

Quality of Life in Obese Patients- Gender Differences

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Abstract

Objective: To assess the gender differences in Quality of Life (QoL) in patients with obesity.

Methods: A descriptive survey was conducted among 220 patients (110 males and 110 females) attending OPDs of a tertiary care hospital, Kerala using a standardized questionnaire SF 36 (version 1.0). Convenience sampling technique was used

Findings: The major co morbidity found among the subjects was diabetes mellitus ie.72 (65.5%) in males and 56 (50.9 %) in females .The percentage of males as per the obesity category i.e. Class I, II, III were 40, 36.5 and 23.5, where as that of the females were 60.9, 31.8 and 7.3 respectively. The mean QoL was found to be slightly above average for males (51.19+/- 12.54) than the females (48.79 +/- 12.86.). Of the 8 domains, the QoL in males were found to be poor in two domains where as in females it was poor in four domains. The physical component scores (PCS) were found to be better in both sexes i.e. 55.89 +/- 19.07 and 52.68 +/-21.04 compared to the mental component scores (MCS) i.e. 50.03+/-13.35 and 48.84+/-14.01.

Conclusion: The study has highlighted a poor QoL in obese women especially in the mental component scores in spite of a higher proportion of morbid obesity and DM in men.

Keywords: Obesity, Quality of life, Gender differences

Introduction

Obesity is reflected as a chronic and multifactorial disease that is concomitant with several co- morbidities, leading to poor quality of life (QoL) ¹People who are obese experience health-related quality-of-life (HRQOL) impairments. Impairment in an obese individual's capacity to live fully and actively may be as serious a consequence of obesity as its adverse effects on morbidity and mortality². Both physical and psychosocial functioning has been shown to be negatively affected by excess weight; greater impairments have been associated

with greater degrees of obesity³.

Impacts of health/ disease on physical and social wellbeing are becoming more important measures of wellness. The very nature of obesity to influence many other health care domains is the reason for its impact on QoL. Therefore it is essential to understand the ways in which obesity impacts the physical and mental components of QoL⁴.

The relationship between obesity and QoL has been investigated in a variety of settings. Most reports show that, there is a high risk for poor QoL in overweight and obese subjects¹. However, only a few studies have reported an association between overall obesity and HRQOL in Asian populations⁵.

HRQOL is increasingly regarded as an important measure of the impact of disease and treatment. Although

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there is evidence that overweight and obesity are related to decrements in physical domains of HRQOL such as physical functioning and pain, findings are mixed regarding association with mental domains of HRQOL. Some studies have suggested that obesity is associated with impaired mental HRQOL. However, other studies do not support this association, and a few have even reported better mental health among people with excess body weight⁶.

The impact of obesity may vary by gender. Significantly a higher number of women considered themselves as overweight than did men, and also reported experiencing discomfort due to excessive weight, than did men⁷. Gender has shown to be a factor influencing QoL⁸. Studies examining gender differences associated with subjective well-being and body weight are scarce.

The existing literature indicates that QoL of women and men is differentially impaired with more impairment in women than in men^{6,7} and also displayed a higher psychosocial impairment in women⁶. The present paper

adds to the existing body of research by systematically analyzing gender differences in obesity related QoL

Materials and Methods

The study was conducted among 220 obese patients (110 males and 110 females) in a tertiary care hospital, Kochi. Subjects were selected from various OPDs using non-probability convenient sampling. A descriptive survey design was used in this study. Ethical clearance was taken from the Institutional Ethical committee and informed consent obtained from each subject. A standardized QoL questionnaire SF – 36 (version 1.0) was used to assess the QoL of subjects. The QoL was assessed in eight dimensions ie. General health, Physical functioning, Role limitations due to physical health, Role limitations due to emotional problems, Energy/fatigue, Emotional well-being, social functioning, and Pain. Norm based scoring was used to equate all scores. Scores above 50 are considered better for all scales and summary measures while scores below 50 are considered worse. Data was analyzed with SPSS 17.0 using descriptive and inferential statistics.

Findings

Section I: Gender wise sample characteristics

Table 1: Gender wise distribution of the sample based on the demographic characteristics

N= 220

Variables	Male (n= 110) f (%)	Female (n= 110) f (%)
Age (years)		
18-32	10 (9.1)	4 (3.6)
33-47	33 (30.0)	33 (30.0)
48-62	38 (34.5)	42 (38.2)
63-77	29 (26.4)	31 (28.2)
Marital status		
Single	11 (10.0)	4 (3.6)
Married	99 (90.0)	104 (94.6)
Widower/widow	0 (0.0)	2 (1.8)
Occupation		

Cont... Table 1: Gender wise distribution of the sample based on the demographic characteristics

N= 220

Professional	19 (17.3)	18 (16.4)
Unskilled	24 (21.8)	22 (20.0)
Skilled	30 (27.3)	10 (9.1)
Unemployed	32 (29.1)	58 (52.7)
Retired	5 (4.5)	2 (1.8)
Mode of work		
Sedentary	26 (23.6)	39 (35.5)
Moderate	37 (33.6)	51 (46.3)
Heavy	47 (42.7)	20 (18.2)

Majority of the sample studied were between the age group 33 to 62 years (males 64.5% and females 68.2%). The percentage of unemployed was high in female gender (52.7%) than the male (29.1%).

Section II: Gender wise clinical characteristics of the sample

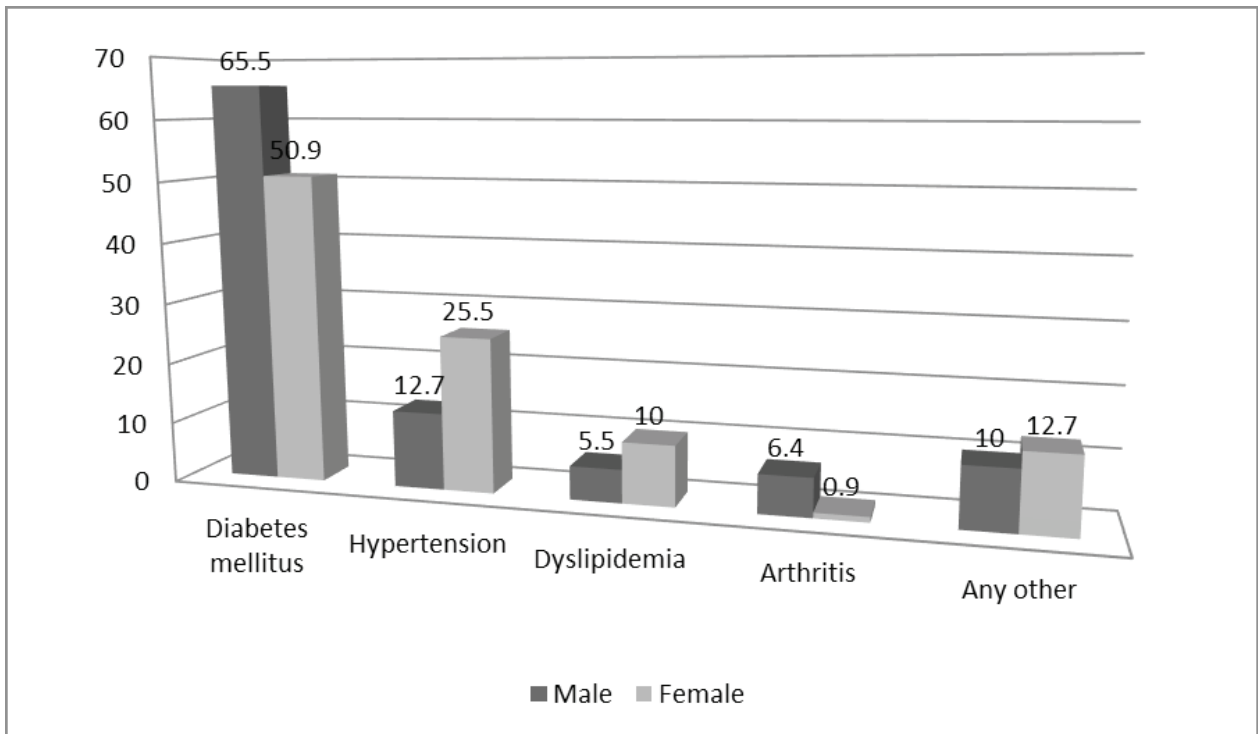


Fig. 1: Gender wise distribution of subjects based on their co-morbidities

Diabetes mellitus was the major co morbidity in both genders (65.5% in males and 50.9 % in females) followed by hypertension (12.7% in males and 25.5% in females).

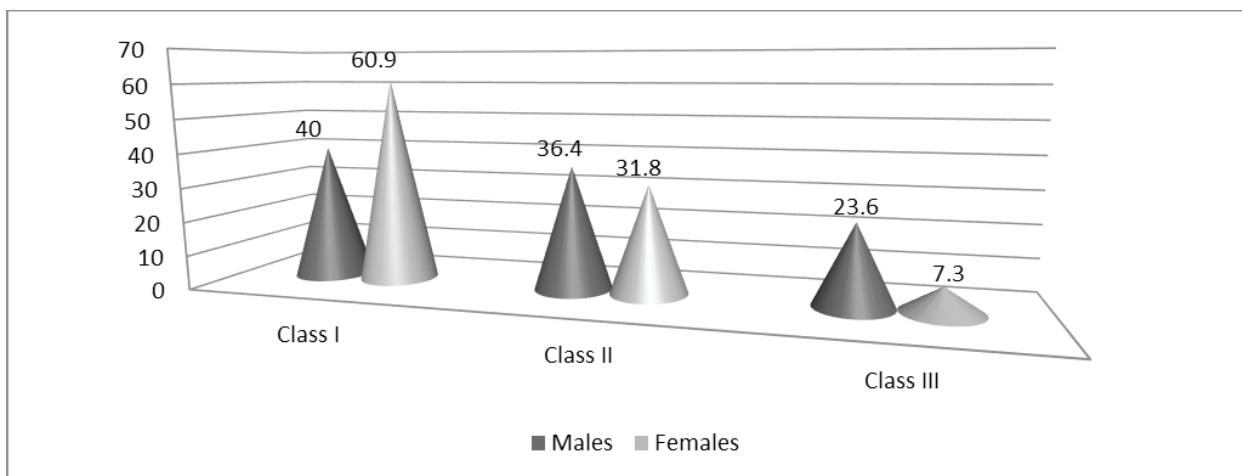


Fig. 2: Gender wise distribution of subjects based on the category of obesity

Majority of the female subjects belong to class I obesity category (60.9%). Only 7.3% of females were in class III while 23.6% of males belong to this class.

Section III: Gender wise QoL among obese patients.

Table 2: Gender wise distribution of subjects based on QoL

N= 220

QoL	Male (n=110) Frequency (%)	Female(n=110) Frequency (%)
Good QoL (>50)	56 (50.9)	54 (49.1)
Poor QoL (<50)	48 (43.6)	62 (56.4)

Majority of the females (56.4%) had a relatively poor score in QoL compared to the males (43.6%).

Table 3: Gender wise distribution of subjects based on the mean scores in eight domains of QoL

N=220

Domain of QoL	Male (n=110)	Female (n=110)
General health (GH)	40.05 +/- 11.85	32.78 +/-14.39
Physical functioning (PF)	54.37 +/- 23.16	52.59 +/- 24.51
Role limitations due to physical health (RPF)	51.70 +/- 26.96	47.61 +/- 28.15
Energy/ fatigue (E)	53.95 +/- 11.01	49.54 +/- 14.89
Emotional wellbeing (EW)	52.22 +/- 12.47	52.98 +/- 14.96
Social functioning (SF)	54.55 +/- 17.89	58.41 +/- 17.77
Pain (P)	61.61 +/- 25.15	57.86 +/- 27.01
Role limitations due to emotional problems (REP)	43.94 +/- 30.93	44.00 +/- 33.72

Of the 8 domains, the QoL in males were found to be poor in two domains (GH, REP) where as in females it was poor in four domains (GH, RPF, E, REP).

Table 4. Gender wise distribution of subjects based on the mean QoL, PCS and MCS scores

N= 220

Gender	QoL Mean +/-SD	PCS Mean+/-SD	MCS+/-SD
Male (n=110)	51.19 +/- 12.24	55.90+/- 19.08	50.03+/-13.36
Female (n=110)	48.79+/- 12.86	52.69+/-21.04	48.79+/-12.86

The mean QoL scores were better in males (51.19 +/- 12.24) .Though the PCS mean score were found equally good in both sexes, the MCS mean scores were poor in females (48.79 +/- 12.86).

Table 5: Gender wise Correlation between BMI and QoL in obese.

Gender	r value	P value
Male	-0.035	0.715ns
Female	-0.133	0.166ns

A negative correlation exists between BMI and QoL in both males (r = -0.035, p = 0.715) and females (r= -0.133, p= 0.166), which was not statistically significant.

Discussion

The present study has shown that the QoL in obese women were more impaired than the obese men i.e. majority of the females (56.4%) had a poor score in QoL compared to the males (43.6%). This is in congruent with the study findings reported by Maria et al. that obese women (40%) had poor QoL as compared to obese men (13%)⁹ .

It was also found in this study that the mean mental component scores (MCS) were poor in females (48.79 +/- 12.86), although the mean physical component scores (PCS) were equally good in both sexes. This is line with other studies^{5,6,9}. It is believed that psychosocial and cultural pressures imposed mainly to women, make them suffer more with the subjective effects of being overweight having greater interference in self-esteem⁵. Another possible explanation of gender differences

in QoL is that women may exaggerate their health conditions than men even or women may have a higher rate of self-perceived health on general health.

Of the 8 domains, the QoL in males were found to be poor in two domains (GH, REP) where as in females it was poor in four domains (GH, RPF, E, REP). This is exactly similar to the finding of a study by Fulden Sarac et al. in Turkey¹⁰.

The negative correlation found between BMI and QoL in both males (r= -0.035) and females (r= -0.133) in the sample was not statistically significant (p> 0.05). A similar negative correlation was found between BMI and QoL among obese females in a study by Bookwala, J., & Boyar, J. (2008), which was statistically significant¹¹. But, this is in contrary to the study findings of Ogbeide 2010 where a negative correlation was found between BMI and QoL only in males (r= -0.37, p = 0.05)⁹.

Conclusion

This gender based study, where the sample had both sexes in equal number has shown that the QoL in obese women are poorer than the obese men, especially in mental component scores, although the morbidly obese were high among males. The findings highlight not only the need for professional support to women to improve their QoL but also suggest the need to analyze thoroughly the relevant psychosocial mediators.

Conflicts of Interest: Nil

Source of Funding: Nil

Ethical Consideration: Ethical clearance was taken from the Institutional scientific and Ethical committee and written informed consent was obtained from each subject.

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