IMPACT OF COMMUNITY-BASED INTERVENTIONS ON BMI, PARENTAL KNOWLEDGE, AND LIFESTYLE OF OVERWEIGHT AND OBESE CHILDREN IN SCHOOLS IN LUCKNOW, UTTAR PRADESH

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ABSTRACT

All mothers like a healthy child, so they encourage eating more, unknowingly, it also affects health. So, increasing prevalence of obesity has become a most common and serious nutritional disorder in children. Manybelieve that childhood fat is puppy fat, which children will lose as they grow up. But children who are obese before age five seem to have greater risk of adult obesity. This study is undertaken to assess the effectiveness of community-based intervention on level of BMI, parental knowledge and lifestyle practices among overweight and obese children in selected schools at Lucknow, Uttar Pradesh. The objectives for the study was To evaluate the effectiveness of community-based intervention on level of BMI, parental knowledge and lifestyle practices among overweight and obese children in experimental group and control group. The study was conducted in in selected schools at Lucknow, Uttar Pradesh. A quasi experimental with control design was used to determine the effectiveness community-based intervention to reduce obesity. Totally 500 school children were participated in the study on the basis of inclusion criteria. Each group consisted of 248 and 252 school children and selected by purposive sampling technique. The feasibility of the study was found out through pilot study. BMI score was used to assess the level of obesity among school children. The data was analyzed by using descriptive and inferential statistics. The study findings revealed that, the school-based interventions were effective in reducing the BMI level, improving parental knowledge and lifestyle practices among overweight and obese children in experimental group than control group.

Keywords: *Obesity, school children, BMI*

INTRODUCTION

India adopted a multi-sectoral, multi-pronged strategy to compact nutritional problem to improve the nutritional status of the country.This was followed by green revolution and industrialization. India adopted open market policies, which brought in rapid industrialization throughout the country. Tenth Five-Year Plan showed that although under nutrition and micronutrient deficiencies continue to be major public health problems, over nutrition and obesity are also emerging as a major health problem in many states.

In worldwide prevalence rate of obesity increases very rapidly. According to WHO, more than 25 denote overweight and more than 30 denote obesity. The conditions of overweight and obesity primarily occurs due to energy imbalance between calorie consumed, calorie exhausted and excessive intake with lack of physical activity.

OBJECTIVE OF THE STUDY

To evaluate the effectiveness of community-based intervention on level of BMI, parental knowledge and lifestyle practices among overweight and obese children in experimental group and control group.

REVIEW OF LITERATURE

The reviews were collected from various sources like books, journal, and periodicals and also electronic sources such as PubMed / Medline, CINHAL, Science direct, Research gate, EMBASE, PoLOS, Cochrane data base and Google scholar provide back ground information to the study and help us to understand various concepts of overweight and obesity. Micic D, et.al (2013) conducted A Systematic Review prevalence of overweight and obesity in adolescents in the age group of 10-19 years of both sexes. The researcher searches the articles from Medline and Scopus publishing from 2012 to find out the prevalence of overweight and obese. the result reveals that the prevalence of overweight and obesity among worldwide is high, the obesity is higher among boys. Obesity is becoming a serious Global Public Health issue especially in developed countries. Evidence indicates that obesity is associated with wide range of health conditions including respiratory diseases can result in altered respiratory function. Yoga is a form of physical activity which may assist in achieving recommended levels of physical fitness. Yoga may be attractive as an aerobic training program because it requires little space and no equipment. Some yoga postures help to reduce weight with significant health benefits. Prospective comparative cross-sectional study was conducted in Rural Community. Total 60 subject's male and females diagnosed with Obesity by WHO criteria. Out of 60, 30 subjects

were divided into two groups by random sampling method that is group I and II. After explaining procedure both groups were revaluated for baseline parameters like BMI and pulmonary functions. Group I investigated with aerobic exercise that is walking and Group II investigated with pranayama & postures of yogathat can help to reduce weight. Statistical analysis was done for comparison of both groups. After applying "t" test pre yoga practice and aerobics also post yoga and aerobics practice data shows highly significance difference between mean and standard deviation values of all parameters in group II the p value <0.01. The study concludes that regular practice of yoga is really helpful in weight reduction & improves the pulmonary functions.

MAJOR FINDINGS OF THE STUDY

- At pre-test, among 230 (92.74%) of children were overweight and 18 (7.26%) were obese children. At post-test, 131 (52.82%) of children were overweight, 114 (45.97%) were normal and 3 (1.21%) were obese children in experimental group.
- In pre-test, among 226 (89.68%) of children were overweight and 26 (10.32%) were obese children. At post-test, 224 (88.89%) of children were overweight, 21 (8.33%) were obese children and 7 (2.78%) were normal in control group.
- At pre-test, 222 (89.52%) of parents had inadequate knowledge, 24 (9.68%) had moderately adequate knowledge and 2 (0.8 %) had adequate knowledge. At post-test, 60 (24.19%) of parents had inadequate knowledge, 97 (39.11%) had moderately adequate knowledge and 91 (36.79%) had adequate knowledge in experimental group.
- In pre-test, 228 (90.48%) of parents had inadequate knowledge, 21 (8.33%) had moderately adequate knowledge and 3 (1.19%) had adequate knowledge. At post-test, 220 (87.3%) of parents had inadequate knowledge, 28(11.11%) had moderately adequate knowledge and 4 (1.59%) had adequate knowledge in control group.
- At pre-test, 210 (84.68%) of samples had inadequate practice, 33 (13.3%) had moderately adequate practice and 5 (2.02%) had adequate practice. At post-test, 92 (37%) of samples had inadequate knowledge, 118 (47.58%) had moderately adequate practice and 38 (15.32%) had adequate practice in experimental group.
- In pre-test, 218 (86.51%) of samples had inadequate practice, 28 (11.11%) had moderately adequate practice and 6 (2.38%) had adequate practice. At post-test, 213 (84.52%) of samples had inadequate knowledge, 31 (12.3%) had moderately adequate practice and 8 (3.18%) had adequate practice in control group.
- In experimental group, the mean BMI score at pre-test and post-test were 26.57±1.454 and 23.64±2.888. The reduction of BMI was 2.93±1.434. Thus, the reduction of BMI within experimental group was statistically significant at p< 0.05 level. In control group, the mean BMI score at pre-test and post-test were 26.99±11.894 and 26.88±1.931. The reduction of BMI was 0.11±9.963. Thus, the reduction of BMI within control group was statistically not significant at p< 0.05 level.
- The mean knowledge score at pre-test and post-test were 34.75±12.47 and 61.92±14.26. The improvement of knowledge was 27.17±1.79 in experimental group. The mean knowledge score at pre-test and post-test were 26.2±14.03 and 36.79±16.77. The improvement of knowledge was 10.59±2.74 in control group. Thus, the improvement of parental knowledge within experimental group and control group was statistically significant at p< 0.05 level.
- In experimental group, the mean score of lifestyle practices at pre-test and post-test were 33.38±17.38 and 55.75±17.2. The improvement of lifestyle practices was 22.37±0.18. In control group, the mean score of lifestyle practices at pre-test and post-test were 31.47±16.29 and 36.57±16.04. The improvement of lifestyle practices was 5.1±0.25. Thus, the improvement of lifestyle practices within experimental group and control group was statistically significant at p< 0.05 level.
- The mean reduction of BMI was 2.93±1.434 in experimental group and 00.11±9.963 in control group. Similarly, the mean improvement ofparental knowledge was 27.17±1.79 in experimental group and 10.59±2.74 in control group. The mean improvement of lifestyle practices was 22.37±0.18 in experimental group and 5.1±0.25 in control group. From the above results,there was a significant reduction in the levels of BMI, improvement of parental knowledge and lifestyle practices between experimental group and control group.

CONCLUSION

The study findings revealed that, the school-based interventions were effective in reducing the BMI level, improving parental knowledge and lifestyle practices among overweight and obese children in experimental group than control group.

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