

Identifying patients who are at risk of weight regain after obesity surgery

Surgery for obesity called bariatric surgery, is a highly effective treatment option for achieving and maintaining long-term weight loss. It helps reduce the risk and often resolve medical problems that are associated with obesity including type 2 diabetes, high blood pressure, and sleep apnea. After bariatric surgery, patients are expected to follow up in multidisciplinary clinics for ongoing assessment and management of obesity-related health problems. These clinics comprise of a number of health professionals including nurses, dieticians, social workers, psychologists, internists, psychiatrists, and surgeons. Studies have shown that long-term follow up in these multidisciplinary clinics is essential in maintaining weight loss. However, a considerable number of patients are lost to follow up after surgery. In this study we sought to identify factors that would predict which patients are less likely to attend their follow-up appointments. This study was unique in that it was done in a universal health care system where there is no direct cost to patients for the health services provided including clinical visits.

We looked at 388 patients who underwent bariatric surgery in 2011 at the University of Toronto's Collaborative Bariatric Surgery Program. Patients were mandated to attend the multidisciplinary clinic after undergoing surgery at 3, 6, and 12 months, and annually thereafter. We followed these patients for 2 years and identified those who did not attend at least half of their follow-up appointments. We recorded patient characteristics, health status, social, economic, and psychosocial factors including age, gender, education level, employment status, marital status, travel distance to clinic, and presence of other medical and psychiatric conditions. We then studied the relationship of each factor with attendance rate to the multidisciplinary clinic.

In our study, 62% of patients attended more than half of their follow up appointments. 81% of the patients were females. The average patient age was 45 years. We found that patients younger than 25 years of age were less likely to follow up in clinic after surgery. Patients with sleep apnea prior to surgery were also less adherent to the follow up schedule. As travel distance to the clinic increased, patients were less likely to attend their follow up appointments.

The strongest predictor for follow up to the multidisciplinary clinic was employment status. We found that patients who were unemployed or retired were twice as likely to miss their follow-up appointments. The underlying reasons for this relationship is not clear. We speculate that perhaps those who are employed possess better organization skills. Furthermore, those who are employed generally carry greater responsibility; therefore they may be more cognizant of their health and hence have greater drive to improve their health. The aforementioned explanations however are merely theories for this relationship. Additional studies are required to better understand how employment status affects follow up adherence. Nevertheless, findings from this study can be used by bariatric surgery centers to identify at risk patients and provide them with additional education about importance of attendance to the multidisciplinary clinics.

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