Main text

Title

A pilot study of primary care physicians' attitude to weight loss surgery in England: are the young more prejudiced?

Abstract

Background:

Primary care practitioners (PCP) are the 'gate-keepers' for publicly-funded weight-loss surgery (WLS) in the United Kingdom (UK) but their attitude towards WLS has not to date been studied.

Objective:

This pilot study aimed to investigate opinions and experience of PCPs regarding WLS in the UK.

Setting:

PCPs from three publicly-funded primary care consortiums from distinct geographical areas within the UK were surveyed.

Methods:

A cross-sectional survey approach was used to assess PCP attitude to WLS surgery. A questionnaire was sent electronically to PCPs, designed to assess PCP demographic, experience, knowledge and attitude regarding obesity and WLS. For the purposes of analysis, PCPs were divided into junior and senior based on duration of practice.

Results:

Thirty-five PCPs completed and returned the questionnaire. Although PCPs stated that approximately 30% of their patients were obese, 17 (49%) had made not a single referral for WLS in the previous 12 months. PCPs over-estimated early WLS mortality rate more than ten-fold and 23 (66%) did not feel confident providing care to patients post-WLS. Junior PCPs were significantly more likely to feel that WLS should not be publicly-funded (p=0.01).

Conclusions:

These findings suggest a prejudice against WLS amongst PCPs in England, particularly amongst junior doctors.

Key words:

Primary health care; bariatric surgery; funding

Introduction

Obesity rates have nearly doubled over the 20 years, with 26% of adults in the United Kingdom (UK) now obese [1]. Bariatric or weight loss surgery (WLS) is the most effective modality for people with severe obesity leading to remission or improvement of co-morbidities and reduced mortality [2]. However, despite clear national guidelines regarding which people with severe obesity should be referred for assessment for WLS, in the UK less than 1% of eligible people undergo surgery [3].

Evidence suggests that many primary care physicians (PCPs) have pessimistic attitudes towards treating obesity [4]. This may be related to poor understanding of WLS surgery [5] and a lack of confidence in providing post-operative management [6]. There is however limited data on this subject, and most studies examining the attitudes of PCPs have taken place in the USA, with none to date from the UK.

In recent years, obesity and WLS have been better represented in undergraduate and post-graduate medical curricula in the UK. In 2007 the educational system of medical training in the UK was transformed with Modernizing Medical Careers (MMC) to a new competency-based system which formally includes topics relating to management of patients with obesity. Previous studies have shown that greater knowledge about WLS is associated with increased referrals for WLS [4] and that healthcare providers who are younger or with fewer years' experience are more likely to refer for WLS [7,8]. We therefore hypothesized that junior PCPs appointed since the curriculum change would be better informed and have a more positive attitude to WLS compared to more senior PCPs.

This pilot study aimed to specifically investigate the attitude and referral patterns of PCPs in England regarding obesity and WLS and to analyze any differences between junior and more senior PCPs.

Methods

Study population

Three PCP consortiums in different geographical areas of England (northwest London, Norfolk and southwest Yorkshire) were approached and agreed to participate in this study. The choice of these areas aimed to ensure a diverse and representative sample of PCPs working with different population characteristics and varied local provision of specialist bariatric care. Questionnaires were sent by email to the 382 PCPs registered with these consortiums in 2015.

Included PCP participants had to be currently registered with the General Medical Council, actively involved in clinical care, and practicing in England.

Survey design

A preliminary questionnaire was designed by the study authors, based on similar questionnaires in the literature (e.g. [7,9]) but modified to ensure suitability for PCPs practicing in the UK. It was trialed and revised according to feedback from two local PCPs. The questionnaire sought information regarding PCP demographic, experience of patients with obesity and patients undergoing WLS, knowledge regarding, and attitude toward WLS. The final questionnaire comprised of 36 questions, some with categorical field answers including a 5-point Likert scale, some requiring an estimate of number and finally an opportunity for free text. No identifiable data was collected from participants and all data were fully anonymized using electronic means at the point of submission. No financial or

other material incentive was offered to PCPs to complete the survey, and PCPs were contacted by email on one occasion only. Their response was considered to imply consent. Ethics is not required for this type of study by the Health Research Authority UK or by our local Research and Development office.

Analysis

Respondents were categorized as junior if they had 8 or less years' practice as a PCP (appointed since MMC). Data was dichotomized for Likert scale responses (Strongly Agree/ Agree = agree; strongly disagree/ disagree = disagree). Data was checked for normal distribution. Where data were normally distributed, means are given with standard deviation (SD); medians are given with inter-quartile range (IQR) for non-normally distributed continuous data. Variables were compared between junior and senior PCPs using t-tests or Man-U for continuous variables and chi-square or Fishers exact for categorical with $p<0.05$ considered statistically significant.

Results

Demographics

Responses were provided by 35 PCPs (9.2%). Eighteen (51%) were male and seventeen (49%) were female. Ten (29%) were classified as junior as per the study criteria and 25 (71%) senior. Seven junior PCPs were less than 36 years old (70%) whereas none of the senior PCPs were under 36 years old. Gender distribution was comparable between the two groups.

PCP experience

Although the PCPs stated that approximately 30% of their patients were obese (Table 1), 17 (49%) had made not a single referral for WLS in the previous 12 months. Junior PCPs estimated that a lower proportion of their patients were obese compared to senior PCPs. Although on average PCPs estimated that two patients in the previous 12 months had come to them requesting information about bariatric surgery, they had referred on average only one (50%) for assessment of WLS. There was no difference in rates of referral for assessment for WLS between junior and senior PCPs.

Opinion of WLS and people with obesity

Although almost all PCPs agreed that the purpose of WLS was to decrease weight and improve co-morbidities and quality of life (Table 2), seven (20%) felt it should nonetheless not be publicly-funded. A significantly greater proportion of junior than senior PCPs felt that WLS should not be publicly-funded.

Support for management of patients with severe obesity

PCPs in this survey felt poorly supported in management of WLS patients (Table 3); and junior PCPs reported that they had poor access to non-surgical weight loss resources. In addition PCPs had limited experience of managing post-WLS patients, having treated an average of less than four post-WLS patients each during the previous 12 months (Table 1).

Knowledge of WLS

Regarding knowledge on the topic of WLS, seven PCPs replied ‘don’t know’ or ‘not known’ to the request to estimate early mortality rate following WLS. Of those responding, the median estimate was 2% (Table 4), more than 10-fold greater than the actual UK rate [10]. PCPs also underestimated the expected weight loss for patients undergoing WLS. There was a trend towards junior PCPs being less likely than senior to believe that benefits of WLS outweighed risks.

Discussion

This pilot study of PCPs practicing in England indicates that they have low referral rates for WLS, lack confidence and support managing WLS patients and are not well informed regarding the risks and benefits of WLS. Although all PCPs were aware of the metabolic rationale for WLS, they grossly overestimated the early surgical mortality risk and underestimated the weight loss outcomes achieved by WLS. Of particular note is that fact that PCPs referred only half of the patients who consulted them regarding WLS for further assessment which suggests that there are significant barriers in primary care preventing obese patients accessing appropriate tertiary weight management services. With regards to the differences between junior and senior PCPs, contrary to our expectations junior PCPs appear to have a more negative view about obesity and the role of WLS. Junior PCPs appear more likely to underestimate the prevalence of obesity in their populations (as based on national statistics [1]). Although both senior and junior PCPs overestimated the risk of early mortality following WLS, there was a particular trend amongst junior PCPs to underrate the long-term benefits of WLS. Furthermore, junior PCPs surveyed in this study were less likely than senior to believe that WLS should be publicly-funded.

Overall this study would suggest that there may be a prejudice against WLS amongst PCPs in England, which is especially pronounced in junior doctors. This is particularly surprising given that obesity management and WLS are part of the new PCP curriculum. One possible explanation for the findings in our study may be that junior PCPs have not been in practice long enough to appreciate the longer-term implications of obesity on individuals, or the beneficial effects of WLS. Our findings are in contrast to previously published work from North America. For example, Balduf et al [7] reported considerably higher rates of referral for WLS than the current study and other studies from the USA have shown that junior PCPs feel more successful than senior PCPs at helping patients lose weight [11]. The apparently divergent findings from our study as compared to those from the USA reinforces the need for country-specific investigation of these issues and tailored solutions [12].

The results of this study would suggest that there is an urgent need to improve support and education provided by bariatric specialist healthcare providers to PCPs in the UK. Previous studies have shown that PCPs themselves are highly in favor of more education on these topics [11,13]. This is a particularly pertinent issue as under the publicly-funded health system in the UK long-term follow-up for bariatric patients is contracted to PCPs, yet only 34% of PCPs in this study felt confident in supplying this care.

The main limitation of our study was a low response rate, which unfortunately is typical of this type of cohort questionnaire study [13]. In any future study we would contact invitees on a number of occasions, using different modalities (for example postal mail and email) with the aim of increasing the response rate, in this way making our findings more robust. The low response rate raises the possibility of non-responder bias, which could limit the generalizability of our results. With respect to this issue, it may be noted that PCPs who responded in our study referred on average one patient a year for consideration for bariatric

surgery. Given there are some 125,000 PCPs in England [14] and approximately 6000 bariatric operations take place annually [15], this would imply that on average each PCP in England is "generating" approximately 0.05 bariatric operations per year. Even accounting for the fact that some referrals will not subsequently undergo surgery, this very low figure suggests that the responders to our study were more enthusiastic about bariatric surgery than the non-responders, and that the actual level of engagement of PCPs with bariatric surgery services is likely to be even poorer than the results of this survey would suggest. This potentially strengthens our conclusions regarding the need to improve support and education provided by bariatric specialist healthcare providers to PCPs in England.

We accept the conclusions which can be drawn from this study are severely limited by its small sample size and low response rate. However despite these limitations, as the first study of its kind in the UK to examine this important topic, we feel the results from this pilot study are valuable.

Conclusions

This study, the first of its kind in the UK suggests that PCPs have low referral rates for WLS, lack confidence and support managing WLS patients and are not well informed regarding the risks and benefits of WLS. In addition, it appears that junior PCPs may have a particularly negative view regarding WLS. The findings of this pilot study support the need for larger scale studies assessing and investigating the attitudes of PCPs towards obesity and WLS. Better understanding of this issue would facilitate improved education and support services for PCPs caring for patients with obesity.

Disclosure statement

None of the authors have a conflict of interest relating to the topic of this article.

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Tables:

Table 1: Primary Care Physician (PCP) experience of obesity and weight loss surgery (WLS)

Table 2: Primary Care Physician (PCP) opinion of obesity and weight loss surgery (WLS)

Table 3: Primary Care Physician (PCP) confidence in managing patients with obesity

Table 4: Primary Care Physician (PCP) knowledge of weight loss surgery (WLS) outcomes