

Summer 2012

Motivating Employees Through Thick and Thin: The Relationship Between Hospital Employee Aspirations and Body Mass Index

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DOI: <https://doi.org/10.31979/etd.matc-b29d>
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MOTIVATING EMPLOYEES THROUGH THICK AND THIN:
THE RELATIONSHIP BETWEEN HOSPITAL EMPLOYEE ASPIRATIONS AND
BODY MASS INDEX

A Thesis

Presented to

The Faculty of the Department of Psychology

San José State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Amanda K. Wentz

August 2012

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The Designated Thesis Committee Approves the Thesis Titled
MOTIVATING EMPLOYEES THROUGH THICK AND THIN:
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BODY MASS INDEX

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ABSTRACT

MOTIVATING EMPLOYEES THROUGH THICK AND THIN: THE RELATIONSHIP BETWEEN HOSPITAL EMPLOYEE ASPIRATIONS AND BODY MASS INDEX

by Amanda K. Wentz

The purpose of this study was to bridge the gap in the existing literature regarding the relationship between motivation and aspirations of obese and overweight employees. Based on data collected from 103 hospital employees, obese and overweight employees placed significantly lower importance on intrinsic aspirations than did their healthier counterparts. In addition, healthy, overweight, and obese employees all placed equal importance on extrinsic aspirations. The results of the study indicate that using intrinsic aspirations and rewards to motivate overweight and obese employees in a disease prevention program may be less effective than using an extrinsic reward system.

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Introduction

Obesity is not a topic that should be taken lightly. According to the surgeon general, obesity is an epidemic in the United States (U.S. Department of Health and Human Services, 2001). In the year 2008, 34% of the adult population in the U.S. was obese (Organization for Economic Co-operation and Development, 2010). Since then, not a single state has been able to reach its goal of reducing the statewide obesity rate to 15% or less (Center for Disease Control, 2011).

Obesity has been found to interfere with one's mental and social health (Edwards, 2006). Its incidence highly correlates with diseases such as type II diabetes, cardiovascular disease, and cancer, among others. These are among the most prevalent and costly diseases in America today (Warburton, Nicol, & Bredin, 2006), making health care very expensive to employers and one of the most sought after benefits in the current market (Carrel & Heavrin, 2010). In 2008, approximately 180 million Americans received health insurance from their employer (Bhattacharya & Sood, 2011). An employer was, on average, liable for \$60.00 per doctor visit, \$563.00 for an emergency room visit, and \$12,321.00 for a hospitalization (Goetzel et al., 2010).

Employers and employees alike are incurring the costs of obesity and can certainly benefit from a healthier workforce. The workplace is a good environment to improve health and wellness because it is where most adults spend long hours. Also organizations can provide health resources at a much lower cost than individuals can acquire on their own (Schult, McGovern, Dowd & Prink, 2006). Shephard (1995) proposes that employees with access to a disease prevention program tend to feel that

management cares about their personal welfare, which increases job satisfaction. This in turn encourages them to work harder, take challenges, work better with others, take better care of employer property, and engage in less workplace disputes. Also, employees that engage in a disease prevention program have increased stamina, energy, attention, and concentration. These employees also showed improved decision making, self-image, self-efficacy, and were able to deal with stress more effectively (Shephard, 1995).

Employee disease prevention programs are an attempt to overcome the obesity epidemic in the workplace. Here, companies provide resources that may not have been previously available to the employee. These programs typically include healthy onsite food options and access to exercise and health resources. Companies that have been successful in motivating their workers to participate in disease-prevention programs typically use a combination of health benefits such as: providing lower premiums and health resources, environmental support, incorporating healthy routines into employees' families, and creating a health-focused work culture (Heinen & Darling, 2009). But there is little evidence of the true effectiveness of disease-prevention programs in general.

Further, there has been very little research conducted on how to properly reward and motivate employees with obesity problems. There is even less research that emphasizes how to motivate obese employees to participate in a disease-prevention program in a way that is sustainable and beneficial to both the employer and employee. Employers typically offer rewards such as discounted premiums, prizes, time off, recognition, or cash for completion or participation in a disease prevention program

(Center for Disease Control, n.d.). However, there continues to be low rates of participation and less than satisfying results.

The relevant scholarship does not seek to understand obese employees, especially in terms of their aspirations. Previous research falls short in making overweight and obese employees part of the process and considering their wants and needs. Previous researchers have found that obesity is a problem for both individuals and organizations and typically focuses on techniques that track the progress of overcoming these problems (Svensson & Lagerros, 2010). These tracking techniques typically include pedometers, online resources, feedback, and doctor visits (Svensson & Lagerros, 2010). However, there is a need for a more in-depth understanding of how to encourage the obese to utilize these resources provided by their company. Tracking techniques can be useful when measuring the effectiveness of a program but they do not explain why the program succeeded or failed.

This research focuses on understanding and motivating employees of all sizes based on their aspirations. The purpose of this research was to obtain a better understanding of obese and overweight employee aspirations and how they may differ from their healthier-weighted employee aspirations. This will provide insight into how to effectively promote health and wellness in the workplace by providing more appropriate or personalized rewards. This study sought to answer the following questions: Do obese employees' aspirations differ from healthier-weighted employees? Are there more effective rewards, besides money, that better aid the employees struggling with obesity in

reaching their aspirations? Is there value in understanding the motivations of the employees who are obese and overweight?

Workplace Obesity: What is the Big Deal?

Twenty-three percent of all deaths caused from obesity related diseases are linked to non-exercise (Riedel, Lynch, Baase, Hymel, & Peterson, 2001). People who are overweight, smoke, have a sedentary lifestyle, and poor dietary patterns are more likely to acquire certain illnesses (Riedel et al., 2001). Obese employees have significantly higher numbers of doctor visits, inpatient admissions, and absenteeism than do their healthier counterparts (Goetzle et al., 2010).

It has been found that company and employee costs rise simultaneously with employee body mass index (Finkelstein, Fiebelkorn, & Wang, 2005). Body mass index (BMI) is a numeric value that defines the range of healthy, overweight, and obese individuals by calculating an individual's percentage of body fat. A healthy BMI for both men and women can range between 18.5 and 24.9; those considered overweight fall between 25.0 and 29.9, and those with a BMI of 30 or above are categorized as obese (Center for Disease Control, 2011).

Approximately 70% of the adult male working population and 53% of full-time women workers are overweight or obese (Finkelstein, et al., 2005). Disease-prevention programs can act as the link between the employees' work life and social life by helping to improve employees' personal health and well-being. The employees' work and social life can feel easier as their mental and physical health improves (Riedel et al., 2001). If organizations can increase worker health, it may lead to a more enjoyable work

environment for employees. It could also lead to an increase in individual or group productivity, improved quality of goods, and greater creativity, innovation, resilience and intellectual capacity (Riedel et al., 2001). Shephard (1995) found that disease-prevention programs have an effect on overall work satisfaction, due to increased self-efficacy, attention, and relaxation. A significant increase in performance was also found for those who quit smoking, received early detection of depression, started eating better, and began receiving vaccinations as a result of participation in the disease-prevention program (Riedel et al., 2001).

Investing in worker health is of value to the organization. A company with 1000 employees can expect expenses of \$285,000.00 a year attributable to obesity (Finkelstein et al., 2005). Employees with a BMI of 40 or more can be held accountable for 21% of the costs associated with obesity even though they make up only 3% of the employed population (Finkelstein et al., 2005). As employees went from having a BMI of 25-29, to having a BMI of 40 or more, it cost the company an additional \$1,852.00 per male per year and between \$588.00 and \$2,485.00 per woman per year (Finkelstein et al., 2005). Additionally, after controlling for age and gender, employees with BMI's between 25 and 45 had increased medical costs of \$199.70 and drug costs of \$82.60 per BMI unit (Wang, et al., 2006). Goetzle et al. (2010) projected that obesity costs companies an average of \$644.00 per year per obese employee.

The indirect costs (presenteeism and absenteeism) created by the obese are roughly equivalent to the direct costs (doctor visits, emergency room visits, and hospital admission) (Goetzle et al., 2010). Presenteeism is traditionally defined as when an

employee shows up for work when they are ill (Johns, 2010). However, Johns (2010) argues that presenteeism is actually an absence of work engagement that is connected to being ill, defining oneself as ill, or engaging in work behavior as if one is ill. Obese employees have a 10% higher presenteeism rate and create \$201.00 more per year in presenteeism costs when compared to healthier weighted employees (Goetzel et al., 2010). It has been found that 30% of the costs attributed to obesity are due to absenteeism. Men with a BMI of 35 or above miss approximately two more days a year than normal weighted men; whereas women with a BMI of 35 and above typically miss a week more of work per year than normal weighted women (Finkelstein et al. 2005).

The Efforts and Effectiveness of Overcoming Obesity in the Workplace

Companies have used methods such as lowering employee health premiums or offering end-of- the-year bonuses in an effort to decrease health costs. Some believe these techniques motivate obese employees to lose weight. Others feel that these methods are demotivating because they ultimately penalize obese workers (Bhattacharya & Sood, 2011). For instance, some employers provide pooled health insurance that requires all employees to contribute equally despite their body weight (Bhattacharya & Sood, 2011). However, having pooled health insurance can lead to stigmatizing and blaming overweight and obese employees for creating high medical costs. Considering the controversy surrounding health care premiums, companies have turned to other means of rewards as incentives for participation. Employers typically offer rewards such as prizes, time off, recognition, or cash for completion or participation in a disease prevention program (Center for Disease Prevention, n.d.).

In a meta-analysis of 88 corporate-sponsored disease prevention programs, 21% of the companies with the highest rate of participation offered an incentive, which usually was cash (Wilhide, Hayes & Farah, 2008). The amount of the cash incentive and participation rose simultaneously. The rate of participation with an incentive varied between 9% and 25%, whereas the rate of participation without an incentive varied between .8% and 5% (Wilhide, et al., 2008). The companies with the lowest rate of participation had higher rates of completion (90% vs. 78%, respectively) which could suggest that these companies were using different modes of motivation (other than financial incentives) that enhanced participation or were appealing to those that would have been utilizing the resources anyways (the healthy) (Wilhide et al., 2008). There was one outlier company that had high participation despite providing no incentive and was credited by the authors as having excellent overall communication of the program to their employees (Wilhide et al, 2008).

Many companies are skeptical as to the effectiveness of disease prevention programs. In a meta-analysis of 88 corporate-sponsored disease prevention programs, the group with the lowest amount of participation was made up of smaller companies (around 1,600 employees) and two-thirds of this group did not offer any incentives (Wilhide et al, 2008). Limited resources can make it difficult for small companies to make the initial investment in a disease prevention program (Schult et al, 2006). Small businesses make up 50% of the private sector, but only 21% offer some type of disease prevention or obesity program (Heinen & Darling, 2009).

Previous research has also failed to show strong support for disease prevention programs. In a recent meta-analysis, results regarding the effectiveness of 47 worksite disease prevention programs found only modest evidence of a reduction in weight loss (2.8 pounds) and BMI (.47 of a unit) six months after the intervention (Anderson, et al., 2009). In a study conducted on a hospital disease prevention program, no significant difference in BMI was found between hospital employees that participated in the program and those who did not (Lemon et. al, 2010).

However, a meta-analysis of 14 disease prevention programs found evidence that early detection programs can lengthen and save lives. That study found that employees' health status was significantly improved on several dimensions: early detection, behavior change (including exercise), and health care-seeking (Riedel et al., 2001). Also, disease prevention programs with the greatest impact tended to be more structured and had more modes of intervention (Anderson, et al., 2009). It was found in a study of hospital interventions that for every one point increase in participation in the disease prevention program, there was a .012 decrease in employees' BMI. In these intervention hospitals, the programs also improved employees' perspectives about their organization's commitment to employee health (Lemon et. al, 2010). Although few companies report the cost effectiveness of their programs, it has been found that the range of cost effectiveness varies from \$1.44 to \$4.16 per pound of weight loss (Anderson et. al., 2009).

Efforts in the workplace have been made to overcome the high costs associated with obesity. However, recent literature has found that understanding the cost

effectiveness of a workplace disease prevention program is a challenge and needs further research. It is difficult to measure how a pound of weight loss or a decrease in BMI directly translates to an increase in productivity or a decrease in healthcare costs. Also, it takes time and resources to study the results of the program, many of which are from private corporations that have little motivation to share their success (Anderson et. al, 2009).

There may be multiple reasons that there has been mixed results regarding the effectiveness of disease prevention programs. Previous research on this topic fails to take into consideration the type of incentives that are offered and whether or not those incentives are true motivators to the overweight and obese employees. The next section will discuss self-determination theory, a critical motivation theory, to explain why motivations and aspirations may need to be explored when considering the design of an effective disease prevention program.

Theory

Self-determination theory can explain why understanding employee aspirations can lead to more effective rewards and motivation techniques. Self-determination theory is comprised of miniature theories that are constructed around the concept of basic needs. It is theorized that all humans have basic needs that fall under one of three categories: autonomy, competence, or relatedness (Deci & Ryan, 2002). Basic needs theory, a critical miniature theory of self-determination theory, suggests that satisfying these basic needs promotes well-being (Deci & Ryan, 2002). Deci and Ryan (2002) propose that “it is possible for the same behavior to be need satisfying for one group and need thwarting

for another (p. 22).” If this is true, rewarding exercise with a monetary reward may be effective for one group (the healthy employees) and ineffective for another (the overweight and obese employees).

Cognitive evaluation theory is another miniature theory that makes up part of self-determination theory. This theory states that providing an external reward for an intrinsic activity will thwart the individual’s ability to meet his or her basic needs in the activity. Ultimately, it makes the individuals motivation go from being intrinsic to extrinsic (Deci & Ryan, 2002). As defined by Deci (1972), intrinsic motivation is when a person, “performs an activity for no apparent reward except the activity itself (p.113)”; whereas extrinsic motivation “refers to the performance of an activity because it leads to external rewards (e.g., status, approval, or passing grades) (p. 113).” Receiving an external reward for an intrinsic activity will lessen one’s perceived competence (the extent to which one feels they can achieve the goal) and his or her perceived locus of control (Deci & Ryan, 2002).

Kasser and Ryan (1996) found a link between rewards and two forms of aspirations: intrinsic (which provides direct satisfaction of the basic needs) and extrinsic (aspirations that are related to external signs of worth, such as money and image). As the content of the goal changes, so does the pursuit and attainment of the aspiration (Kasser & Ryan, 1996). For example, if money is introduced as a motivator for exercise, the goal of the activity could go from intrinsic (health) to extrinsic (receiving the monetary reward). Intrinsic goals provide more need satisfaction than extrinsic goals. In fact, extrinsic goals can actually detract from meeting basic needs (Deci & Ryan, 2002). This

could mean that if a disease prevention program overemphasizes monetary rewards, the employee could lose the intrinsically motivating aspect and overall purpose of the program: to promote health and well-being.

Current Research

If companies can better understand overweight and obese employees' aspirations, the company can nurture the employee environment by providing resources and support coupled with meaningful rewards. The overweight and obese employees do not seem to be responding to the typical cash incentives provided by disease prevention programs today. A new approach must be developed that caters to what overweight and obese employees feel is important and are willing to work towards.

Deci and Ryan's (2002) basic needs theory states that differing behaviors may be need-satisfying to one group and not another. In other words, overweight, obese, and healthy employees are different groups with different health behaviors. Currently, the workplace encourages these health behaviors using extrinsic rewards that do not effectively motivate the overweight and obese. Therefore, the behavior that motivates the healthy to exercise must be more extrinsic than the behavior that satisfies the overweight and obese groups' needs. If this is true, according to self-determination theory, then the behavior of the overweight and obese employees can be regulated based on their interests and self-endorsed values. It may be more effective to motivate the obese using community, relationships, and health rewards if they more closely align with their aspirations.

Guided by a self-determination theory framework, the authors of this study hypothesized that: 1(a) employees with an overweight or obese BMI will have a higher importance score on community, relationship and health aspirations than those with a healthy BMI. Also, the authors hypothesized that 1(b) employees with a healthy BMI will have a higher importance score on image, financial success, and career aspirations than employees with overweight and obese BMIs.

Basic needs theory states that differing behaviors or rewards satisfy groups in differing ways. If the overweight and obese employees are more likely to value intrinsic aspirations, than they should be also be more likely to place a high value on intrinsic health aspirations. The authors also hypothesized that 2(a) employees in the overweight and obese categories will have a higher importance score on health than employees with a healthy BMI.

According to Deci and Ryan (2002), receiving an extrinsic reward for an intrinsic activity lessens one's perceived competence. Therefore, motivating the overweight and obese employees with only monetary rewards lowers their perceived competence of health and therefore their perceived attainment of health. This may help explain whether it is truly of value to employees and employers to focus on the obese employees in disease-prevention programs. If the employees want to be healthy but feel that attaining health is beyond their reach, the company can help by providing them with resources. Hypothesis 2(b) states that employees with an overweight or obese BMI will have a lower likelihood of attainment score on health than the employees with a healthy BMI.

Implications and Research Design

Implications from this research will provide valuable insight into understanding and motivating overweight and obese employees. This research implies that a solid understanding of aspirations will make motivating and changing one's behavior easier and more effective. If disease-prevention programs in the workplace are used effectively they can save and improve lives while increasing the bottom line for corporations.

This research design focuses on hospital employees because they serve as an example to the community. Hospitals are important intervention targets because they are setting the health standard for the community. Previous literature has shown that there are specific challenges facing this group, such as odd shifts that make it difficult to find time for exercise. Hospitals also cannot allocate work time to dedicate to exercise because workers cannot leave their patients (Lemon et. al, 2010). Obesity in this workplace setting can also lead to occupational injuries that can put hospital employees out of work (Heinen & Darling, 2009). Because of these challenges, hospital employers may need to institute several types of strategies to aid workers in their quest for optimal health (Lemon et. al, 2010).

It is not currently known how to motivate overweight and obese employees, which could be why there are high rates of absenteeism and presenteeism found in this group. This could also explain the ineffectiveness of employer-sponsored disease-prevention programs. Traditionally, the workplace tends to motivate using extrinsic rewards, such as money and recognition. However, if one's goal contents are not extrinsic, he or she may not be as motivated to participate. To test the idea, surveys were

administered to hospital employees to explore the relationship between employee aspirations and body mass index.

Method

Participant Characteristics

The subject population consisted of 103 recently hired hospital employees, between the ages of 19 and 73 ($M=39$, $SD = 1.5$), with various positions and wages within the company. The subject population was made up of 75 women (73.5%) and 25 men (26.5%). A majority of the population (77.5%) identified as White/Caucasian, 7.8% identified as Hispanic/Latino, 5.9% were Asian, 2% were American Indian/Alaska, 2% were Hawaiian/Pacific Islander, 1% Middle Eastern, and 10% identified themselves as one or more ethnicities. Forty-five percent of the participants had some college education, 27% were college graduates, 20% were high school graduates, .06% had completed post graduate or doctoral degrees, and only .02% had some high school. The mean body mass index was an overweight score of 28.16 ($SD = 6.27$). The BMI range varied from 18.75 (normal) to 53.26 (extremely obese). Thirty-seven percent of the sample population was in a normal weighted range, 28.4% were in the overweight range, 34.3% were considered obese ($M=28.6$, $SD = 6.27$).

Sampling Procedures

Hospital employees who attended the worker orientation were selected to represent the general population of hospital employees. Every employee, despite job description or level, is required by the employer to attend this orientation. The hospital hires all positions all year, with no expectation of a particular department hiring more

than others. Therefore, the employees at the orientation were deemed an accurate representation of all hospital employees. Of the 150 employees who were invited to take the survey, 113 selected themselves into the sample, yielding a response rate of 75%. Ten of the surveys were discarded for incomplete data. Also, a pilot test was run for seven individuals prior to data collection, which was not included in this analysis.

The data were collected at an orientation held onsite in a conference room. There was a written agreement to participate that was attached to each questionnaire. There was also an agreement with the San José State University institutional review board that detailed the ethical standards and monitored the procedure and the safety of the participants.

Intended sample size was set to be between 80 and 100 employees. The achieved sample of 102 participants did not differ in any known way from the target population. However, it is important to note that there was a slight possibility that newer employees could have been healthier and fitter than their longer-employed colleagues. Also, many of the new employees may have differing aspirations from the general population because they may be focusing on financial or career success.

Printed questionnaires were used to collect data. The instrument used was the Revised Aspirations Index developed by Kasser and Ryan (1996) which expanded upon the developers original Aspirations Index created in 1993. The instrument was slightly modified by adding some additional dimensions, such as career, in an effort to more accurately understand the current research. The survey instrument was distributed by a hospital education and training staff member, along with numerous orientation materials

not relevant to this study, in a packet prepared for new hires. The subjects were given some time to look through their orientation packet and complete the paperwork (one of which was this optional survey) at a desk in a room set up similar to a classroom. To enhance the quality of the measurement only one person was used to hand out the questionnaires. This individual was trained in confidentiality and strict HIPPA regulations. During the time that the employees completed the survey, the trained employee monitored the group. If they decided to do so, the participant completed the survey during this portion of the orientation seminar and returned the survey with the packet to the trained confidential employee. The trained employee then asked the participant to remove the pages of the survey from their packet and place the pages in a locked box provided at the front of the room. The trained employee returned the locked box to the primary researcher after every orientation.

Results

Pearson Correlations

Correlations of the independent variables and dependent variables are presented in Table 1. As expected, the intrinsic variables of relationship aspirations, community aspirations, and health aspirations were all significantly correlated. Also, the extrinsic predictors, financial success, and image aspirations were significantly correlated. However, the extrinsic predictor, career aspirations, did not significantly correlate with the two other extrinsic aspirations. Career aspirations were found to correlate significantly with all three intrinsic predictors. The only significant relationship with

BMI were health aspirations, which indicated that as the importance of health aspirations increases, body mass index decreases.

TABLE 1
Summary of Importance of Aspirations and Their Prediction of BMI

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|-------|------|-------|-------|--------|------|
| 1.Finance | | | | | | |
| 2.Image | .61** | | | | | |
| 3.Relationships | -.03 | -.04 | | | | |
| 4.Community | .06 | .13 | .61** | | | |
| 5.Health | .01 | .04 | .52** | .56** | | |
| 6.Career | .09 | -.04 | .58** | .62** | .58** | |
| 7.BMI | -.15 | -.17 | -.16 | -.16 | -.28** | -.11 |

Note: Listwise $N = 99$

* $p < .05$.

** $p < .01$.

In Table 2, Pearson correlations were computed for the likelihood of attainment scores for each of aspirations and body mass index. Again, the intrinsic variables all significantly correlated with one another. They were also all correlated with the extrinsic variables of career and financial success aspirations. None of the extrinsic variables were significantly related on their likelihood of attainment scores. As the likelihood of attaining career, health, financial success, and community aspirations increased, body mass index significantly decreased.

One-Way ANOVA

This study tested two hypotheses. Hypothesis 1 stated that (a) employees with an overweight or obese BMI will have a higher importance score on community, relationship and health aspirations than those with a healthy BMI. To test the hypotheses, a series of one way ANOVA's, with post hoc comparisons, were conducted. The

independent variable, body mass index, was divided into three groups: healthy, overweight, and obese. These groups were divided according to groupings depicted by the CDC. Healthy weighted individuals had a BMI between 18.5 and 24.9; those considered overweight fell between the range of 25.0 to 29.9 and those with a BMI of 30 or above were categorized as obese.

TABLE 2
Summary of Likelihood of Attainment of Aspirations and Their Prediction of BMI

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|--------|------|-------|-------|--------|-------|
| 1.Finance | | | | | | |
| 2.Image | .60** | | | | | |
| 3.Relationships | .02 | .18 | | | | |
| 4.Community | .21* | .23* | .50** | | | |
| 5.Health | .29** | .22* | .24* | .46** | | |
| 6.Career | .26** | .19 | .40** | .53** | .54** | |
| 7.BMI | -.27** | -.19 | -.14 | -.24 | -.50** | -.25* |

Note: Listwise $N = 99$

* $p < .05$.

** $p < .01$.

The dependent variables were six aspirations. These aspirations were made up of intrinsic aspirations [community ($F(2, 98) = 3.22, p < .05$), relationships ($F(2, 98) = 3.19, p < .05$), health ($F(2, 98) = 4.76, p < .05$)] and extrinsic aspirations [(image $F(2, 98) = 1.32, p > .05$), (financial success ($F(2, 98) = 1.65, p > .05$), (career ($F(2, 98) = 2.10, p > .05$)]]. The analysis first considered the relationships between the importance of each aspiration with the three body mass groups. The groups significantly differed on the importance of community, relationships, and health aspirations. Specifically, the overweight ($M = 38.48$) and obese ($M = 38.69$) groups placed lower importance on the

intrinsic aspirations than the healthy group ($M = 41.82$). Therefore, hypothesis 1(a) was not supported.

Hypothesis 1(b) stated that employees with a healthy BMI will have a higher importance score on image, financial success, and career aspirations than employees with overweight and obese BMIs. The results of the one-way ANOVA demonstrated that the importance of the extrinsic variables [(image ($F(2, 98) = 1.32, p > .05$), (financial success ($F(2, 98) = 1.65, p > .05$), (career ($F(2, 98) = 2.10, p > .05$)] did not differ significantly between the groups. Therefore, hypothesis 1(b) was not supported because extrinsic aspirations were neither more nor less important to the overweight and obese groups than the healthy group. Both the findings on the intrinsic and extrinsic variables were strikingly consistent.

Hypothesis 2(a) stated that employees in the overweight and obese categories will have a higher importance score on health than employees with a healthy BMI. The groups did differ on the importance of health aspirations. However, hypothesis 2(a) was also not supported because the group with a healthy BMI placed greater importance on health aspirations than the overweight and obese groups.

A separate one-way ANOVA examined the relationship between the likelihood of attaining each of the aspirations with the three BMI groups. Hypothesis 2(b) stated that employees with an overweight or obese BMI will have a lower likelihood of attainment score on health than the employees with a healthy BMI. The groups did significantly differ on the likelihood of attaining health aspirations.

TABLE 3
Summary of One-Way ANOVA Results

| Aspiration | Importance | | | <i>F</i> (2,98) | Likelihood | | | <i>F</i> (2,98) |
|-------------------|--------------------------------|------------------------------|------------------------------|-----------------|--------------------------------|------------------------------|------------------------------|-----------------|
| | Healthy (n = 38) | Overweight (n = 29) | Obese (n = 35) | | Healthy (n = 38) | Overweight (n = 29) | Obese (n = 35) | |
| Intrinsic | | | | | | | | |
| Community | 13.13 _{a,b} (1.70) | 11.79 _a (2.55) | 12.06 _b (2.62) | 3.22 * | 12.61 _{a,b} (1.81) | 11.11 _a (2.87) | 11.34 _b (2.13) | 4.45 * |
| Relationships | 14.35 _{a,b} (.98) | 13.45 _a (1.43) | 13.40 _b (2.55) | 3.19 * | 13.79 _{a,b} (1.45) | 12.66 _a (1.65) | 12.91 _b (2.16) | 3.88 * |
| Health | 14.34 _{a,b} (.91) | 13.24 _a (1.70) | 13.23 _b (2.38) | 4.76 * | 13.21 _{a,b} (1.63) | 10.89 _a (2.64) | 10.14 _b (2.72) | 16.90 *** |
| Extrinsic | | | | | | | | |
| Image | 7.58 (2.34) | 7.43 (2.46) | 6.71 (2.39) | 1.32 | 8.41 (1.85) | 7.93 (2.81) | 7.40 (2.39) | 1.65 |
| Financial success | 8.00 (2.28) | 8.34 (2.26) | 7.37 (2.04) | 1.65 | 8.13 _b (2.77) | 7.79 (2.72) | 6.63 _b (2.59) | 3.04 |
| Career | 14.29 (1.21) | 13.55 (1.53) | 13.54 (2.37) | 2.10 | 13.92 _{a,b} (1.38) | 12.59 _a (1.90) | 12.74 _b (1.65) | 7.04 ** |

_{a,b} Denotes significant difference ($p < .05$.) for means with same letter, * $p < .05$. ** $p < .01$. *** $p < .001$.

The difference on the likelihood of attaining health aspirations was the biggest difference among all of the aspirations tested. The overweight and obese employees strongly felt that they were less likely to attain health than those who had a BMI between 18 and 25. Overall, hypothesis 2 was partially supported. The obese and overweight groups placed lower importance and likelihood of attainment on health aspirations when compared to their healthier counterparts.

Likelihood of attaining health aspirations were the only aspirations that significantly differed between groups at the .001 level. It is important to note the distinction between health and the other aspirations. Overall, the overweight and obese felt less likely to attain all aspirations with the exception of financial success and image. Interestingly, financial success and image had low likelihood and importance for all groups.

Discussion

The purpose of this study was to explore the aspirations of employees of all BMIs. The goal was to distinguish between healthy, overweight and obese groups to better decipher how to motivate each group based on their aspirations. The findings of this study did not support hypothesis 1 and only partially supported hypothesis 2. The authors of this study found that overweight and obese employees do not place a higher importance score on intrinsic aspirations than healthy employees. It was also found that healthy, overweight, and obese employees do not significantly differ when scoring the importance of extrinsic aspirations. These findings imply that intrinsic aspirations are actually less important to the overweight and obese than extrinsic aspirations.

Partial support of hypothesis 2 found that the overweight and obese groups felt there was a significantly lower likelihood of attaining health aspirations than the healthy group. This could be explained, in part, by the finding that health was also deemed as less important to the overweight and obese employees. Overall, the overweight and obese employees were found less likely to feel that they could attain any of the intrinsic aspirations, particularly health. This implies that they are more pessimistic about their health than other aspirations.

The extent of support of the two hypotheses was weak, but nonetheless informative. Considering the significant lack of research in this area, theoretical implications of this study are limited, as it is difficult to relate the findings to previous research. However, this study adds to the literature because it provides a foundation for more exploratory research regarding how to motivate overweight and obese employees. Considering that the overweight and obese employees were found to value extrinsic aspirations more than intrinsic aspirations, the findings of this research suggest that it is more effective to motivate these groups by using an extrinsic reward system.

This study has several practical applications that apply most closely to motivating obese and overweight employees in worksite disease prevention programs. Organizations should not focus on an intrinsic reward system when trying to motivate overweight or obese employees. It would be more effective to work with extrinsic rewards because the healthy, overweight, and obese groups do not differ on extrinsic aspirations. From this research, it is clear that the obese and overweight employees do not think that health is attainable but, to a certain degree, it is less important to them to

begin with. In order to effectively motivate overweight and obese employees in a disease prevention program, it would be helpful to explore which specific extrinsic rewards they value the most. Further research regarding which extrinsic rewards are most important to the overweight and obese employees would greatly add to the literature.

This research studied a sample population in which almost two-thirds of the workforce was either overweight or obese. This implies that the results will be practical and useful for this workplace. However, the findings of this study are meant to apply to a certain population of hospital employees, as this group of workers may differ drastically from other groups. A career in healthcare may appeal to individuals with more intrinsic aspirations to begin with. This may explain why the three groups of employees had higher importance scores on the intrinsic aspirations than the extrinsic aspirations, particularly image and financial success.

The BMI groups did not differ on the importance of image and financial success. One possible reason for this may be how the employees interpreted the scale. For example, one employee may think of image as his or her physical self, whereas as one may conceive image as how others view their contribution to society. It is also possible that these groups do not differ on image or financial success because these aspirations are simply not important to any of them. These two aspirations received the lowest scores on both overall importance and likelihood. If something is not very important to someone, perhaps it is less likely to matter. Another limitation of this study is that new employees were surveyed, which may not be an accurate portrayal of the working population. New

employees may have differing aspirations and be in better health than the longer employed population.

It is vital that further research is conducted in the realm of employee health and wellness in the workplace. Future research should include exploring the overall aspirations and importance of rewards to overweight and obese employees. These groups are not currently being considered in the literature, possibly due to the reluctance and fear of further stigmatizing overweight and obese employees. However, credible research can aid in understanding overweight and obese employees. The results of this study provides support for previous research that indicates a stigma surrounding overweight and obese employees in the workplace. Perhaps the reason these employees place less importance and likelihood on most aspirations is because they feel a sense of defeat.

Future research should consider the wants and needs of overweight and obese employees and how this may aid in their health and wellness. This study could be revisited in workplaces outside the realm of health care to correct for the possible bias of placing more importance on intrinsic aspirations. Finally, conducting this survey with employees that have been a part of the organization for a while may provide a more accurate portrayal of the target employee population.

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