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Perceived workplace safety, workload and pay satisfaction as predictors of mental health among employees in a Nigerian health-related organization

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Abstract: The health of employees is so paramount for employee productivity. While emphasis is often placed on the physical health of employees, less emphasis is placed on the psychological or mental health of the employees. Similarly, it seems as if health challenges are more occurring in manufacturing industries, but the service organizations employees are as well susceptible to mental health challenges. Understanding the predictive factors to mental health challenges therefore becomes imperative. It is on this note that the present research examines how employee mental health is predicted by work safety measures like perceived workplace safety, work overload and pay satisfaction. The workplace safety variables include perception of job, co-worker, supervisor, management, and safety programs. A cross sectional survey method was adopted, using ex-post-facto research design. Data were gathered from 258 employees, including 150 (58.1%) females and 108 (41.9%) males of a non-governmental organization. Correlation and regression analyses were used to analyze data obtained from the standardized psychological scales that were administered. The results showed that mental health correlated positively with perceived job safety, but negatively with perceived co-worker, supervisor, management, safety programs and pay satisfaction. Workplace safety variables jointly predicted mental health, accounting for 23% variance, but only perceived job safety and supervisor safety were significant. The higher employees perceived job safety, the lower their mental health challenges. Similarly, the higher they perceived supervisor safety, the lower their mental health issues. Pay satisfaction accounted for 3% variance in mental health, and the higher the pay satisfaction, the lower the level of employee mental health issues. It is implied that the human resource unit of service organizations should intermittently examine their organizations to identify and prevent possible job and supervisor safety threats. Supervisors should be trained on how to be discrete in communicating safety measures to subordinates so that it will not boomerang to hamper mental health. The human resources unit should also intermittently organize workshop, training, and employee-assisted programs for younger and lower grade employees on adaptive mechanisms for reducing mental health challenges.

Keywords: workplace safety; workload; pay satisfaction; employee mental health

1. Introduction

Mental health is a vital factor of health, which could have major impacts on individuals, families, and communities. Health, generally, is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 2014). Mental health, in particular, is a state of well-being whereby an individual is cognizant of his/her own abilities, can cope with normal stresses of life, work efficiently and is able to positively impact own community (WHO, 2022). The significance of employees' mental health in enhancing workplace productivity cannot be overruled. Studies (Lu et al., 2022; Paliga, 2023) have shown that mental

health conditions can have significant impact on employees' well-being, leading to a range of negative outcomes such as reduced productivity, increased absenteeism, and impaired quality of life. Mental health covers psychological states like depression, anxiety and stress (Ejoke et al., 2023; Lovibond, 1995), and has become a growing concern in the workplace, in recent years.

Depression, a component of mental health, is an emotional state, characterized by persistent feelings of sadness, hopelessness, guilt and reduced ability to enjoy life (Siegrist and Marmot, 2006). Anxiety is a condition, characterized by excessive and persistent worry, fear, and apprehension. Stress is a state of psychological and physiological tension caused by perceived external or internal threats and job demands, leading to feeling overwhelmed, irritable, and coping with difficulty. The mental health of employees is a key component of organizational success, believed to be influenced by a number of variables or factors, including workplace safety, workload, and pay satisfaction.

Workplace safety refers to an employee's perception of the level of safety and security within their workplace. This includes the measures employers take to minimize or guard against fatal incidents or accidents at work. Hayes et al. (1998) identified five dimensions of workplace safety, including job safety, co-worker safety, supervisor safety, management safety, and safety programs. Job safety refers to perceived physical and psychological safety conditions within a workplace that protect employees from occupational hazards and minimize the risk of accidents or injuries. Co-worker safety refers to the extent to which individuals believe that their colleagues are protected from hazards, adhere to safety protocols, and contribute to a safe working environment. Supervisor safety relates to the sense of security and wellbeing that employees have with respect to their managers or supervisors at work, covering employee thoughts about how managers put safety first and encourage it, give them the resources and assistance they need, and clearly explain and implement safety rules. Management safety involves the belief that the management team prioritizes and supports a safe working environment, establishes effective safety policies and procedures, and fosters a culture of safety within the organization. Perceived safety program refers to the belief that safety programs address potential hazards, provide necessary training and resources for employees, and actively promote a culture of safety within the organization.

Workload is another possible predictor of employee mental health, and refers to the amount of work and responsibilities that an employees are expected to handle within their role. Pay satisfaction, a third predictor variable, is the subjective attitude of staff to salary or wage, including feelings for payment of fair wages, which is a complex process that individuals and others utilize to compare work settings (Xu, 2016).

Statement of the problem

The World Health Organization (WHO) has estimated that 20% of Nigerians, or around 40 million people, are affected by mental illness (Coker, 2024). Research has further implicated that of the 174 million Nigerian population, 64 million suffered from one form of mental illness or the other (Olaniyan, 2023). The most prevalent

mental illnesses reported among Nigerians include depression and anxiety disorders. More specifically, it is reported that in 2017, about 7 million Nigerians (3.9% of the population) had depressive disorders, and 4.9 million Nigerians (2.7%) had anxiety disorders (Coker, 2024). In organizations, mental health issues are among the costliest burdens faced in both the developed and developing countries (Dimoff and Kelloway, 2019; Jansson and Gunnarsson, 2018).

A report published by the Mental Health Leadership and Advocacy Program (2012) presents the prevalence rate of workplace mental illness in Nigeria as within the range of 30%–50%. The statistics presented, thus, connotes that mental health is a complex social and psychological issue that has critical issue for human resources managers and the workplace entirely. Psychological distress, characterized by mental and physical symptoms, is associated with a state of emotional suffering (APA, 2020), with negative consequences to both employees and employers, such as decreased work engagement, increased sickness leave, as well as higher absenteeism and presenteeism (Chan et al., 2020; Wee et al., 2019).

In recognizing the need to reduce mental disorder, human resources personnel in many organizations are implementing mental health services for their employees to facilitate better health (Dimoff and Kelloway, 2019). But it is not clear if they bother to research on the factors that predispose employees to mental health challenges. Because organizations differ, it is likely that the predictors of mental health issues in one organization would differ from another. It is on this note that the present research seeks to identify the predictors of mental health state among employees in a non-governmental health-related organization.

Research questions:

- 1) Will workplace safety have significant influence on employee mental health?
- 2) Will workload have significant influence on employee mental health?
- 3) Will pay satisfaction have significant influence on employee mental health?
- 4) Will workplace safety, workload and pay satisfaction have significant joint influence on employee mental health?

2. Literature review

2.1. Theoretical review

Some theories, explaining the relationship between work environmental factors and mental health, are presented.

Ryff's model of psychological well-being

Ryff (1995) proposed a theory of psychological well-being, and posits the key components of wellbeing as self-acceptance, positive relationships with others, autonomy, environmental mastery, purpose in life, and personal growth. Ryff (2018) believes that any person who lacks these components of psychological well-being can create psychological manifestations of mental health issues like depression, anxiety, and addictive behaviors. Ryff (2018) believes that these dimensions of well-being are universal, even though their expression may be culturally dependent. The theory identified individual variables of importance in mental health problems, without regard to the environmental factors. The present study therefore seeks to study how

some environmental factors like workplace safety, workload and pay could predict employee mental health.

2.2. Theory of subjective well-being

Subjective well-being (SWB) theories explain well-being, as individual's current evaluation of his/her happiness (Schwartz and Strack, 1999). Subjective wellbeing authors identified its correlates and determinants, and classified them in six broad groups, including personality factors, contextual and situational factors, demographic factors, institutional factors, environmental factors, and economic factors. The predictor variables in the present study align more with the contextual and situational factors, and data are based on self-report from the participants.

Job-demand resource (JD-R) model

Demerouti (2001) defined job demands as those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs, like mental health of employees. Examples of job demands are work overload, heavy lifting, interpersonal conflict, and job insecurity. The JD-R model was first published, to understand the antecedents of burnout, with the assumption that when job demands are high, additional effort must be exerted to achieve the work goals and to prevent decreasing performance; this eventually stresses the employee. The state of sustained activation gradually exhausts the employee physically and/or mentally (Knardahl and Ursin, 2015), leading to employee mental health issues.

Three years after the introduction of the JD-R model, Schaufeli and Bakker (2004) revised the model. Analogous to the early JD-R model, the revised model assumes that burnout results from high job demands and poor job resources. It is believed that burnout will lead to health problems, such as depression, cardiovascular disease, or psychosomatic complaints (Melamed et al., 2006).

2.3. Equity theory

The proposition of poor job resources in the revised JD-R model prompted the necessity for another theory; the equity theory. The theory (Huseman et al., 2017), explains how a person perceives fairness in regard to social relationships. The theory presupposes that during a social exchange, a person identifies the amount of input gained from a relationship, compared to the output, as well as how much effort another person puts forth. If an employee feels underpaid, he/she would be dissatisfied and therefore becomes hostile towards the organization and co-workers, which may ultimately result to lack of motivation, low performance, and consequent mental health problems.

2.4. Empirical review

2.4.1. Perceived workplace safety and mental health

Nigeria, as a member of the United Nations, has adopted the conventions and recommendations of the International Labor Organization (ILO). In Nigeria's labor law, one of the requirements of the employer is to provide a safe place for employees to work (Flippo, 1984; Somers and Somers, 1984). Consequently, studies have been

carried out to unravel the link between workplace safety and mental health or well-being of employees, because workplace safety has functional role with the mental health of employees (Janssen and Gunnarsson, 2018).

Olaoye and Bello (2024) reported a survey in Nigeria that explored the key issues surrounding the mental health of Nigerian workers. The survey centered on perception of mental health support in different workplaces, the challenges, and the need for change. The survey found that 98.3% of respondents value their mental health. Many reported that their work is mentally exhausting, with 63.3% experiencing burnout, 65% struggling with anxiety, 33.3% deal with depression, while 25% face workplace bullying. Healthcare workers, who care for others, reported suffering from burnout, anxiety and post-traumatic stress disorder, stressing the need to limit work hours and the number of patients they attend to. The study simply investigated the prevalence of perceived mental health issues among employees, but did not identify possible predictors of mental health challenges among employees.

Research on workplace hazards and their relationship to work-related stress and health has focused on both physical (EU-OSHA, 2010) and psychosocial risks (EU-OSHA, 2010; WHO, 2010). Cox et al. (2000) reported that physical hazards reflect on the brain and their unpleasantness can give rise to the experience of stress. There is also strong evidence of an association between work-related health complaints and exposure to psychosocial risks due to poor workplace safety practices (Cox et al., 2000). A meta-analysis (2004–2005) suggested that poor workplace safety is associated with psychological disorders, such as depression and anxiety (Stansfeld and Candy, 2016). This report is more of a secondary data source, not a primary data source. Nkporbu and Douglas (2016) conducted a study among staffers of a University in Nigeria, wherein results were presented through descriptive and analytical methods. The study revealed that work place bullying was common and verbal abuse was the most prevalent (43.9%), followed by assigning meaningless tasks unrelated to the employee's job (41.2%). Among the risk factors capable of making a worker vulnerable to work place bullying are work load (98.2%), as the most prevalent risk factor perceived by the respondents, followed by home-work interface (82.0%), lack of possibilities to advance (70.1%), and interpersonal relationship (64.0%). The research has limitations in terms of data based on descriptive statistics only. It is very much likely that a research that accommodates inferential statistics would be more informative.

To develop an intervention framework for the prevention and mitigation of mental ill-health among workers in a construction industry in Nigeria, Nwaogu (2022) conducted a mixed method research, where a range of validated psychometric instruments were used for data collection. Logistic regression deduced that the prevalence rates of depression, anxiety, and suicidal ideation among supervisors were 55.1%, 14.8%, and 9.2%, respectively and 74.5%, 36.4%, and 14.6%, respectively, among tradesmen. Some work-related risk factors to mental health were discovered; this include work-home/life imbalance, lack of medical subsidies, and fear of failure. The study also relied more on descriptive statistics, with focus on prevalence of mental health challenges among workers. The present study is directed at employing research methods that would accommodate inferential statistics.

In a recent workplace wellness research conducted by Mental Health America (2023), it was discovered that 81% of workers who feel mentally or emotionally safe in their workplace report that workplace stress does not affect their mental health. Workers in unhealthy work environments report higher rates of psychological distress that lead to mental health concerns. In a previous study conducted in 2022, 81% of workers report that workplace stress affects their mental health, compared to 78% of respondents in 2021. 73% of workers reported that workplace stress affects relationships with family, friends, or co-workers. The research reported is among a population that is different from those used in the present study; again the statistical emphasis is on inferential statistics.

2.4.2. Workload and mental health

Studies have shown that workload is one of the crucial factors influencing employee work behavior (Esmaeili et al., 2019; Ingusci et al., 2021). For instance, excessive workload has been demonstrated as having negative effects on work behaviors (Ingusci et al., 2019) such as reduced efficiency, low productivity, unsatisfactory job performance, and low mental health (Salisu et al., 2015; Uche et al., 2017). Workers who are exposed to excessive workload experience severe physical and psychological distress (Salin and Notelaers, 2020), with consequent adverse work behavior like absenteeism and job performance. While these studies revealed some meaningful findings on workload influence on employee mental health, the research environment might not completely align with workers in other clime, like Nigeria.

In recent time, there have been frequent retrenchment exercises in the Nigerian work setting; leading to fewer workers discharging the responsibilities that used to be for more people. This has created excessive workloads among surviving staff, as they experience long-term work overload. Consequently, Okon et al. (2021) conducted a study on work overload and how it affected the health of bank employees in Nigeria. The research participants were randomly selected survivors after retrenchment exercise, who were selected through the triangulation of purposive and simple random sampling techniques, while questionnaires and in-depth interviews (IDIs) were used to gather data. The quantitative data were analyzed using frequency percentage distribution, and content analysis for qualitative data. Findings revealed that employees in both old and new generation banks were continually experiencing heavier and persistent work overload which resulted in long-term stress. For instance, 83.6% of workers in one bank, 82.0% in another bank stated that they were experiencing stress situations due to persistent and heavier work overloads. They reported also that exposure to stress conditions triggered both physical and psychological health challenges such as headache, ulcer, depression, etc. The study concerns mental health as it relates to the banking industry, which is a service organization but the results might not be generalized to the health-related organizations.

Work overload is also a common issue faced by academic professionals. To understand the impact of work overload on the well-being of lecturers, Oderinde et al. (2024) examined the impact of work overload on the well-being of lecturers at a university in Nigeria. The study used a qualitative approach and collected data from secondary sources such as newspapers, academic journals, textbooks, theses, and

dissertations, among others. The findings indicate that the lecturers face high levels of work overload, which has significant negative impact on their physical and mental health. It was concluded that work overload has a detrimental effect on the well-being of workers. Although the research is on educational service organization, but cannot be generalized to health-related organization; hence a gap in the research. Moreover, the study was based on data from secondary sources; a primary source of data therefore need to be investigated.

Researching in security service organization in Nigeria, Adebusi (2023) investigated burnout among police cadets, simultaneously combining university education and police training. The antecedent influence of work overload, role conflict and emotional distress on burnout was studied among cadets. In a cross-sectional study, using regression path analysis, it was revealed that academic and police work overload led directly to burnout. In addition, academic work overload led indirectly to burnout through academic role conflict and emotional distress, whereas police work overload led to burnout through police-emotional distress. This study extends extant literature on the antecedents of burnout in police organizations, a service organization, but fails to fill the gap on mental health studies in health service organization.

However, some researchers have studied mental health among employees in health organizations, where workplace stressors have been examined as factors influencing employees' psychological and physical health. Bello et al. (2021) assessed job satisfaction and its relationship with the psychological health of health workers at a health service institution. There was a consistent weak negative correlation between job satisfaction scores and general health questionnaire. Thus, respondents who were satisfied with their job were less likely to have psychological morbidity. In the study only one job context factor was examined as predictor of mental health in a health-relation organization. It is expedient for other job-related factors affecting employee mental health in health-related organizations be studied, hence the present study examines three predictor variables

2.4.3. Pay satisfaction and mental health

Pay is an important factor in human resources management, covering economic rewards like wages and salaries, and non-wage economic payments like fringe benefits, indirect compensation or supplementary pay (Martocchio, 2011). Pay is the single largest cost for many organizations, aimed at reimbursing employees for their work and motivating them to better performance (Fapohunda, 2015). The happier people are with their jobs, the more satisfied they are (Odunlade, 2012), and the more likely they experience good mental health. In a systematic review of literature, Hunefeld et al. (2020) discovered that most studies consistently reported positive relationship between pay satisfaction and mental health. Pay satisfaction is reported to be positively correlated with employee well-being and mental health (Clark et al., 2009).

The World Health Organization (WHO) says that work can be a protective factor for mental health, but it can also contribute to worsening mental health. To examine the relationship between pay and mental health of mental healthcare workers, Sowunmi (2022) conducted a study at a Nigerian neuropsychiatric hospital. The researcher found that job satisfaction among respondents was low, and was associated

with a high level of psychological morbidity. Janyam (2011) investigated the dimension of job satisfaction that influences factory workers' mental health. A survey was conducted, evaluating 5 domains of job satisfaction, which include pay, work security, co-worker, supervision, and promotion opportunity. Frequency, mean, standard deviation, correlation and multiple linear regression analysis were used for the data analysis. The results revealed that 33.5% of the workers had poor mental health, with anxiety and insomnia at the highest level (29.5%), followed by somatic symptoms (28.9%), social dysfunction (23.7%), and severe depression (12.1%). The results from correlation analysis indicated increased overall job satisfaction and increased work security were related to better mental health, whereas lower overall job satisfaction and work security were related to poorer mental health. The present study would specifically examine pay, as it relates to employee mental health.

In other climes, Larson et al. (2015) examined organizational workers in Canada and found that pay satisfaction had significant influence on mental health. Engels et al. (2005) also found that pay satisfaction plays significant role in mental health of workers in Slovenia. Kleiman and Liu (2013) investigated the relationship between pay satisfaction and mental health among young working adults in Wales, and found significant positive relationship. Kleiman and Riskind (2012) examined organizational workers in Slovakia and reported that pay satisfaction had significant influence on mental health.

From the reviews on the relationship between pay satisfaction and mental health and psychological wellbeing, there seems to be consistent findings in the positive relationship between the variables. Studies reviewed cut across different countries, adopting cross-sectional or ex-post facto research design, and using systematic, cluster, and random sampling techniques. However, the present study conducted in Nigeria is expected to have a different outlook, due to the economic downturn pervading the country and the organizations, as at the time the research was conducted.

Hypotheses

- 1) Workplace safety (job, co-worker, supervisor, management, and practice safety) will significantly predict employee mental health.
- 2) Workload will significantly predict employee mental health.
- 3) Pay satisfaction will significantly predict employee mental health.
- 4) Workplace safety, workload and pay satisfaction will jointly predict employee mental health, with demographic variables controlled.

3. Methods

3.1. Research design

This study adopted cross-sectional ex-post facto design, as the variables studied were not subjected to any manipulation and were collected across groups in a single study. The independent variables are perceived workplace safety, workload, and pay satisfaction, while the dependent variable is employee mental health.

3.2. Setting

The study was conducted in an indigenous health-related not-for-profit/non-governmental Organization (NGO). The organization has her offices across six states

in Nigeria, but covers 20 States of the Country; providing innovative and high impact programs for improved health and well-being of individuals and families.

3.3. Participants

Data were gathered from 258 staff, with inclusion criterion that participants must be employees of the organization. Thus, trainee health practitioners and those on internship were excluded. More of the respondents (150; 58.1%) were females, and the others (108; 41.9%) males, with ages ranging between 19 and 64 years. On educational qualification, 124 (41%) were university degree/HND holders, 99 (38.4%) postgraduate certificate holders, 20 (7.8%) ND/NCE certificate holders, and 9 (3.5%) had other qualifications. On family background, 200 (77.5%) were from monogamous families, and others (58, 22.5%) from 256 polygamous families.

3.4. Instruments

A questionnaire, consisting of five (5) sections, was used for data collection. Section A covered the demographic characteristics, including gender, age, religion, educational qualification, family background, and job status. Section B measured the psychological health of employees, comprising depression, anxiety, and stress (DASS). The Depression Anxiety Stress Scale (DASS) is a self-report questionnaire developed by Lovibond and Lovibond (in 1995 to assess the severity of symptoms of depression, anxiety, and stress, each having 14 items. The original version of the scale has 42 items, while the brief version has 21 items; the higher the score, the poorer the mental health state. The Depression sub-scale assesses dysphoria, hopelessness, devaluation of life, self-depreciation, lack of interest/involvement, anhedonia, and inertia. The Anxiety sub-scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Stress sub-scale assesses difficulty in relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient.

Scores of Depression, Anxiety and Stress are calculated by summing the scores for relevant items. The depression sample items include ‘I felt that I had nothing to look forward to’; ‘I felt that I had lost interest in just about everything’ and ‘I felt I wasn’t worth much as a person’. For anxiety, ‘I had a feeling of shakiness (e.g. legs going to give way)’; ‘I experienced breathing difficulty’ and ‘I felt scared without any good reason’. For stress scale, ‘I found it difficult to relax’, ‘I found it difficult to relax’ and ‘I felt that I was rather touchy’. Responses ranged from 0 (did not apply to me at all) to 3 (applied to me very much/most of the time). The scale developer reported reliability coefficient of 0.82 for Depression, Anxiety (0.76) and stress (0.78).

Preliminary evidence suggested that the DASS possesses adequate convergent and discriminant validity (Lovibond and Lovibond, 1995). A large student sample (N = 717) was administered the Beck Depression Inventory (BDI), the Beck Anxiety Inventory (BAI), and the DASS. The BAI and DASS anxiety scale were highly correlated ($r = 0.81$), as well as the BDI and DASS depression scale ($r = 0.74$). However, between construct correlations were substantially lower ($r = 0.54$ for DASS depression and BAI; $r = 0.58$ for DASS anxiety and BDI). Antony et al. (1998) confirmed that the DASS is a reliable and valid method of assessing features of depression, anxiety, and tension-stress in both clinical and nonclinical groups. The psychometric properties of the DASS and normative data for the DASS are described

in detail in the DASS manual. (PsycTests Database Record (c) 2024 APA, all rights reserved).

In the present study, the alpha coefficients are 0.91, 0.89, and 0.91 respectively for Depression, 277 Anxiety and stress, and 0.90 for the entire mental health scale. The workplace safety scale was developed by Hayes et al., (1998) with 50 items, requesting employees to rate how much safety practices is put in place for them. The instruction to respondents was: “Think about the people you work with. Do you agree or disagree that each of the following words or phrases describes these people?” Circle one answer for each statement using the scale at the top of the page. The scale has five (5) dimensions; job safety, co-worker safety, supervisor safety, management safety, and safety programs. Participants rating was on a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Example of job safety items include ‘Could get hurt easily,’ ‘Fear for health,’ ‘Chance of death’. On Co-worker items, examples are, ‘Ignore safety rules,’ ‘Don’t care about others’ safety,’ ‘Follow safety rules’. ‘Pay attention to safety rules’. On supervisor safety items examples are, ‘Praises safe work behaviors,’ ‘Encourages safe behaviors,’ ‘Keep workers informed of safety rules’. On management safety practices, items examples include, ‘Provides enough safety training programs,’ ‘Conducts frequent safety inspections,’ ‘Investigates safety problems quickly’. On safety program (policies) the sample items include, ‘Helps prevent accidents,’ ‘Effective in reducing injuries,’ ‘Does not work’.

The authors reported internal consistency for job safety (0.71), co-worker safety (0.78), supervisor safety (0.81), management safety (0.77) and safety programs (0.87). In the present study, the internal consistencies obtained include job safety (0.89), co-worker safety (0.72), supervisor safety (0.93), management safety (0.93) and safety programs (0.92).

Perceived workload was measured using the perceived workload scale developed by Braarud (2001). The scale measured the extent to which employees experience high job role and demands, with response pattern ranging as Very low (1), Low (2), Somewhat low (3), Moderate (4), Somewhat high (5), High (6) and Very high (7). Examples of the items are ‘Mental demand,’ ‘Physical demand,’ ‘Temporal demand’. The author reported an internal consistency of 0.82, and for the present study it is 0.74, with the full-scale reliability as 0.77.

The pay satisfaction scale is an 18-item scale developed by Judge and Welbourne (1993), to measure the extent employees are satisfied with the monetary reward received, in form of salary or wage, on a daily or monthly basis. The response format ranged as; Extremely Satisfied (ES), Satisfied (S), Moderate Satisfaction (MS), Not Satisfied (NS). The higher the score, the higher the satisfaction with the pay. Examples of items include, ‘Information the company gives about pay are issues of concern to me’ ‘The information the company gives about pay are issues of concern to me,’ ‘Influence my supervisor has over my pay’. The author reported a split-half reliability coefficient of 0.67, and an internal consistency of 0.91, while for the present study an internal consistency of 0.96, and full-scale reliability of 0.79 is reported.

3.5. Procedure

3.5.1. Sampling technique

The study adopted online survey method for data collection. Permission was sought from the management of the organization and each employee was given the liberty to participate, or not to participate. All employees in the purposively selected organization received email message introducing the research, and requesting for voluntary participation. Those willing to participate were requested to fill a consent form and return through their email. Subsequently, those willing to participate were sent a survey link, using the existing database in the organization. The organization has a total of nine (9) departments and each department has at least 50 employees.

3.5.2. Ethical considerations

The research proposal was first submitted to an Ethical Review Board of the university where the authors are affiliated. After due assessment and approval granted, the modified version of the research proposal was submitted to the management of the organization where the study was conducted; for approval. Some modifications were suggested for the implementation of the study, on the basis for which the research was approved for execution. Further ethical issues were considered as individuals who voluntarily participated were still encouraged to discontinue if they were not comfortable with answering the questionnaire items; such were excluded from the study. Similarly, those who skipped 95% of the items in the questionnaire were excluded from the analysis. The benefits of the research was centered on the disclosure of the findings from the study to the organization management, for possible human resource actions. The participants were assured of confidentiality of their responses and no divulging of their personal information was made to a third party.

3.5.3. Statistical analysis

Both descriptive and inferential statistics were used in analyzing the data. Simple frequencies and percentages were used on the demographic variables. Hypothesis 1 to 3 were tested with linear and standard multiple regression analyses, while the fourth hypothesis was tested using hierarchical regression analysis.

4. Results

Table 1. Zero-order correlation showing the relationship among the predictor variables and mental health state (depression, anxiety and stress).

SN	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1	Depression	3.51	5.24											
2	Anxiety	3.97	4.96	0.86**										
3	Stress	6.34	6.49	0.85**	0.83**									
4	Ment. Health	13.82	15.81	0.95**	0.94**	0.95**								
5	Job safety	18.65	7.08	0.45**	0.36**	0.44**	-0.44**							
6	Cow. safety	26.76	3.53	-0.22**	-0.20**	-0.17**	-0.20**	-0.18**						
7	Supv safety	37.92	6.76	-0.20**	-0.22**	-0.23**	-0.23**	-0.16**	0.50**	-				
8	Mana safety	30.72	5.63	-0.14*	-0.16*	-0.22**	-0.19**	-0.29**	0.43**	0.69**	-			
9	Safety prog	23.32	4.45	-0.18**	-0.15*	-0.12	-0.15*	-0.18**	0.53**	0.60**	0.63**	-		
10	Workload	24.59	4.50	0.05	0.06	0.14*	0.09	0.10	0.06	0.03	0.07	0.15*	-	
11	Pay satis.	31.68	10.90	-0.13*	-0.16*	-0.21**	-0.18**	-0.16*	0.13*	0.23**	0.22**	0.14*	-0.20**	-

* $p < 0.05$; ** $p < 0.01$.

The data collected from 258 respondents were analyzed and the results are presented. **Table 1** presents the inter-correlation results of the variables studied, and their sub-scales.

4.1. Inter-correlation among the variables

Table 1 shows that depression is positively correlated with anxiety ($r = 0.86$; $p < 0.01$) and stress ($r = 0.85$; $p < 0.01$), and anxiety is significantly correlated with stress ($r = 0.83$; $p < 0.01$). The significant positive inter-correlations among the three sub-scales of mental health justifies the use of their composite score for mental health (Ehigie, 2005). Each of the components also correlated significantly with mental health, with correlation coefficients as 0.95 (depression), 0.94 (anxiety), and 0.95 (stress) at $p < 0.01$; this justifies the internal consistency of the mental 329 health scale.

Mental health correlated negatively with job safety ($r = -0.44$; $p < 0.01$), co-worker safety ($r = -0.20$; $p < 0.01$), supervisor safety ($r = -0.23$; $p < 0.01$), management safety ($r = -0.19$; $p < 0.01$), safety programs ($r = -0.15$; $p < 0.05$) and pay satisfaction ($r = -0.18$; $p < 0.01$), and with workload there is no significant relationship ($r = 0.09$; $p > 0.05$). This means that the higher the perceived job safety, co-worker safety, supervisor safety, management safety, safety programs and pay satisfaction, the lower the reported mental health challenges. However, workload is not significantly related to mental health.

4.2. Hypotheses testing

Standard multiple regression analysis was used to test the first hypothesis which stated that workplace safety will significantly predict mental health; the results are presented in **Table 2**.

Table 2. Multiple regression analysis of mental health on workplace safety.

Predictors	β	t	p	R	R^2	F	p
Job safety	-0.43	-7.38	< 0.01				
Co-worker safety	-0.08	-1.17	> 0.05				
Supervisor safety	-0.20	-2.41	< 0.05	0.48	0.23	15.08	< 0.01
Management safety	0.09	1.08	> 0.05				
Safety program	0.02	0.29	> 0.05				

The components of workplace safety (Job, co-worker, supervisor, management, and safety program) jointly predicted mental health [$R = 0.48$; $R^2 = 0.23$; $F(5, 252) = 15.08$; $p < 0.01$], accounting for 23% variance in mental health. However, only job safety and supervisor safety were significant independent predictors, showing that the higher the perceived job safety ($\beta = -0.43$; $t = -7.38$; $p < 0.01$), and the higher the perceived supervisor safety ($\beta = -0.20$; $t = -2.41$; $p < 0.05$), the lower the mental health issues reported. Linear regression analysis was used to test the second hypothesis that workload will significantly predict employee mental health, and the result is presented on **Table 3**. It is revealed that workload is not a significant predictor of mental health $F(1, 256) = 2.04$; $R = 0.09$, $R^2 = 0.01$; $p > 0.05$].

Table 3. Linear regression showing the influence of workload on mental health.

Predictor	β	T	p	F	R	R^2	p
Workload	0.09	1.43	> 0.05	2.04	0.09	0.01	> 0.05

Using linear regression analysis, the third hypothesis stating that pay satisfaction would significantly predict mental health of the employees was tested, and the results are presented in **Table 4**. It is revealed that pay satisfaction significantly predicted mental health status [$F(1, 256) = 8.29$; $R = 0.18$, $R^2 = 0.03$; $p < 0.05$], accounting for 3% variance in mental health; the higher the pay satisfaction, the lower the level of mental health.

Table 4. Linear regression showing the regression of mental health on pay satisfaction.

Predictor	β	T	p	F	R	R^2	p
Pay satisfaction	-0.18	-2.88	< 0.05	8.29	0.18	0.03	< 0.05

To test the fourth hypothesis that workplace safety, workload and pay satisfaction will jointly predict mental health while controlling demographic variables, the hierarchical regression analysis was used. The results are presented in **Table 5**. In model 1, when the demographic variables were introduced into the regression, gender, age, educational qualification and job status were significant joint predictors of mental health [$R = 0.20$; $R^2 = 0.04$; $F(4, 253) = 2.68$; $p < 0.05$], accounting for about 4% variance in mental health. However, only age ($\beta = -0.14$; $t = -2.11$; $p < 0.05$) had significant independent influence on mental health, showing that the older a worker the lower the reported mental health issues. When workplace safety was added to the demographic variables, both variables jointly accounted for 27% variance in mental health [$R = 0.52$; $R^2 = 0.27$; $F(6, 251) = 10.24$; $p < 0.01$]. Among the demographic variables, only job status ($\beta = -0.10$; $t = -1.48$; $p > 0.05$) contributed significantly while age was suppressed by the presence of perceived workplace safety variables, thus, job status was enhanced, showing that the higher the job placement the lower the mental health challenges reported.

Table 5. Summary of hierarchical multiple regression analysis of the incremental influence of workplace safety, workload and pay satisfaction on mental health.

Model	Predictors	β	t	p	R	R^2	R^2 Change	F	p
Model 1	Gender	-0.01	-0.19	> 0.05					
	Age	-0.14	-2.11	< 0.05	0.20	0.04	0.04	2.68	< 0.05
	Educational qual	-0.06	-0.93	> 0.05					
	Job status	-0.10	-1.48	> 0.05					

Table 5. (Continued).

Model	Predictors	β	t	p	R	R^2	R^2 Change	F	p
Model 2	Gender	-0.01	-0.11	> 0.05	0.52	0.27	0.23	10.24	< 0.01
	Age	-0.07	-1.21	> 0.05					
	Educational qual	0.01	0.14	> 0.05					
	Job status	-0.18	-2.97	< 0.05					
	Job safety	-0.42	-7.16	< 0.01					
	Co-worker safety	-0.11	-1.62	> 0.05					
	Supervisor safety	-0.24	-2.91	< 0.05					
	Management safety	0.10	1.14	> 0.05					
	Safety program	0.06	0.74	> 0.05					
Model 3	Gender	-0.01	-0.12	> 0.05	0.52	0.27	0.00	9.19	< 0.01
	Age	-0.07	-1.22	> 0.05					
	Educational qual	0.01	0.13	> 0.05					
	Job status	-0.17	-2.84	< 0.05					
	Job safety	-0.42	-7.03	< 0.01					
	Co-worker safety	-0.11	-1.61	> 0.05					
	Supervisor safety	-0.24	-2.85	< 0.05					
	Management safety	0.10	1.12	> 0.05					
	Safety program	0.05	0.68	> 0.05					
	Workload	0.02	0.31	> 0.05					
Model 4	Gender	-0.01	-0.20	> 0.05	0.53	0.28	0.01	8.60	< 0.01
	Age	-0.08	-1.36	> 0.05					
	Educational qual	0.03	0.43	> 0.05					
	Job status	-0.17	-2.79	< 0.05					
	Job safety	-0.41	-6.97	< 0.01					
	Co-worker safety	-0.11	-1.62	> 0.05					
	Supervisor safety	-0.23	-2.68	< 0.05					
	Management safety	0.10	1.23	> 0.05					
	Safety program	0.06	0.71	> 0.05					
	Workload	0.00	-0.01	> 0.05					
	Pay satisfaction	-0.09	-1.50	> 0.05					

** $p < 0.01$; * $p < 0.05$.

Among the workplace safety factors, job safety ($\beta = -0.42$; $t = -7.16$; $p < 0.01$) and supervisor safety ($\beta = -0.24$; $t = -2.92$; $p < 0.05$) were the only significant independent predictors of employee mental health. Workplace safety accounted for 23% change in variance in mental health ($\Delta R^2 = 0.23$; $p < 0.01$). In model three when workload was added to the demographic variables and workplace safety, all the variables significantly accounted for 27% variance in mental health [$R = 0.52$; $R^2 = 0.27$; $F(7, 250) = 9.19$; $p < 0.01$]; however, only job status ($\beta = -0.17$; $t = -2.84$; $P < 0.05$), job safety ($\beta = -0.42$; $t = -7.03$; $p < 0.01$) and supervisor safety ($\beta = -0.24$; $t = -2.85$; $P < 0.01$) had significant independent influence. The inclusion of workload had no significant change in mental health variance ($\Delta R^2 = 0.00$; $p > 0.01$).

In model four, when pay satisfaction was added to the demographic variables, workplace safety and workload, all the variables accounted for 28% variance in mental health [$R = 0.53$; $R^2 = 0.28$; $F(8, 249) = 8.60$; $p < 0.01$], but only job status ($\beta = -0.17$; $t = -2.79$; $P < 0.05$), job safety ($\beta = -0.41$; $t = -6.97$; $P < 0.01$), and supervisor safety ($\beta = -0.23$; $t = -2.68$; $P < 0.05$) had significant independent influence. The inclusion of pay satisfaction had no significant change mental health ($\Delta R^2 = 0.01$; $p > 0.01$). In both models 3 and 4, job status, perceived job safety, and supervisor safety had negative influence in the prediction; meaning that the higher the job status, perceived job safety and supervisory safety, the lower the mental health state.

5. Discussion

The mental health state of employees is a key component of organizational success, which could be influenced by a number of factors, including workplace safety, workload and pay satisfaction, as examined in this study. Employee mental health has been an area of growing concern in recent years. Studies have shown that individuals' well-being and mental health can lead to a range of negative outcomes, such as reduced productivity, increased absenteeism, and impaired quality of life (Lu et al., 2022; Paliga, 2023). It is to this effect that the present study examined perceived workplace safety, workload and pay satisfaction as predictors of mental health, among the staff of a non-profit health-related organization in Nigeria. On the first hypothesis, it was discovered that workplace safety (Job, co-worker, supervisor, management, and safety program) were significant joint predictors of mental health, but only job safety and supervisor safety contributed significantly.

The finding revealed that a safer work environment is associated with better mental health outcomes. This aligns with studies that demonstrated a strong link between workplace safety and mental well-being. Janssen and Drury (2013), for instance, revealed that workplace safety has functional role with mental health of employees. The finding also supports Cox et al.'s report on the psychological effect of workplace hazard on the mental health of employees. Jehanzeb et al. (2015) added that employee overall mental health is influenced by the perception of safety in the organization. Consequent upon the discovery that job safety contributes to overall mental health and well-being of organizational employees, Cabral et al. (2016) recommended improving the culture of safety by implementing existing safety practice procedures. Supervisor safety negatively predicted employee mental health. Supervisor safety is the sense of security and wellbeing that employees have with respect to their managers or supervisors at work. It is the degree to which subordinates think their managers put safety first and encourage it, giving them the resources and assistance, they need, and clearly explain and implement safety rules. The finding is that the higher the employees perceived their supervisors' safety, the lower the mental health issues reported.

Ryff's (2019) theory of psychological wellbeing explains that a person who lacks well-being can create psychological manifestations of mental health challenges like depression, anxiety, and stress. Menger et al. (2016) posited that managers sought to reduce workplace accidents in the organization to promote the overall safety and well-being of employees in the organization. It is likely that the safety measures supervisors

try to put in place for their subordinates are perceived positively by the subordinates, leading to reduced mental health issues. A subordinate who perceives supervisor's insistence on safety and its negative affect (Cheng and Lam, 2010), would experience less mental health issues. In the subjective wellbeing theory, Schwartz and Strack (1999) referred to wellbeing as the individual's current evaluation of his/her happiness. The finding of negative prediction of employee mental health resulting from job and supervisor safety is related to the meta-analysis results by Stansfeld and Candy (2016) who observed that particular combinations of high demands and low decision latitudes are associated with psychological disorders, such as depression and anxiety. Perceived workplace safety, in this case supervisor safety, has been found to be associated with low self-perceived health issues, and mental disorders (Siegrist and Marmot, 2006). But the results of the present study support these early findings. Hypothesis two stated that workload will significantly predict employee mental health; this was not supported in the present study. The findings support that of Salin and Notelaers (2020) who reported that workers exposed to excessive workload are likely to experience severe physical and psychological distress. Viotti et al. (2015) found significant relationship between work overload and employee psychological wellbeing. The job resource model (Demerouti, 2001) holds that job demands are physical, social, or organizational and require sustained physical or mental effort, which results in certain physiological and psychological costs.

The results of the present study show that where there is perceived job and supervisor safety, employee mental health issues are less. This aligns with Hockey's (1997) model of compensatory control. The influence of workload on mental health was not significant in the present context, probably because of the nature of the organization where the study was conducted. Employees are provided with supportive health care facilities at reduced cost, and because it is a health-related organization there are no much pressure on the workers that could degenerate to mental health challenge. The workers also undergo intermittent training on stress management; this might have informed the result obtained. The testing of hypothesis three showed that pay satisfaction is a significant predictor of employee mental health. This finding supports the research, showing that pay satisfaction is positively correlated with employee well-being and mental health (Clark et al., 2009). Pay satisfaction refers to the level of contentment employees feel regarding their compensation, including factors such as salary, benefits, and recognition for their work. When employees are satisfied with their pay, it can positively affect their overall job satisfaction and psychological well-being. The equity theory propounded that when employee perceives fairness in what they get, in terms of pay, it enhances their level of mental state stability (Huseman et al., 2017). It is possible therefore that the employees in the present research perceived equity in their pay, hence the positive relationship between pay satisfaction and mental health. The study further revealed that employees' satisfaction with their compensation has an impact on their mental well-being. The 451 happier people are with their jobs, the more satisfied they are said to be (Odunlade, 2012).

Hypothesis four stated that perceived workplace safety, workload and pay satisfaction will have significant incremental influence on employee mental health of employees. Although all the predictor variables jointly predicted employee mental

health, but only job status, job safety and supervisor safety contributed significantly in the prediction. The strength of significance of pay satisfaction was, however, suppressed by the other variables.

5.1. Implications of findings

The results of the joint prediction of perceived workplace safety, work load, and pay satisfaction on mental health implies that their combined influence is important in driving home a balanced mental health status of employees. The findings emphasize the need for organizational management to create a safe work environment, manage workload effectively, and ensure fair compensation to promote positive mental health outcomes in the organization. Strategies such as implementing safety protocols, workload management systems, and fair compensation structures can contribute to overall employee well-being.

The hierarchical regression results emphasize the importance of prioritizing workplace safety in organizations. Strategies such as implementing comprehensive safety policies, providing appropriate training, conducting regular risk assessments, and ensuring the physical security of employees can contribute to fostering a safer work environment. These measures not only protect employees from potential harm but also support their overall mental well-being. When employees perceive their workplace as safe, it can contribute to a sense of security, reduced stress levels, and improved overall mental health. The presence of workplace safety measures, like job safety, can directly impact mental health outcomes. For example, when employees feel protected from physical hazards, they are more likely to experience better mental health. Non-governmental organizations (NGOs) may face unique risks related to their work, such as exposure to violence, trauma, or hazardous conditions. Addressing and mitigating these risks through safety protocols and supportive measures can contribute to better mental health outcomes for employees. Supervisors are also encouraged not to be too vehement in their insistence on safety compliance by subordinates. They should as well receive training on how to introduce corrective measures for safety compliance.

5.2. Human resource management implications of findings

1) The study shows that employees of lower age and job status are more susceptible to mental health challenges than those of older age and higher status. The human resource management unit of work organizations should intermittently arrange workshop and training programs to enhance the psyche of the younger and junior employees on how to live a more healthy life, especially in overcoming the stress at work.

2) The result of significant influence of perceived job safety on mental health shows that the higher the perceived safety, the lower the mental health challenges faced by employees. Organizational management should put in place measures that could enhance the physical and psychological safety conditions within the workplace, and protect employees from occupational hazards and minimize the risk of accidents or injuries. Such human resource management action would help to enhance the

employees' perception of job safety, and thereby reduce 493 mental health challenges experienced by employees.

3) Supervisor safety is a significant predictor of mental health. This safety type relates to the sense of security and wellbeing that employees have with respect to their managers or supervisors at work, covering employee thoughts about how managers put safety first and encourage it, give them the resources and assistance they need, and clearly explain and implement safety rules. The human resource experts in an organization should devise programs whereby supervisors are trained on how to disseminate security related information to their subordinates so that it will be impactful in reducing mental health challenges of the employees.

5.3. Conclusions

- This study revealed that workplace safety is a significant predictor of employee mental health among employees of Non-governmental organizations. However, among all the components of workplace safety, only job safety and supervisor safety are significant independent predictors of employee mental health.
- Job status is also a significant predictor of mental health, in favor of higher status
- Workload is not a significant predictor of employee mental health.
- Pay satisfaction is a significant predictor of employee mental health.

5.4. Limitations of study and suggestions for future research

- The study findings are limited, as only employees in a non-governmental organization were the participants. It is suggested that a larger population could be examined, covering especially the public sector and other private sectors.
- A self-report questionnaire was used, which has the challenge of subjectivity. This is because self-report answers may be exaggerated by respondents, and they may not want to report certain occurrences about their organization, as they still remain employees in the organization. There may therefore be the presence of social desirability of the respondents, as their responses might have been a reflection of what they think would be expected of loyal workers. Other methods of data collection like the qualitative methods could be used to overcome the challenges of self-report research approach. By this, respondents are allowed to freely express themselves on the questions raised.
- In addition, the surveys were closed ended, thus limiting the responses of respondents to that specified alternative responses provided by the researcher. For future research, open-ended questions could be included in the questionnaire, for self-expressions.

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