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). 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 children.
• Beck Youth Inventory™ exploring self-perceptions of competency, potency and self-worth; 15 children.
• Pediatric Quality of Life Inventory (PedsQL™); & Parent-Proxy report (PedsQL™Parent) 17 children and parents.
• 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).

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.

Psychological comorbidities

• 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.

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 (R2=0.119).

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.