

Research Article**Screening of Social Anxiety Disorder in the Overweight and Obese Subjects
Attending Obesity Clinic**

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Abstract: Obesity is a complex, chronic disorder with potentially serious medical, psychiatric and psychological morbidity. Society has created a widely accepted physical stereotype regarding thinness and beauty. The stigma of obesity, and particularly the prejudice and overt discrimination create enormous distress and hampering in social functioning. Obese individuals who seek treatment may suffer greater levels of social anxiety and are more likely to experience body image concerns, e.g. thinking of their body as “grotesque”. So, my purpose is to screen for social phobia in obese patients. Research was carried out in the obesity clinic, The Ramakrishna Ashram Hospital, Rajkot. Subjects’ general data were filled in Socio-demographic Performa sheet and The Social anxiety was screened by Mini-SPIN scale. Out of 100 patients, female patients (29%) were having more social anxiety than male patients. Regarding the correlation with severity of obesity, mild and severe obese patients were having more social anxiety than pre-obese and moderately obese patients (44 % and 50% respectively). In our study we found that obese patients are likely to have more social anxiety and it need to be addressed in comprehensive treatment plan of obesity.

Keywords: The social anxiety disorder, Obesity.

INTRODUCTION

Obesity has reached epidemic proportions globally. Worldwide, obesity has more than doubled since 1980. In 2008, >1.4 billion adults were overweight and of these over 200 million men and 300 million women were obese [1]. Thus, Obesity has become a major contributor to the global burden of chronic disease and disability.

Obesity is a complex, multifactorial chronic disease, involving environmental (social and cultural), genetic, physiologic, metabolic, behavioral and psychological components [2].

Obesity is associated medical problems like hypertension, coronary arteriosclerosis, elevated cholesterol, type 2 diabetes, stroke, certain types of cancers etc. and psychological problems such as lower self-concept, negative self-evaluation, decreased self-image, anxiety and depression. However, to tackle this growing epidemic, psychosocial problems are generally not receiving much attention as diet, exercise and medical problems (like hypertension, coronary heart disease, diabetes etc.).

Society has created a physical stereotype regarding lean figure and beauty. The stigma of obesity, the prejudice and overt discrimination create enormous distress and hamper in social functioning. Obese persons who seek treatment may suffer high level of social anxiety and are more likely to experience body image concerns, e.g. thinking of their body as “grotesque”. So, the purpose of this research is to screen social anxiety in obese patients.

Aims and Objectives

- To screen overweight and obese patients for social anxiety.
- To find out the co-relation between social anxiety and severity of obesity.
- To explore gender differences and age distribution amongst the obese subjects with social anxiety.
- To find out relation between marital status and social anxiety amongst obese subjects.

MATERIALS AND METHOD**Study setting**

The research was carried out in the obesity clinic of the Ramakrishna Ashram Hospital, Rajkot-Gujarat. This institute runs by a trust with an attached secondary care hospital and physiotherapy centre. Its

catchment areas include the district of Rajkot and nearby districts of Morbi and Junagadh.

Operational definitions

Normal body weight is defined as a BMI in the range of 18.5–24.9; BMI is computed as a body weight in Kg divided by the square of height in meters. Overweight is defined as a BMI in the range of 25-29.9. The obesity is classified as BMI of ≥ 30.0 [3]. Further classification of obesity: BMI of 30-34.99 is mild, 35-39.99 is moderate obesity and BMI $\geq 40\text{kg/m}^2$ is defined as morbid or severe obesity [4].

Sample selection and procedure

Patients of any age, classified as pre obese and obese and willing to sign an informed consent for the study were included in the study. A sample of 100 consecutive subjects was selected and an informed written consent was taken from all subjects and relatives.

The data regarding the demographic details and clinical profile of subject was collected in a specialized case record form prepared for the study. Their weights and heights were measured and BMIs were calculated.

The Mini social phobia Inventory (Mini-SPIN) was used to screen for the social anxiety amongst subjects. The scores were documented in a case record forms. The data collected was pooled, tabulated and subjected to statistical analysis.

Materials used

Mini social phobia Inventory (Mini-SPIN)

It is 3 item self-rated scale used to screen for generalized social anxiety disorder (SAD). The Mini-SPIN was developed by Dr. Jonathan Davidson of Duke University Medical Centre based on the longer 17-item social phobia inventory (SPIN).

Using a cutoff score of 6 or greater, the Mini-SPIN demonstrated a sensitivity of 88.7%, specificity of 90%, positive predictive value of 52.5%, and negative predictive value of 98.5% [5]. The scale possessed 90% accuracy in diagnosing the presence or absence of GSAD in a managed care population. The Mini-SPIN demonstrates good efficiency, supporting its utility as a screening tool for generalized social anxiety disorder.

RESULTS

Several studies have assessed rates of psychiatric disorders among obese adults who were presenting for weight loss. Clinical studies using diagnostic interviews have generally found obese individuals to demonstrate high levels of psychopathology, particularly affective disorders, in comparison to non-obese controls [6-8]. Amongst the affective disorders stronger associations were observed between anxiety disorders and obesity than between mood disorders and obesity [9, 10]. Results of my study are as follows:

Social anxiety and obesity severity

Out of 100 study subjects 26 subjects were screen positive for social anxiety. The rate of social anxiety was found the lowest among the pre obese subjects (5.26%) and the highest rate was amongst severely obese subject (50%).

Previous studies in literature shows that obese subjects suffer more from social anxiety with increasing severity of obesity-that is direct proportional relationship [11]. But, here we saw that there is less social anxiety among moderately obese subjects than mild ones. This distortion could be due to gender bias and more numbers of male subjects in moderately obese group (table-1).

Gender of obese subjects and social anxiety

The females at any weight tend to have greater body dissatisfaction. Previous researches have evaluated that females would be more vulnerable to psychological consequences of obesity [12]. In my study also social anxiety appeared to be more frequent in females that are 29 % than males. This result doesn't seem to be surprising given the relatively greater social pressure and importance to self concept thinness for women in Indian scenario.(table-2)

Age of subjects and social anxiety

Rate of social phobia was the highest amongst the subjects having age less than 20 years (42.86%). (Table-3).

Marital status and social anxiety

Social phobia was high among single and divorced person (30% and 50% respectively) than the married subjects. This finding is very well correlated with high social anxiety in age group less than 20 years as most of them are usually single.(Table-4).

Table 1: Social anxiety and obesity severity

Severity of Obesity	Number of subjects	Social anxiety screening test positive	Percentage
Pre obese	38	2	5.26
Mild obesity	36	16	44.44
Moderate obesity	18	4	22.22
Severe obesity	8	4	50
Total	100	26	26

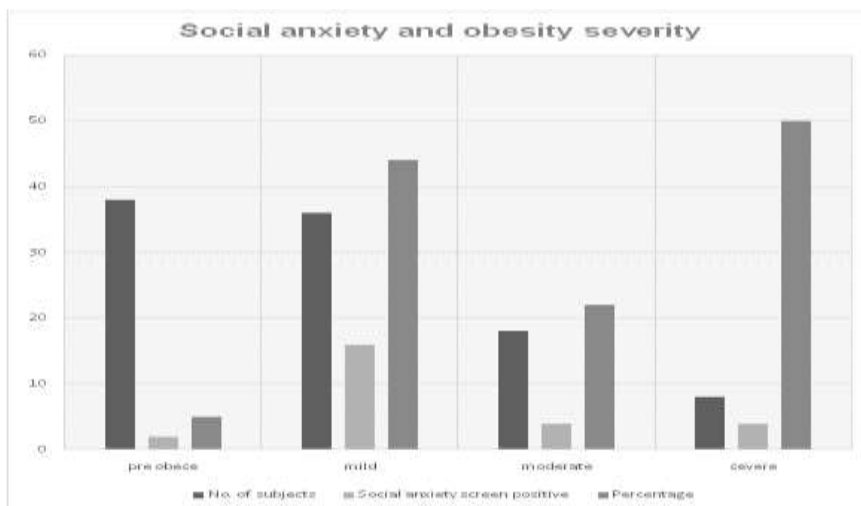


Fig. 1: Social anxiety and obesity severity

Table 2: Gender of obese subjects and social anxiety

Gender	No .of subject	Social anxiety screening test positive	Percentage
Male	32	6	18.75
Female	68	20	29.41
Total	100	26	26

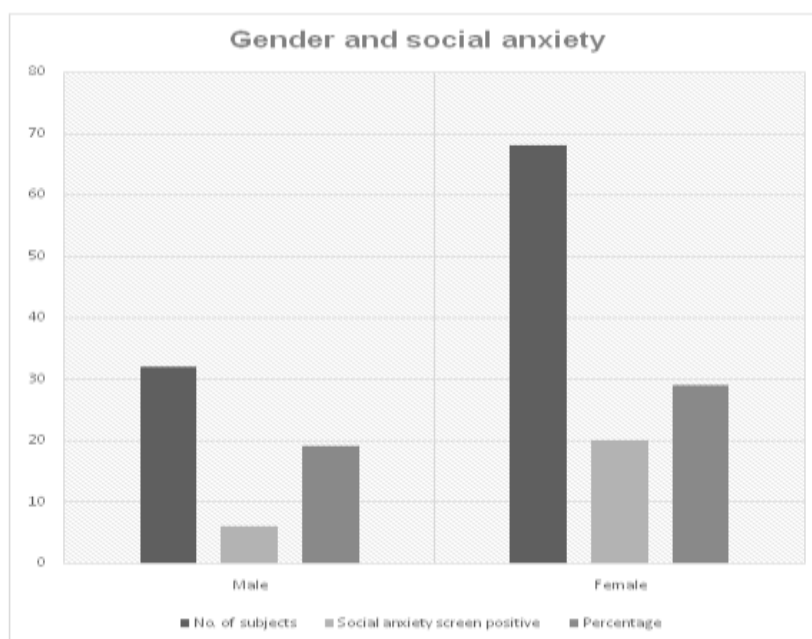


Fig. 2: Gender and social anxiety

Table 3: Age of subjects and social anxiety

Age group	No. of patient	Social anxiety screening test positive	Percentage
< 20	14	6	42.86
20 – 40	62	12	19.35
40 - 60	24	8	33.33
> 60	0	0	0

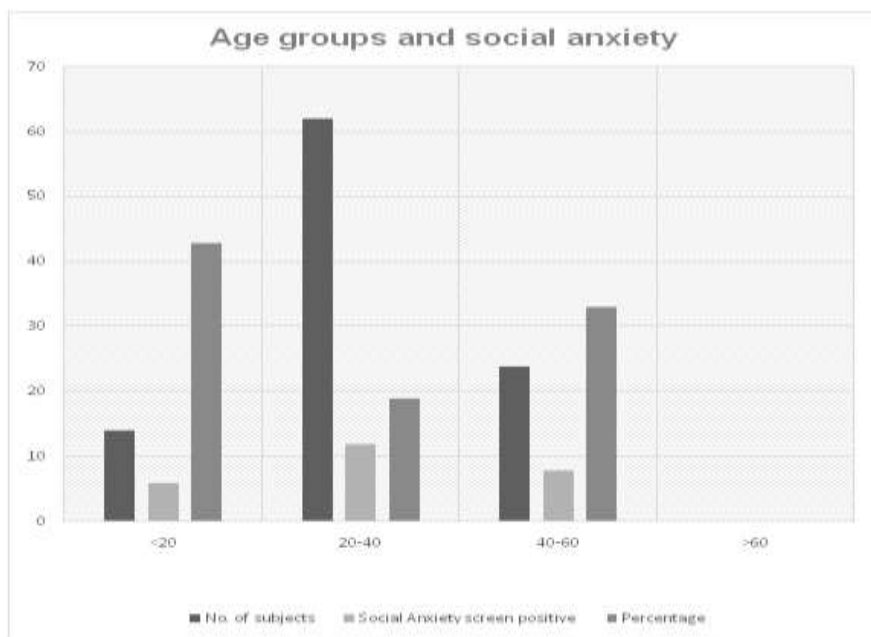


Fig. 3: Age groups and social anxiety

Table 4: Marital status and social anxiety

Marital status	No. of patient	Social anxiety screening test positive	Percentage
Single	20	6	30
Married	76	18	23.68
Divorced	4	2	50

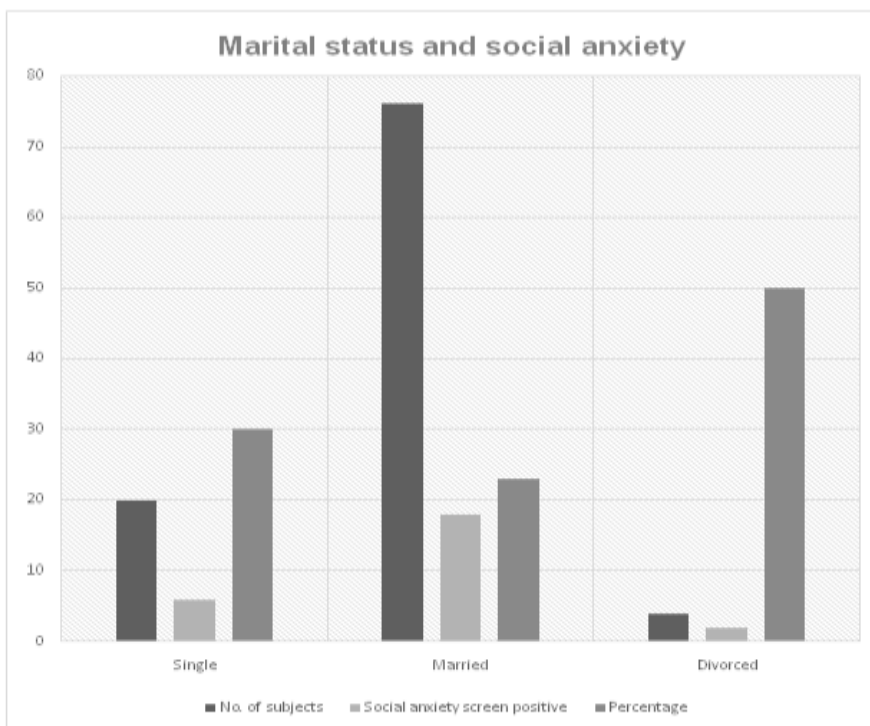


Fig. 4: Marital status and social anxiety

CONCLUSION

In our study we found that obese subjects are likely to have more social anxiety. The psychosocial issues of obesity carry as much importance as diet,

exercise and medical issues in management of obesity and it need to be addressed in comprehensive treatment plan of obesity.

Limitations of Research

The findings of this study are based on only one stage screening. The findings need to be replicated in further two-stage study employing structured clinical interview for more valid conclusions.

This study has not explored the common co-morbidities i.e. major depression, other anxiety disorders and relationship with personality disorder. Future studies on this aspect are also needed.

Follow up studies are not included in the study. Further assessment of subjects in follow up visits would give more information about the persistence of anxiety symptoms or their disappearance after weight loss.

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