

ABSTRACT

The current study establishes the framework for extensive research in the field of Metabolic syndrome and Body composition and the underlying causes, prevalence rate, Knowledge, Attitude and Practice (KAP) towards a healthy lifestyle with a comprehensive lifestyle education awareness. The study's objectives were to: evaluate the prevalence of metabolic syndrome, analyse body composition, evaluate the subjects' KAP and educate on a healthy lifestyle. A total of 1359 participants, both males and females at 20-50years, residing in Bengaluru, visiting the Preventive Health Checkup of Sakra World Hospital, Bengaluru were enrolled. Validated assessment tools, InBody 770 equipment and lifestyle education counselling materials were used in the study. Metabolic syndrome was prevalent at 13.2%. The physical inactivity, smoking, alcohol habit, high calories consumption and low BMR were found to be the risk factors for metabolic syndrome and statistically significant $p < 0.001$. The metabolic syndrome criteria (NCEP ATP III 2002, revised in 2005) were significantly high in metabolic syndrome subjects. Out of 180 metabolic syndrome subjects 150 participated in further study. Body composition analysis was done for these subjects. Central obesity was observed in 11.9%, high blood pressure among 15.4%, high triglycerides in 26.0%, low HDL-cholesterol among 31.9% and high fasting glucose in 3.7% of the metabolic syndrome subjects. The body composition parameters of total body water, protein, minerals, skeletal muscle mass, BMR and whole body phase angle was high in males and females had higher body fat mass, BMI, body fat% and visceral fat area and the values were statistically significant $p < 0.001$. The lifestyle intervention was given for these subjects and the data was compared pre-and post intervention. Postinterventional data showed statistical significance for the reduction in waist circumference, fasting blood sugars, triglycerides, systolic blood pressure, calories consumed to attain weight loss goals, body fat%, visceral fat area. There was statistically significant increase, post-intervention in exercise habit, physical activity level, knowledge, attitude and practice regarding healthy diet, physical activity, body composition and healthy lifestyle. Thus, a combination of diet, physical activity and healthy habits improved the overall health status of the subjects.

Key words : Metabolic syndrome, NCEP ATP III, Body composition, InBody 770, KAP, Lifestyle.