Willingness to Pay for Continued Delivery of a Lifestyle-Based Weight Loss Program: The Hopkins POWER Trial

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Objective: In behavioral studies of weight loss programs, participants typically receive interventions free of charge. Understanding an individual’s willingness to pay (WTP) for weight loss programs could be helpful when evaluating potential funding models. This study assessed WTP for the continuation of a weight loss program at the end of a weight loss study.

Methods: WTP was assessed with monthly coaching contacts at the end of the two-year Hopkins POWER trial. Interview-administered questionnaires determined the amount participants were willing to pay for continued intervention. Estimated maximum payment was calculated among those willing to pay and was based on quantile regression adjusted for age, body mass index, race, sex, household income, treatment condition, and weight change at 24 months.

Results: Among the participants (N = 234), 95% were willing to pay for continued weight loss intervention; the adjusted median payment was $45 per month. Blacks had a higher adjusted median WTP ($65/month) compared to Non-Blacks ($45/month), P = 0.021.

Conclusions: A majority of participants were willing to pay for a continued weight loss intervention with a median monthly amount that was similar to the cost of commercial weight loss programs.

Introduction
In behavioral studies of weight loss programs, participants typically receive interventions free of charge. Understanding individuals’ willingness to pay (WTP) can be helpful when evaluating funding models that include member contributions. Few studies have examined WTP for obesity treatment. Three reports were surveys of the general population and included references to hypothetical treatments (1-3). Another study surveyed those in a 10-year bariatric surgery study and referenced an unspecified treatment that would address their weight problems (4).

One of the only studies to determine WTP among individuals currently in a lifestyle-based weight loss program found participants were willing to pay $1324 (Canadian, 2004) for a hypothetical three-month lifestyle based weight loss program that included physician counseling every 2 weeks (5). WTP was lower ($787 Canadian) for a hypothetical program that included group meetings but no physician involvement. Roux et al. noted that the hypothetical program with physician involvement, although preferred, was unrealistic and that the other program with group counseling more closely matched services currently available in the community (5).

In the current study, we report WTP for a continued weight loss program at the end of a 24-month study among participants who were randomized to the active intervention groups in the Hopkins POWER trial, a three-arm randomized weight loss trial that enrolled...
Methods

Overview

The POWER trial at Hopkins was a randomized trial examining the effectiveness of two lifestyle-based weight loss interventions (n = 277) compared to a control group (n = 138) among obese adult patients at six primary care practices (6,7). Participants were ≥22 years of age, body mass index (BMI) ≥30 kg/m², with additional cardiovascular risk factor(s). WTP for continued lifestyle programming was assessed at month 24 follow-up among participants in both active intervention arms. An institutional review board approved the study, and all participants provided written informed consent. Study details have been published (6,7) A brief description follows.

Intervention summary

Participants assigned to the two lifestyle interventions with a 5% weight loss goal and access to a study website that included learning modules and tools for self-monitoring weight, caloric intake, and exercise. During the first six months, the Remote Support Only (RSO) participants were offered 15 coaching calls and the In-Person Support (IPS) participants were offered 21 group sessions and 9 individual coaching sessions (in-person or by telephone). From months 7–24, RSO participants were offered monthly calls and IPS participants were offered both individual and group sessions monthly.
Willingness to Pay for Lifestyle-Based Weight Loss

Among the 277 participants in the active intervention groups, 13 were missing weight data, and an additional 31 were missing WTP data. Hence, 234 participants were included in these analyses. Among those who indicated a WTP (n = 223) 46% were younger than 55 years of age, 50% had a BMI below 35 kg/m² at baseline, 39% were Black, and 61% were female. Table 1 reports the crude median amount participants were willing to pay (median = 40) and [Q1 = 20, Q3 = 100].

The adjusted medians [Q1, Q3] were calculated using a single quantile regression analyses that included all categorical variables listed and the quartiles reported are adjusted for all variables in the model. The overall adjusted median was $45 per month. There was a statistically significant difference between the median of WTP of Blacks ($65/month) and Non-Blacks ($45/month), \( P = 0.021 \).

The order in which response options were presented was also associated with WTP; those presented with the lowest amount first (i.e., $10/month) had a lower adjusted median payment ($25/month) compared to those who were presented with the highest value first (i.e., $100/month) who had a median of $45 per month, \( P = 0.002 \). Neither weight loss nor income was associated with WTP (\( P > 0.05 \)). Figure 1 displays the frequency of WTP responses, stratified by the initial level of payment presented to the participant. The algorithm that started with the low amount had the highest frequency of response in the $20/month category (>30%) and the algorithm that started with the high amount had the highest frequency of responses in the $100/month category (>30%).

Discussion

This is one of the first reports on WTP for a specified weight loss program after individuals had participated in the program. In the current study there was strong interest in a sustained intervention with 95% of participants willing to pay for weight loss program continuation, and an adjusted median WTP of $45 per month. Black participants were willing to pay more ($65/month) than Non-Black. Unlike other studies that found income was associated with WTP, income was not associated with WTP in the current study (2–4). Interestingly, weight loss success in the two-year program was not associated with WTP for further services. This suggests that even those who were not successful with their weight goal found value in the program. Perhaps some participants had personal goals for smaller relative losses or preventing weight gain.

WTP in this study was lower than the amounts reported in previous studies (e.g., $100-$262/month) which reference hypothetical treatments (2,4,5). It is not clear whether the differences in WTP were associated with presentation of a hypothetical program versus payment for a real program well known to participants, or if the characteristics of the participants were different. It is noteworthy that the median WTP in our study is similar to advertised prices for commercial programs (e.g., Weight Watchers online, $42.95/month) (8). Our results were also similar to the WTP for continued lifestyle-based diabetes risk-reduction program (<$42/month) among those who participated in a diabetes reduction intervention study (9). The latter study was similar as it evaluated WTP for a specific lifestyle program at the end of a study among participants who had been enrolled in the program.

One factor that was associated with WTP was the order in which responses were presented. Those presented with the lowest cost first had the lowest median monthly amount. Although there has been significant discussion regarding how to ask WTP questions, perhaps the most innovative approach is to actually offer a program at a given fee and determine who enrolls (5).

We inquired about WTP for monthly coaching and do not know the WTP for more frequent coaching contact found in the intensive...
phase of the program. Although there may have been a ceiling effect associated with the maximum survey response ($100), a few high responses would have a minor effect on these results given the use of medians in the analyses. Moreover, the association among income and WTP may differ in samples that include more low income participants. It should also be noted that missingness in weight loss studies is likely to be informative. If missing values were replaced with “unwilling to pay,” then 80% of participants were willing to pay for continued services. Strengths of the study include a population appropriate for a weight loss program, reference to an existing weight loss program, and a diverse population.

In summary, the vast majority of participants who completed a weight loss intervention were willing to pay for continuation of the program, with a median monthly amount that was similar to the cost of a commercial weight loss program.

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