

Promoting Weight Management and The Adoption of Healthier Lifestyle Habits in The Workplace: A Case Study of Oando Marketing PLC

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Abstract: Workplace is a complex and dynamic environment. Programs that promote physical activities enhance workers performance and support positive business outcomes. The promotion of physical activity should be an integral part of any business strategy. Obesity is more often regarded as a personal health issue than a workplace concern. It however becomes a source of concern in the workplace when it begins to affect productivity and job performance. If strategies are not put in place to tackle rising obesity in the workplace, there could be significant consequences for both employers and employees. To reduce obesity and promote the adoption of healthier lifestyle habits in the workplace, Oando Marketing PLC launched a weight loss challenge amongst her employees. The challenge was a physical activity intervention promoted as part of the organization's overall employee wellness program. This was accomplished using the company fitness center alongside non- equipment based activities to serve as an interactive behavioural change tool which included goal setting, activity logging, team-based campaigns, progress reports, feedback loops etc. Physical activities included aerobic exercises, jogging, skipping rope, strength training, walking and biking, amongst others backed up with good nutrition. The intervention was simple, relevant, personal, socially and financially rewarding. The challenge ran for 12 weeks with a total of 29 participants whose body mass indices were all above 25kg/m². At the beginning of the challenge, their individual weights were measured using a calibrated digital scale, their heights were measured using a rigid tape measure, their BMI was estimated as a ratio of their weight (kg)/height (m²) and their blood pressure was measured using a mercury sphygmomanometer. Upon completion of the challenge, it was found that 93% of participants lost weight while 7% maintained their previous weight. 24% of participants decreased their BMI and moved up the BMI category chart, 69% decreased their BMI but remained in the same BMI category while 7% had no change in their BMI. There was also a 100% decrease in blood pressure amongst participants whose blood pressures were monitored. In terms of outcomes, the challenge increased the overall employee wellbeing of participants and encouraged all employees to prioritize their health by adopting healthier lifestyle habits both at work and at home (health perception, life satisfaction, smoking, body weight, and overall risk status improved.). This led to a conclusion that there is a need for organisations to invest in employee health and wellbeing as employees feel valued and employee satisfaction and engagement is sacrosanct to the performance of any organization.

Keywords: obesity,, employee wellness and wellbeing, workplace, weight management, healthy lifestyle habits, fitness, health

I. Introduction

The increasing rate of obesity in Nigeria will have implications for workplaces and employers (Talabi, 2015). According to Burton et al. (1998), the risks of health problems, longer absence from work due to illness, higher rates of workplace injury and higher health costs are increased for overweight people compared to those with a lower body mass index (BMI).

The impact of obesity and its associated diseases on the workforce reduces productivity and the profitability of a business (Hafner et al. 2015) as overweight and obese employees cost employers more than double the amount in health care cost than normal weight employees (Khan, 2014). In the US, it was reported that the average medical claims cost per 100 employees is \$51,019 for obese employees, compared to \$7,503 for non-obese employees (Pickering et al., 2013).

Years ago, medical expenses came about mainly because of transmissible diseases. However in recent times, a substantial number of medical costs are attributed to nontransmissible diseases and lifestyle factors such as sedentaryness, poor nutrition choices, tobacco and alcohol and tobacco use (Isaac and Gorhan, 2014). According to the World Health Organisation, 90% of pulmonary disease, 80% of type 2 diabetes, 80% of heart diseases and stroke, and 40% of cancers are preventable if only people could quit smoking, be more active and eat healthy diets (WHO, 2014). With a work force population of over 73 million people, the opportunity is huge for employers in the public and private sectors in Nigeria to improve wellness by encouraging positive health behaviors. Employees are solely responsible for their personal health. It is up to them to eat healthy, be more

active and attend periodic medical checks, however as they spend a large percentage of their day at work, employers can assist them make better health decisions with the aid of employee wellness programs.

In a review of the Johnson and Johnson's employee health and wellness program, it was found that the program which cost the company an average of \$144 to \$300 per employee, saved the company an average of \$565 per employee annually in medical costs. Hence the return on investment ranged from \$1.18 to \$3.92 savings for every dollar spent (Henke et al, 2011). A similar study done carried out on Johnson and Johnson by Goetzel et al. in 2002 found that the company spends an average of \$285 annually on medical costs for employees with healthy weights compared to \$1,267 average annual medical costs for overweight employees this goes to emphasize the importance of including weight management in employee wellness programs. Employees are the most valuable assets to any organisation which is why there is great value in investing in workplace wellness programs aimed at increasing the wellbeing and productivity of all employees, through the enhancement of all aspects of health. Failing to care for the wellbeing of employees puts the workforce at a risk of high levels of stress which in turn affects productivity. While the introduction of wellness programs provides some benefit to staff overall, the question of how to provide effective help to overweight and obese employees is a sensitive and challenging issue. If employers see the problem, how do you get employees to see it too? How do you promote the adoption of healthier lifestyle habits and encourage overweight and obese staff to lose weight in a sensitive way?

To reduce the prevalence of obesity in the workplace, to promote the adoption of healthier lifestyle habits as well as to improve general employee wellness in the organization, Oando Marketing PLC introduced a weight loss challenge amongst employees. This paper briefly scopes out the results and impact of the challenge on the organization.

II. Methodology

Invitation to Participate

An online portal was created for interested staff to sign up for the challenge after which an email invitation was sent out to all staff with a link to the sign up form. The terms and conditions of participation were clearly stated on the sign up form to which all prospective participants must agree to before signing up. The terms and conditions of participation were as follows;

1. *You must have a BMI of 25 kg/m² and above to participate.*
2. *You must be based in Lagos and able to attend weekly weigh-in, work out sessions and meetings.*
3. *You must strive to achieve the minimum daily goals;*
 - ✓ *10,000 steps*
 - ✓ *Drink 1.83 liters of water*
 - ✓ *30 minutes of physical activity*
4. *No entrant shall use any unhealthy, artificial or inappropriate means of weight loss in order to win the challenge.*
5. *Participation in the challenge does not guarantee weight loss. Factors such as diet and genetic makeup, overall health, or physiological differences may influence weight loss.*
6. *You must adhere to the rules of the competitions as any breach may result in a disqualification*
7. *Please consult with your physician before beginning any new nutrition or exercise program.*

The sign up form could only be submitted after staff ticked a box in agreement to the terms and conditions. A total of 51 responses were received however only 29 of them were eligible to participate and thus selected due to screening based on the terms and conditions.

Participants

The competition ran for 12 weeks from April 01 to June 24, 2016 with a total of 29 participants whose BMI were all above 25 kg/m² and all resident in Lagos to facilitate close monitoring. The selected staff were all aged between 26 and 47 years, 10 males and 19 females and were made up of a mix of intern (1), contract staff (3), senior staff (16) and management staff (9).

Anthropometric Measurements

The individual heights of the participants were measured by the company nurse with a rigid tape measure. To measure height, the participants were asked to take off their shoes and stand back to the tape measure with their head held up straight. A flat rule was placed on the participant's head so that their hair was pressed flat. Height was measured to the nearest centimeter at the level where the flat rule touched the rigid tape measure.

To measure weight, participants were asked to remove all heavy and unnecessary pieces of clothing, empty their pockets, take off all jewelry and step on a calibrated digital scale.

Body mass Index (BMI) was estimated as a ratio of an individual's weight (kg)/height(m²)in accordance to the World Health Organization (WHO) guidelines (WHO, 2006). Table 1 shows how the BMI categories were defined.

Table 1. BMI Classification

| BMI | Classification |
|-------------|-----------------------|
| Below 18.5 | Underweight |
| 18.5 – 24.9 | Normal weight |
| 25.0 – 29.9 | Overweight |
| 30.0 – 34.9 | Obesity Class I |
| 35.0 – 39.9 | Obesity Class II |
| Above 40 | Obesity Class III |

Adapted from the World Health Organisation (WHO) Global Database on Body Mass Index, 2006.

Participation Incentives

Prior to the commencement of the challenge, 15 Fitbit Flexwearable activity trackers were purchased and given out for free to the first 15 eligible staff to sign up. The outstanding 14 staff were encouraged to purchase the same brand of activity trackers in order to participate in the challenge. The challenge coordinator set up the device, set the daily fitness goals and installed the fitbit application on the smartphone of each participant. The tracker was to be worn every day for the duration of the challenge. The fitness trackers were used to track the daily activity levels of participants and to ensure that participants strived to achieve the daily minimum goals. The activity data of all participants could be viewed on the Fitbit dashboard and were closely monitored. The dashboard also helped participants track their calorie intake and output, steps, monitor sleep patterns, water intake and compete against other participants in virtual challenges.

Blood pressure measurement

The blood pressure of some participants were measured by the company nurse using a mercury sphygmomanometer and recorded.

Weigh-in

Weigh-in sessions were held on Fridays mornings for the duration of the completion where the weight of all participant was measured and recorded. Participants were advised to dress light, empty their bowels and abstain from breakfast before weighing in.

The same scale was used to check the weight of all participants the entire duration of the challenge.

III. Results

The average age of the participants was 35 years. 66% (19/29) were women and 34% (10/29) were men.

Participant's statistics before the challenge

Before the challenge, the average BMI was 31.9 kg/m². There were no (0) participants in the normal weight category, 38% (11/29) were overweight, 38% (11/29) were in the Obese Class 1 category, 17% (5/29) were in the Obese Class II category and 7% (2/29) were in the Obese Class III category.

The average BMI for participants under the overweight category was 27.4 kg/m², the average BMI for the participants under the Obese Class I category was 32.2 kg/m², the average BMI for the participants under the Obese Class II category was 36.9 kg/m², and the average BMI for the participants under the Obese Class III category was 42.6 kg/m².

Participant's statistics after the challenge

At the end of the challenge, the average BMI was 30.5 kg/m². 3% (1/29) of the participants had a normal weight, 48% (14/29) were in the overweight category, 31% (9/29) were categorized as Obese Class 1, 10% (3/29) were categorized as Obese Class II and 7% (2/29) were categorized as Obese Class III.

The average BMI for the participants under the overweight category was 27.3 kg/m², the average BMI for the participants under the Obese Class I category was 31.3 kg/m², the average BMI for the participants under the Obese Class II category was 36.9 kg/m², and the average BMI for the participants under the Obese Class III category was 41.6 kg/m². Table 2 and 3 shows the characteristics of participants before and after the challenge. Figure 1 shows a comparison of participants BMI before and after the challenge.

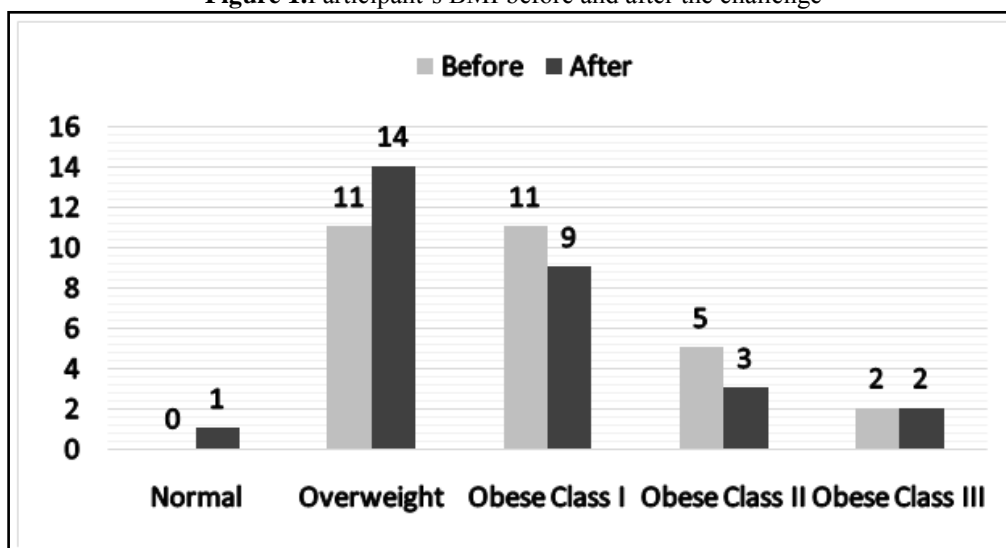
Table 2. Characteristics of the participants before the challenge by BMI classification

| BMI Classification | BMI range | Average BMI | All Participants | Female | Male |
|--------------------|-------------|-------------|------------------|--------|------|
| Normal weight | 18.5 – 24.9 | 0 | 0 | 0 | 0 |
| Overweight | 25.0 – 29.9 | 27.4 | 11 | 7 | 4 |
| Obesity Class I | 30.0 – 34.9 | 32.2 | 11 | 7 | 4 |
| Obesity Class II | 35.0 – 39.9 | 36.9 | 5 | 4 | 1 |
| Obesity Class III | >40.0 | 42.6 | 2 | 0 | 2 |

Table 3. Characteristics of the participants after the challenge by BMI classification

| BMI Classification | BMI range | Average BMI | All Participants | Female | Male |
|--------------------|-------------|-------------|------------------|--------|------|
| Normal weight | 18.5 – 24.9 | 24.6 | 1 | 0 | 1 |
| Overweight | 25.0 – 29.9 | 27.3 | 14 | 10 | 4 |
| Obesity Class I | 30.0 – 34.9 | 31.3 | 9 | 6 | 3 |
| Obesity Class II | 35.0 – 39.9 | 36.9 | 3 | 2 | 1 |
| Obesity Class III | >40.0 | 41.6 | 2 | 0 | 2 |

Figure 1. Participant’s BMI before and after the challenge



At the end of the challenge 93% (27/29) of participants lost weight while 7% (2/29) maintained their previous weight. 24% (7/29) of participants decreased their BMI and moved up the category chart, 69% (20/29) decreased their BMI but remained in the same BMI category while 7% (2/29) recorded no change in their BMI. Table 4 shows a summary of the participants before and after the challenge.

Table 4. Participants Summary BMI Category Key

| | |
|--------------------------------|--|
| Normal (18.5 - 24.9 BMI) | |
| Overweight (25 - 29.9 BMI) | |
| Obese Class I (30 - 34.9 BMI) | |
| Obese Class II (35 - 39.9 BMI) | |
| Obese Class III (> 40 BMI) | |

| Participant | Sex | Age | BMI before | BMI After | Weight Lost (kg) | % Weight Lost |
|----------------|-----|-----|------------|-----------|------------------|---------------|
| Participant 1 | F | 40 | 33.8 | 30.0 | 11.5 | 11.1% |
| Participant 2 | F | 30 | 33.3 | 29.7 | 9.5 | 10.7% |
| Participant 3 | F | 30 | 30.9 | 27.6 | 8.9 | 10.7% |
| Participant 4 | M | 39 | 30.8 | 27.9 | 9.2 | 9.6% |
| Participant 5 | F | 37 | 30.4 | 27.8 | 6.6 | 8.7% |
| Participant 6 | M | 38 | 33.0 | 30.2 | 9.3 | 8.4% |
| Participant 7 | F | 37 | 35.5 | 32.6 | 9.0 | 8.4% |
| Participant 8 | F | 39 | 32.9 | 30.2 | 7.4 | 8.2% |
| Participant 9 | F | 28 | 27.6 | 25.4 | 6.2 | 7.9% |
| Participant 10 | F | 30 | 28.6 | 27.1 | 4.5 | 5.3% |
| Participant 11 | F | 39 | 37.0 | 35.7 | 3.6 | 3.5% |
| Participant 12 | M | 42 | 34.7 | 33.3 | 3.3 | 3.4% |
| Participant 13 | M | 33 | 25.6 | 24.8 | 2.4 | 3.1% |
| Participant 14 | M | 30 | 29.9 | 29.0 | 3.0 | 3.0% |
| Participant 15 | M | 41 | 26.1 | 25.3 | 2.4 | 3.0% |
| Participant 16 | M | 33 | 41.6 | 40.3 | 3.3 | 3.0% |

| | | | | | | |
|----------------|---|----|------|------|-----|------|
| Participant 17 | M | 33 | 39.0 | 37.9 | 3.5 | 2.8% |
| Participant 18 | M | 35 | 32.9 | 32.1 | 2.2 | 2.3% |
| Participant 19 | F | 28 | 31.4 | 30.7 | 2.2 | 2.2% |
| Participant 20 | F | 36 | 37.7 | 37.0 | 1.5 | 1.7% |
| Participant 21 | F | 35 | 43.6 | 42.9 | 1.8 | 1.5% |
| Participant 22 | F | 27 | 35.1 | 34.7 | 1.0 | 1.1% |
| Participant 23 | M | 33 | 26.2 | 26.0 | 0.6 | 0.7% |
| Participant 24 | F | 38 | 28.9 | 28.8 | 0.6 | 0.6% |
| Participant 25 | F | 28 | 28.4 | 28.3 | 0.3 | 0.3% |
| Participant 26 | F | 47 | 25.6 | 25.5 | 0.2 | 0.3% |
| Participant 27 | F | 38 | 30.1 | 30.1 | 0.0 | 0.0% |
| Participant 27 | F | 36 | 26.2 | 26.2 | 0.0 | 0.0% |
| Participant 28 | F | 36 | 28.3 | 28.3 | 0.0 | 0.0% |

Blood pressure readings

Table 5 shows the blood pressure readings of participants whose blood pressures were monitored.

Table 5. Blood pressure readings before and after challenge

| Participant | BP reading before | BP reading after | Change | Weight Lost (kg) |
|----------------|-------------------|------------------|--------------|------------------|
| Participant 2 | 110/80 mmHg | 90/60 mmHg | -20/-20mmHg | 9.5 |
| Participant 3 | 130/90 mmHg | 110/80 mmHg | -20/-10mm/Hg | 8.9 |
| Participant 4 | 130/85 mmHg | 115/75 mmHg | -15/-10mm/Hg | 9.2 |
| Participant 13 | 120/80 mmHg | 110/70 mmHg | -10/-10mm/Hg | 2.4 |
| Participant 18 | 140/120 mmHg | 135/98 mmHg | -5/-2mm/Hg | 2.2 |
| Participant 21 | 160/110 mmHg | 130/85 mmHg | -30/-25mm/Hg | 1.8 |
| Participant 24 | 110/90 mmHg | 106/70 mmHg | -4/-20mm/Hg | 0.6 |

IV. Discussion

There is increasing public acceptance that health and wellbeing in the workplace can have profound impacts on individuals, organizations and societies (European Commission, 2008). Obesity and its associated health conditions are on the rise in Nigerian workplaces as most work places operate a sedentary work style and often grant access to unhealthy foods (Igbokwe, 2015). The findings from our study provide ample evidence to support the notion that wellness programs such as ours, offer a way out in such situations.

As a result of the 12-week “Biggest loser” themed weight loss challenge the participants lost a cumulative total of 114.1kg (a 4.2% loss) with a corresponding cumulative 4.4% decrease in BMI. There was an obvious decrease in the obesity categories as significant number of participants (24%) moved up the BMI category chart. The increase in the overweight category was due the BMI reduction of 6 participants which was substantial enough to take them from the Obese Class I category to the Overweight category. One participant moved from being overweight to having a normal healthy weight.

Two diabetic participants reported that their blood sugar levels drastically reduced since after they took on the challenge which further supports studies that prove that weight loss due to changes in diet and exercise can reduce diabetes risks (Hamman et al. 2006) and can probably reduce the incidence of new diagnosis (Tayek, 2002; Sjostrom 2002). For these participants, it was no longer about winning the prize but about staying healthy and alive. Another participant reported that belonging to the team was one of his greatest motivation to lose weight and stay active for which he was most grateful. A number of studies have proven that people tend to lose more weight when they can leverage on the support of a group than when they diet alone (Huff, 2004). According to the renowned obesity researcher Thomas Walden PhD, a psychology professor at the University of Pennsylvania School of Medicine and director of the university's Weight and Eating Disorders Program, groups give people a sense of integrality and group support knowing they are not alone as there are other people who share the same problem they have.

A reduction in blood pressure readings were observed in participants whose blood pressures were monitored. This is in agreement to a study of the influence of weight reduction on blood pressure, Neter et al. (2003) found that weight loss is instrumental to the treatment of hypertension. According to the American Heart Association, even a small amount of weight loss can reduce blood pressure and prevent hypertension in overweight and obese people. This was clearly evident in this study.

Some other participants testified to the fact that they no longer felt the need to drive short distances but would rather walk, take the stairs instead of the elevators and opt for a healthy lunch as opposed to the usual energy-dense options readily available. In general participants agreed that the challenge taught them that it is not so difficult to incorporate healthy habits into their daily lives if they make a little effort and put their mind to it. According to a participant “now that I know better, I do better”.

To further encourage staff to eat healthier meals and increase their activity levels, an e-book on healthy eating and how to prepare easy and lower calorie versions of every day popular meals was purchased for all

staff. A variety of group work out sessions were also organized in the Oando Marketing PLC Penthouse Fitness Centre and made open for all staff to attend which encouraged staff to make exercise an integral part of their day.

The Fitbit activity device was a very useful and important motivation tool which drove participants to exercise more. Weekly and dailysteps challenges kept participants on their toes and encouraged them to do more to increase their activity levels in order to meet their daily fitness goals and to win such challenges. As Hutchison (2016) pointed out in his article featured in the New York Times, motivation is the main reason most people use activity trackers. There mere awareness of how many steps you have taken encourages you to do more especially when you are in competition with other users. Apart from the Fitbit virtual badges for winning challenges, winners received company wide recognition which in turn inspired them and all participants alike to continue to strive.

Newsletters were sent to all participants via email on a weekly basis. These newsletters served as a guide with easy to follow tips to help staff develop healthier eating habits, be more active and encouraged them to stay on track. A WhatsApp group was also created where participants could ask questions, share their concerns and success stories, cheer, motivate and support one another. Participants were also able to pass on their newly acquired knowledge on healthy living to their family and friends thus paying it forward to the society at large.

The Oando Marketing PLC weight loss challenge was an individual play – everyone for themselves. Every participant weighed-in on Fridays for the 12-week duration of the challenge and at the end whoever lost the most percentage of weight was declared winner for the week. The weekly winners were awarded a week long supply of fresh chicken salad for lunch. The overall winner was awarded a \$1,000 cash prize for a change of wardrobe.

V. Conclusion

The challenge was highly valued by the participating employees. In large percentages, employee reported that the program increased their overall wellbeing and improved their healthy behaviours at work and at home. Thus enabling employees to lead healthier lifestyles can lead to significant medical cost savings and employers can play a key role in making all these achievements possible.

The U.S. Department of Health and Human Services have reported a decrease in health care costs from 20 to 55%, a reduction in short term sick leave was from 38 to 32% and an increase in productivity from 50% to 52% at companies with employee wellness programs. Chevron Nigeria have also reported that after implementing a wellness program for her employees, it had an 80% drop in absenteeism due to ill health and also had a substantial decrease in health care spend (Igbokwe, 2015), which clearly indicates that a lot of employees are simply not taking good care of themselves and this is turn affecting their productivity.

To create a culture of health, there is a need for organisations to review their policies, make plans and create an enabling environment that facilitates employee wellness after which they should monitor, measure and track yearly growth, employee participation, perception and satisfaction (Optum, 2014).

There are quite a number of wellness programs already in place to help employees successfully manage their health and live happier and more productive lives. Such initiatives can make employees feel appreciated thereby increasing retention. A healthy and productive workforce is beneficial to any organisation's bottom line, both small and large.

On the whole, the weight loss competition created an inspiring, fun and enabling environment devoid of pressure for employees who otherwise would not have been able to achieve as much success with weight loss or the adoption of healthier lifestyle habits all by themselves. Our findings emphasize the importance of the implementation of an employee wellness program in organisations. Employees felt valued which is of utmost importance because the performance of any organization is positively impacted when its employees are satisfied, developed and engaged. This approach to employee health and wellbeing was a win-win situation for both employer and employee.

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