

Understanding Initiation of and Adherence to High-Intensity Functional Training: An Application of the Integrated Theory of Health Behavior Change

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INTRODUCTION

- Time is a key barrier to exercise and many exercise programs have high dropout rates.
- People are more likely to engage in and continue exercise if they work out with more than one other person and receive social support; adults often find it easier to exercise in a group.
- Group-based high-intensity functional training (HIFT; e.g., CrossFit) has been rapidly growing in popularity and can improve health and fitness in less time than moderate exercise.
 - HIFT workouts temporally combine aerobic and muscle strengthening exercises in an infinite number of combinations across multiple time domains, averaging about 15 minutes.
 - Workouts are led by a certified coach and all exercises are individually scaled as needed.
 - Anecdotal reports show that HIFT participation can result in lifestyle changes as well as improved fitness and health.
 - However, research studies regarding initiation of and adherence to HIFT are non-existent.
- The Integrated Theory of Health Behavior Change (ITHBC) is based on the premise that behavior change is dynamic and iterative.
 - Fostering knowledge and beliefs, self-regulation skills and abilities, and enhancing social facilitation facilitate the change with engagement in the behavior as the proximal and improved health status as the distal outcomes.

PURPOSE

The purpose of this study was to apply the ITHBC to examine factors related to the initiation of and adherence to HIFT.

METHODS

Design: Purposive selection of 6 HIFT gym owners/head trainers in Kansas and Missouri. Gyms varied in type (i.e., university, within YMCA, garage, stand-alone, military, fitness club), had been open 1-11 years and averaged 30 members (84% adherers).

Participants: All participants were white and college educated with 4±3 years of coaching experience; average age was 39±8 years.

Measures: 60-minute semi-structured (17 question) interviews

Procedure: Interviews were audio recorded, transcribed verbatim, and verified by participants.

- A research assistant thematically coded each interview with NVivo 10 using key concepts from the ITHBC.
- Coding was verified by a second researcher.

Results

Positive- increased self-efficacy, desire to learn and experience greater difficulty and variety of exercises

"I think CrossFit is still edgy enough and intense enough or whatever they want to call it, and that gets people excited."

"I just always try to make them feel like I am continually trying to educate myself to make them better."

"...there is always something new to learn... Yeah the variety, it's always changing."

Negative- lack of knowledge or motivation, feeling intimidated

"So, if someone says, 'Man, this is going to be impossible...' there is already this little cycle of defeat cycle starting...all those things contribute to someone's idea of whether they are going to crush this workout or whether it's going to crush them."

"They are just intimidated in general. I mean it is overwhelming. You consider how intense it is."

"Some don't like the intensity...The community can drive certain people out, and take others in. It's for you or it's not."

Positive- intrinsic motivation and drive, competitiveness, tracking and seeing progress, ability to maintain emotions when dealing with intensity, pain or frustration

"We find what you are bad at and what you are good at, so you have your good days and your harder days."

"I think CrossFit got it right when they did all the tracking so people keep score and can see when they make progress or not. I think that motivates them."

Competing in outside events, dietary changes, adopting new clothing, getting tattoos

"One of our missions is to take your fitness outside of the gym...you know, enter a Tough Mudder, enter a 5K...so you have developed this fitness, but now go take it and apply it and do something with it."

"Females that haven't been athletic suddenly feel like athletes; which is really neat. They have a different awareness of their bodies and what they can do."

"It's more than a workout. It's a lifestyle change, community, diet, and food plan."

Integrated Theory of Health Behavior Change

(Ryan P. Integrated theory of health behavior change: Background and intervention development. *Clin Nurs Spec* 2009;23:161-172.)

Knowledge and Beliefs
Condition Specific Knowledge
Personal Perceptions
Self-Efficacy
Outcome Expectancy
Goal Congruence

Social Facilitation
Influence
Support (Emotional, Instrumental, Informational)

Self-Regulation Skill and Ability
Goal Setting
Self-Monitoring and Reflective Thinking
Decision Making
Planning and Plan Enactment
Self-Evaluation
Management of Emotional Response

Engagement in Self-Management Behavior

Health Status

Positive- referrals from/exercising with friends and family members, social support, supportive gym environments, scaling of workouts, good coaching

"CrossFit from the beginning kind of had this camaraderie with it where you work out really hard together and you like to hang out together."

"The community helps them stay. The intensity is compelling for more competitive people, but it becomes secondary to the community."

"I like to pay individual attention to their weaknesses."

Negative- peer pressure, lack of social support, inability to connect, poor coaching

"I would say the atmosphere is intimidating because we are all quite a close group."

"There are also people that come in with their friends and join but then just don't really show up...I think they feel peer pressure or something to join the gym and it just doesn't work out."

Negative- cost, dislike of being coached, having unrealistic goals, wanting a "quick fix", experiencing injuries, disliking intensity

"Some, I have to dial them back. Those guys that have been athletes but are kind of out of shape will just kill themselves and run themselves into the ground..."

"Because of the competitive atmosphere and because the movements are more complex than people are comfortable with, they tend to give up on it."

Weight loss, decreased body fat, increased physical capacity, improved cardiovascular, bone, and joint health

"We have had some people with significant weight loss."

"Everybody sees more strength, more cardiovascular health. They see bone density markers, all the health markers improving..."

Outcomes

Proximal

Distal

CONCLUSIONS

The most commonly stated reasons for initiating HIFT included the social or community aspect (their friends or family were doing it, they wanted to try something new and be in a team-oriented situation) and desire for results (to improve something about themselves). Adherence was facilitated by support from the community and seeing results. A key reason that people did not initiate HIFT was the "intimidating culture," and a lack of adherence was often attributed to a lack of congruence between the individual's goals, their personality and the culture, as well as monetary cost.

Taking steps to reduce intimidation and cost, facilitate realistic goals, increase social support, and improve coaching may help improve HIFT initiation and adherence.