



# A PRE AND POST SURVEY TO DETERMINE KNOWLEDGE ON OBESITY AND OVERWEIGHT AMONG IT EMPLOYEES

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**Abstract:** The present study was undertaken with the objective of assessing the knowledge level about obesity and overweight among IT employees in the age group 20-30 years. Totally 100 samples were taken in the age group 20-30 years using purposive sampling methods. The framed questionnaire was given to the samples which consists of i) Background data, ii) Anthropometric measurements, iii) Dietary habits and iv) Consumption pattern was given to assess the obese and overweight individual. Pre assessment was given which consists of knowledge of nutrients and nutrition education and finally post assessment was given to assess their knowledge. Nutrition education should be implemented to all the IT professionals to prevent obese and overweight.

**Index Terms - obesity and overweight, nutrition education, IT employees, BMI, pre-post assessment**

## I Introduction

Obesity is a greater public health problem than communicable diseases in today's world. It is a well-known and established fact that obesity not only reduces life expectancy, but also decreases the quality of life. The increase in body mass index (BMI) arises because of increasing sitting time in offices. Each adult spends one fourth of their lives at the workplace, and the stress and work load can disturb their eating habits and physical activity schedule, which are major causes of obesity and overweight. Overweight and obesity has been found to be an important risk factor for various non-communicable diseases, and more recently, obesity has been recognized as a disease in itself. Work-related stress can alter appetite and hunger and, as a consequence, proper eating behavior and nutrition. Recently, studies have shown that when people face a stressful situation, a chain reaction releases cortisol, a hormone involved in the accumulation of body fat. The incidence of obesity is increasing in both developed and developing countries.

## II Methodology

The methodology pertaining to the present study "A PRE AND POST SURVEY TO DETERMINE KNOWLEDGE ON OBESITY AND OVERWEIGHT AMONG IT EMPLOYEES" is described under the following phases.

**Research approach:** Qualitative research approach is essentially about collecting numerical data to explain a particular phenomenon, particular questions that seem immediately suited to being answered using qualitative methods. The qualitative research approach was used for the present study.

**2.1 Selection of area:** The samples were among early adults of IT employees from selected companies.

**2.2 Selection of sample and sampling technique:** A sample is the basic element of the population about whom the information is collected to represent the concept of interest. A sample is a subset of the population that is selected for a particular study and the members of a sample are the subject (Polit D F). Purposive Sampling method was used for the selection of the samples of IT sector (N=100) from selected companies of age group (20-30 years) as the prevalence rate of obesity and overweight is higher among them which is required for the study.

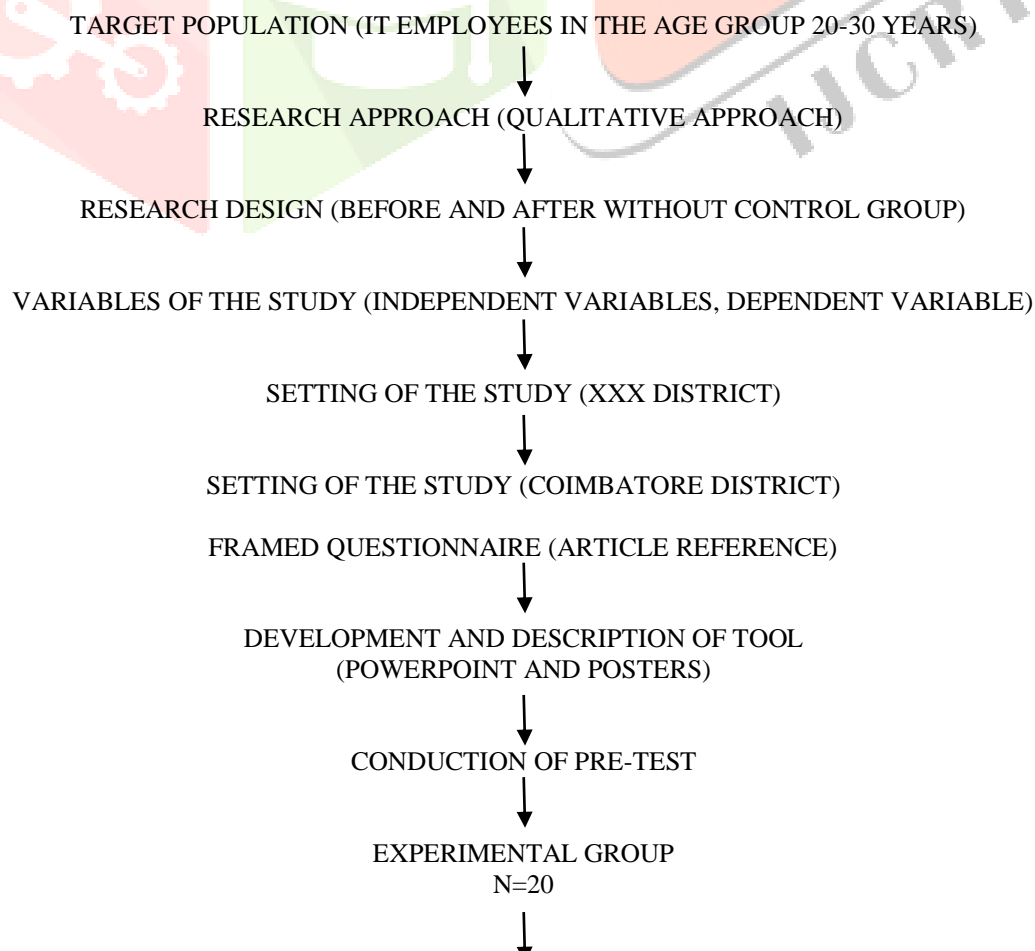
### 2.3 Variables of the study

**Independent variable:** Obesity and overweight are considered as independent variable for this study.

**Dependent variable:** Knowledge level of the sample is considered as dependent variable for this study.

**2.4 Data collection method:** The assessment consisted of a structured self-administered questionnaire of 48 items to assess the knowledge of the subjects based on nominal scale. The questionnaire was collected through google forms. Anthropometric measurements included in this study are weight, height, waist circumferences and hip circumferences. Body Mass Index was calculated using weight in kilograms divided by height in meters squared. Based on their BMI the adults were classified into four groups: underweight (BMI <18), normal (BMI -18 – 22.9), over weight (BMI - 23 – 24.9), class I obesity (BMI - 25 – 29.9), class II obesity (BMI – 30 –34.9) and class III obesity (BMI – 35 –35.9) as per ICMR and Indian Dietetic Association recommendation.

**2.5 Pre and post assessment:** The validated questionnaire was shared to the experimental group. Consent was included in the questionnaire along with socio-demographic sheet which were obtained from willing participants for the study. Pre-test was conducted before the Nutrition education. Participants marked their responses and submitted the forms. The questionnaire was filled by the participants by using the link- Google forms. The participants of the experimental group (n=20) scheduled their availability for the intervention program. The first level education which was designed to bring the behavioural changes and dietary changes among obese adults from selected experimental group. The second level education which was designed to bring the knowledge on role of nutrients like carbohydrates, fats, protein and fibre among obese adults from experimental group. The education was administered to the selected experimental group (n=20) for attaining them with a core knowledge of nutrients plays a role in preventing obesity and overweight. After one week of the education program, knowledge of obese and overweight adults was assessed by the conduction of post-test. The questions are short and answerable for the ease of IT employees. The participants marked their answers and submitted the responses through the google forms. The data was collected from 20 obese adults in experimental group and the data obtained was coded and edited to fit in to the excel sheet. The data was analysed by using descriptive and inferential statistics with the help of software (SPSS V2.0).



EDUCATION I ON DIETARY AND LIFESTYLE MODIFICATIONS USING AUDIO VISUAL TOOL



NUTRITION EDUCATION (KNOWLEDGE ON NUTRIENTS) USING AUDIO VISUAL TOOL



CONDUCTION OF POST-TEST



IMPACT ON PRE AND POST ASSESSMENT AMONG IT EMPLOYEES



STASTICAL ANALYSIS

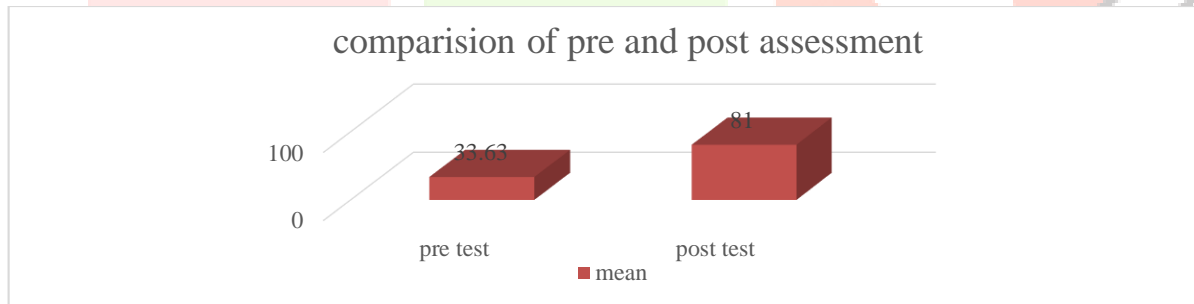
### III RESULTS AND DISCUSSION

The age and marital status of IT employees were presented. From the taken samples (N=100), about 39% of men and 34% of women were in the age of group of 20-25 years, 20% of men and 7% of women were in the age group of 25-30 years. Out of 100, 7% of employee were in the BMI of 23-24.9 those considered as overweight and 13% of employees were above the BMI range of 25, known as obese condition. The data collected shows that 60% of employees were working in a seated position for about more than 8 hours. For the results of experimental group, the mean and standard deviation for pre and post assessment was assessed.

Table-I comparison of pre and post knowledge

Samples	Groups	Pre-test Mean ±SD	Post-test Mean ±SD	t-value	P value
20	Experi-mental group	33.632 ±3.04	81.002 ±9.08	3.221	.000

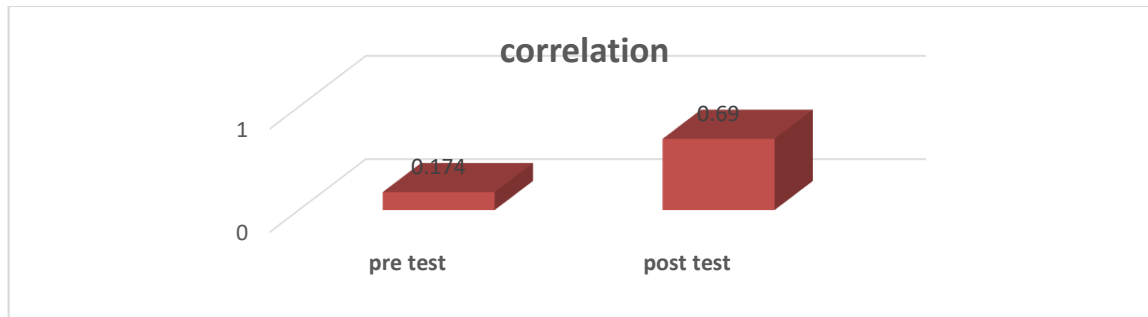
FIGURE I



Pre-knowledge among experimental group of mean and standard deviation was  $33.632 \pm 3.04$  and for post knowledge was  $81.002 \pm 9.08$  and computed t-value is 5.221. Hence, it is evident that there is an average difference between pre and post knowledge among experimental group.

Table II- correlation between pre and post knowledge

Samples		Karl Pearson r value	P value
20	Pre	.174	.003
	Post	.690	.000
	Change in pre and post (relation)	.840	.000

**FIGURE II - The correlation relation between pre and post knowledge**

The data presented in the table-II, shows that there is a significant correlation between pre knowledge ( $r=0.174$ ) and post knowledge ( $r=0.690$ ). It showed that correlation was weak in pre-test whereas in post-test there was good correlation. Moreover, from the table is evident that there was strong positive correlation between change in knowledge due to education and change in pre and post ( $r=0.840$ ).

#### IV CONCLUSION

Nutrition education should be implemented to all the IT professionals to prevent obese and overweight. Health education on overweight and obesity must be provided in all Software solutions as well as in the community. The health professional could arrange periodical educational program on overweight and obesity in the community.

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