Research

Health Promotion Needs Assessment at a Faith-Based Substance Abuse Recovery Facility in Alabama

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Abstract

Objective: To examine the health promotion and health education needs of an inpatient population at one faith-based addiction treatment center. A secondary aim was to assess the awareness and use of chiropractic care recently made available at the center.

Data Sources: A self-survey previously conducted at the treatment center provided background data. The research team developed and conducted a survey to assess the inpatients' knowledge and attitudes about specific health behaviors, including physical activity, dietary habits, and tobacco use status, as well as their attitudes toward and use of the clinic's chiropractic services. Descriptive statistics are reported from both survey samples.

Results: This inpatient population has significant health promotion needs. A majority of patients (74%) use tobacco and none report getting the recommended intake of 5 servings of

fruits and vegetables daily. Six percent reported utilizing the free chiropractic services available at the clinic. Over 60% expressed interest in programs on smoking cessation, healthy weight and diet.

Conclusion: Little is being done to address the physical health needs of this population outside of addiction recovery. This program could benefit from and patients would likely support, health education programs on smoking cessation, healthy diet and food preparation along with physical activity programs.

Introduction

History of Faith-based Substance Abuse Treatment Facilities

Faith-based substance abuse recovery facilities have been in existence for decades. *Teen Challenge*, one of the oldest and most well known, was founded in 1958 in New York City by the Assembly of God, a Protestant church denomination.[1] Protestant churches were the first to establish recovery programs for addicts as part of their mission effort.[1,2] Badri states that Pentecostals and the Nation of Islam were among the first to use their respective beliefs to treat addictions.[3] This religious approach to treating addiction has focused on changing the person through confrontational or emotional cathartic experiences[1,4] and through a religious rationale for restraint, prayer and having needs met via a social community of faith rather than drugs.[4] However, it remains unclear as to whether faith-based initiatives are more effective than secular treatment programs.[5]

Study Site and Facility History and Background

This study focused on a faith-based substance addiction and behavioral rehabilitation program located in the greater Birmingham, Alabama area. This facility is an outgrowth of a rescue mission established in the 1970s. The program in its present form was established in 1996. Patients are referred to the facility by both the courts and private referrals. Funding with

private donations and from its entrepreneurial endeavors, such as its thrift store, generates the majority of its operational budget. Patients entering the program are charged a one-time fee of $395. If the patient has no means of paying the fee, private sponsors will provide the funds. Those who enter the program undergo a psychological evaluation by a staff psychologist and a physical examination by the facility's physician. Program participants are housed, fed and provided with medical care and counseling for one year. The program has approximately 160 patients at present.

The facility's medical clinic was founded in 2006 as a division of a faith-centered 501c-3 not-for-profit entity. The clinic's primary mission is to serve the rescue and recovery facility with which it is associated. It also provides low cost and at times, free medical care to the inner city community in which it is located. The cost of a comprehensive addiction rehabilitation program is substantial. Due to budget constraints the medical clinic receives little financial support from the parent organization. The clinic receives an operational subsidy from the recovery facility in the form of free rent and utilities for the 900 sq. ft. office space; however the clinic receives no compensation for treating the rescue and recovery facility patients. Funding for medications and supplies has traditionally come from donations from the clinic physician's personal friends and a few small grants. A majority of the facility's patients are indigent and thus have no means to contribute to their medical care and have multiple co-morbidities as a result of years of addiction and neglect. Since funding is limited, very little attention has been paid to health promotion needs of the patients. Treating addiction has been the primary mission along with spiritual salvation.

Facility-Reported Issues

The facility performed an internal assessment of patients' health education and health promotion needs in the summer of 2007 by evaluating patient charts, histories and assessment of tobacco use. **Tables 1 and 2** summarize participants' demographics, knowledge, attitudes and beliefs related to certain health behaviors taken from the center's self-assessment. The majority of the participants were white males, and 79% used tobacco. Their self-reported

health habits were poor and their knowledge of healthy behavior was also limited. It was of particular interest to the center staff that 68% of participants reported unhealthy weight gain after drug cessation. Concerns for these health behavior issues prompted further study from our research team.

Table 1. Demographics and health information on participants at center from 2007 self-assessment (n=126).

Gender	**n**	**%**
Male	87	69
Female	25	20
Missing	14	11
Race		
White	92	73
Black	13	10
Hispanic	2	2
Other	3	2
Missing	16	13
Age		
18-25	25	20
26-30	28	22
31-40	29	23
41-49	28	22
>50	10	8
Missing	6	5
Months in program	**n**	**%**
1	36	31
2	21	18
3	20	17
4	9	8
5	6	5
6	12	10
>6	14	12
Missing	8	6

Referral type		
Self-referral	40	32
Court-referral	26	21
Family/friend	44	35
Other	16	12
Total	126	100
Weight gain noted while at the center		
Yes	85	68
No	41	33
Why you think you gained weight		
Improper diet	48	38
Lack of exercise	14	11
Both	34	27
Missing	30	24
Losing weight would improve my health		
Strongly Agree	24	19
Agree	53	42
Don't know	20	16
Disagree	16	13
Strongly Disagree	10	8
Missing	3	2
Tobacco use		
Yes	99	79
No	27	21
Missing	0	0
Total	126	100
Type of tobacco		
Cigarettes	86	68
Cigars	2	2
Chewing tobacco	9	7
Snuff	11	9
Missing	18	14
How long have you used tobacco?		
5 years or less	16	13

5-10	24	19
11-15	22	17
16-20	15	12
Missing	49	39
Age in years at first use of tobacco		
=10	5	4
11-15	53	42
16-20	28	22
21-25	6	5
Missing	34	27
Highest level of education completed		
Less than high school	34	27
HS grad	45	36
Some college	23	18
College grad	15	12
Graduate degree	3	2
Missing	6	5

Table 2. Attitudes and beliefs of participants at the center from 2007 self- assessment.

Exercise would improve my overall health		
	n	**%**
Strongly agree	34	27
Agree	80	63
Don't know	7	6
Disagree	1	1
Strongly disagree	3	2
Missing	1	1
Total	126	100
If walking program were available I would participate		
Very likely	42	33
Likely	45	36
Don't know	20	16
Unlikely	13	10

Very unlikely	6	5
Missing	0	0
Total	126	100
I would be more likely if an incentive was offered		
Strongly agree	13	10
Agree	30	24
Would not make a difference	44	35
Disagree	28	22
Strongly disagree	9	7
Missing	2	2
Total	126	100
More likely to participate if walking recommended by my doctor		
Strongly agree	13	10
Agree	53	42
Would not make a difference	40	32
Disagree	13	10
Strongly disagree	5	4
Missing	2	2
Total	126	100
How many servings of fruits and vegetables should be eaten each day in a healthy diet		
2	42	33
3-4	49	40
5-7	13	11
Don’t know	18	14
Missing	2	2
Total	126	100
How many fruit and vegetable servings do you get each day		
1	60	48
2	23	18
3	10	8
4	2	2
5 or >	0	0
None	25	20
Missing	6	4
Total	126	100

Eggs, bacon or sausage and biscuits are a healthy breakfast		
Strongly agree	9	7
Agree	47	37
Don't know	20	16
Disagree	27	21
Strongly disagree	17	14
Missing	6	5
Total	126	100

Aims of the Study

The aim of this study was to help the facility identify health education and health promotion needs based on their previous self-assessment of in-patients and through a survey of current patients' self-reported behavior and attitudes. A secondary aim was to assess the level of knowledge and possible interest in chiropractic services currently offered at the center.

Methods

First, a review of the 2007 self-study survey previously performed by the center was made. We studied the results as well as the literature on patients typically seen in substance abuse treatment center settings to determine the questions we would pose to patients about future health promotion activities. Our survey was designed to gain insight into the activities and behavior that patients would support or participate in, basing questions on some of the data gathered initially in the self-study performed by the center. For example, the self-study asked about the type of addictive behavior for which they were being treated; whether they had gained weight since they entered the program; and whether they felt being overweight had health risks. Our questionnaire utilized 5-point Likert-scale questions, multiple-choice questions on types of exercise they were interested in and types of rewards they might want to see offered as well as binary options to determine tobacco usage. We also asked if they knew that a chiropractor was available on-site and whether or not they had seen him, explaining that he is

also a trained health educator and provides health promotion messages to patients under his care. Descriptive statistics were generated from the survey by creating a SPSS (Chicago, IL) version 14 database.

The study was approved by the Cleveland Chiropractic College Institutional Review Board and the treatment center's directors. Patients were informed that all information obtained was confidential, anonymous, voluntary and would be reported in group form only.

Results

Needs Analysis Survey Basic Demographics

Eighty-two people completed the survey, and at the time there were 150 inpatients in the center (55% response). Males represented the majority of those responding to this survey (72%). Three didn't complete the gender section of the survey. Seventy-two of 80 (90%) responding to the question on race were white. Seven were minorities with 6 black and 1 Hispanic. Sixty-six percent did not know the services of a chiropractor were available at the facility. All participants were >18 years and a breakdown based on age category along with additional demographic information is listed in **Table 3**. Descriptive statistics on other behaviors and attitudes are also shown in **Table 3**.

Table 3. Demographic and results of survey on attitudes, beliefs, current health behaviors.

Gender	**n**	**%**
Male	59	69
Female	23	27
Total	82	100
Race		
White	72	88
Black	6	8
Other	2	2
Missing	2	2

Total	82	100
Age category		
18-25	18	22
26-30	12	15
31-35	14	17
36-40	13	16
41-50	18	21
>50	7	9
Missing	0	0
Total	82	100
Tobacco use		
Yes	61	74
No	14	17
Missing	7	9
Total	82	100
If tobacco user: How likely would you be to take part in a tobacco cessation class if free at the clinic?		
Very likely	25	33
Likely	22	29
Not sure	8	11
Unlikely	3	5
Very unlikely	10	13
Missing	7	9
Total	75	100
How likely would you be to participate in a program to reach a healthy weight?		
Very likely	41	50
Likely	25	30
Not sure	8	10
Unlikely	1	1
Very unlikely	7	9
Missing	0	0
Total	82	100
How likely would you be to participate in a program on how to eat healthier, shop/prepare healthy meals?		
	n	**%**

Very likely	27	33
Likely	30	37
Not sure	9	11
Unlikely	6	7
Very unlikely	10	12
Missing	0	0
Total	82	100
Rank the programs would feel you would most like to see from 1-4		
Activity	**Rank**	**%**
Exercise	1	47
Healthy food prep	2	29
Tobacco cessation	3	21
Weight loss	4	11
Aware chiropractic services were available at the clinic		
	n	**%**
Yes	27	33
No	55	67
Missing	0	0
Total	82	100
Have you seen the DC at the clinic		
Yes	5	6
No	43	52
Missing	34	42
Total	82	100
If not seen DC, reason for not seeing him		
Didn't have a need	16	30
Couldn't afford it	11	21
Don't know anything about DC	24	44
Other	3	5
Total	54	100

Overall Interest in Health Education Programming

For the most part, preference for physical activity or exercise was most common when participants were given a choice (47%); 29% wanted to know more about healthy food preparation; 21% about smoking cessation; and 11% about weight loss.

Preferred exercise. Participants were given choices and allowed to write in other types of exercise in a second question related to specific interests in physical activity. When given a choice among aerobics, treadmills, walking, and weight lifting or other; 28 (33%) said weight lifting was their choice for exercise if available; ten (12%) said aerobics and 7 (8.2%) said walking. Among the write-in choices for "other" were jazzercise, martial arts, softball or basketball, water exercise and yoga.

Program on reaching healthy weight and healthy diet. When asked if they would support a program to help them reach healthy weight, of the 82 that responded to this question, 66 (80%) answered that they likely or very likely would participate. When asked of an interest in eating a healthier diet, of 82 respondents, 57 (67%) said they would likely or very likely participate in this type of program if offered at the center.

Smoking and smoking cessation. Smoking and prevalence of tobacco use was 81% in this sample responding to the question on tobacco with 61/77 stating they smoked cigarettes. Of those, 62% said they would likely or very likely attend a cessation program.

Chiropractic availability and use. Although 33% were aware a doctor of chiropractic was available only a small percentage had seen him. This question was asked because chiropractic care does not utilize drug therapy and the center wanted to identify any barrier to the use of chiropractic. Interestingly, some said they had not used the chiropractor due to cost, even though the services were free. Among those stating they had not seen the chiropractor, most said it was because they did not know anything about chiropractic or had no perceived need for the services.

Discussion

In the center's previous self-assessment, a slight majority said they would have been more likely to participate if a doctor had recommended walking as a form of exercise. This is of interest since cues to action by a health care provider often prompt people to take action according to some health behavioral models. [6,7] However, if participation in physical activity (walking program) were to be incentivized, they would be no more likely to participate. Only 24% said this would make a difference while 35% said it would not make any difference and 29% said they disagreed that incentives would make them more likely to participate. There is clearly a need for health education and health promoting programs at the center. Health care provider cues could possibly enhance participation levels in some patients.

There has been some debate as to whether smoking cessation is advisable in drug rehab centers but the preponderance of evidence seems to suggest it can be offered at the same time. Studies show smoking bans and concomitant tobacco cessation counseling do not necessarily adversely affect treatment outcomes. [8-12] In the case of this center, the majority of respondents expressed interest in smoking cessation, suggesting a readiness for change in behavior.[13] Only a small number said they would be unlikely or very unlikely to partake in such a program, which was encouraging. Since a number of patients also stated they used smokeless tobacco, a program focused on tobacco cessation may be more valuable than simply smoking cessation. Nutrition education and exercise counseling are not only compatible with substance abuse treatment but may actually enhance effectiveness of that treatment. [14]

There is a substantial body of literature to support the notion that some pathways in the brain that mediate food intake and other pleasurable sensations also mediate addictive drug behavior. [15-19] Whether the weight gain seen in this population is simply the result of a diet high in fat and sugar and a sedentary lifestyle or another manifestation of addictive behavior remains unclear. There are no interventions in place to address this problem and it is a concern for this in-patient population. Program participants are provided three meals daily in the

facility's cafeteria. The majority of the food served is donated and is high in fat, sodium, and sugar content. Funds are not available for the purchase of more healthy food options and the medical facility has little control over what is served to the patient population. Additionally, food preparation is performed by untrained patients at the center and as a result, most foods are fried. Since instruction on better diet has been shown to complement treatment effectiveness as well,[14] instruction on healthy diet or food preparation seems like a logical health promotion activity to offer.

There are some limitations to this study. First, in this population, we do not know how much effort respondents made to be compliant when answering survey questions, which might have produced a bias toward favorable responses. It is also difficult to say whether participants in the survey would actually attempt behavior change; however, intent is a predictor in many health behavioral change assessments. [20] It is clear that males were predominant in that the most common exercise interest was weight lifting, and it would probably be advantageous to offer a multitude of programs to meet all needs. Space at the center is limited so exercise options would likely be limited as well.

Conclusion

Health education seems to be appropriate for this inpatient population. Since they are, in a sense, a captive audience, why not offer more in the way of education regarding tobacco cessation, a healthier diet, and engaging in more physical activity; particularly if they have expressed an interest in these services? Physical activity has been found to increase effectiveness of smoking cessation so it could also have benefits across the board in substance abuse. The center could consider banning smoking on campus altogether; especially if it had negative outcomes associated with length of stay. This is a question that has been posed but not yet tested at the site. The center could also opt for healthy choices in food preparation, and it could attempt to solicit donations of healthier food staples such as canned vegetables, fruits, and whole grains from those currently supporting the center via donations.

Further research should investigate whether programs could be successful in helping patients reach optimal weight, eat healthier, and stop smoking while in facilities such as this. Utilization of the services of the chiropractor should also be further investigated since this is a drug-free source of treatment that could complement any programmatic and treatment goals at the center. It is also unfortunate that many were unaware of the chiropractor's presence since he is the only health educator at the facility. Outcomes related to successful length of stay and program completion could also be assessed in future research endeavors. Why not work toward substance cessation and improved general health outcomes within the same process?

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Conflicts of Interest

The authors declare no conflicts of interest related to this study or manuscript that is submitted.

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