Referral Sources to a Weight Management Program

Relation to Outcome

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OBJECTIVE: To examine the characteristics and outcomes of physician-referred weight management patients relative to self-referred patients.

DESIGN: Review of clinic records of all individuals contacting a weight control program during a 2-year period with follow-up throughout consecutive levels of treatment (i.e., enrollment, completion, and outcome).

SETTING: Medical school weight management center.

PARTICIPANTS: A consecutive sample (N = 1,392) of overweight and obese callers was categorized as physician-initiated (n = 343), media (n = 653), or personal (n = 394) referrals. Attendees at initial consultation (n = 571) were age 41.7 ± 12.8 years, weight 113.9 ± 36.1 kilograms, and body mass index (BMI) 40.3 ± 11.3 kg/m² (data expressed as mean ± standard deviation).

INTERVENTIONS: Low-calorie-diet and very-low-calorie-diet programs.

MAIN OUTCOME MEASURES: Gender comparisons, attendance at initial consultation, body mass index, motivation, comorbidities, enrollment and completion rates, and weight loss.

RESULTS: Compared to callers from other referral sources, physician referrals included a larger minority of males (25.2%) and were more likely to attend an initial consultation (63.5%; P < .001). Among consultation attendees, physician referrals were heavier (mean BMI = 44.8), reported more comorbidities, were less likely to join programs (16.9%), and scored as less motivated than other referrals (P < .007). Completion rates for physician referrals were higher than for self-referrals in the very-low-calorie-diet program (85.7%; P < .04) but not in the low-calorie-diet program (P > .05). Among completers, physician referrals did not differ on weight loss in either program (P > .05).

CONCLUSIONS: Compared to self-referrals, physician-referred individuals are in greater need of weight loss, less motivated, less likely to enter treatment, but equally likely to profit from it. Therefore, physician referral for weight loss is beneficial for at least some patients and should be encouraged.

KEY WORDS: obesity; referral and consultation; weight reduction; diet; reducing.


The pandemic of obesity has reached alarming proportions and has become a major health problem worldwide.1,2 The continued increase in prevalence of obesity in the last 10 years, coupled with its link to significant and life-threatening comorbidities and mortality,3,4 has led some researchers to conclude that obesity should be considered a chronic disease that requires chronic medical management.5 An increasing emphasis has been on the primary care physician’s role in this mission. Research in this area has focused on several topics including 1) improving the physician’s ability to deliver direct weight management counseling,6-10 2) identifying physicians’ attitudes toward their obese patients that may interfere with appropriate patient care,11,12 and 3) examining intervention and referral patterns for weight loss treatment.13-15

Regarding physician patterns of intervention in obesity, a survey of physicians by Kristellar and Hoer14 examined factors affecting the likelihood that physicians would discuss obesity with their patients. They reported that likelihood increased with both the degree of obesity (19% non-obese, 42% mildly obese, and 94% severely obese) and with the presence of significant comorbidities.

Large population-based studies examining physician practices have also been carried out. With a nationally representative, nonclinical telephone sample of over 3,000 women, O’Neil et al.16 found that a third of all subjects reported that they had ever been advised to lose weight by their physician, with greater likelihood among subjects with higher reported lifetime body mass index (BMI) (BMI = 18 to 25, 5.6%; BMI = 25 to 30, 31.1%; BMI = 30 to 35, 65.7%; BMI >35, 64.1%). Similarly, Galuska et al.13 examined a large sample from the Behavioral Risk Factor Surveillance System 1996 Telephone Survey to investigate health professionals’ practices with obese patients. Among obese respondents who had seen their physician in the previous 12 months, 42% reported that they had been advised to lose weight by a healthcare provider. The best predictors for receiving such advice were being female, middle-aged, more obese, having diabetes mellitus, or reporting poorer perceived health.

Wadden et al.15 assessed patient perceptions of physician weight management practices and attitudes among 259 obese women who sought treatment in randomized weight loss trials. A third of patients indicated that their physician discussed weight control with them at
least at every other visit, 39% reported that such discussion took place only occasionally, and 28% reported that their physician never discussed weight control with them. In addition, nearly half of the patients reported that their physician had not prescribed any of the 10 listed weight control methods.

Another issue is what physicians do to help patients to lose weight once they have offered advice to do so. Each of the previously outlined studies addressed the issue of treatment options used by physicians with their obese patients. Kristellar and Hoerr\textsuperscript{14} reported that, across all specialty groups, 34% of physicians said they would treat patients themselves, 29% would make direct referrals, and about 25% would provide recommendation without specific referral. O’Neill et al.\textsuperscript{16} reported that patients who were advised to lose weight reported 3 main intervention methods by the advising physician: diet (54%), medication (16%), and referral to a weight loss program (14%). In Wadden et al.,\textsuperscript{15} the intervention methods used by the largest number of physicians were: prescribing a diet plan (23%), commercial program (Weight Watchers: 18.5%), medication (17%), readings (15%), and an exercise plan (13%).

Although there are several methods of intervention both available and utilized by physicians in primary care, a variety of factors including time limitations and physician beliefs concerning their own competency in managing obesity may lead some physicians to refer to weight management programs.\textsuperscript{17} However, little research has been done to investigate the role that physician referral, as compared to self-referral (i.e., media, word of mouth) may play in patients’ decisions to either initiate contact with weight management programs and/or attend treatment. Similarly, few data exist on the relationship between referral source and treatment outcome.

A comprehensive literature review using both MEDLINE and Psych-Info databases located only 1 study that specifically investigated the relationship between referral source and treatment outcome. Baran and Alain\textsuperscript{18} examined the relationship between referral source and weight loss treatment outcome as part of a study designed to examine other possible mediating variables in treatment outcome. Subjects were 93 adults attending a weight management clinic in Quebec, Canada. On the basis of self-report, patients were classified as self-referred ($n = 64$) or referred by a physician ($n = 29$). Those who were referred by a physician were older (mean = 48.69 vs mean = 39.55 years) and required a larger weight loss to achieve the goal weight (mean = 17.6 vs 15.5 kg). Physician-referred patients achieved a significantly smaller percentage of their weight loss goal (mean = 44.6%) than did their self-referred counterparts (mean = 68.8%). Some limitations with the study are noteworthy. The study only considered a 12-week very-low-calorie-diet (VLCD) program of 500 kcal per day, which was both shorter and more restrictive than the majority of weight management programs. Also, other differences between referral groups (i.e., comorbidities) were not considered.

The present study sought to examine comprehensively the relationship between type of referral source (i.e., physician, media, word of mouth) and outcomes of several levels of contact with a weight loss program from initial telephone contact through treatment program completion. The initial sample consisted of all individuals who telephoned a medical school weight management center to inquire about programs during a 2-year period. Referral source was examined in relation to a number of variables including patient characteristics, motivation, self-reported comorbidities, program initiation, program completion, and weight loss in both low-calorie-diet (LCD) and VLCD programs.

\textbf{METHODS}

\textbf{Participants}

For an overview of the subject selection and data collection process, see Figure 1. The initial sample consisted of all people who telephoned the Medical University of South Carolina Weight Management Center (WMC) during 1997 and 1998 to inquire about available programs. This telephone sample consisted of 1,133 females and 259 males ($N = 1,392$). At the time of the telephone contact, data concerning gender and referral source were obtained. No additional data (i.e., race, age, weight) were collected.

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\caption{Breakdown of data collection.}
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