the results are presented in Table-2.

Table 2: Scheffe’s Test for the Differences between the Adjusted Post-Test Paired Means on BMI

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>CD</th>
</tr>
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<tbody>
<tr>
<td>Group1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.62226</td>
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<td>2.012276</td>
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<tr>
<td>25.62226</td>
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<td>27.63454</td>
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<td>1.113658</td>
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</tbody>
</table>

*Significant at 0.05 level.

Table-2 depicts that the adjusted post-test mean differences on simplified kundalini yoga group and walking group, simplified kundalini yoga group and control group, walking group and control group are 2.012, 3.125 and 1.113 respectively. The value is greater than the confidence interval value 2.728 which shows significant differences at 0.05 level of significance. This shows that there is significant difference in
BMI between the adjusted post-test means of simplified kundalini yoga group and walking group, simplified kundalini yoga group and control group, walking group and control group. However, the improvements of BMI were significantly higher for sky yoga group than walking group and control group. It may also be concluded that Simplified kundalini yoga Group is better than Walking Group and Control Group in improving BMI.

The mean and adjusted values of pre and post-test of simplified kundalini yoga group, walking group and control group on BMI are graphically represented in the Figure-1.

CONCLUSION

The findings of the study shows that SKY practices such as simplified exercises, meditations have significant and positive influence by reduction of overweight and obesity among women. The finding also shows that SKY practices have significant and positive influence by decreasing the Stress and anxiety and improve self confidence.

REFERENCES