The Public distress domain of Quality of Life correlates directly and independently with BMI in pre-operative morbidly obese patients awaiting metabolic surgery

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Background

Metabolic surgery as a treatment option for the escalating Obesity epidemic is effective and successful. There is uncertainty regarding the selection of obese patients for metabolic procedures, how to define a successful outcome and pre-operative predictors of success. Not all obese patients are candidates for metabolic surgery. Indeed, obese patients who are chosen for metabolic surgery are a unique cohort of patients, and the characteristics of this cohort need to be well identified. In these patients, there is a definite impact of obesity on quality of life (QOL). The magnitude of this impact on the various domains of Health Related (HR) QOL in this unique cohort of patients is unclear.

Objective

The aim of this study was to explore the influence of obesity on preoperative quality of life in patients awaiting bariatric surgery.

Methodology

70 morbidly obese patients for whom funding for metabolic surgery secured.

Comparison done between sub-groups based on body mass index (BMI): 40-49.9Kgm-2 and ≥60Kgm-2.

Relationships between pre-operative variables studied using:
1) Student’s T-tests
2) Bivariate Pearson correlations
3) Multivariate linear regression analysis

Pre-operative data accrued including transposed IWQOL-Lite scores of physical function, self-esteem, sexual life, public distress and work related domains of obesity specific QOL.

Comparisons done between sub-groups based on body mass index (BMI): 40-49.9Kgm-2 and ≥60Kgm-2.

Lower BMI Group
n = 30
Age 52.8 [11.4] years
Males 20 %
BMI and Public distress HRQOL
r=-0.341, p=0.002
BMI and Public distress HRQOL
B=-1.339, p=0.002

Higher BMI Group
n = 12
Age 48.4 [4.0] years
Males 9 %
Public distress HRQOL in lower versus higher BMI group
34.6 [27.2] vs 14.5 [21.8] respectively;
P=0.03
Other Domains of QOL in lower versus higher BMI group
Linear negative correlation but not significant

Conclusion

In the unique cohort of obese patients awaiting metabolic surgery, BMI appears to influence all domains of QOL in a negative linear fashion but is only significant for public distress HRQOL.

Take Home Points

1) Measures of improvement in physical-psycho-sexual QOL are important considerations in the clinical assessment of morbidly obese patients when contemplating metabolic surgery
2) Pre-operative QOL may possibly predict other measures of metabolic surgical success, such as improvements in psycho-social functioning.
3) Improvements of QOL measures should feature in the definition of successful metabolic surgical outcomes in addition to weight loss

References

1) Forhan M, Vrkjlan B, MacDermid J. A systematic review of the quality of psychometric evidence supporting the use of an obesity-specific quality of life measure for use with persons who have class III obesity. Obes Rev. 2010 Mar;11(3):222-8