THE SOCIAL CONSTRUCTION OF WELLNESS IN CORPORATE AMERICA

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By

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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THE EFFECTIVENESS OF CURRENT WELLNESS TECHNOLOGY

Over half of all company worksites in America have implemented wellness programs, and nearly a fifth of all Americans use fitness tracking devices (CDC, 2019; Vogels, 2020; McCarthy, 2020). The goal of current programs and technology is to promote and maintain wellness, but interpreting their effectiveness first requires defining the concept of wellness. Relevant social groups, such as employees, employers, and wellness technology companies, have different interpretations of the meaning and implications of wellness. Therefore, it is critical to study these differing views and the interaction among the groups when judging the effectiveness of a wellness program or technology during the design, implementation, and maintenance phases.

Several past studies focused on the effectiveness of wellness programs in place at companies. They measured this effectiveness by observing fitness, eating, and weight changes over short and long periods of time (Strassle & Berkman, 2020). These studies limited the scope of study to those who volunteered to participate, introducing a volunteer bias. Therefore, these studies did not take the perceptions of non-participants into account. Also, focusing on numbers does not necessarily represent every participant's view of wellness, since some might be interested more in improving their mental state than their physical state. This paper will address the opinions of relevant social groups. These opinions should be taken into account when deciding the effectiveness of a wellness program or technology.

The Social Construction of Technology (SCOT) analytical framework introduced by Pinch and Bijker describes artifacts by "focusing upon the meanings given to them by relevant social groups" (Pinch & Bijker, 1987, p. 428). This framework explores how relevant social groups' perceptions of wellness in corporate America have shaped the field of wellness

technology. The social construction of wellness in corporate America can shed light on perceptions of wellness held by relevant social groups, and further investigate how these differing perceptions continue to shape the field of wellness technology. As seen in Figure 1 below, there are several relevant social groups, however I focus on three social groups for this paper: employees, employers, and wellness companies. Family members, workers within the wellness companies themselves, and medical professionals, are essential but are not primary, so I address these groups only briefly.

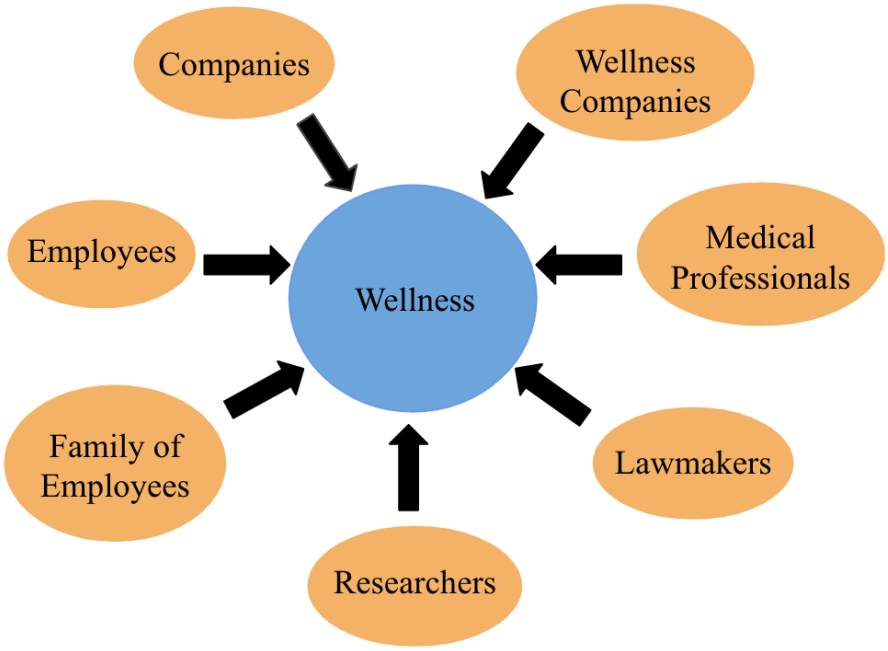

Figure 1: Diagram of the relevant social groups for the social construction of wellness (Fifer, 2020).

The remainder of this paper will summarize recent studies and literature involving wellness and analyze factors involved with each relevant social group's interpretation of wellness. The discussion will encompass factors such as performance, privacy, coercion, and bias, and will also focus on the non-users of wellness programs and technology within the relevant social groups.

WELLNESS PROGRAM RESEARCH

Wellness programs and wellness technology have impacts on several social groups, such as employees, employers, and wellness companies. With millions of individuals involved in these programs and technology, it is critical that the relevant concerns regarding employee protection and effectiveness of design are addressed.

As wellness programs continue to be implemented at companies, the law should ensure that the employees involved are protected properly. Strassle and Berkman (2020) discussed how current laws have indicated a blind trust with respect to the effectiveness of the programs. Federal laws do not allow involuntary acquisition of employee health information, but "voluntary" isn't explicitly defined in the law – an attempt to define it recently in 2019 was dismissed. A current case is in motion regarding Yale employees not voluntarily enrolled in the wellness program, and although it has not been completed, the outcome may help future cases of involuntary wellness program involvement (Strassle & Berkman, 2020, p. 1667-1668).

Strassle and Berkman also called into question the validity of past study designs. One aspect of concern is selection bias, since participants and nonparticipants vary drastically in terms of habits, which indicates that the effectiveness proven by study results could be overblown. Past studies were also focused more on short-term effects, which does not indicate how the program would fair over a longer period of time. Employee wellness programs are used for years, so a study lasting less than a year would provide less than ideal information about the program's long-term effects. Strassle and Berkman concluded that most measures of effectiveness were unclear except for physical values such as cholesterol levels. The limitations of past study designs indicate the need for improved research on the effectiveness of current wellness programs.

In order to understand effective designs for wellness programs, Cheon, Naufal, and Kash (2020) analyzed three wellness programs implemented by a Texas employer: nutrition, diabetes prevention, and hypertension prevention. Each of these programs used the same incentive programs and promotion methods within the organization, which enabled the authors to compare the effectiveness of each program based solely on the design. The researchers used biometric indicators in order to measure effectiveness before, during, and after each wellness program was in use. The study found that the nutrition program was the most effective of the three because there was a clear goal of reducing BMI. It also featured involvement outside of the lectures, including diet plans and exercise routines, whereas diabetes and hypertension programs focused mainly on lectures. This study suggested that the wellness plan with the most participant involvement and the clearest end goals was the most effective program, which should be taken into consideration when designing wellness programs.

Some companies implement incentive programs to encourage employee participation in wellness programs, however a study by Fink, Zabawa, and Chopp (2020) suggested that incentive programs are a waste of money. The researchers collected data regarding employee perceptions of a company-provided wellness incentive program in Wisconsin. The participants in the study answered questions related to motivation to participate in the study: 63% participated because of an employer-offered incentive, 52% stated that a reward wasn't necessary for their participation, 48% felt obligated to participate in the program, and 34% felt that they would need to disclose health information regardless of reward amount (p. 257). The researchers concluded that these results indicated that incentive programs do not have much effect when trying to motivate employees who would usually not participate. This means that a company might need to find a different approach when attempting to increase involvement in its wellness program.

Pettinico, Milne, and Miller (2020) discussed the impact of involving self-tracking features on participation in wellness programs. Past research has shown that including self-tracking features results in more involvement than when these features are not included. The participants are able to see detailed information and feedback about their health, which can result in a feeling of self-empowerment. The authors discovered that this benefit is lost when a wellness program is administered by a third party, meaning another party such as a doctor or company is actively involved in the results obtained using the software (p. 160). When a third party is involved, the employees may feel a lack of control, which may cause the program to be less effective. A company might benefit from providing the technology to the employees, but also not collecting data about the employees so that they can maintain their sense of self-empowerment by being in control of their own data.

As past research indicates, studies regarding effectiveness of current wellness programs are not necessarily valid due to concerns such as selection bias, lack of a focus on long-term effects, and lack of a standard practice to analyze qualitative data in addition to the physically obtained data such as BMI. In addition, current laws do not fully protect individuals, indicating the need for more studies that analyze the pitfalls of current programs and provide improved designs. Recent studies have made progress analyzing methods to increase effectiveness of wellness programs, and to increase employee participation, but more research is needed in order effectively design wellness programs that meet the needs of relevant social groups such as employees and employers. The aim in writing this paper is to identify these needs, and the design choices necessary to meet these needs.

THE IMPLEMENTATION OF WELLNESS PROGRAMS

There are several significant motivating factors that have contributed to the increase in wellness programs at company worksites. Examples of such factors include improving performance, reducing cost, and following current trends. Performance numbers can be affected by employee absenteeism, decreased productivity, distraction, and stress. Studies have linked these performance issues to mental and physical problems, such as being overweight, having depression, or having anxiety. Some companies have sought to address these health issues by providing programs which focus on addressing a specific health condition. In 2013, a study found that company-provided wellness programs which targeted specific chronic health conditions placed the most focus on health conditions such as diabetes, asthma, and coronary artery disease, as seen in Figure 2 below (Mattke et al, 2013).

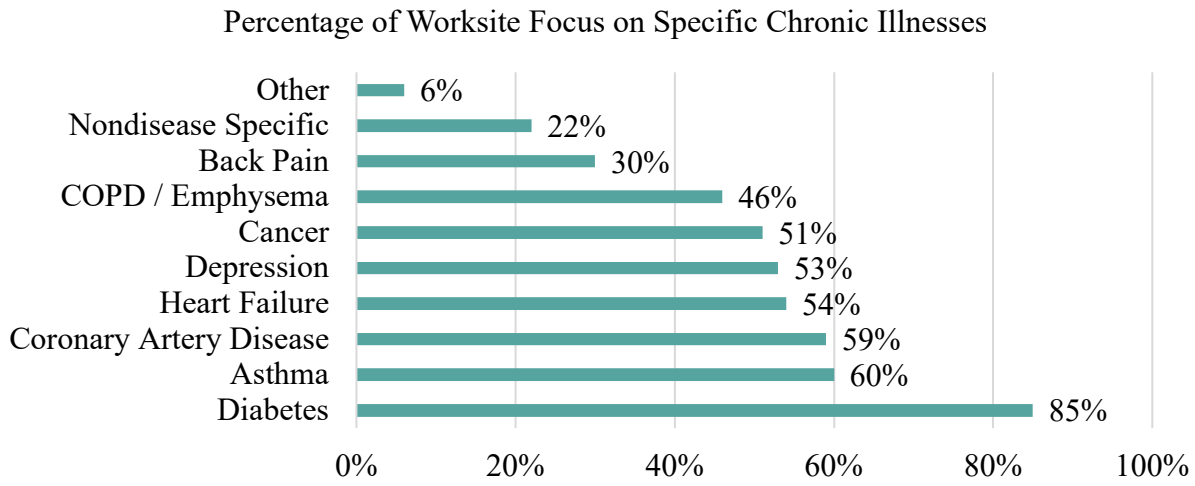

Figure 2: Percentages of worksite wellness program focus on chronic health conditions in the United States in 2013. This figure shows that diabetes is addressed by the majority of wellness programs in America (Adapted by Audrey Fifer, 2020 from S. Mattke et al, 2013).

These programs seem to place the most emphasis on common chronic conditions, which results in a larger portion of company employees benefitting from the company implemented program. In addition to chronic health conditions, companies also implement programs which focus on

lifestyle changes. Mattke et all (2013) found that of the companies focusing on lifestyle changes, the top three focuses were improving nutrition/weight, quitting smoking, and improving fitness as seen in Figure 3 below.

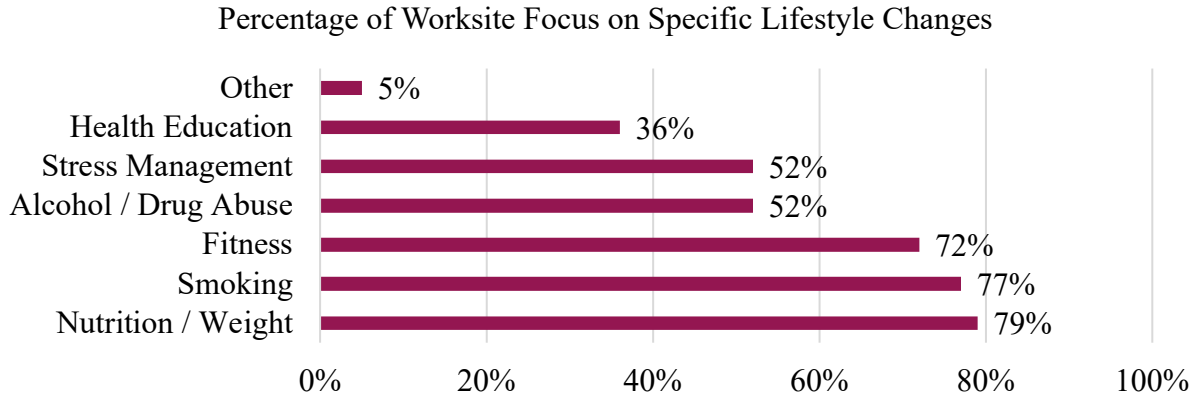

Figure 3: Percentages of worksite wellness program focus on lifestyle changes in the United States in 2013. This figure shows that nutrition and weight improvements is a lifestyle goal for the majority of wellness programs targeting lifestyle changes (Adapted by Audrey Fifer, 2020 from S. Mattke et al, 2013).

Company costs are affected by employee health because a decrease in overall health would result in higher insurance costs, and the company could be further affected financially by any mistakes make on the job as a result of suffering from health problems. In this instance, the company perspective on wellness seems to be the need to increase overall health and wellness in the company in order to prevent performance and cost problems from occurring as a result of poor employee health.

Implementing a wellness program also creates a positive image of the company because it suggests that the company cares about its employees. This positive view of the company promotes the company's reputation as a good place to work and can help recruit talented individuals. Since about half of American worksites have wellness programs, a company which has not implemented a wellness program would be at a disadvantage (CDC, 2019). From the

perspective of implementing wellness programs to follow trends, wellness can be defined as a method to improve the company's image to outsiders and employees and help retain workers.

When implementing a wellness program, companies take into account the effectiveness of the program. However, specific methods of measuring effectiveness have not become standardized. Past research has focused on measuring the effectiveness of wellness programs in place at companies and on improving the effectiveness of these programs. With the methods of measuring and increasing effectiveness improving, it is critical that companies stay up to date with current research when they attempt to implement a wellness program.

THE INFLUENCE OF PRIVACY AND COERCION

Around 21% of adults wear fitness trackers or smart watches, and a similar number use health tracking mobile applications (Vogel, 2020; McCarthy, 2020). Individuals in this group are concerned with their health or fitness and are willing to allow the app or device's company to store their health data. Individuals who do not own or use these technologies include those who cannot afford them, those who do not want their information tracked, and those who do not find it necessary to track their information. The interpretation of wellness for each employee is relative, and can include monitoring and maintaining a healthy lifestyle, maintaining a healthy lifestyle but not finding it necessary to be actively involved in monitoring it, and not thinking about health in general.

When a company implements a wellness program, privacy and coercion are important factors in employee opinion (Brin, 2019). Employees may be okay with using personal fitness trackers, but they may not be as inclined to release their personal data to employers. The Health Insurance Portability and Accountability Act (HIPAA) legislation helps alleviate some privacy concerns, with the additional restriction of being a member of the health plan. Some employees

might feel forced to join wellness programs by the company providing incentive programs to encourage participation, which introduces a problem of coercion. If an employee chooses to not join the program, they could be put at a disadvantage when being compared with others who joined. In addition, if an employee has poor health and the company is able to see this information, the employee could be put at a disadvantage when company decisions are made. In the context of coercion, employees might interpret wellness and its associated programs and technology as a forced sharing of personal information. Those employees who willingly use the features of wellness programs might interpret the wellness programs as a means to achieve a healthy lifestyle at no personal cost. Some employees who are complete novices with healthy living might view wellness as an interesting topic they had never considered before.

WELLNESS COMPANIES

The primary goal of health tracking devices and software is to be user-friendly, forcing the companies designing these products to generate a definition of wellness during development, which will lend itself to more users. Some mobile applications seem to track multiple items like weight, height, run distance, and food intake, while others specialize in a particular category. Tracking devices tend to measure heart rate, running distance, and temperature. In the technology company perspective, wellness seems to be a changing concept based on the changing needs and wants of consumers, and is not entirely stable. Their approach to creating a wellness app or device is by interpreting what a user would find most important regarding the idea of wellness.

As wellness companies improve their wellness technology, it is critical that they stay up to date with current research in the medical field. Keller et al (2011) found that “of 30,000 Americans, those who had the highest levels of stress were 43 percent more likely to die only if

they also believed that stress was bad for their health." This demonstrates that changing perceptions of stress to be more positive will decrease the likelihood of dying early.

Crum and Leibowitz (2020) stated that our mindset regarding stress determines the impact it has on our health. They introduced research conducted in their Stanford lab which studied the impact of stress mindsets on finance employees during the 2008 financial crisis. In the study, they gave these stressed employees a three-step guide to improve outlook on stress, and measured symptoms and work performance over time. The results of their research found that employees with improved mindsets had less negative health symptoms and their work performance increased (Crum & Leibowitz, 2020).

Crum and Leibowitz stated that the three steps in their method to improve stress mindset are: acknowledge your stress, own your stress, and use your stress. Acknowledging our stress means to identify the cause of stress allows the individual to treat the stress logically rather than emotionally. It's common to not know the exact cause of stress, so this step also forces the individual to self-reflect in order to understand what is causing the worry. Owning our stress means to connect our stress to a personal value which is the reason for our stress, such as stressing about the health of a loved one because we care deeply about them. Using our stress involves analyzing whether our behavior resulting from the stress is in line with our underlying values for the stress.

This three-step guide is one example of a method of improving employee health which wellness companies should be aware of. A wellness program cannot always decrease the stress an employee feels, but it can at least help the employee to use stress to their benefit to improve their health and wellness. Wellness companies have an open-minded interpretation of the

concept of wellness because they need to in order to provide effective technology to their customers.

A NEED FOR IMPROVEMENTS

The goal of my STS thesis was to flesh out the social construction of the idea of wellness in the workforce by focusing on the major social groups such as employees, employers, and wellness companies. I highlighted the major contributing factors involved in their view of wellness, and how their views interact and inform one another. I examined how the different interpretations of wellness have come to inform the creation and use of wellness programs and trackers, and how the users and non-users of these programs and trackers have helped to inform the definition of wellness by each social group. This paper demonstrated that future design of wellness technology should take into consideration the needs of each relevant social group when making design decisions, and that future studies should make efforts to standardize a more accurate method of determining effectiveness of wellness programs.

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