Barriers to participation in a worksite wellness program

Ashley Lynne Person, Sarah Elizabeth Colby, Jessica Ann Bulova and Janie Whitehurst Eubanks
Department of Nutrition and Dietetics, East Carolina University, Mail Stop 505, 333 Rivers Building, Greenville, NC 27858, USA

Abstract
The purpose of this research was to determine barriers that prevent participation in an employee wellness program, Wellness Wednesdays: “Eat & Meet” About Healthy Living, conducted at East Carolina University (ECU) in Greenville, North Carolina. All ECU ARAMARK employees (n = 481) over the age of 18 were eligible to participate in the wellness program. Weekly 30 minute classes, taught by a Registered Dietitian, on various nutrition- and health-related topics were conducted for 10-weeks. Five question knowledge quizzes were administered to participants at the end of each class to determine the comprehension of material presented. Qualitative interviews (n = 19) were conducted with employees (participants and non-participants) and the program organizer after the completion of the 10-week program to identify barriers to program participation. A total of 50 (10.4% of the total number of potential participants) ECU ARAMARK employees, managers, and leadership team directors attended Wellness Wednesdays at least once during the 10-week program. Employees, on average, scored 71-100% on the weekly knowledge quizzes administered at the end of each class. The most common barriers to participation reported included (most often to least often reported): insufficient incentives, inconvenient locations, time limitations, not interested in topics presented, undefined reasons, schedule, marketing, health beliefs, and not interested in the program. Results showed that employee wellness programs can be effective in increasing knowledge of employees on nutrition- and health-related topics. However, program planning that addresses identified barriers including insufficient incentives, inconvenient locations, and time limitations may facilitate higher participation in future worksite wellness opportunities.

Key Words: Employee wellness, barriers, participation rates

Introduction
The leading causes of death in the United States include heart disease, cancer, and stroke [1]; the incidence of these conditions can be reduced by modifying and/or eliminating associated risk factors [2]. The majority (66.3%) of U.S. adults 20 years and older are overweight or obese and 32.2% are obese [3]. A shift towards more sedentary lifestyles and occupations and increased reliance on and use of labor-saving devices [4] may be associated with the increased prevalence of obesity and chronic disease [5]. Obesity is a major issue for corporate society because of the economic impact, negative effects on work performance, and other potentially serious risks and complications associated with obesity [6].

Most adults may spend more time during the day at work than anywhere else. Therefore, it may be important for worksites to be more conducive to employee health and is an excellent place to promote health and wellness. According to the Wellness Councils of America, more than 81% of businesses with more than 50 employees have some type of health promotion program in place [7]. Employee wellness centers have been shown to provide numerous benefits for employees including: weight reduction, increased physical fitness and stamina [8], and decreased stress [9]. Recent research has also discovered that employers benefit from such programs [10] by experiencing reduced healthcare costs, increased productivity, reduced incidence of sickness and absenteeism [11], improved recruitment [10], decreased turnover rates, and enhanced employee morale [12]. A review of over 70 published research articles on worksite wellness programs found that, on average, employers experience a $3.50-$1.00 savings-to-cost ratio (reduced absenteeism and health care costs compared to program costs) because of wellness programs [7]. On average, research has shown that there is a 28% reduction in sick leave and absenteeism, a 26% reduction in health care costs, and a 30% reduction in worker’s compensation claims [11]. Comprehensive worksite wellness programs provide ongoing and integrated programs of health promotion and disease management, with individualized risk reduction for employees as a crucial element [13]. This integrated approach has been found to be much more effective in preventing disease and promoting overall health than addressing each issue separately [14]. Worksites are an ideal setting for health behavior change because they offer access to employees through controlled

*Corresponding Author: Sarah E. Colby, Tel. 1-252-328-9414, Fax. 1-252-328-4276, Email. colbys@ecu.edu
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environmental and communication support systems [15] and a large number of people can be repeatedly reached over an extended period of time [5,16]. By utilizing the built-in social support found in the workplace, recognizing that there are varying levels of influence (intrapersonal, interpersonal, institutional, community), and addressing employee preferences and perceived barriers, the likelihood of achieving and maintaining better health and well-being will be significantly increased [17]. Other factors found to be crucial for successful worksite wellness programs include: long-term commitment, top-level management support, employee involvement, leadership, specified objectives, detailed planning [18], focus on employee needs, resourceful, and a smooth integration into workplace environment [19]. Even if all these factors are present, the true effectiveness of a worksite wellness program is dependent on the characteristics of the target population and the proportion of the population that participates in the intervention [20-22]. If employees are not interested [23], unmotivated, or information is not personally relevant [24], the most well-planned program can fail.

The average participation rate among employees for worksite wellness programs is less than 50% [25,26]. McLellan et al. [26] had an overall participation rate of 23%, ranging widely (10-86%) among different workgroups [26]. Robroek et al. [25] experienced similar rates with an overall median participation rate of 33%, ranging from 10-64% [25]. Research shows that women are generally more likely to participate in worksite wellness programs than men and, overall, married employees have much higher participation rates than their single co-workers [25]. Other determinants of higher participation rates include: white-collar or secured contract employees [27,28], full-time employees [28,29], older age [26], and small company employees [30]; shift workers [31], lower income, and less education [32] displayed much lower participation rates.

Although previous research has indicated what characteristics of employees are most associated with participation in worksite wellness programs, it is still unclear from a qualitative perspective why employees may decide not to participate. Minimal research exists on wellness programs in the university setting, in particular among foodservice employees. The purpose of this research was to determine why employees decided not to participate in an employee wellness program, Wellness Wednesdays: “Eat & Meet” About Healthy Living, conducted for ARAMARK employees at East Carolina University in Greenville, North Carolina.

**Subjects and Methods**

Wellness Wednesdays: “Eat & Meet” About Healthy Living was created by the ARAMARK Nutrition Director in order to provide employees with the opportunity to participate in a worksite wellness program, emphasizing various nutrition- and health-related topics. This program has not been implemented for employees at other ARAMARK locations and is unique to East Carolina University. The program was created in order to address employee health characteristics such as high cholesterol, abnormal glucose levels, hypertension, and overweight/obesity. These health needs were discovered at the 2008 ARAMARK employee wellness screening and served as the basis for the class and the selected topics. Topics covered in the program were those that would benefit employees that are overweight or obese, seeking to lose/maintain weight, have hypertension, high cholesterol, and/or diabetes, or are interested in improving their overall health. The number and length of weekly classes were determined based on optimal employee and management schedules. This was critical in planning because organizers had to ensure that employees would be able to take a break from their responsibilities to attend the weekly classes while still keeping food production on schedule. Collaboration with other organization directors and managers was necessary to make the final decision regarding program duration and length/location of classes. Marketing strategies utilized to promote the wellness program and recruit participants included: discussion of program in foodservice facilities’ pre-service meetings (all employees in that shift present) and in employee round table meetings, inclusion of an article in the employee newsletter, and distribution of posters/flyers located in all foodservice locations and on employee bulletin boards. Wellness Wednesdays: “Eat & Meet” About Healthy Living was implemented on September 30, 2009 with its first class and an introduction to how the program operates, the timing and location of classes, topics to be discussed each week, and incentives offered.

East Carolina University ARAMARK employees are predominantly service workers (83.7%), with 7.3% administrative support workers, 6.4% officers and manager, and 1.9% other job positions. There are 304 female employees and 177 males. Of these employees, 75.9% are African American, 21.8% are Caucasian, 1.5% are Hispanic, and 0.8% are Asian/Indian. Based on data from the 2008 ARAMARK employee wellness screening, common health characteristics of employees were obtained. Employees were tested for cholesterol, blood pressure, and glucose readings and body measurements were also taken. Of these employees, 27% of participants had moderate (201-239 mg/dL) to high (> 240 mg/dL) total cholesterol; 21% had high fasting (> 100 mg/dL) or non-fasting (> 140 mg/dL) glucose.
levels; and 68% had moderate (120/80 to 140/90 mmHg) to high (>140/90 mmHg) blood pressure readings. Additionally, 27% of employees were classified as overweight (BMI: 25.0-29.9 kg/m²) and 51% as obese (BMI: > 30 kg/m²). Overall, a large amount of employees were classified as overweight (BMI: 25.0-29.9 kg/m²) and 51% as obese (BMI: > 30 kg/m²)

Table 1. Wellness wednesdays weekly class topics

| Week | Class topics |
|------|--------------|
| Week 1 | Introduction to the Class |
| Week 2 | You REALLY Are What You Eat |
| Week 3 | MyPyramid-Steps to a Healthier You |
| Week 4 | "Mini"-mize, not Super Size |
| Week 5 | Navigating the Grocery Store Isles |
| Week 6 | Fact or Fiction? |
| Week 7 | Can Healthy Eating be a Part of Eating Out and Eating at Work? |
| Week 8 | Maintain, Don't Gain |
| Week 9 | Happy Thanksgiving-No Class |
| Week 10 | End of Class Celebration-Healthy Christmas Party |

Table 2. Qualitative interview questions

| Interview questions |
|---------------------|
| 1. Why did you choose to participate in Wellness Wednesdays? |
| 2. Why did you choose to not participate in Wellness Wednesdays? |
| 3. Were the incentives offered ($5 per class attended) enough to make you want to come to the classes? |
| 4. If not, what incentives would you like to see offered in the future? |
| 5. What factors play a role in your decision to participate or not to participate in Wellness Wednesdays (health, weight, money, location, time, etc)? |
| 6. Is the location of the classes a deciding factor in whether or not you attend the weekly classes? |
| 7. Do you have any suggestions for changes or improvements in the program in the future? If so, what would you like to see? |

Results

A total of 50 (10.4%) East Carolina University ARAMARK employees, managers, and leadership team members attended Wellness Wednesdays: “Eat & Meet” About Healthy Living at least once during the 10-week program. Out of the 10 available classes, 50% attended 1 class; 22% attended 2 classes; 14% attended 3 classes; 4% attended 4 classes; and 1% attended 5 classes. No employee attended more than 5 of the 10 classes. It was found that employees from some locations on campus had stronger participation than others. Employees at retail dining facilities located in the middle of campus had the least participation, while the two dining halls (one on each end of campus) and retail facilities on the West End of campus had the highest employee participation rate. Class size varied from week to week and ranged from 4 to 20 people. On average, 11 people attended each class. After reviewing the weekly five question knowledge quizzes administered at the end of each class, it was found that most participants at the end of each class to determine the effectiveness of the information and materials presented and the participants’ level of knowledge on the topics. Questions were specific to the topic discussed that week. This method of program evaluation was chosen due to the inconsistency of participant attendance. A pre- and post-program evaluation tool would not have provided accurate and valid results because no employee attended all classes. Therefore, only post-class knowledge quizzes were administered for evaluation to gauge level of participant knowledge and retention of the new material.

Qualitative interviews were conducted after the completion of the 10-week program. Short, 3-5 minute interviews (n = 19) were randomly obtained from ARAMARK employees (both those who attended, n = 11, and those who did not attend the program, n = 7) and the program organizer (n = 1) with questions aimed at information about attendance, participation, incentives, location, and suggestions. A funnel approach was used in interviews with the broadest questions asked first (to avoid sensitizing interviewees and leading responses) to more specific prompts for further information. Interview questions are listed in Table 2. Interviews were conducted in East Carolina University dining facilities where ARAMARK employees were working. Selection was completely random and there was no inclusion criteria set in order to obtain unbiased, non-influenced responses. By choosing to use a random sampling strategy and conducting short, informal interviews in the work area, feedback from a wide range of employees was able to be obtained (both participants and non-participants) since employees did not have to stop working or feel pressured to answer in a particular way. Interviews were conducted until saturation of themes occurred. All research protocols were approved by East Carolina University Institutional Review Board.
implementing this program was not without its own set of barriers, many of which were similar to those expressed by employees. Scheduling and timing of the weekly classes were reported to be difficult because they were conducted during the work day and it was often hard to find a time that employees would be able to attend without disrupting the shift schedules. Attendance was further hindered when sites were short-handed due to callouts (employee calls to inform managers that he/she will not be at work due to sickness, transportation issues, etc), production schedule being behind target, or by continuous service operations (such as retail outlets versus dining halls that had set meal periods and open/close schedules). To better accommodate the busy schedules of foodservice employees, organizers tried to keep the classes short, 15 to 30 minutes. However, it was reported to be difficult to adequately address all of the information within the short class periods. The location of the weekly classes was another important and sometimes difficult factor for organizers to address. On this college campus, employees were spread out over 14 dining locations. With people in so many different locations, it was nearly impossible to find a location that was convenient for all to attend without having to walk or drive. If employees chose to drive, parking spaces are limited and, therefore, created another problem to factor in with transportation. This issue was addressed by alternating the end of campus that classes were held at, but this still did not capture all dining locations, leaving some employees with a travel time to factor in. Finally, program evaluation on knowledge for Wellness Wednesdays was extremely difficult due to low participation rates and regular attendees. An overall knowledge pre/post-evaluation would not have provided accurate information about the effectiveness of the program because all employees did not attend all 10 classes. With such irregular attendance, it was hard to evaluate how effective the program was in relation to lifestyle factors, weight, and health status as well as preventing maximum knowledge gain due to the inability to build on information from one week to the next. A complete list of barriers cited by the program organizer is shown in Table 4. Table 4 does not show percentages of responses because only one organizer was interviewed.

Discussion

According to previous research, the average participation rate among employees for worksite wellness programs is less than the expected rate of 50%, with an average participation rate of 25% reported. This lower rate is often due to barriers such as scheduling conflicts, inconvenient locations, and time limitations. It is crucial for organizations to address these barriers to improve the participation and success of wellness programs. This study highlights the need for effective planning and implementation strategies that consider employee needs and constraints. Future research could explore additional factors that influence participation and effectiveness, such as cultural and personal preferences, and develop more tailored approaches to enhance engagement and outcomes.
50% [25,26]. McLellan et al. [26] had an overall participation rate of 23%; Robroek et al. [25] experienced similar rates with an overall median participation rate of 33%. Evaluation of Wellness Wednesdays: “Eat & Meet” About Healthy Eating supported these findings with an overall participation rate of 10.4%. Barriers such as insufficient incentives, inconvenient locations, time limitations, not interested in topics presented, schedule, marketing, health beliefs, and not interested in the program were found and negatively impacted participation rates in this employee wellness program. These barriers also supported previous findings, especially employee disinterest [23] and information presented not being personally relevant [24]. However, the top three barriers reported (incentives, location, and time) had not been previously reported as barriers to worksite wellness program participation. These barriers may be unique to college campus employees and partially related to the physical spread of the work environment.

In order to increase participation rates, creative approaches to meeting employees’ needs are required. Previous research shows that by addressing employee preferences and perceived barriers, the likelihood of achieving and maintaining better health and well-being will be significantly increased [17]. This information can be obtained prior to the start of the program by distributing a needs and interest survey to all employees and would ensure that the topics presented were relevant and appropriate for the intended audience.

Evaluation of Wellness Wednesdays: “Eat & Meet” About Healthy Living provides useful information for future program development of employee wellness programs, especially in work environments that are diverse and physically spread out such as college campuses. Results show that employee wellness programs can be implemented on college campuses and are effective in increasing knowledge and skills of employees on nutrition- and health-related topics. However, program planning that addresses identified barriers including insufficient incentives, inconvenient locations, and time limitations may facilitate higher participation in future worksite wellness opportunities.

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