

Perceived Influence of Nutrition and Exercise on the Productivity of Private Health Care Providers in Oluyole Local Government, Area, Ibadan, Oyo State

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Abstract- *This study explores the perceived influence of nutrition and exercise on the productivity of private healthcare providers in Oluyole Local Government Area, Ibadan, Oyo State, Nigeria. 50 participants were sampled. Data were analyzed using descriptive statistics for the research questions and inferential statistics, including Pearson Product-Moment Correlation (PPMC) and regression analysis, to test the hypotheses at a 0.05 significance level. The findings revealed that the healthcare providers generally rated their physical well-being highly, with an average mean score of 3.51 and a standard deviation of 0.53. Mental well-being was slightly lower, with an average mean score of 3.43 and a standard deviation of 0.51. Social well-being was rated the lowest, with an average mean score of 3.37 and a standard deviation of 0.51. In terms of dietary patterns, 96% of respondents reported meeting their recommended intake of fruits and vegetables. However, the same percentage also admitted to consuming processed foods regularly, indicating a potential area for dietary improvement. On the exercise front, 96% of respondents incorporated both aerobic and strength training exercises into their fitness regimen, with 98% reporting no significant barriers to regular exercise. Despite these positive health behaviors, regression analysis revealed weak and statistically insignificant relationships between dietary patterns and productivity, with an R^2 of 0.045 ($p > 0.05$), and between exercise and productivity, with an R^2 of 0.04 ($p > 0.05$). Based on these results, the study recommends implementing workplace wellness initiatives that focus on mental health services, stress management, and creating a supportive work environment.*

Indexed Terms- *Nutrition, Exercise, Productivity, Healthcare Providers, Well-being, Mental Health, Social Well-being.*

I. INTRODUCTION

Wellness, is a state of health, is closely associated with lifestyle. Each person has a responsibility to provide for such health essentials such as good nutrition, proper weight control, exercise, and controlling of risk factors such as smoking, alcohol and drug abuse. These things all play a role in wellness. A wellness-oriented lifestyle encourages one to adopt habits and behaviors that promote better health and an improved quality of life. It can also mean the act of practicing healthy habits on a daily basis to attain better physical and mental health outcomes. Therefore, to understand the significance of wellness, it is important to understand how it is linked to health.

Health is defined as the state of complete physical, mental and social well-being and not merely the absence of disease and infirmity (Armitage, 2023). The World Health Organization made further clarifications that health is a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capabilities (Nutbeam & Muscat, 2021). This means that health is a resource to support an individual's function in wider society, rather than an end in itself. A healthful lifestyle provides the means to lead a full life with meaning and purpose. Health can also be defined as the ability of a body to adapt to new threats and infirmities (Krahn, et al., 2021).

To promote the health or wellness of an individual it is important to participate in wellness programmes such as exercise, weight control, yoga classes,

smoking cessation program, lunch and healthy snacks, Naps etc. In general, wellness programmes are comprehensive health initiatives designed to maintain or improve well-being through proper diet and stress management. Such programmes are being administered and monitored by trained practitioners so as to obtain the maximum level of wellness and healthy habits. Individuals often participate in wellness programmes so as to maintain healthy, social and emotional stability.

The idea of wellness programmes is now being incorporated in companies and it is aimed at improving employee's health and well-being, often through preventive care. Other goals can include preventing and managing chronic diseases to lower their health and economic burden, improving employee's morale, motivation and performance, and improving employees' quality of life. Wellness programs are now regularly part of a company benefits package, according to SHRM's 2019 Employee Benefits Survey, 64 percent of employers provide wellness resources and information, and 58 percent of organizations offer wellness programmes in general. When done correctly, wellness programmes give employees incentives, tools, social support, privacy and strategies to adopt and maintain healthy behaviors (González, 2022).

Health care is one of the fastest-growing industries worldwide, and healthcare professions are in high demand now a days. Like most of the developing countries, private healthcare providers are providing better services as compared with the public healthcare providers in Nigeria (Shobiye, 2021). However, there are still deficiencies which need to be covered. Healthcare centres must improve internal services to enhance their service quality and thus increase profits. Employees' effectiveness and efficiency increase as they feel more energized towards their job (Shettigar & Shiva, 2020). Ultimately, this leads to organizations' sustainability in the market (Zhang, et al, 2021).

Healthcare occupations are of high pressure and have long working hours. Also, being a critical industry, healthcare centres must provide more timely facilities and services as compared with other service sectors. They are expected to respond to the consumers/patients in no time. Given that employee wellness is a

predictor of numerous business outcomes, such as employee engagement, customer engagement, turnover, and workplace safety, companies must invest in their most valuable asset, that is, their employees in order to achieve success (Benraiss-Noailles & Viot, 2021).

One of the most effective ways to do this is to implement a holistic wellness program. By addressing all dimensions of well-being, these programs support employees' health on every level, demonstrating authentic care and optimizing their work performance. Effective employee wellness programs focus on long-term behavior change. By offering a variety of targeted initiatives, such programs not only motivate but also reinforce the adoption and maintenance of healthy habits among employees (Lovejoy, et et al., 2021). This goes beyond the traditional emphasis on physical fitness; it's a comprehensive strategy that holistically addresses multiple dimensions of well-being, ensuring a well-rounded impact on employees' quality of life.

Statistics shows that an employer that invests in employee wellness often gets huge returns i.e. Increase efficiency and effectiveness, reduce staff turnover, increased satisfaction and enthusiasm, better quality of life, enhanced corporate image, increased employee productivity, reduced health expenditure, reduced absenteeism, improved employee retention, living longer. A balanced diet, regular physical activity, stress management, quitting or limiting substance use, getting adequate sleep, maintaining healthy social relationships, pursuing personal growth and purpose and following good financial wellness practices.

Many employee wellness initiatives cover multiple facets of health. For instance, introducing on-site fitness classes in a wellness program can promote physical activity, alleviate stress, and strengthen connections among employees, thereby addressing physical, mental, and social well-being (Reif, et al., 2020). This holistic approach leads to improved health outcomes and nurtures a vibrant, thriving workforce. Nearly 90% of employees working for companies with wellness programs report being happy and engaged with their job and would recommend it to a friend (Isham, Mair & Jackson, 2020). Most people spend more hours at work than anywhere else in addition to the time they spend commuting each day. In fact, the

typical Nigerian works approximately 47 hours a week which is at least 164 hours more than the average 20 years ago (Biadgo, et al., 2021).

Given these statistics, it is easy to see why maintaining a healthy work life is becoming increasingly important. Employers lose millions of naira and hundreds of productive hours every year due to employee absenteeism and below-par performance, one of the major reasons for this is sickness, stress, and unhealthy lifestyle of modern-day workers. A corporate wellness program is an investment that an organization makes in employee health and fitness. In addition it is not just the employees who reap the benefits of such a programme, even the medical centers (Enibiyo, 2022).

Employers even get rich returns from their investment through improved productivity and quality of work, greater employee satisfaction and reduced churn (Makarius, 2024). Oyo state being a prominent work station in Nigeria recognized that its employees are its most important resource (Shettigar & Shiva,2020). The study examined perceived influence of wellness programs on the productivity of private health care providers in oluyole local government, area, ibadan, oyo state.

II. STATEMENT OF THE PROBLEM

Wellness programs in private healthcare settings have gained attention, but there's a gap in comprehensively understanding their perceived influence on the productivity of healthcare providers especially the private sector in Oluyole local government area in Ibadan, Oyo State, Nigeria. The multifaceted nature of wellness programs, incorporating physical, mental, and social aspects, necessitates a thorough investigation into how each dimension impacts productivity (Pereira, ET AL., 2023). Existing literature may lack a balance between quantitative and qualitative data, making it challenging to draw holistic conclusions on the effectiveness of wellness programs in enhancing productivity (Isham, Mair & Jackson, 2020).

Compared to the general workforce, hospital staff has a greater incidence of chronic diseases and mental health illnesses. Wellness programs have been shown

to improve the health and well-being of hospital employees by reducing risk factors and promoting healthy behaviors (Melnik, ET AL., 2020). A baseline observation shows that healthcare providers in Oluyole local government area in Ibadan, Oyo State, Nigeria do not engage in structured wellness programme. The absence of wellness programme may contribute to increased stress, burnout, and mental fatigue among private health workers. Regular exercise is known to have positive effects on mental well-being, including stress reduction and improved mood, which are essential for healthcare professionals dealing with high-pressure environments (Herbert, et al., 2020).

The correlation wellness programme and productivity is well-established. Engaging in regular physical exercise and appropriate nutrition/diet has been shown to enhance cognitive function, concentration, and overall job performance (Kouviri, et al., 2022). The lack of physical exercise and appropriate nutritional intake among private health workers may potentially affect their productivity and efficiency in delivering healthcare services. Conclusively, understanding these connections is crucial for healthcare organisations striving to provide not just productive but also high-quality patient care. This study therefore investigate perceived influence of wellness programs on the productivity of private health care providers in oluyole local government, area, ibadan, oyo state.

III. AIM OF THE STUDY

The study investigated the wellness programs on the productivity of private healthcare providers in Oluyole local government area, Oyo State, Nigeria.

IV. HYPOTHESES

Ho1: There will be no significant perceived relative Influence of Nutrition (dietary intake and eating pattern) on productivity of private healthcare providers in Oluyole Local Government Oyo state, Nigeria.

Ho2: There will be no significant relationship between exercise and productivity of private Healthcare providers in Oluyole Local Government Oyo state, Nigeria.

Ho3: There will be no significant perceived joint influence of nutrition and exercise on the Productivity of private healthcare provider in Oluyole local Government Oyo State, Nigeria.

V. METHODOLOGY

The study adopted descriptive survey research design. Population for this study comprise all private healthcare providers in Oluyole local government, Oyo State. (Doctors and Nurses)

Multistage sampling procedure (simple random, purposive and Disproportionate stratified sampling technique) was adopted for this study.

Stage One: Purposive sampling technique was used to select private health care centers in Oluyole local Government, Area, Ibadan, Oyo State.

Stage Two: Simple random sampling technique of fish bowl without replacement was used to select five (5) out of ten (10) existing wards in Oluyole local government, Oyo State.

Stage Three: Disproportionate stratified sampling technique was adopted to determine fifty (50) respondents drawn from each of the chosen wards in Oluyole local government. This was done so as to ensure that the respondents were stratified with equal number of private healthcare providers from each of the wards.

Stage Four: Simple random sampling technique will be used to select ten (10) private health care providers in the five (5) private health care centers in the chosen wards to give them equal and independent chance of being included in the sample.

VI. DATA ANALYSIS

A self-developed questionnaire was used as instrument for data collection in the study. This instrument was in a closed ended format. The descriptive statistics of frequency counts and

percentages was used to analyze the socio-demographic characteristics of the respondents and the research questions. Inferential statistics of Pearson product moment correlation (PPMC) was used to analyze hypotheses 1 and 2; while Regression analysis will be used to test hypotheses 3 and 4 at 0.05 level of significance.

VII. RESULTS AND DISCUSSION

Table 1. Showing the Percentage Distribution by Gender of the Respondents

| | Frequency | Percent |
|--------|-----------|---------|
| Male | 24 | 48.0 |
| Female | 26 | 52.0 |
| Total | 50 | 100.0 |

Field work, 2024

The gender distribution among the respondents is relatively balanced, with females comprising 52% and males 48% of the population. This slight female majority ensures that the perspectives on health issues are well represented across genders. Health services and programs must adopt gender-sensitive approaches to cater to the different health needs and challenges faced by males and females.

Table 2: Showing the Percentage Distribution by Ward of the Respondents

| | Frequency | Percent |
|-------|-----------|---------|
| WD 1 | 8 | 16.0 |
| WD 2 | 15 | 30.0 |
| WD 3 | 16 | 32.0 |
| WD 4 | 2 | 4.0 |
| WD 5 | 2 | 4.0 |
| WD 7 | 7 | 14.0 |
| Total | 50 | 100.0 |

Field work, 2024

The ward distribution shows that the largest group of respondents (32%) are from WD 3, followed by 30% from WD 2. Smaller proportions come from WD 4 and WD 5, each constituting 4% of the population.

Table 3: Showing the Multiple Regression Analysis of perceived relative Influence of Nutrition (dietary intake and eating pattern) on productivity

| R=0.212 R ² =0.045 Adj. R ² =0.004 Std. Error=1.51451 | | | | | | |
|--|----------------|----|-------------|-------|----------------|-----------------|
| Model | Sum of Squares | Df | Mean Square | F | Sig. (p value) | Remark |
| Regression | 5.075 | 2 | 2.537 | 1.106 | 0.339 | Not Significant |
| Residual | 107.805 | 47 | 2.294 | | | |
| Total | 112.880 | 49 | | | | |

Survey, 2024; a. Dependent Variable: Productivity, b. Predictors: (Constant), Eating Pattern and Dietary Intake

The provided statistical output from the document "Hypotheses 1" presents a regression analysis aimed at understanding the relationship between Eating Pattern, Dietary Intake, and Productivity. The Model Summary reveals that the correlation coefficient (R) is 0.212, indicating a weak positive relationship between the predictors and the dependent variable. The ANOVA table further clarifies the statistical significance of the model. The F-statistic is 1.106 with a p-value of 0.339. Since this p-value is greater than 0.05, the model is not statistically significant, meaning there is no strong evidence that Eating Pattern and Dietary Intake

together can predict productivity better than chance. The sum of squares values for regression and residuals, along with the degrees of freedom, are provided, showing the distribution of variance explained by the model versus the variance left unexplained.

There will be no significant relationship between exercise and productivity of private Healthcare providers in Oluyole Local Government Oyo state, Nigeria.

Table 4: Showing the Pearson Product Moment Correlation (PPMC) Analyses of the relationship between exercise and productivity of private Healthcare providers in Oluyole Local Government Oyo state, Nigeria

| | | Productivity | Exercise |
|--------------|---------------------|--------------|----------|
| Productivity | Pearson Correlation | 1 | -.199 |
| | Sig. (2-tailed) | | .166 |
| | N | 50 | 50 |
| Exercise | Pearson Correlation | -.199 | 1 |
| | Sig. (2-tailed) | .166 | |
| | N | 50 | 50 |

Survey, 2024; Dependent Variable: Productivity

The findings from the analysis of Hypothesis 2 in the document indicate that there is no significant relationship between exercise and the productivity of private healthcare providers in Oluyole Local Government, Oyo State, Nigeria. Using Pearson

Correlation, a weak negative correlation was found, with a coefficient of -0.199. This suggests a slight inverse relationship, meaning that as exercise increases, productivity tends to decrease. However, the strength of this correlation is very low, indicating that the relationship is not strong. The significance

level (p-value) of 0.166 further supports the non-significance of this relationship. Since this value is greater than the commonly accepted significance threshold of 0.05, the null hypothesis (H02) is accepted, which posits that there is no significant relationship between exercise and productivity. This implies that the variations in productivity among these healthcare providers cannot be reliably attributed to their levels of physical exercise. The weak and non-significant relationship observed could suggest that

exercise is not a primary factor influencing productivity among the healthcare providers studied. It is possible that other variables, such as work environment, job stress, mental health, and overall job satisfaction, play a more substantial role in affecting productivity levels. Additionally, the type, frequency, and intensity of exercise might not have been adequate to impact productivity significantly.

Table 5: Showing the Multiple Regression Analyses (ANOVA) Analyses of perceived joint influence of nutrition and exercise on the Productivity of private healthcare provider in Oluyole local Government Oyo State, Nigeria

| R=0.314 R ² =0.099 Adj. R ² =0.060 Std. Error=1.51451 | | | | | | |
|--|----------------|----|-------------|-------|----------------|-----------------|
| Model | Sum of Squares | Df | Mean Square | F | Sig. (p value) | Remark |
| Regression | 11.150 | 2 | 5.575 | 2.576 | 0.087 | Not Significant |
| Residual | 101.730 | 47 | 2.164 | | | |
| Total | 112.880 | 49 | | | | |

Survey, 2024, a. Dependent Variable: Productivity; Predictors: (Constant), Exercise, Dietary Intake

The analysis of variance (ANOVA) results provide further insight into the significance of the regression model. The F-value of 2.576, with a significance level (p-value) of .087, indicates that the overall regression model is not statistically significant at the conventional .05 level. This suggests that the combined effect of exercise and dietary intake on productivity is not strong enough to be deemed significant in this sample. Consequently, there is no significant perceived joint influence of nutrition and exercise on productivity.

VIII. DISCUSSION OF FINDINGS

The findings of hypothesis one, which show a weak and statistically insignificant relationship between Eating Pattern, Dietary Intake, and Productivity, are in contrast to several recent empirical studies. For instance, the research on the relationship between nutrition and worker efficiency reveal a significant

correlation between proper nutrition and increased worker efficiency. The study highlights that workers who maintain a balanced diet rich in essential nutrients tend to exhibit higher levels of productivity, better cognitive function, and reduced absenteeism (Bor, et al., 2020). In a similar vein, the research titled “Dietary Knowledge and Practices among Non-Medical Staff at Babcock University in Ogun State, Nigeria” found that while a significant portion of the staff had basic knowledge of healthy dietary practices, there were gaps in their practical application of this knowledge. For instance, although many respondents were aware of the benefits of a balanced diet and the risks associated with poor eating habits, these did not consistently translate into their daily eating practices. The study also highlighted a need for more targeted nutritional education and interventions to bridge the gap between knowledge and practice among the non-medical staff at the university (Akingbade, et al., 2021).

Hypothesis 2 fails to reject the null hypothesis (H02), indicating that there is no significant relationship between exercise and productivity among the sampled private healthcare providers in Oluyole Local Government. This findings also contradict several recent empirical studies. The research titled “Work-related musculoskeletal problems and associated factors among office workers,” revealed that office workers are significantly affected by work-related musculoskeletal disorders (WMSDs). The study found a high prevalence of musculoskeletal disorders among office workers, particularly in the neck, shoulders, and lower back regions. These areas were the most commonly affected due to prolonged sitting and poor ergonomic practices. The researchers identified several risk factors contributing to WMSDs, including prolonged sitting, inadequate ergonomic setups, repetitive tasks, and poor posture. These factors were significantly associated with the development and severity of musculoskeletal problems among office workers. The study emphasized the importance of proper ergonomic interventions, such as adjustable workstations, ergonomic chairs, and regular breaks, in reducing the incidence of WMSDs. Workers who had access to ergonomic adjustments reported fewer musculoskeletal problems (Besharati, et al., 2020).

Another study titled "Physical Exercise and Health-Related Quality of Life in Office Workers: A Systematic Review and Meta-Analysis," found that physical exercise significantly improves health-related quality of life (HRQOL) in office workers. The benefits were more pronounced in workers with existing health problems, particularly in general and physical aspects of HRQOL. Both supervised and unsupervised physical exercises were beneficial, though unsupervised exercises showed more consistent improvements in both general and mental HRQOL. However, the study highlighted the need for further research to identify the optimal types and intensities of exercise for different health conditions in office workers (Nguyen, et al., 2021).

The study discusses the findings of hypotheses 3 with relevant empirical studies. The multiple regression analysis in the study revealed that the combined influence of dietary intake and exercise on productivity was not statistically significant, which is consistent with the modest effects observed in broader

literature. The R Square value of .099 indicates that only 9.9% of the variance in productivity could be explained by these factors, suggesting that other variables may play a more significant role in influencing productivity in this context. The empirical studies highlight that while nutrition and exercise are crucial for improving health outcomes, their direct impact on productivity, especially in healthcare settings, may be limited. Factors such as the work environment, organizational support, and individual motivation likely interact with health behaviors to influence productivity outcomes.

The research is also in contrast to studies conducted in the past. The titled “Dietary weight loss and exercise interventions effects on quality of life in overweight/obese postmenopausal women: a randomized controlled trial,” published in International Journal of Behavioral Nutrition and Physical Activity (2011), investigated the effects of dietary weight loss and exercise interventions on the quality of life in overweight or obese postmenopausal women. Improvement in Quality of Life (QoL): The study found that both dietary weight loss and exercise interventions led to significant improvements in the quality of life among the participants. These improvements were seen across various domains of QoL, including physical health, vitality, and mental health. The combination of dietary weight loss and exercise was particularly effective in enhancing QoL compared to either intervention alone. The participants who engaged in both dietary weight loss and exercise showed the most substantial improvements in physical functioning and vitality (Imayama, et al., 2011). In addition, the study titled the impact of diet and physical activity on the fat-to-lean mass ratio found that while both diet and physical activity influence this ratio, the effects vary significantly across age groups and BMI categories.

The study highlighted that older adults and those with higher BMI showed greater improvements in muscle mass and fat reduction when following a Mediterranean diet combined with physical activity. Interestingly, the study also noted that the intensity of physical activity had only a weak negative correlation with changes in fat-to-lean mass ratio, suggesting that while exercise is beneficial, its impact may be less significant than dietary changes alone. This research

underscores the importance of personalized dietary and exercise interventions tailored to individual demographic factors for optimizing body composition (Padua, et al., 2024).

CONCLUSION

The research aimed to understand the impact of exercise and diet on the productivity of private healthcare professionals in Oluyole Local Government Area, Ibadan, Oyo State, Nigeria. The findings showed that while most healthcare professionals believe they are in excellent physical, mental, and social health, there is still room for improvement in their mental and social health. The study found that healthcare professionals are committed to healthy eating habits, such as consuming recommended amounts of fruits and vegetables, watching portion sizes, and avoiding sugary foods. However, the regular use of processed meals suggests a need for more accessible and healthful meal alternatives. Most healthcare personnel were dedicated to regular exercise, including strength and aerobic training, which had beneficial effects on their physical and emotional health. However, these efforts had no significant effect on their productivity.

The results showed that productivity levels may be influenced by other factors, such as individual motivation, organizational support, and the work environment. The study emphasizes the need for a more comprehensive strategy to raise healthcare practitioners' productivity. While exercise and a healthy diet are important for overall health, improving productivity requires addressing more significant issues like the working environment and social support. Specific treatments to reduce processed food intake and promote mental and social wellness may help healthcare professionals stay healthy and function at their best.

RECOMMENDATIONS

In order to enhance the wellbeing and productivity of private healthcare providers in Oluyole Local Government Area, Ibadan, Oyo State, Nigeria, the research makes a number of recommendations. It implies that even when medical professionals are in excellent physical condition, their mental and social health still need more assistance. This might include

putting in place workplace wellness initiatives that emphasize mental health services, stress management, and creating a supportive work atmosphere.

1. In order to foster healthy eating habits, the research also suggests concentrating on healthier, accessible meal alternatives, encouraging healthier food choices, and offering educational programs. All-inclusive fitness plans that include organized exercises and convenient access to fitness centers may support sustained participation and long-term compliance.
2. It is also advisable to address more general productivity-influencing elements like work environment and organizational assistance. This might include enhancing working conditions, allocating sufficient resources, giving chances for professional growth, and fostering an encouraging workplace culture that prioritizes the productivity and well-being of staff members.
3. Additionally suggested are routine monitoring and assessment in order to guarantee the efficacy of the suggested actions. It is recommended that healthcare institutions get continuous input from providers in order to evaluate the effects of wellness programs on their overall well-being and efficiency.
4. More efficient ways to enhance the general well-being and productivity of healthcare personnel include individualised diet and exercise regimens, flexible scheduling for wellness activities, and focused mental health assistance.

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