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Insight 2 Health

FITNESS CHALLENGE

New Ways for Implementing Healthy Living in the Community

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Program and Study Overview

Insight 2 Health (I2H), led by Tyrone Minor and colleagues and the FIT Lab, is a program designed to improve the health and wellbeing of participants, empower them to take charge of their health and to lower their risk for chronic diseases. Mayo Clinic partnered with Mr. Minor and colleagues to help assess participants' perceptions of program benefit, absolute benefits in terms of changes in behavior and physical activity, and barriers that they experience in adhering to the program. Surveys and physical parameters (weight, blood pressure) were performed at baseline and at the last session of the program, held at Mayo Square.

A total of 23 participants were consented and participated in the research component of the fitness challenge intervention. Twenty-three completed the initial survey and 16 completed the follow-up survey. The number individuals completing the follow up survey number was likely decreased due to the timing of the last session of the program and the competing event at Mayo Square. The types of questions asked included questions regarding health status, smoking, outlook on life, health concerns, daily spiritual experience, physical activity: types of activity in which participants' engage, time spent doing these activities, change strategies, which includes their thoughts, feelings, and activities they use to help them change their physical activity; pros and cons about physical activity, confidence in being able to perform physical activity, family support, friend support, recreation choices, and if they enjoy physical activity. Similar questions were asked about intake of fruits and vegetables, dietary fat and salt including: serving amounts, change strategies, confidence, family support, pros and cons, friend support, enjoyment.

The following is a summary of the survey responses at baseline and follow up.

Summary of I2H Pre and Post Surveys

I. Physical activity:

1. Participant confidence remained relatively stable from baseline to follow-up, with specific questions asked about engaging in physical activity when stressed or feeling sad, setting time aside for physical activity on most days of the week, getting up early to do physical activity, engaging in physical activity when friends and family want you to do something else, engaging in physical activity with weather changes or when there is much job related work to do. The mean confidence score was 4.2 at baseline and 4.4 at follow (Scale; 1-5). Fifty-seven percent of participants at follow up were sure that they can do physical activity even when family or friends want them to do something else versus 30% feeling that they could at baseline



2. Family and friend support remained unchanged from baseline to follow up with a mean of 2 at baseline to 2.4 at follow up (Scale; 1-5). This question asked about family or friends performing a physical activity with the participant and encouraging them to do a physical activity during a typical week
3. More of the participants are trying different kinds of physical activity at follow up versus baseline. At follow-up, a large proportion of participants were setting goals to do physical activity. Sixty-eight percent were able to get to parks or gyms close to their homes easily. At baseline 30% were choosing activities such as TV, reading, listening to music or computers whereas at follow up only 13% were choosing those activities.
4. 56% of participants strongly enjoy doing physical activity at follow up whereas 36% felt that way at baseline.



5. The time spent performing vigorous activity during the last 7 days improved in follow up. Twelve percent spent 31-45 minutes, whereas 59% spent 46-60 minutes at baseline. In follow-up, 69% of participants were spending at least 46 minutes or more on vigorous activity. None were spending less than 46 minutes.
6. The mean number of days for moderate-intensity physical activity for participants increased from baseline 2.2 days to 3.4 days at follow up.
7. The mean of participants who engaged in physical activity for at least 30 minutes per day or more went from 22% with no physical activity during the week, to 40% engaging in physical activity at least 3 times a week, and 33% engaging in physical activity at least 4 times a week.

II. Diet:

1. Fruit and vegetables intake change strategies (including their activities, thoughts, and feeling they use to help them change their intake) were assessed on a scale from 1-5 (1 never, 2 almost never, 3 sometimes, 4 often, 5 many times). At baseline, the mean was 2.7 and at follow-up was 3.
2. Family support improved for fruit and vegetable consumption; these questions asked how many days during a typical week did a family member provide fruits and vegetables, eat them with you, encourage you to eat fruits and vegetables or tell you were doing a good job with eating these foods. The mean was 2.4 days at baseline and 3 days at follow-up.
3. The confidence of consumption of fruits and vegetables and eating more servings increased from baseline as only 22% felt confident that they could increase the amount whereas 56% at follow up felt confident.
4. Dietary fat and salt intake change strategies (scale from 1-5; 1 never, 2 almost never, 3 sometimes, 4 often, 5 many times) improved in follow up. The mean at baseline was 2.9 and 3.7 at follow up.
5. More participants were setting goals to eat low fat and low salt foods more often at time of follow up; baseline: Almost never -17%, sometimes - 39%, often - 17%, and many times - 13%. At follow up: almost never - 6%, sometimes - 25%, often - 37%, many times - 25%.
6. More participants are making improvements to change their dietary fat and salt by avoiding high fat and high salt foods; at baseline 59% said no but with intentions to change within 30 days and at follow-up 6% said no.

Table 1.

CATEGORY	<i>Baseline survey (23 surveys), mean</i>	<i>Follow up survey (16), mean</i>
PHYSICAL ACTIVITY		
Change strategies	3.1	3.8
Confidence	4.2	4.4
Friend support	1.8	2.4
Family support	2	2.4
FRUIT & VEGETABLES CONSUMPTION		
Change strategies	2.7	3.6
Confidence	4.1	4.6
Friend support	1.8	2.3
Family support	2.4	3
DIETARY FAT & SALT		
Change strategies	2.9	3.7
Confidence	4.1	4.5
Friend support	2	2.3
Family support	2.3	2.8

Table 2.

	Baseline (21 readings)	Follow up (14 readings)
Systolic Blood pressure	141	130
Diastolic Blood pressure	88	86

Table 3.

PHYSICAL ACTIVITY	Baseline survey (23 surveys)	Follow up survey (16 surveys)
Days of vigorous activity (within last 7 days)	Mean: 2	Mean: 4
Time spent doing vigorous activity		
less than 15 minutes	2	0
15-30 minutes	1	0
31-45 minutes	2	0
46-60 minutes	10	11
more than 60 minutes	1	5
Days of moderate physical activity (during last 7 days)	Mean: 2	Mean: 3
Time spent doing moderate activity		
less than 15 minutes	2	1
15-30 minutes	6	4
31-45 minutes	5	3
46-60 minutes	3	5
more than 60 minutes	2	0

III. Spirituality:

1. Daily spiritual experience scale assessed the feeling of a spiritual presence, connection to all life, feeling joy during worship, finding strength and comfort in religion or spirituality, feeling deep inner peace or harmony, asking for spiritual help during daily activities, feeling spiritual love directly or through others, feeling thankful and selfless caring for others, accepting others even when participant thinks they are doing wrong, and desire to be closer to spiritual being. The participants were asked if they felt these experiences many times a day (1), every day (2), most days (3), some days (4), once in a while (5), and never or almost never (6). Thus *a lower mean is better on this scale*. The participants had an overall higher spirituality score throughout the study with a mean score at baseline of 2.8 and at follow up 2.6.
2. 54% at baseline of participants felt that faith or spiritual beliefs were a source of strength in daily living was very important, whereas 75% felt it was very important at follow up.
3. 44% of the participants found strength in religion or spirituality many times a day at follow up whereas 23% did at baseline

IV. Health Status

1. 74% of the participants were told by a health care professional that they have a weight 20 pounds or more over ideal weight.
2. In the initial survey, 14% of participants used tobacco products and in the follow up survey 0% used tobacco products.
3. In the follow up survey, 60% felt that they had a very good outlook on life were as 24% felt this way in pre survey.
4. The blood pressure measurements that were taken at baseline and at follow up improved as seen in Table 2.

V. Health Concerns/Risks

The top five health concerns from the participants were the following (from highest to lowest): hypertension, diabetes, arthritis, physical inactivity and obesity. The concerns for the African American community (from highest to lowest) included hypertension, high cholesterol, coronary heart disease, heart attack, and stroke.

Virtually every participant (96%) of the participants perceived themselves as being at risk for heart disease and 100% felt that changing their behavior would reduce the risk of developing heart disease. Ninety-one percent of the participants now have an understanding of what to do to change their lifestyle.

VI. Review/Recommendations

While having participants who have all different backgrounds is great for diversity of the program, it can make it difficult to address spirituality. However, spiritual beliefs or faith were identified as being very important as a source of strength in daily living. Focusing on continuing to have a strong faith belief and/or being spiritual in those who share that belief

could improve the outcome in those participants. This would be a difficult topic to address due to the variety of spiritual beliefs, but emphasizing their spirituality during the program, could be a potential source of increased success for the participants

I2H participants were initially inspired to be more physically active and became more motivated to lead healthier lifestyles by changing their diet and increasing physical activity. By the completion of the program, the participants' focus seems to have changed; 53% thought more about the benefits of physical activity and less about the hassles at the time of follow up, whereas 26% did not often think about the benefits at baseline.

Participants felt more confident overall in making better food selections at time of follow up. It appears that more improvement could be made with getting family members involved in dietary changes. Blood pressure readings also improved based on results. This improvement will help participants prevent heart disease by addressing risk factors such as hypertension, physical inactivity, poor diet and obesity.

The interventions from the physical activity portion of the program appear to have had an overall positive effect. Participants became more physically active than they were at baseline and more motivated to continue physical activity as part of lifestyle changes. There is probably room to improve the dietary education portion of the program as many participants were motivated to make some changes as seen with fruits and vegetables, but there was not much change seen in behaviors or feelings toward making changes in salt and fat in the diet. This could be an area that could be enhanced through the nutrition education aspect of the program. Participants were noted to have better outlook on life at time of follow up, which is part of living a healthy lifestyle. It would likely be beneficial to continue to focus on optimal mental health as part of the program.

Based on the identified health concerns, our team would recommend emphasizing the importance of living a healthy lifestyle and control of risk factors for heart disease prevention especially in the African American community. Utilizing the medical community for any educational tools on these topics could be a way to better inform the participants of these diseases.

There are some areas of improvement worthy of focus, based on the survey responses. These include addressing the barriers that the participants face as part of their lifestyle change. In the pre and post surveys, the numbers for barriers that get in the way of being physically active did not change. Program leaders could consider addressing these barriers individually at the beginning of the program with each participant and reassessing midway into program to see how they are tackling these barriers. Another idea would be to emphasize reminders to be physically active in home or work, as the data showed that participants responded well to this. I2H might also consider sending out weekly or daily emails or even short texts to participants to remind them to be active during the day, especially the days they are not working out with the program. Another area for improvement would be to identify positive motivators for participants at the beginning of the program and use those motivators to help them live a healthy lifestyle, whether it is spiritual, family, friends, a certain celebrity, etc.

Finally, it may be useful to get family and friends involved early in the program. Many of the participants had good support, especially for physical activity and dietary changes from their family and friends. This could be used to help them reach their goals.

Offering some type of incentive for the participants who are able to recruit family or friends to the program may also improve the program metrics.