



Capstone Executive Summary

Individual Health Changes

Within an Organizational Preventive Health or Wellness Program: Lessons of Individual Behavior Change Success and their Implications on Program Design

Student Investigator: Kori Lusignan
Primary Investigator/Capstone Advisor: Kimberly Scott

June 2, 2009

Preventive Health—Why We Need to “Get It”

“How did they do it?”

If you have found yourself asking that question about friends who have lost weight and kept it off, or a colleague who has quit smoking, or a family member who has started jogging so regularly that he’s signed up for his first 5K, you are not alone. While many of us may know what behaviors are necessary to achieve better health, we may find it more difficult to translate that knowing into action.

An individual’s health does not exist in a vacuum. While a person may be responsible for his or her own health behaviors, good and bad, the consequences of those choices affect us as a society, as members of organizations, and as a nation.

In his 2005 article, “Change or Die,” Alan Deutschman reports that, at that time, \$1.8 trillion dollars was consumed by the US health care industry, accounting for 15% of the gross national product. According to Dr. Raphael Levey, the founder of the Global Medical Forum, it has been known for at least fifty years that 80% of the country’s health care budget is spent on health problems that result from five key behaviors—**smoking, drinking, eating, stress, and insufficient exercise** (Deutschman, 2005). President Obama has not been silent about the need for Americans to adopt healthy behaviors—during his campaign, he pledged that, once in office, he would work to increase funding for community-based interventions for preventive health, as well as partner with employers to provide services that increase access and options to Americans seeking to improve their health preventively (Obama, 2008).

As U.S. health care costs skyrocket (Deutschman, 2005) and corporations struggle to contain the health costs of their employees and retirees (“G.M.’s Health Care Fix,” 2007), organizational leadership may look to these sources of medical cost—individual health behaviors—in order to avoid financial crisis. For organizations that choose to do so by sponsoring health and wellness programs, knowing how people successfully change is critical, both in helping employees improve their health, but also, in justifying the financial cost of providing prevention services.

There is an obvious tension here—the behaviors that drive up health care costs are individual, not organizational, but organizations that do not address these individual behaviors may suffer the consequences of employing an unhealthy workforce. The good news is, for those organizations that are ready to engage in the business of supporting behavior change, there may be financial benefits (i.e., a decrease in health care expenditure), as well as other economic and performance-related advantages. Using obesity as just one example, research shows that obese employees have the highest rate of work restrictions—6.9% compared to 3% for individuals of normal weight (Ketter, 2006). This represents a significant hit to workplace productivity. Research also suggests that healthier individuals suffer less absenteeism, work more efficiently, and finally, maintain higher levels of confidence that they can change their behaviors to meet their objectives (Okie, 2007).

Grounded with a solid foundation of behavior change research, I conducted a study to examine if and how participation in an organizational wellness or preventive health program can help individuals to move from intention to action with regard to fitness behavior. If organizational programs can support individuals in establishing the critical skills necessary to maintain healthy new fitness behaviors, they may reap the reward of a healthier, less costly, more effective workforce. My research explores how organizational factors (i.e., group classes/activities,

coaching) and individual factors (i.e., self-regulation/self-regulatory strength, self-efficacy) combine to create vital cognitive support to individuals seeking to make important fitness-related behavior changes (Anderson, Winett, & Wojcik, 2007; Bull, Eakin, Reeves, & Riley, 2006; Deutschman, 2005).

Study Design

If you want to lose weight, ask a skinny person for advice. If you want to quit smoking, find out what a former smoker did to succeed. If you want to start getting active, team up with someone who has a steady workout routine, and lace-up those gym shoes.

This was the premise of my research approach—interview individuals who have successfully changed health behavior at an organization that hosts a worksite wellness program, and identify the factors that led them to success. Specifically, I focused my research on fitness behavior.

I was fortunate to have the opportunity to conduct research at an Ohio-based branch of a telecommunications company with a robust, nationally-established health and wellness program. This organization has approximately 1,500 employees at their Ohio site, with one third of that population being members of their on-site fitness center. Membership fees are \$15 per month, with a host of services covered by that fee, including free personal training/coaching, access to onsite fitness equipment, fitness classes, and participation in group-based monthly competitions and events. In addition, all employees at the company have access to wellness programming via a health internet site, luncheon health-education programs, Weight Watchers at Work, and other preventive health and screening campaigns.

I used two main modalities in conducting my research—interviews and a survey. Interviews were conducted with six individuals identified by a health coordinator/coach at the company as having successfully changed and maintained a fitness-related health behavior for at least sixty days. As noted above, I specifically sought to interview those individuals who had personally “cracked the code” on behavior change; as such, I asked these interviewees questions that got to the core of what helped them to translate intention to act into real, measurable, and sustainable health change.

The survey was distributed to the entire branch via email, and served to help me ensure that the trends and factors reported in my interviews were truly indicative of successful individuals. Finally, I reviewed documents sent to me by a health coordinator at the company, where necessary, to understand the program offerings available to employees.

Guiding my research was this underlying research question: ***which factors, individual and organizational, lead to successful health behavior change?***

Results—Seven Key Factors to Consider

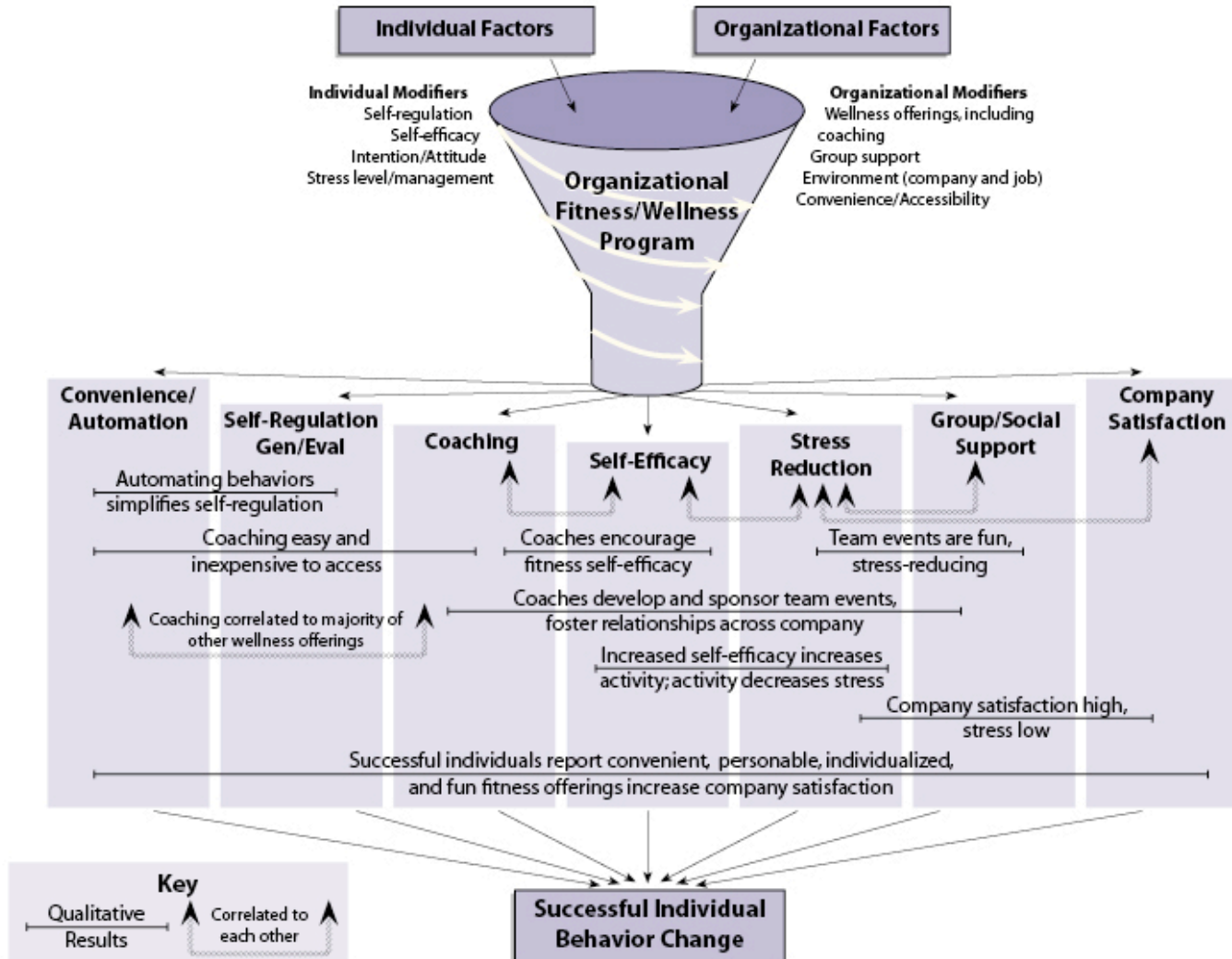
From this study, seven key factors were identified as important to address when designing an organizational wellness program that encourages individual health behavior change. Interviews yielded four of these factors: coaching, improved self-efficacy, group/environmental support, and convenience and automation. The survey data confirmed two of the four—coaching and self-efficacy—and added three more to the mix: stress reduction, self-regulation generation and evaluation (Nenkov, Inman, & Hulland, 2008), and company satisfaction. Table 01 lists the seven factors, and provides a brief description of each.

Table 01—Seven Factors to Consider—Definitions/Descriptions

Factor	Definition/Description
<i>Coaching</i>	Use of organizational health coaches/personal training; one-on-one and in group activities
<i>Self-Efficacy</i>	One's belief in the capability to accomplish a skill to the level necessary to influence personal experience (Bandura, 1994) (i.e., belief in capability, confidence in ability to influence outcome)
<i>Group/Environmental Support</i>	Support (expert and/or emotional) of fitness behavior by peers in environment; overall supportiveness of company environment as a whole upon individual seeking health change
<i>Convenience and Automation</i>	Convenience of in-house fitness center, coaching, and activities; automating or integrating fitness behavior into daily life
<i>Stress Reduction</i>	Reduction of perceived stress, including feelings of harassment, overload, irritability, lack of joy, fatigue, worries, and tension, as measured by the perceived stress questionnaire (Kocalevent RD, 2007)
<i>Self-Regulation Generation/Evaluation</i>	Regulation of behavior based upon generation and evaluation of long-term effects from short-term actions (Nenkov et al., 2008)
<i>Company Satisfaction</i>	Individual satisfaction with the company; not job satisfaction, but organizational satisfaction

If one were to imagine all of the possible contributors to health behavior success as placed into a siphon or funnel, with only the most critical coming through, I would suggest that the seven factors identified through interviews and survey data would be that output. Figure 01 illustrates this metaphor, and provides additional information about the relationships found through my research between the seven factors. It is in the interplay of the different factors that some of the most interesting discussion about what drives individual behavior change may be had.

Figure 01: Concluding Conceptual Framework with Research Findings



Coaching and Capability—Building Success from Success

As noted, both coaching and self-efficacy appeared as key factors in the interview and the survey data, correlated not just to behavior change success, but to each other, as well. According to Albert Bandura, a leader in the field of self-efficacy research, perceptions of self-efficacy can be developed primarily in four ways, as follows (Bandura, 1994):

- **Mastery experiences**—Achieving success through the overcoming of obstacles.
- **Social modeling**—Observing the success achievement in others.
- **Social persuasion**—Verbal encouragement of capability from others.
- **Reduction of stress reaction/emotional response**—Affective, reactive control.

Successful individuals reported that the coaches at this organization help them directly in the first three areas, while the adoption of physical activity (encouraged by coaches) helps them with the fourth. For example, one interviewee reported, *“I workout more regularly and with greater intensity than I had been doing before. The coaches have helped me see that my limits are well beyond what I thought they were.”* For another, success was attributed to *“working with our trainers who constantly challenge [the interviewee].”* Another individual pointed out how the coaches helped to keep her pursuing her fitness goal, even when it was difficult, stating, *“If it weren’t for the gym here at work and the coaches, I would have quit. The encouragement I received pushed me through all the hard times.”* Finally, a fourth interviewee underscored the personal connection that comes when coaches provide a client with mastery experiences and social persuasion, noting, *“[The coaches] are very motivating and give the extra touch to make you feel good about what you are doing and your results.”*

Bandura states that *“[efficacy builders]...structure situations for them in ways that bring success and avoid placing people in situations prematurely where they are likely to fail often”* (Bandura, 1994). While the coaching service, in and of itself, may only account for a small percentage change in behavior change success across the general population, the personalized service provided by the coaches as reported by successful individuals underscores the important contribution of coaches in the development of individual self-efficacy.

Stress, Ego, and Control—Avoiding Depletion is Key

Building capability, skill-by-skill and experience-by-experience, is a great start on the road to behavior change success, but it may not be the whole story. It is also critical to make sure that, along the journey, important resources are guarded. Establishing preventive health behaviors may not be just about growing new skills and habits, but in growing these skills while retaining key resources in the process.

Research suggests that a person’s ability to regulate his/her own behavior, particularly behavior that may be undesirable in the present moment but critical to obtaining a future benefit, like a challenging work-out, may be a limited resource—a critically-important, depletable resource of self-regulation action that individuals possess in reserve (Schmeichel, 2004). When individuals engage in activities that require them to exert self-regulation, they experience “ego depletion,” an exhausted mental state that makes them less able to make decisions using self-control in subsequent actions. Just like a muscle taxed by exercise, depleted self-regulatory strength may require rest in order to rejuvenate for later optimal performance.

In essence, if an individual wants to be able to stretch their *real* muscles and get fit, they need to make sure they have enough self-regulatory muscle to make the choice to head to the gym in the first place. This begs the question: ***how can this regulation strength be reserved?*** I believe the answer may be found, in part, by examining three more of the seven factors: stress, automation/convenience, and company satisfaction.

My research suggests that as stress goes up, healthy behavior change success rates go down, as people who experienced higher levels of stress also were less likely to report being successful at health behavior change. By contrast, employees who reported that they were highly satisfied with the company also reported higher levels of perceived health behavior change success. Finally, all six of the individuals interviewed for this study indicated that either automating behaviors (i.e., prepping gym clothes the night before, integrating exercise into other necessary activities, like biking to work, etc.) and/or using convenient services (i.e., coaches in-house, fitness competitions at work, etc.) contributed to their successful healthy behavior adoption and maintenance.

Taken together, lowering stress, feeling satisfied with the workplace, and creating routines that minimize preparation for fitness activity, may eliminate some of the taxation on individual self-control and regulation. For those who are able to plan ahead to reduce any interference with fitness behavior participation, there may be an experience of reduced ego depletion in the immediate preparation phase prior to fitness activity. Having a convenient facility and a set of automated behaviors added to the mix may make ego depletion even less likely. Combine this decreased ego depletion with the addition of the healthy stimulus controls (Prochaska, 1997) described by successful individuals (i.e., seeing coaches and gym acquaintances in environment to remind them of work-outs, incorporating fitness into family activities), and the ego-reserving effect could be even greater.

Don't Forget the Fun and Games

According to those interviewed for my study, developing healthy fitness behaviors using their workplace fitness center has not been all serious business. As mentioned previously, health coordinators (i.e., coaches) at this organization develop and encourage participation in monthly contests and games. Many of these events involve teams of colleagues who may not have a chance to work with one another outside the gym, but have complimentary skills that are right for pairing in the team-based events. In addition to fostering an environment that encourages peers to provide each other with support (the final key factor identified in my research), interviewees reported feeling energized and inspired by these events. In short, they are fun! Who doesn't want to keep doing something that is enjoyable? While the coaches may devise the activities to support individual self-efficacy, the zest with which interviewees described their participation in these events belies the power of mixing fun and competition into the hard work associated with developing healthy behaviors.

Conclusion

For organizations committed to the health of their employees, considering employer-based prevention efforts as a critical aspect of a comprehensive health plan may prove beneficial for all parties. In order to address prevention, however, it is important to understand what leads to successful individual health behavior change.

In examining the fitness-related behavior change patterns of employees at one firm, my research provides a starting template for organizations looking to influence employee-perceived

health success. By addressing seven key factors— convenience/automation, self-regulation generation/evaluation, coaching, self-efficacy, stress, group/social support, and company satisfaction—organizations implementing or improving their preventive health and wellness programs may derive the most “bang of their buck,” as well as enjoy the benefits of a healthier employee population, in the process.

Bibliography

- Anderson, E. S., Winett, R. A., & Wojcik, J. R. (2007). Self-regulation, self-efficacy, outcome expectations, and social support: Social cognitive theory and nutrition behavior. *Annals of Behavioral Medicine Vol 34(3) Nov 2007, 304-312.*
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press.
- Bull, S., Eakin, E., Reeves, M., & Riley, K. (2006). Multi-level support for physical activity and healthy eating. *Journal of Advanced Nursing Vol 54(5) Jun 2006, 585-593.*
- Deutschman, A. (2005, May). Change or Die. *Fast Company.*
- G.M.'s Health Care Fix. (2007, October 7, 2007). *New York Times (1/1/1985 to present)*, p. 13.
- Ketter, P. (2006). Obesity Affects Workplace Productivity
Obesity Affects Workplace Productivity. *T+D, 60(6), 13-14.*
<http://search.ebscohost.com/login.aspx?direct=true&db=tfh&AN=21042624&site=ehost-live>
- Kocalevent RD, L. S., Fliege H, Schmid G, Hinz A, Brähler E, Klapp BF. (2007, July). Contribution to the construct validity of the Perceived Stress Questionnaire from a population-based survey. *Journal of Psychosomatic Research, 63(1), 71-81.*
- Nenkov, G. Y., Inman, J. J., & Hulland, J. (2008). Considering the Future: The Conceptualization and Measurement of Elaboration on Potential Outcomes. *Journal of Consumer Research, 35(1), 126-141.*
<http://www.journals.uchicago.edu/doi/abs/10.1086/525504>
- Obama, S. B. (2008, October 22, 2008). Affordable Health Care for All Americans: The Obama-Biden Plan. *JAMA, 300(16), 1927-1928.* <http://jama.ama-assn.org>
- Okie, S. (2007, October 11, 2007). The Employer as Health Coach. *N Engl J Med, 357(15), 1465-1469.* <http://content.nejm.org>
- Prochaska, J. O., Velicer, Wayne F. (1997, September/October 1997). The Transtheoretical Model of Health Behavior Change. *The Science of Health Promotion, 12(1), 283-293.*
- Schmeichel, B. J. a. B., Roy F. (2004). Self-Regulatory Strength. In R. Baumeister & K. Vohs (Eds.), *Handbook of Self Regulation: Research, Theory and Applications.* New York: The Guildford Press.