

Psychological sequelae in obese paediatric patients and predictors for weight loss

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Background

There is limited data on the psychological impact obesity has on paediatric patients. Previous data report increased prevalence of anxiety, depression, poor self-esteem and reduced quality of life (QoL)¹. This study assesses psychological wellbeing within a cohort of obese children attending a tier 3 obesity clinic.

Aim

- To assess the prevalence of psychological co-morbidities within the obese paediatric cohort using internationally validated self-report questionnaires.
- To identify vulnerable patients who require additional support.
- To explore whether reported patient and parent motivation scores can be used as a predictor for weight loss.

Methods

Internationally validated self-report questionnaires were distributed to patients and their parents attending a tier 3 paediatric obesity clinic at the Royal Manchester Children's Hospital. These included:

- Paediatric Index of Emotional Distress (PI-ED); (completed by) 14 children².
- Beck Youth Inventory™ exploring self-perceptions of competency, potency and self-worth; 15 children³.
- Pediatric Quality of Life Inventory (PedsQL™); & Parent-Proxy report (PedsQL™Parent) 17 children and parents⁴.
- Two in-house derived motivation (weight management) questionnaires for parents and patients; 18 children, 19 parents.

Questionnaire manuals were used to allocate raw scores to determine levels of self-esteem, emotional distress and QoL. An in-house scaling system was used to evaluate levels of motivation.

Weight change in children was measured over a one year period using change in BMI standard deviations (SDS).

Quality of life

- Patients (combined male and female scores) scored below normal threshold levels for QoL within the social, psychosocial and physical domains, and overall QoL.
- Parents scored their children below normal threshold values for the above domains and also emotional well-being.
- Females reported lower QoL scores for all domains, with clinically significant lower scores in social, psychosocial and overall QoL.
- Children between the ages of 10-15.9 years (n=9) reported the lowest QoL scores for social, schooling, psychosocial, physical domains and overall QoL.
- Parents reported their children ≥16 years (n=5) to have the lowest QoL scores across all domains (except physical).
- Children <10 years and their parents (n=3) reported the highest QoL scores across all domains (except emotional well being).

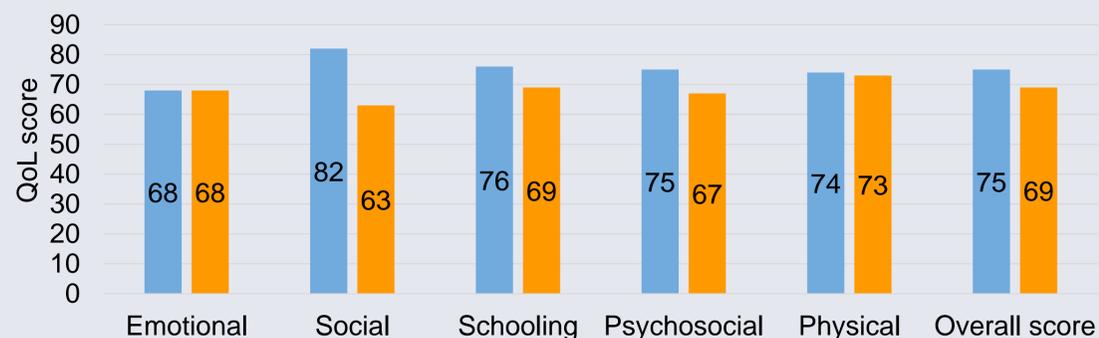


Figure 3: Quality of life

Emotional distress

- Over half of patients reported emotional distress.
- More females reported emotional distress compared to males.
- The majority of patients participating were between the age of 10-15.9 years (n=11). Within this age group 6 patients reported emotional distress, 5 reported no distress.

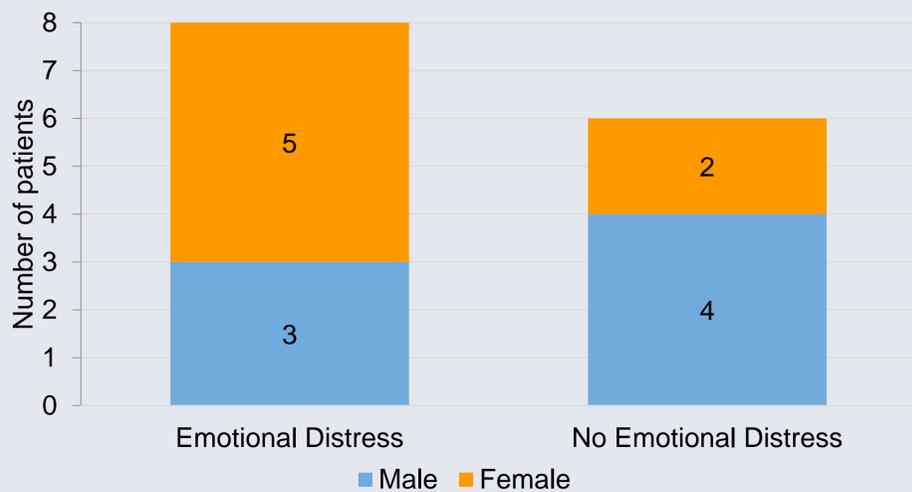


Figure 1: Emotional distress

Self-esteem

- Over half of patients scored below average levels for self-esteem.
- No patients reported above average levels for self-esteem
- Levels were equally distributed between genders.
- The majority of scores were for those between the ages of 10-15.9 years (n=10).
- Of those patients between 10-15.9 years, 5 reported average levels of self esteem and 5 reported below or much lower than average levels of self-esteem.

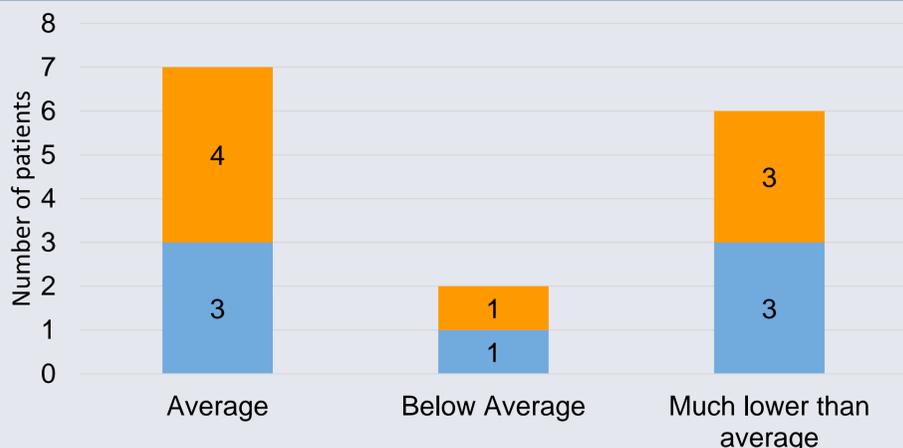


Figure 2: Self esteem-levels

Motivation (weight management)

- Patients and their parents reported high (16 patients, 18 parents) or medium motivation scores (2 patients, 1 parent) with none reporting low motivation.
- However, motivation scores were not significantly correlated against BMI SDS change at one year ($R^2=0.119$).

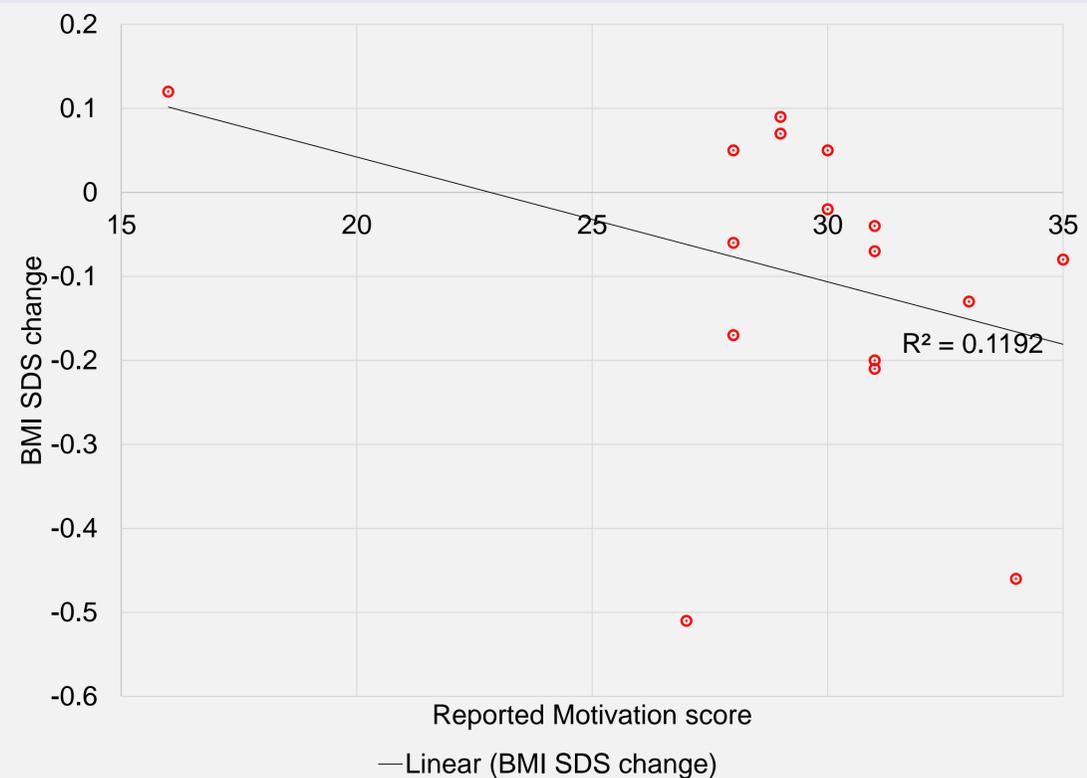


Figure 4: Change in BMI SDS with motivation score

Conclusions

- More than half of this cohort of obese paediatric patients report emotional distress and low self-esteem levels.
- They also report reduced QoL within social, psychosocial, physical domains and overall QoL.
- The data demonstrates that females are the most likely to experience psychological comorbidities.
- The data suggests that those >10 years are more likely to experience reduced QoL.
- Patients and parents report high level of motivation but patient motivation levels were not significantly correlated with weight loss after one year.