
PARTICIPATION IN WELLNESS PROGRAMMES IN THE WORK PLACE: EXPLORING PERSPECTIVE OF PERCEIVED BARRIERS AND INCENTIVES AMONG EMPLOYEES OF FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI.

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ABSTRACT

Background: *Worksite wellness programmes are a changing field that has continued to evolve over the last twenty years. However, some of the currently available programmes lack one or more of the fundamentals needed to achieve their goals. Common shortcomings include poor participation levels, inadequate incentives, lack of options for programme delivery, inability to tailor programmes to meet the needs and wants of a diverse workforce.*

Objectives: *To determine the perceived barriers and incentives for participation in a comprehensive wellness programmes among employees of Federal University of Technology Owerri, Imo State. **Methods:** Cross-sectional descriptive research design was utilized. The study population was employees of Federal University of Technology, Owerri. A total of 362 respondents were sampled using the Stratified sampling technique. Opinions of eligible worksite health promotion participants were collected using a validated web-based questionnaire adapted from the 2009 Porter Novelli Health Styles Questionnaire. Percentages of responses were calculated by frequency counts. Fisher's exact test was used to test for significant association between the demographic variables and perceived barriers to participation. **Results:** Respondents reported they would be very likely to use paid time to exercise at work (71.8%). The most frequently reported preferred programme was personalized diet or exercise counselling (33.0%). The most commonly reported barriers to using worksite wellness services were no time during the work day (46.5%) and incentives for utilizing employee wellness services were having programmes held at a convenient time (41.2%). **Conclusion:** Perceived barriers to the successful initiation and participation to workplace wellness programmes in FUTO are no time during the work day and no time before or after work.*

Key words: *Wellness programmes, participation barriers, participation incentives, Federal University of Technology Owerri, health believe model, participation rate.*

INTRODUCTION

Worksite wellness programmes are a changing field that has continued to evolve over the last twenty years. In the 1980s, less than five percent of employers offered any kind of wellness programme. This changed dramatically in the 1990s as over 80% of employers with 50 or more employees offered wellness programmes (O'Donnell 2014). The most common reasons given for establishing worksite wellness programs are to attract and retain good employees, keep workers healthy, improve employee morale, improve employee productivity, and contain employee health care costs (Riedel et al 2001). Wellness programmes are programs intended to improve and promote health and fitness that are usually offered through the work place, although insurance plans can offer them directly to their enrollees. The programme allows an employer or an insurance plan to offer employees premium discounts, cash rewards, gym memberships, healthy food choices in staff canteen and other incentives to an individual to participate. Some examples of wellness programmes include programmes to help stop smoking, diabetes management programmes, weight loss programmes, mental health awareness programmes, free healthy living advice/events and preventative health screenings.

Investing in worksite wellness programmes not only aims to improve organizational productivity and 'presenteism' but offers a variety of benefits associated with cost saving and resource availability. Majority of Nigerians spend a substantial amount of time at the workplace and, as a result, the workplace has become a common place to promote health.

One of the key motivations for implementing health promotion programmes at the worksite is the potential to reach a high percentage of people and to modify the health of employees who would be unlikely to participate in preventive health behaviours. Worksite health promotion programs are only successful to the level which both employers and employees participate. Unfortunately, not everyone is willing to participate in health interventions. Meanwhile, many worksite wellness programme administrators struggle with low participation rates. Based on the reviewed studies on worksite wellness programmes that collected data on employees' participation, it was found that on average only one-quarter to one-half of employees participated in wellness programmes offered in a given worksite (Healthy workforce 2010 and beyond). This average is particularly low considering that more than 81% of private worksites with 50 employees or more offer worksite wellness programmes (Olubukola and Festus, 2013). There are various reasons why people do not participate in worksite wellness programmes. For some people, it may be costs such as time and money, and other people may not perceive benefits to their health. In addition, some people may not feel susceptible to a disease or illness. These are just a few of the many reasons why people choose not to participate in worksite health promotion programmes (Kruger, et al, 2007).

To begin, many Nigerians, especially those living in Lagos, spend more than one-third of their day, five days a week at the office and 83 per cent of this number spend their time sedentary at their desks. This is also coupled with the fact that almost another third of the daily time is spent in traffic getting to and from work, most individuals are physically, mentally and emotionally exhausted and out of balance. The cost of this lifestyle has contributed to the increase in the occurrences of high blood pressure, obesity, coronary heart disease and diabetes in Nigeria. Nearly two-thirds of Nigerians are overweight or obese, which double the risk of heart disease and stroke. This poor lifestyle is costing both the Nigerian employees and organisations directly and indirectly. Annual healthcare costs spent on employees with ailments like high blood pressure, high cholesterol level and diabetes, all consequences of an unbalanced lifestyle coupled with health-related productivity losses, can add up to a lot of money per year (Glasgow, McKaul, and Fisher, 2014). What can be done

about this? The most feasible solution is to bring wellness programmers into the workplace and encourage employees to participate. Wellness programmes that involve increasing physical activity play an important role in decreasing role of cardio vascular diseases.

Thus, this study investigated employees' perspectives of barriers and incentives for participation in worksite wellness programmes.

Specific objectives

1. To ascertain the worksite wellness programmes employees would likely use at Federal University of Technology Owerri, Imo State.
2. To determine the types of worksite wellness programmes employees prefer at Federal University of Technology Owerri, Imo State.
3. To determine the employees' perceived barriers to participation in worksite wellness programmes at Federal University of Technology Owerri, Imo State.
4. To determine the employees' perceived incentives to participation in worksite wellness programs at Federal University of Technology Owerri, Imo State.
5. To determine the relationship between the socio-demographic variables of respondents and their perceived barriers to participation in workplace wellness programmes.

METHODOLOGY

Study area

The study area is Federal University of Technology Owerri (FUTO), a federal government university located in Ihiagwa town, a 12-minute drive from Owerri, the capital of Imo State. FUTO, as the Oldest University of Technology in Nigeria was established in 1980 by Executive fiat with the composition and appointment of the first provisional Council by Nigeria's First Executive President, Shehu Shagari. The University is bounded by the communities of Eziobodo, Umuchima, Ihiagwa and Obinze, Imo State, Nigeria. It is the premier federal university of technology in the south east and south south parts of Nigeria (GotoSchool.Com.NG", 2017)

The school also has a senate, which is the highest decision making arm of the University. FUTO students are fondly called *Futoites* and they number over 22,000. The current vice-chancellor is Professor Francis C. Eze. It is bisected by a new road between Obinze and Naze which connects the two mentioned major roads. The Otamiri River traverses the site from North to south and with the beautiful vegetation in its river basin form an important physical feature. The university started with an initial enrolment of 225 undergraduate students and staff strength of 60 (comprising 28 academics and 32 administrative staff) in 1981. Over the years, the university has grown into a centre of learning encompassing many disciplines including agriculture and agricultural technology, management technology, engineering and engineering technology, science (natural and applied) as well as health technology. The university's enrolment for the 2010/2011 session has grown to 21,039 students (comprising 17,713 undergraduates and 3,326 postgraduates students) and an academic staff strength of 926 (including 156 professors), plus over 1200 administrative and technical support staff. Total numbers of staff is estimated to be **2,282**.

Study design

Cross-sectional descriptive research design was utilized.

Study population

The study population was employees of Federal University of Technology, Owerri. The target population for this study was defined as all eligible employees of Federal University of Technology, Owerri (FUTO). The ages of the population are those employees who are older than 18 years of age.

Inclusion criterion

An employee of FUTO is considered eligible for wellness programme services if he or she is eligible for the general benefits (health, retirement, etc.) offered by the employer.

Exclusion criterion

Those employees their email addresses are incorrect or not available at the FUTO ICT unit.

Sample size determination

$$S = \frac{\chi^2 NP (1-P)}{d^2 (N- 1) + X^2 P (1-P)} \quad (\text{Gay, 2015})$$

Where:

S = Sample Size being sought

χ^2 = table value for chi-square at 1 degree of freedom at the desired alpha level (0.05) =3.84.

N = population size = 2282

P = the population proportion (usually 0.5 as this provides the maximum sample size)

d = degree of accuracy desired, expressed as a proportion (usually 0.05)

Therefore,

$$S = \frac{3.84 \times 2282 \times 0.5 (1-0.5)}{0.0025 \times 2281 + 3.84 \times 0.25}$$

$$\frac{2190.72}{6.6625} = 328.8 (329).$$

10% of the minimum sample size were added, giving a final sample size of 362.

Sampling technique

Stratified sampling technique was used to recruit participants at Federal University of Technology; Owerri (FUTO). Job positions (lecturers, adjunct lecturers, administrators and technical support staff) were used as the strata, in order to ensure a balanced representation of different types of employees. We came up with four lists detailing as follows;

Stratum one: All the email addresses of 981(44%) lecturers were listed. simple random sampling was used in drawing 164 email addresses.

Stratum two: All the email addresses of 101(4%) adjunct lecturers were listed. Simple random sampling was used in drawing 17 email addresses.

Stratum three: All the email addresses of 689 (30%) administrative staff were listed. Simple random sampling was used in drawing 115 email addresses.

Stratum four: All the email addresses of 511(22%) technical support staff were listed. Simple random sampling was used in drawing 85 email addresses.

Study instrument

Data for this study were gathered using a questionnaire. The questionnaire used is a modified version from the 2009 Porter Novelli Health Styles Questionnaire, adapted questions was 52-56. Demographic questions regarding age, gender, and employee job position were added to the questionnaire.

Distribution of the questionnaires was done through the university's Information Technology (IT) Department upon submission of the approval letter from the school (FUTO) senate. The IT Services staff assisted in converting the survey into an online format and inclusion of a web link to the survey in the email. They also assisted with deploying the survey by providing list of email addresses of all current FUTO employees in a random order. The survey was then sent to the email addresses of the eligible employees.

Pre-testing of study instrument

A pre-test was conducted in Imo state university to identify any issues regarding the questionnaire's phrasing and wording and to determine the approximate time needed to complete the questionnaire. Five lecturers were selected to complete the pre-test of the questionnaire. They received an introduction to the questionnaire, along with its letter of consent. Time needed to complete the survey was between three and five minutes. And the wordings and phrasing were reported as concise and free from ambiguity.

Reliability of instrument

Twenty (20) copies of the valid instrument were distributed once to 20 academics and administrative staff of federal polytechnic Nekede in Owerri West L.G.A, Imo State. Federal Polytechnic Nekede is not part of the study population but it was used because it has similar characteristics with FUTO. The results were tallied and analyzed using spearman's rank order correlation coefficient which yields p or $r_s = 0.67$. This indicates strong positive relationship.

Data collection methods

Participants were recruited by email that contain an informed consent explaining the objectives and risks of the research, as well as secure access to the questionnaire. The survey link was opened for 21 days. The initial email was sent out, inviting participants to take the survey and a reminder email sent out after the 14th day coupled with proper follow up through phone calls, text messages and office visits, reminding participants to take the survey. During this timeframe eligible participants were able to access the link to complete the survey. Upon completion of the questionnaire, participants' responses were instantaneously accumulated in an electronic database.

Data procession and analysis

Responses to the questionnaire were analyzed using Statistical Package for Social Sciences (SPSS) version 25. Percentages of each survey question were calculated using frequency

counts. Hypothesis was tested with chi-square and fisher's exact test at 0.05 level of significance.

Ethical considerations

Ethical clearance was obtained from Health Research Ethics Committee of the Nnamdi Azikiwe University Teaching Hospital, Nnewi, Anambra State.

All procedures followed were in accordance with the ethical standard of Nnamdi Azikiwe University Teaching Hospital Ethical Committee on research (NAUTH/CS/66/VOL.12/052/2019/033, date of approval 14th August, 2019) and with the Helsinki declaration of 1964 and its later amendments. Informed consent was obtained from all participants for being included in the study. It was stated in the consent form that submitting the completed survey will indicate their informed consent to participate and indicate their assurance that they are at least 18 years of age. Meanwhile research informed consent was obtained on submission of the completed web-survey.

Limitation to the study

Our study is not without limitation, due to budget constraints, we recruited employees from one education facility, making our study sample homogenous. Extending the research to employees from other regions, other Universities or other sectors (e.g., private sector) may have provided a broader understanding of the subject matter and allow for sector or geographical comparison. Nevertheless, this research is a significant addition to the evidence-base since there are currently very few studies in this field from Nigeria or Africa.

Results

Table i: Demographic characteristics of the Respondents

Characteristics	n	%	M (SD)
Gender	Total = 369		
Male	106	28.7	
Female	263	71.5	
Age (years)	Total = 369		47.14 (11.72)
18-24	5	1.4	
25-34	59	16.1	
35-44	88	23.8	
45-54	99	26.9	
55-64	103	27.8	
65+	15	4.0	
Job position	Total =369		
Lecturer	140	38.0	
Technical support staff	166	45.1	
Adjunct Lecturer	39	10.5	
Administrators	24	6.4	

This table presented the demographic characteristics of the persons that participated in the study. Out of the employees who were emailed the survey (n=381), 369 employees returned the survey for a response rate of (96.8%). There were more female participants (n=263, (71.4%)) and mean age of all participants was 47.14 years (standard deviation (SD) = 11.72). Forty-five percent were technical support staff, (38%) were lecturers, (10.5%) were adjunct lecturers and (6.4%) were administrators.

Table ii: Types of Wellness programmes employee would most likely use

Types of programmes	% (n)			
	Not at all Likely	Not Very Likely	Somewhat Likely	Very Likely
Fitness center	6.9% (25)	13.0% (48)	27.1% (100)	53% (196)
Healthy food choices in vending machines and cafeteria	6.7% (25)	13.0% (48)	34.7% (128)	45.6% (168)
Health screening tests	6.7% (25)	16.5% (61)	30.2% (111)	46.6% (172)
Paid time to exercise at work	4.9% (18)	7.2% (27)	16.2% (60)	71.8% (265)
Confidential stress and depression screening and management	14.5% (54)	31% (114)	32.9% (121)	21.7% (80)
Weight loss programme	12.6% (47)	22.1% (82)	34.0% (126)	31.3% (116)

The types of worksite wellness programmes that respondents were most likely to use are presented in Table 2. Respondents reported they would be very likely to use paid time to exercise at work (71.8%), followed by a fitness center (53%), health screening tests (46.6%), healthy food choices in vending machines and cafeterias (45.6%), weight loss programmes (31.3%), and confidential stress/depression screening and management (21.7%).

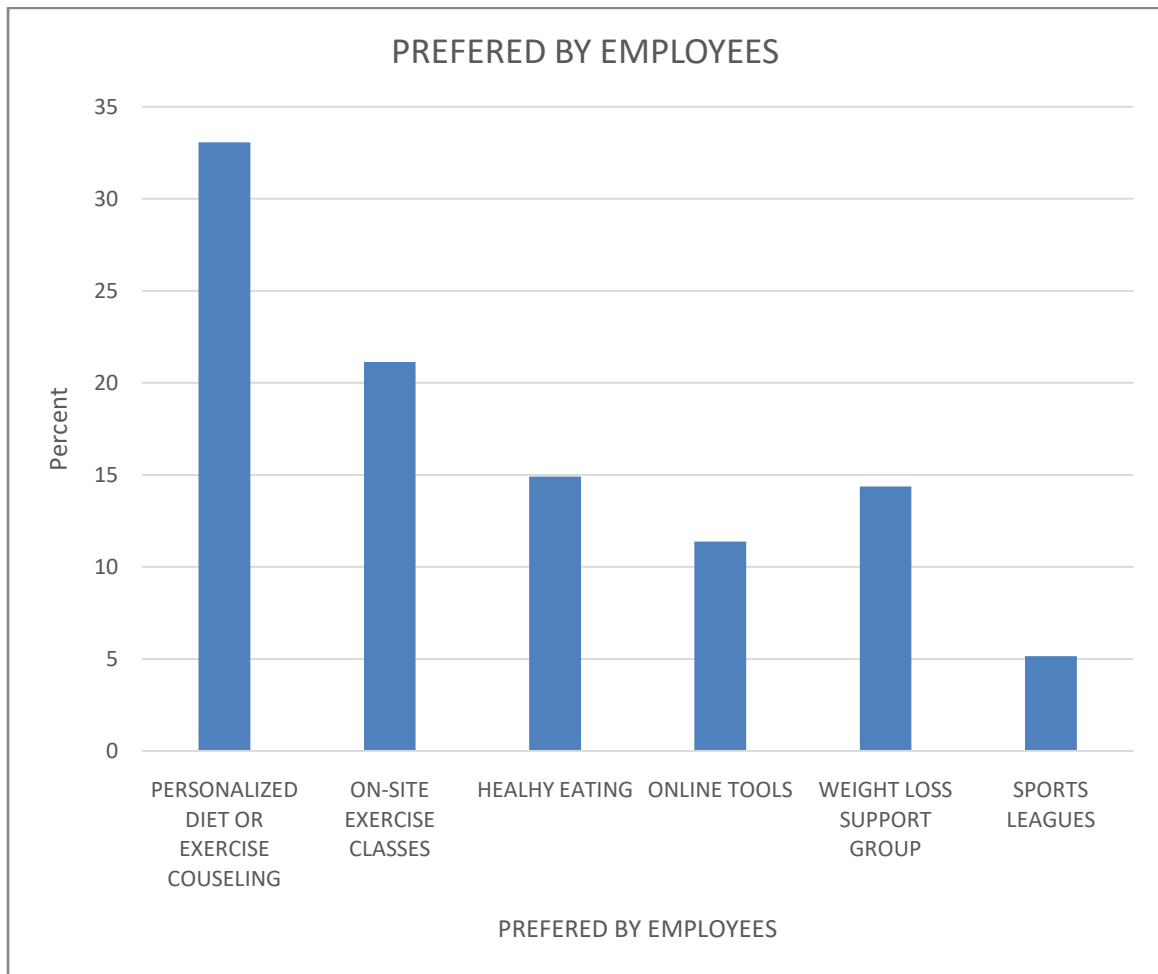


Fig. i: Bar chart showing the types of worksite wellness programmes that respondent would prefer to use. The frequently reported preferred programme was personalized diet or exercise counseling (33.0%), followed by on-site exercise classes (21.0%).

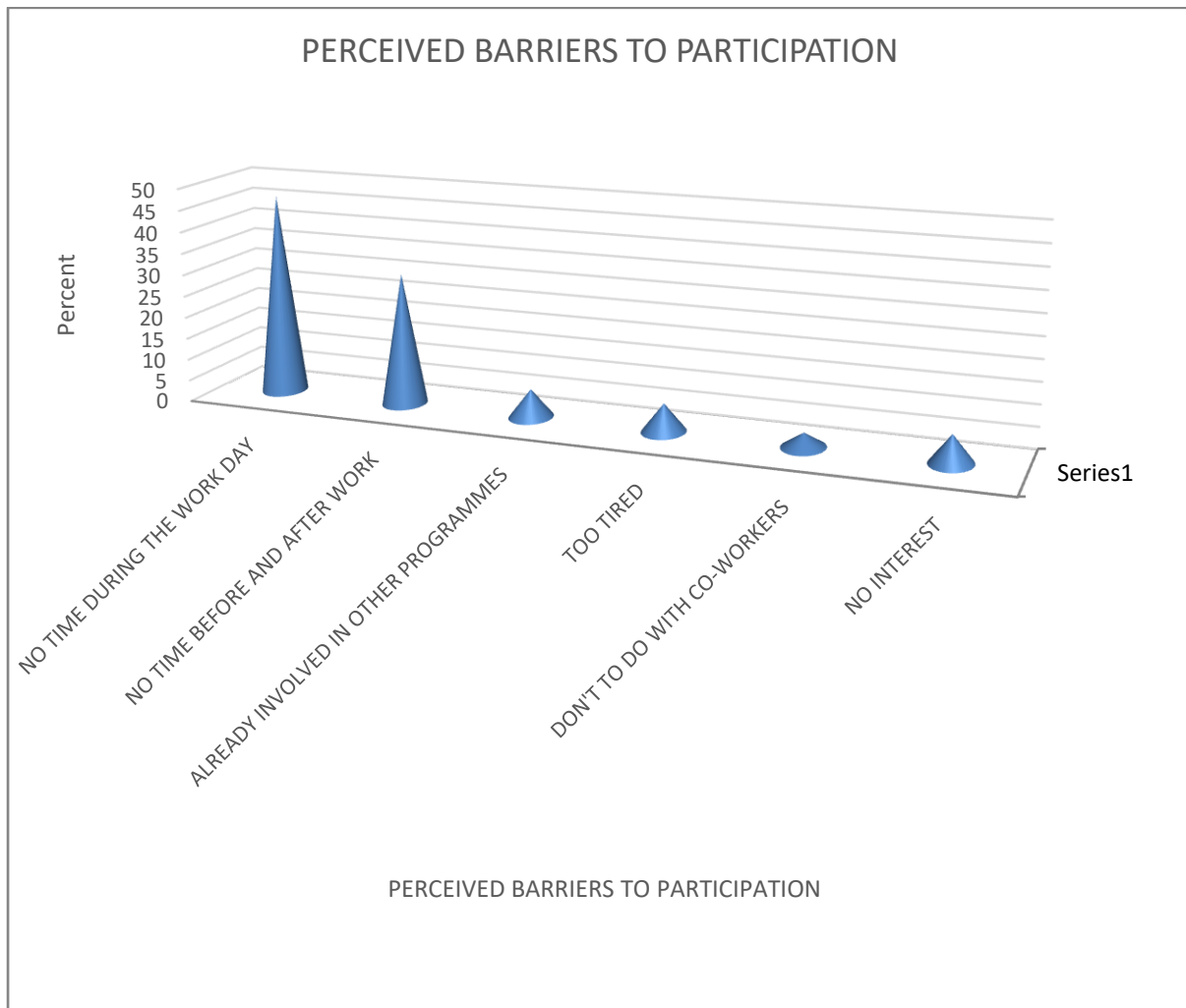


Fig ii: The most commonly reported barriers to using worksite health promotion programmes were no time during the work day (46.5%), followed by no time before or after work (30.7%).

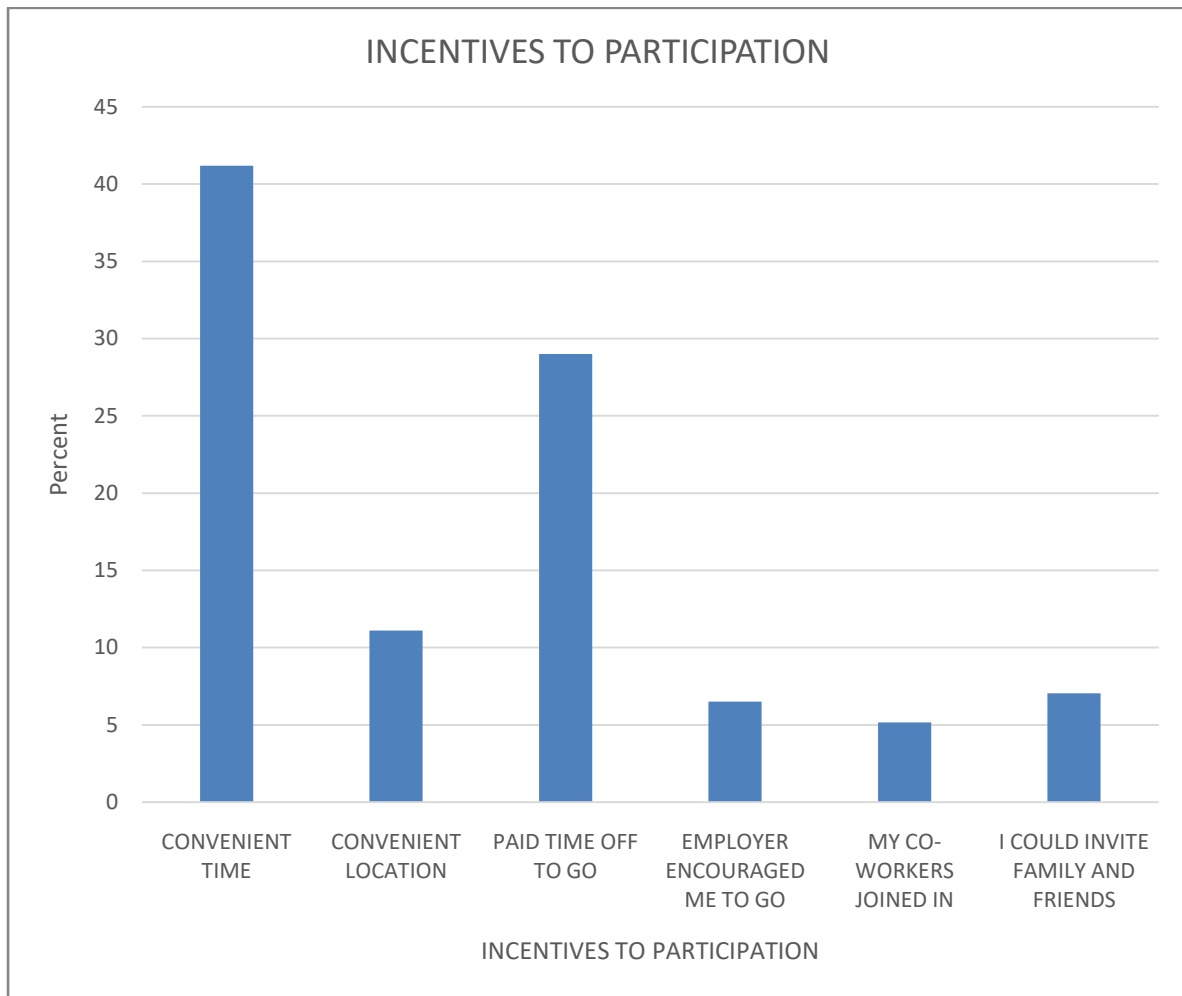


Fig. iii: The most commonly reported incentives for utilizing employee wellness services were having programmes held at a convenient time (41.2%), and employer gave paid time off to go (30.1%).

Table iii: Relationship between socio-demographics variables of respondents and their perceived barriers to participation.

Table iii.i: GENDER * PERCEIVED BARRIERS TO PARTICIPATION Cross tabulation

		NO TIME DURING THE WORK DAY	NO TIME BEFORE AND AFTER WORK	ALREADY INVOLVED IN OTHER PROGRAMMES	TOO TIRED	DON'T TO DO WITH CO-WORKERS	NO INTEREST	Total
GENDER	MALE	71	22	5	1	3	4	106
	FEMALE	101	91	19	23	9	20	263
Total		172	113	24	24	12	24	369

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	18.334 ^a	5	.003	.002		
Likelihood Ratio	20.938	5	.001	.001		
Fisher's Exact Test	19.399			.001		
Linear-by-Linear Association	6.066 ^b	1	.014	.014	.006	.001
N of Valid Cases	369					

Table iii.ii: AGE (YEARS) * PERCEIVED BARRIERS TO PARTICIPATION Cross tabulation

		NO TIME DURING THE WORK DAY	NO TIME BEFORE AND AFTER WORK	ALREADY INVOLVED IN OTHER PROGRAMMES	TOO TIRED	DON'T TO DO WITH CO-WORKERS	NO INTEREST	Total
AGE (YEARS)	18-24	1	1	0	1	2	0	
	25-34	20	19	6	9	1	4	59
	35-44	47	24	2	6	2	7	88
	45-54	50	32	7	4	2	4	99
	55-64	48	33	8	3	5	6	103
	65+	6	4	1	1	0	3	15
Total		172	113	24	24	12	24	369

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	18.334 ^a	5	.003	.002		
Likelihood Ratio	20.938	5	.001	.001		
Fisher's Exact Test	27.860			.000024		
Linear-by-Linear Association	6.066 ^b	1	.014	.014	.006	.001
N of Valid Cases	369					

Table: iii. iii: JOB POSITIONS * PERCEIVED BARRIERS TO PARTICIPATION Cross tabulation

		NO TIME DURING THE WORK DAY	NO TIME BEFORE AND AFTER WORK	ALREADY INVOLVED IN OTHER PROGRAMMES	TOO TIRED	DON'T TO DO WITH CO-WORKERS	NO INTEREST	Total
JOB POSITIONS	LECTURER	74	40	8	9	2	7	140
	TECHNICAL SUPPORT STAFF	79	47	11	10	5	14	166
	ADJUNCT LECTURERS	11	16	5	3	2	2	39
	ADMIN.	8	10	0	2	3	1	24
Total		172	113	24	24	12	24	369

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	18.334 ^a	5	.003	.002		
Likelihood Ratio	20.938	5	.001	.001		
Fisher's Exact Test	3..286			.263		
Linear-by-Linear Association	6.066 ^b	1	.014	.014	.006	.001
N of Valid Cases	369					

In the various sub tables, i.e. table 4.5.1, 4.5.2 and 4.5.3 the fisher's exact value were 19.399 with pvalue .001, 27.860 with pvalue .000024 and 3.286 with pvalue .263 respectively. Since the pvalues are less than .05 alpha levels, the researcher accepts the null hypothesis which states there is no statistically significant association between the socio-demographic variables of respondents and their perceived barriers to participation in workplace wellness programmes.

DISCUSSION

The study population was a University setting and cross-sectional descriptive research design was utilized including questionnaire used for data collection this was in tandem with the work conducted by Olubukola and Festus, 2013. Out of the employees who were emailed the survey (n=381), 369 employees returned the survey for a response rate of 96.8%. There were more female participants (n= 263, 71.4%) than male participants (n= 106, 28.6%). Majority

99 (26.9%) and 103 (27.8%) of the workers studied were in the age group between 45-54 and 55-64 years with mean age of 47.14. This indicates that the respondents were adults.

The results of this study suggest that 71.8% of employees who answered the survey perceived they would use paid time off to engage in physical activity followed by fitness centre (53%). Although the majority of the respondents selected paid time off to attend wellness services, allowing for this type of an initiative may not be feasible for an employer. But main looking at the possible benefits of programmes that allow for paid time off work to attend, such as improvements in an increase in overall health, attracting and retaining employees, increased morale, and increasing employee productivity, these benefits are anticipated to compensate for the employer paid hours away from work in order to participate in wellness programmes. This finding is partly in line with the results of the work conducted by Olubukola, the results derived from the question: *How likely are you to partake in each of the following programmes if they were offered to you at work?* Healthy eating and cooking classes was the leading programmes of interest (mean rating=4.16). This might be because the 'paid time off' option was not included in the questionnaire. Furthermore the respondents of this study are majorly women, in my opinion, physical activities and fitness centres are mostly used by women to maintain their shapes postpartum. It also helps prevent hypertension and can improve mental health.

The respondents also advocated for personalized diet or exercise counselling (33.0%), on-site exercise classes (21.0%) as the types of worksite wellness programmes preferred. This is in tandem with the study conducted by Oke and Asamu, 2013 employees indicated a preference to participate in physical health activities and stress buster-sessions. It is obvious that eating well helps to reduce the risk of physical health problems like heart disease and diabetes. In my opinion, some foods can lift your mood, energy levels, and concentration, while others can have the opposite effect. Personalized diet coupled with health professional regimen of physical activity is a great asset in maintaining and improving the health of employees.

The most commonly reported barriers to using wellness services were 'no time during the work day' (46.5%), followed by no time before or after work (30.7%). The results of the study conducted by Person et al, 2016, to determine barriers in an employee wellness programme, also suggested that the top three barriers were incentives, location and time. However, the top two barriers reported (no time during the work day, and no time before and after work) had not been previously reported as barriers to worksite wellness programme participation. These barriers may be unique to college campus employees and partially related to the physical spread of the work environment. These barriers not only affect their participation to wellness programmes, it can equally lead to serious negative effects on health, family life, and productivity. Health beliefs were expressed as comments such as not attending because of perceived sufficient health knowledge and having a healthy family.

About forty one percent of employees that answered the survey stated they would utilize worksite wellness programmes if they were held at a convenient time, followed by employer gave paid time off to go (30.1%). The responses are similar to the previous studies as indicated earlier by Taitel et al, 2010 and Johnson and Johnson Corporation, in the studies, using monetary incentives, the employers experienced a range of participation rates, and they exhibited a variety of factors that impacted their workforce's participation. Generally, it was found that a higher dollar incentive value was associated with higher participation rates. The studies only emphasized on monetary incentives but the respondents here prefer convenient time more than paid time off. This might be due to the study environment which is a

University, the lecturers even though you give them paid time off to participate in the wellness programmes, they still have their work to do (i.e. to cover the students' study plan).

A bivariate analysis was carried out to determine socio-demographic association between the variables of respondents and their perceived barriers at .05 alpha levels. The p-values were less than .05; the researcher accepts the null hypothesis which states there is no statistically significant association between the socio-demographic variables and perceived barriers to participation. This implies that the job positions, ages and gender of the employees do not have much influence on their perceived barriers. This might be because of busy and pressurized work environments caused by staff shortages in Nigerian Universities.

CONCLUSIONS

Perceived barriers to the successful initiation and participation to workplace wellness programmes are numerous and range from no time during the work day to no time before or after work. Having wellness programmes held at a convenient time and convenient locations with paid time off to go are amongst a number of factors that could facilitate implementation and help employees overcome barriers to participation to wellness programmes in FUTO. A well-designed workplace wellness initiative depends on offering a wellness programme that is appealing and tailored to employee needs. There is a need for culture that supports staff health and wellbeing at the federal Universities, this would help to reduce increase in the occurrences of high blood pressure, obesity, coronary heart disease and diabetes in Nigeria.

CONFLICT OF INTEREST DECLARATION

Okereke Chimeziem and Prof. Adinma Echendu, declare that we have **no conflict of interest**.

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