

Enhancing Wellness by Therapeutic Lifestyle Change: Does Cost Determine Program Commitment?

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Abstract

Wellness programs based on therapeutic lifestyle change (TLC) interventions have recently demonstrated potential in combating stress and anxiety disorders. Despite this trend, a limited evidence-base exists on whether charging a fee for such programs impacts participant behavior by increasing attendance and retention. This pilot study therefore determined if attendance rate differed for a fee-based program as opposed to a free program amongst a heterogeneous group of participants who had previously experienced significant benefits from an identical stress reduction program. The design was a quasi-experimental, non-equivalent control group pretest-posttest. Data were analyzed using an independent samples t-test. Our preliminary findings demonstrated that participants in the fee-based group had a significantly higher mean of program attendance than those in the free attendance group. Charging fees for wellness programs may be a promising behavior change strategy, increasing attendance and participation, and maximizing program benefits. Nevertheless, more in-depth research is needed to examine participant attitudes toward paid versus free programs.

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Introduction

Our previous pilot study determined the effect of a four-session yoga and breathing regimen, as a health promotion strategy to combat stress-related parameters such as anxiety, depression, cognitive disorganization, and general stress amongst a heterogeneous group of participants (Sanghani, Deavenport, Herring, Anderson, & Medina, 2008). The program intervention was comprised of seven breathing exercises, two meditation techniques and fourteen simple yoga postures. The study indicated significantly greater decreases in all stress-related variables amongst participants attending the program when compared to the comparison group. Regular attendance to such interventions is essential to master the required skills and to experience maximum program benefits;

nevertheless, repeated and longer attendance to such programs has been challenging (Brown & Gerbarg, 2005; Smith, Hancock, Blake-Mortimer, & Eckert, 2007; Tang, Ma, Wang, Fan, Feng, & Lu, 2007).

Research has been conducted to look for behavioral interventions such as goal setting, group synergy, and time management that may strengthen program compliance and attendance (Brassington, Atienza, Perczek, DiLorenzo, & King, 2002; Cox, Burke, Beilin, Derbyshire, Grove, Blanksby, & Puddey, 2008). Nonetheless few studies, have investigated the impact of charging a fee as a positive reinforcement strategy to increase program attendance, and in turn, to promote health. Therefore, as an adjunct to our previous study, we sampled the same heterogeneous population, studying whether

charging a fee for the program could be used as an effective approach to increase participant attendance in order to maximize intervention benefits (Sanghani, et al., 2008).

Methods

Design

In the current study, we conducted identical programs at two different sites for the same group of participants who demonstrated significant benefits from the intervention in our previous study. We attached a fee at one of the sites and offered free attendance at the other. Both the sites included a heterogeneous group of participants, comprised of students, faculty, community members, doctors and patients. The programs were conducted at two different fitness centers, namely, Drayson center at Loma Linda, through Loma Linda University Department of Health Administration and at the XRtainment zone, a fitness center located in Redlands, California. The entire program consisted of four 90-minute sessions at each site. The instructors conducting the program were the same at both sites at all sessions, program delivery and content presented were identical. The pilot program was a quasi-experimental non-equivalent control group pretest posttest design (Sanghani, et al., 2008). The independent variable was whether or not individuals paid for the intervention, while the dependent variable was program attendance.

Sample

There were a total of 40 participants who participated in the intervention. The first 20 participants were called from the client list and were offered the program for \$50 at the XRtainment Zone. The group was heterogeneous and included students, faculty, and staff from Loma Linda University (n=8), aspirants from the community (n=5), and staff and patients from Beaver Medical Group, a local clinic nearby (n=7). The following 20 participants from the client list were offered a free program at the Drayson Fitness Center at Loma Linda University. This group was comprised of students, faculty and staff from Loma Linda University (n=11), aspirants from the community (n=4) and staff and patients from

Beaver Medical Group (n=5). Other intervention details, and sample description are as described in our previous study (Sanghani, et al., 2008).

Location

There was easy access to the university fitness center and the XRtainment Zone. The university fitness center, located on the edge of the campus, is approximately the same distance from the local freeway as the XRtainment Zone. Participants could park in a parking lot for free at each location. We do not know whether participants were members of the university fitness center, but participants were given the same treatment upon entering each facility. Upon entering each building, participants mentioned to the front-desk-person that they were attending our program and they went to each program room. Both locations had rooms that were about the same dimensions, since there was enough space for each participant to lie on his or her exercise mat. Lights were dimmed in each location, creating a peaceful and relaxing ambiance.

Measures and Analysis

After each session, program attendance was monitored among paying and non-paying participants. If participants did not complete the program, or attended less than three sessions, they were considered dropouts. Impact evaluation was conducted to determine if there were any measurable differences in program attendance. Personal satisfaction surveys (process evaluation) were also conducted to examine the participants' views about the delivery and design of the program. For the descriptive analyses, two chi-square tests were conducted to determine whether there were group differences on race/ethnicity and gender in fee-based and free attendance groups. Also two independent samples t-tests were conducted to assess group differences for age and participant type in fee-based and non-fee-based groups. For the main analyses, one independent samples t-test was conducted to examine the effect of paying a fee on program attendance.

Results

There were 32 females and 8 males who

participated in the intervention (Table 1). The ages of participants in the fee-based group ranged from 22 to 62 years with a mean age of 36.8 years (SD = 9.8), while the ages of those in the free attendance group ranged from 24 to 56 years, with a mean age of 38.7 years (SD = 9.4). There were 11 participants who dropped out of the program after the first three sessions in the

free attendance group, while there was only one participant who dropped out after the first three sessions in the fee-based group. Participants stated that they dropped-out because they were too busy with other commitments, lost interest, and had various time constraints (Sanghani, et al., 2008).

Table 1

Demographics by Fee-Based and Free Attendance Groups

	Free Attendance		Fee-based	
	N = 20	%	N = 20	%
Race/ethnicity				
Asian/Pacific Islander	12	60	9	45
White	8	40	8	40
Black	0	0	1	5
Hispanic	0	0	2	10
Gender				
Female	14	70	18	90
Male	6	30	2	10
Total Sessions Attended				
One Session				
Two Sessions	5	25	0	0
Three Sessions	6	30	1	5
Four Sessions	0	0	4	20
	9	45	15	75

Note: No significant differences for race/ethnicity or gender between paid and non-paid groups

1 Chi-square results revealed that there were no
 2 group differences for gender ($X^2 = 2.5$; $p =$
 3 0.11) or for race/ethnicity ($X^2 = 3.4$; $p = 0.33$) in
 4 the fee-based versus free attendance groups.
 5 Independent samples t-test results also revealed
 6 that there were no group differences for age ($t =$
 7

8 0.6 ; $p = 0.55$) or for participant type ($t = -0.9$; p
 9 $= 0.33$) in the fee-based versus free attendance
 10 groups. One independent samples t-test was
 11 conducted to determine if there was a significant
 12 difference in the mean number of sessions
 13 attended between the fee-based and free
 14

Table 2

Independent Samples t-test for Program Attendance

Posttest Variables	Free Attendance			Fee-based			t	p-value
	N	Mean	SD	N	Mean	SD		
Attendance	20	2.6	1.1	20	3.7	0.6	3.3	0.002*

Note: Attendance = total number of sessions attended

*Significant difference in total number of sessions attended between fee-based and free attendance groups; ($p < 0.01$).

attendance groups. Those who paid for the program had a significantly higher mean of attendance in all four sessions than those who did not pay ($p < 0.01$) (Table 2). In addition, process evaluation indicated that most participants preferred the short time frame of the intervention, and those who paid felt motivated to complete all sessions, were more interested, and were more likely to practice the skills on their own at home.

Discussion

The current study examined whether charging a fee for a short-term wellness intervention could be a promising strategy to increase program attendance in order to maximize program benefits. Our results indicated that the attendance rate was significantly higher amongst the group that paid fees at the XRtainment Zone, compared to the free-attendance group at the university fitness center, in spite of the fact that the both groups had benefited significantly from the previous free identical program attended. Previous research using strategies such as goal setting, time management, and overcoming barriers in behavior interventions to increase program participation, retention, and attendance has shown little improvement (Cox et al. 2008; Basler, Bertalanffy, Quint, Wilke, & Wolf 2007). In this pilot study, however, charging a reasonable fee may have incurred a sense of responsibility on the attendees, driving them toward program completion. The money invested could have triggered greater interest amongst the fee-based group to take advantage of their investment and obtain the health benefits associated with the program, thus, reinforcing the behavior of repeated attendance. In one study carried out on health club consumers, most clients opted to pay a per-month fee rather than a per visit fee, acquiring responsibility for the invested money, which in turn could motivate them to attend the wellness facilities as many times as they desired (DellaVigna & Malmendier, 2006).

There is a growing trend for fee-based wellness programs in varied settings. Although corporate

settings strive to keep operating costs down, many have opted to pay a set fee for employee-based wellness programs, hoping to motivate employees to maintain their health. Banham (2010) demonstrated that attaching a fee to a worksite wellness program improved employee health, productivity, and reduced healthcare premium costs. In another study, paying a fee for an employee wellness program resulted in less time away from work (Cooper, Wahl, & O'Neil, 2009).

While charging a fee is often used as a social marketing strategy, little archived research exists on the effect of payment on program attendance. Overall, the current pilot study points toward increased program attendance for a fee-based intervention. In addition, the positive results from the process evaluations demonstrated that participants in both the fee-based and free attendance programs appreciated and simple and quick techniques, which could be replicated at home, or in university or corporate settings. More in-depth research is warranted to ascertain participant tendencies towards charged programs and to verify this concept.

A study limitation is that, although the two programs had the same instructor, material, and were at the same time, the two locations were still different. As a result we do not know for sure whether the higher attendance rates were due to paying a fee or due to an unknown confounding factor. A different study design such as a 2x2 factorial would have allowed us to address this limitation by offering a free program at the XRtainment Zone and a paid program at the university fitness center. Despite the differences in study location, the independent samples t-test conducted demonstrated no significant group differences for participant type. Another limitation is the small sample size in both fee-based and free attendance groups may limit our ability to generalize results to other studies, and

particularly to males. Additional research is needed to examine these preliminary findings in greater detail.

Conclusion

Preliminary findings of this pilot study demonstrate that charging a fee for wellness programs could augment attendance and consistency, thereby reducing dropout rates. To our knowledge this may be the first wellness program with a focus on stress reduction to

examine the effects of charging a fee on participant attendance. Future researchers should consider designing more rigorous studies, with larger sample sizes to examine the impact of fee-based programs as compared to free programs. Creating a larger evidence base will ultimately help to determine the efficacy of fee-based programs on participant success rate.

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