Psychological attachment in obesity: the significance for bariatric surgery

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Summary

The aim of this thesis was to examine social and emotional aspects of bariatric surgery and obesity. Particular attention was given to the role of patients’ attachment representations. It describes in two parts, the role of patients’ attachment representations preoperatively and the postoperative situation by examining attachment representations as a predictor of the treatment outcome of gastric bypass surgery for morbid obesity and the effect of gastric bypass surgery on weight and eating behavior of cohabitating family members.

The first study described in Chapter 2 is a systematic review focusing on the relationship between attachment representations and obesity. Peer-reviewed literature published between 1990 and 2013 was derived from PubMed, PsycINFO and reference lists of included papers. Ten studies met the selection criteria. Six studies investigated an adult population whereas four studies investigated children. For the evaluation of attachment representations, nine different methods were used comprising both categorical and dimensional measures of attachment. Overall the reviewed studies suggested a relationship between obesity and attachment insecurity, particularly attachment anxiety, the anxiety about rejection and abandonment by others. Currently, less claims can be made with regard to attachment avoidance. Possible reasons for an impact of attachment representations on obesity are heightened physiological responses to stressful situations and the underdevelopment of emotion-regulation. However, more research is needed to come to solid conclusions. Despite the early stage of research and understanding in the field of obesity, there may be a potential in considering attachment theory in obesity care.

Part I: Attachment representations, obesity and preoperative assessment

Chapter 3 is a cross-sectional study, examining whether patients’ self-reported attachment representations and levels of depression and anxiety influenced psychologists’ evaluations of morbidly obese patients applying for bariatric surgery. A group of 250 consecutively referred candidates for bariatric surgery were assessed by the Slotervaart bariatric surgery clinic in Amsterdam, the Netherlands between February 2012 and July 2012. Attachment anxiety (OR = 2.50, \( p = .01 \)) and attachment avoidance (OR = 3.13, \( p = .001 \)) were found to be associated with less positive psychological evaluations by psychologists, and symptoms of depression and anxiety mediated this association. Findings of this study are useful for the psychological screening of patients applying for bariatric surgery. That is, patients’ attachment representations influence a psychologist’s evaluation in an indirect way by influencing the symptoms of depression and anxiety patients report during an assessment interview.
Chapter 4 examined the mediating role of coping styles in the relation between attachment and mental health and physical functioning in patients applying for bariatric surgery. The study consisted of 299 patients referred for bariatric surgery to the Slotervaart bariatric surgery unit, Amsterdam, the Netherlands between February and August 2012. Attachment anxiety (β = -.490, p < .001) and attachment avoidance (β = -.387, p < .001) were found to be related to mental health. In addition, attachment anxiety was also found to be related to physical functioning (β = -.188, p < .001). Coping style were indicated to partly mediate these associations. Findings suggest not only that it is important to consider attachment anxiety or attachment avoidance in understanding mental health and physical functioning in patients with morbid obesity but also that coping style plays a role in these relationships.

In Chapter 5 we investigated the association between attachment representations and mental health care use in patients with morbid obesity applying for bariatric surgery. This study (N = 260) identified that attachment anxiety was associated with more mental health care visits (OR = 1.86, 95% CI = 1.11-2.54, p = .02), present use of medication (OR = 2.30, 95% CI = 1.43-3.68, p = .001) and previously prescribed medication (OR = 2.01, 95% CI = 1.13-3.57, p = .02). Furthermore, the use of previously prescribed medication was especially prevalent in patients with high attachment anxiety and low attachment avoidance (OR = 2.96, 95% CI = 1.35-6.50, p = .007). In conclusion, the results of this study suggest that attachment behavior plays a role in mental health care utilization of patients with morbid obesity who apply for bariatric surgery. Therefore, it is important for health care providers working with patients with morbid obesity to have knowledge of the attachment theory, to recognize anxious attachment representations and to be aware of these patients' desire of close relationships and hypervigilance for rejection as well as of the mental vulnerability of this group.

Part II: Postoperative: attachment representations and effect on family members

The primary aim of Chapter 6 was to examine whether the association between on the one hand current and past psychological problems, attachment anxiety and attachment avoidance, and on the other hand weight reduction one year after gastric bypass surgery is explained by patients' adherence to dietary recommendations. This longitudinal study included 105 patients applying for a Roux-en-Y gastric bypass operation. Although there is no doubt that gastric bypass surgery is an effective treatment for the majority of patients with morbid obesity, our results indicate that the amount of weight loss one year after surgery will to some extent depend on the degree to which the patient succeeds in adopting healthy dietary recommendations at 6 months. Of all examined predictor variables, attachment anxiety was most strongly associated with low dietary...
adherence at both 6 months \((p = .009)\) and 12 months \((p = .006)\) post-surgery. Mediation analyses using resampling procedures indicated that in the year following a gastric bypass operation more anxiously attached patients have greater difficulty with adherence to dietary recommendations at 6 months and consequently lose less weight.

**Chapter 7** is a longitudinal cohort study, examining whether attachment anxiety and attachment avoidance, independent of body mass index (BMI), predict the level and course of physical functioning and mental well-being after gastric bypass surgery. This longitudinal study included the same 105 patients applying for a Roux-en-Y gastric bypass operation as described in Chapter 6. Analyses showed significant improvement of quality of life for physical functioning \((M = 37.6\ SD = 9.5\) before surgery, \(M = 54.6\ SD = 7.1\) one year after surgery, \(F = 128.6, p < .001)\), but not for mental well-being \((M = 51.9\ SD = 7.8\) before surgery, \(M = 49.7\ SD = 9.3\) after surgery, \(F = 4.28, p = .01)\) within the first year after a gastric bypass operation. Both attachment anxiety and attachment avoidance were associated with a lower level of mental well-being, but not with the postoperative course of mental well-being and physical functioning. Our study suggests that surgery and weight loss lead to improvement in physical functioning but not mental well-being that is associated more clearly with attachment representations. Results highlight that patients with weak attachment representations should be protected against unrealistic expectations regarding improvement of mental well-being after surgery.

**Chapter 8** describes an observational longitudinal study examining weight and eating behavior changes in cohabitating family members of patients who underwent gastric bypass surgery during the first year after the operation. In this study 92 morbidly obese patients undergoing gastric bypass surgery and their cohabitating family members were followed (88 partners, 20 children > 18 years and 25 children between 12-17 years). Results showed that between baseline and one year following surgery, 49 (66.2\%) partners of patients who had gastric bypass surgery lost weight, 6 (8.1\%) remained stable and 19 (25.7\%) gained weight. Furthermore, body weight and body mass index (BMI) of partners \((p = .002)\), and in particular overweight partners \((\text{body weight } M = 87.32\ SD = 11.74\) before surgery, \(M = 85.62\ SD = 11.61\) one year after surgery, \(p < .001)\), and \(\text{BMI } M = 27.43\ SD = 1.53\) before surgery, \(M = 26.76\ SD = 1.74\) one year after surgery, \(p < .001)\) – but not children – showed a small, significant decrease over time. No significant changes in eating behavior for partners or children were found. Gastric bypass surgery showed a ripple effect, as weight and BMI of partners of patients decreased over time. However, there was a considerable variation in the effect on partners. The results indicate that overweight family members may be a target group for weight loss interventions in the future. Larger prospective studies with
standardized measurements in a case-control design are needed to assess the characteristics of
the group partners (of gastric bypass patients) that lose weight after the surgery.