DOI: 10.1002/jcop.22857

RESEARCH ARTICLE



Structural equation modeling of the influence of primary school teachers' demographics on their psychosocial work hazards

Christian S. Ugwuanyi¹ Charity C. Okeke² Chinedu I. O. Okeke³

Correspondence

Christian S. Ugwuanyi, Faculty of Education, University of the Free State, Bloemfontein 9301, South Africa.

Email: UgwuanyiCS@ufs.ac.za

Abstract

Most workers, especially teachers experience one form of psychosocial work hazards or the other. In the Nigerian context, there is a high prevalence of psychosocial work hazards and no study has been conducted to ascertain the influence of teachers' demographics on their psychosocial work hazards. This study explored the influence of primary school teachers' demographics on their psychosocial work hazards using the structural equation modeling approach. Drawing from the tenets of Job-Demand-Control-Support theory, a correlational survey research design was used, using a sample of 254 primary school teachers, and the study was based on a quantitative research approach. The study's data were gathered utilizing a 28-item questionnaire adapted from the 30-item Copenhagen Psychosocial Questionnaire developed by Kristensen and coworkers in 2005. The internal consistency reliability index of the questionnaire items was 0.74. The data were analyzed using a combination of frequency, percentage, chi-square test of independent samples, hierarchical multiple regression analysis, and structural equation modeling. It was revealed that demographic characteristics of teachers correlated with their psychosocial work hazards. However, it was found that only the age and location of the teachers had significant (p < .05) relationships with their psychosocial work hazards. The age and location of the teachers

¹Faculty of Education, University of the Free State, Bloemfontein, South Africa

²Faculty of Education, School of Social Sciences and Language Education, University of the Free State, Bloemfontein, South Africa

³Faculty of Education, School of Education Studies, University of the Free State, Bloemfontein, South Africa

are significant determinants of their psychosocial work hazards. This our findings call for more research on the subject matter as some recent studies have documented that other demographics of teachers had significant relationships with psychosocial work hazards. It was therefore recommended that teachers' demographics should be considered as important factors in the recruitment of teachers.

KEYWORDS

demographics characteristics, primary school teachers, psychosocial work hazards

1 | INTRODUCTION

1.1 | Background information and statement of problem

Psychosocial hazards in the workplace are related to the psychological and social aspects of the workplace, not only the physical ones. Workers are likely to be exposed to a variety of psychological hazards and risk factors as a result of their jobs. Stress, exhaustion, bullying, violence, hostility, harassment, and burnout are just a few of the issues that can impair workers' health and wellness. There are also risk variables (such as the abuse of alcohol or other drugs, or bad change management) that raise the likelihood of injury to one's health as a result of exposure to a work hazard. Prolonged working hours, severe workloads, irregular work shifts, workplace bullying and violence, insecure employment, and financial insecurity are all rising psychosocial work hazards around the world (Cheng, 2018). Work is recognized as a significant source of psychosocial stress, and the impact of psychosocial work circumstances on workers' health has been thoroughly established in recent decades (Liang et al., 2018). Burnout is growing more widespread among workers as a result of exposure to unfavorable psychosocial work conditions and the resulting work-related stress (Misiak et al., 2020).

The teaching profession is one of the occupations that suffers from psychosocial work hazards, and despite the fact that teachers are known to have a variety of health and safety difficulties, few research works have focused on these issues (Ng et al., 2019). Psychosocial risks at work have a variety of negative impacts on workers' physical and mental health, as well as a deterioration in their quality of life and their ability to function (Kabito & Mekonnen, 2020). In Malaysia, there appears to be cause for worry regarding educators' exposure to psychosocial job hazards (Tai et al., 2019). While the majority of the risk factors were consistent with those found in earlier research, others, such as school characteristics (school level, government or private school, and location [rural/urban]), have not been explored (Tai et al., 2019). In Putrajaya, 72.9% of teachers reported having psychological work hazards (Mohd Anuar et al., 2016). There is a prevalence (24.8%) of psychosocial work hazards among lecturers in Malaysia (Azizah et al., 2016).

The prevalence of psychosocial work hazards among Nigerian workers was 61.97%, with job overload being the most common psychosocial work hazard component at 67.72%, followed by poor communication and staff attitude at 50.37% and a lack of resources and equipment at 50.37% (Onigbogi & Banerjee, 2019). It was found that 62.2% of workers at the University of Port Harcourt, Nigeria were exposed to psychosocial hazards, with workplace verbal abuse (43.9%) being the most common (Kennedy, 2018). Most psychosocial work hazards, particularly job expectations, control, role, and relationships, have increased with time, indicating grounds for concern

(Wray & Kinman, 2020). Azizah et al. (2016) found a high prevalence of occupational stress among teachers in Malaysia. Čecho et al. (2019) found that most kindergarten teachers are exposed to mental load and psychosocial risks. Moreover, Cheng (2018) revealed that there are merging psychosocial work hazards among Teachers in Taiwan and other East Asian countries. It was based on the foregoing that this study sought to empirically determine the influence of teachers' demographics on their psychosocial work hazards. This study was anchored on the Job-Demand-Control-Support model by Karasek and Theorell (1990)

1.2 | Theoretical background

The Job-Demand-Control-Support model is a well-known theory/model that describes how job features affect employees' mental health (Karasek & Theorell, 1990). The model depicts how workplace demands, such as a severe workload, position uncertainty, and job-related pressure, can produce psychosocial work hazards for employees. Individuals can manage these pressures, according to the concept, by using job skills that allow them to obtain autonomy and control over their work (Karasek & Theorell, 1990). The approach works by demonstrating that when people are under a lot of pressure at work, they become stressed. Employees, on the other hand, can reduce stress or any form of psychosocial work hazards by having more job autonomy and creating strong relationships with their coworkers and boss. The framework for this theory is shown in Figures 1 and 2.

This framework showed that in the presence of psychosocial work hazards, the psychological well-being of workers is dependent on three factors (gaining control over job, receiving support from colleagues, and receiving support from the supervisor). Gaining control over job demands that you must obtain control of your work. This could entail making decisions on your own without seeking guidance. This may necessitate bargaining with your boss to get decision-making authority at work. You can get advice from your boss on decisions while still having the freedom to make your own choices about how to work. Receiving support from colleagues is very paramount in reducing stress or psychosocial work hazards. Support from supervisors and coworkers are both coping methods for reducing stress. They differ, though, because they have various effects on your health. In reality, gaining support from your employees is more vital because it is critical and quick. Furthermore, because they are not in a position of power, your relationship with your coworkers is egalitarian. It can also be a source of companionship, which is especially useful while working in a group. Finally, when you have positive social contacts such as receiving support from your supervisor, it functions as a coping strategy to help you cope with stress. Support from your boss/supervisor can impact your attitude toward your job, including job satisfaction and dedication; also, if you

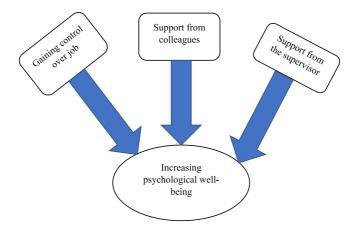


FIGURE 1 Theoretical framework

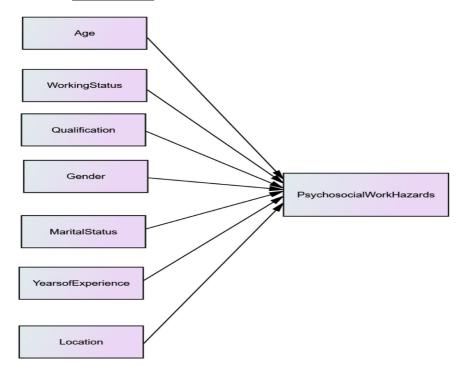


FIGURE 2 Hypothesized model for the research

have your boss's support, you are less inclined to leave the company. Furthermore, if you work in a hierarchical organization, your boss will have more power because their function is respected in the workplace. This model is relevant to this study for the fact that the model depicts that both personal and organizational factors influence the psychosocial work hazards of teachers and thus, the findings of this study have strengthened this model's tenets.

1.3 | Review of related empirical studies

In most research, gender, amount of education, income, job title, and duration of service were all found to have significant relationships with psychosocial work hazards (Azizah et al., 2016). Psychosocial work dangers were significantly influenced by age, gender, high job demand, and inadequate job control (Kabito & Mekonnen, 2020). Kindergarten teachers' age and qualifications have a significant impact on the psychosocial hazards they face at work (Čecho et al., 2019). After controlling for other characteristics like age, marital status, and other job activities, gender was shown to be substantially linked with psychosocial work hazards among teachers in Putrajaya (Mohd Anuar et al., 2016). Increased age, male gender, father's unemployment, low school ranking, not living with both biological parents, perceived family disharmony, low self-esteem, and depression were all linked to a higher risk of psychosocial job hazards (Lee et al., 2021). In a similar study, women were found to be at a higher risk of experiencing psychosocial work hazards, and authoritarian and laissez-faire leadership styles were found to be positively related to psychosocial work hazards (Feijó et al., 2019). Job control and social support partially reduced the effect of job pressures on teachers' depression and anxiety (Ibrahim et al., 2021). Female principals reported greater signs of suspected psychosocial work disorder than male principals, although school level was not linked to reports of psychosocial work disorder (Persson et al., 2021).

The length of work experience of male principals was linked to tiredness symptoms of psychosocial work disorder (Persson et al., 2021). The characteristics of workplace psychosocial factors were found to have a significant relationship with the age of workers (Xu et al., 2022). Gender, education level, and age of Italian workers all have a role in work-related psychological hazards (La Torre et al., 2018). Work-related stress is influenced by workers' marital status and workspace (Wireko-Gyebi & Ametepeh, 2016). According to Alias et al. (2020), age and gender of primary school teachers in Malaysia had significant correlations with the psychological work hazards. In women, low levels of work-family conflict and supervisor support worked together to lower psychosocial work hazards, but in men, a combination of high physical demands and relatively high work-family conflict was linked to higher levels of psychosocial work hazards (Weale et al., 2021). However, for both formal and informal teachers, the correlations between exposure to psychosocial work risk variables and the prevalence of work-related disorders were similar (Gimeno Ruiz De Porras et al., 2017). According to several work organization models, gender was not significantly connected to exposure to psychosocial elements at work and in work-related health (Migliore et al., 2021).

The above review shows that enough studies have been done on the determinants of workers' psychosocial work hazards across the globe, but their findings seem not to agree in some cases. However, it was found that most of the studies were done outside the African continent which calls for this study to fill in the gaps in the literature. It was based on this backdrop that the researchers ventured into this study to provide empirical evidence on the nature and magnitude of the relationships among primary school teachers' demographic characteristics and their psychosocial work hazards within the Nigerian context.

1.4 Development of hypotheses

The Job-Demand-Control-Support model postulates that the psychosocial work hazards of workers are dependent on the ability of the worker to take control of his/her work, obtain support from his/her supervisor, collaborate with his/her colleagues. Based on these assumptions, the following hypotheses were formulated.

Ha₁: Gender of teachers will significantly relate with their psychosocial work hazards.

Ha_{2:} Age of teachers will significantly relate with their psychosocial work hazards.

Ha3: Qualification of teachers will significantly relate with their psychosocial work hazards.

Ha₄: Working status of teachers will significantly relate with their psychosocial work hazards.

Has: Marital status of teachers will significantly relate with their psychosocial work hazards.

Ha₆: Teachers' years of teaching experience will significantly relate with their psychosocial work hazards.

Ha₇: Location of teachers will significantly relate with their psychosocial work hazards.

2 | MATERIALS AND METHODS

2.1 Research paradigm, approach, and design

Because the inferences were derived based on the results of the hypothesis testing, this study followed the scientific research paradigm. To guide the investigation, a quantitative research approach was used in accordance with this scientific research paradigm. In this regard, the study used a correlational survey research design, as the goal was to determine the nature and extent of the correlations between primary school teachers' demographic features and their psychosocial work hazards. Recent scholars have used this paradigm, strategy, and research design in comparable investigations (Ugwuanyi, Okeke, & Ageda, 2020; Ugwuanyi, Okeke, & Njeze, 2020).

2.2 Study site

This study was carried out in Nigeria's Enugu State. Enugu state is located in the southeast and is bordered by the states of Ebonyi, Kogi, Anambra, and Abia. Enugu State is 7161 km² in size, with a population of 722,664 people.

2.3 | Population and sample

All primary school teachers in all the 1226 public primary schools in Enugu State, Nigeria, were the target group for this study. A sample of 254 primary school teachers was drawn from the population using the convenience sampling approach as well as the purposive sampling technique. The sampling was achieved through a multi-stage sampling procedure. At the first stage, a simple random sampling technique was used to draw 62 primary schools from the population of primary schools in Enugu State. In each of the 62 sampled primary schools, an average of four teachers were sampled. In this study, the researchers made use of both purposive and convenience sampling techniques to arrive at the sample. The purposive sampling technique enabled the researchers to sample the participants who met the inclusion criteria and were easy to reach through the convenience sampling technique. The convenience sampling technique is a non-probability sampling strategy in which a sample is taken from a group of people who are simple to contact or reach. The researchers employed this strategy due to the difficulties in obtaining all of the target population for the study due to the covid-19 pandemic. The research participants were chosen based on the following criteria: (i) he/she must be a licensed teacher; (ii) must teach in an elementary or primary school; (iii) they must have a certificate in education; and (v) they must be actively engaged in teaching professional practice. Teachers who did not achieve these requirements were not included in the study.

2.4 | Measures

The researchers developed a demographic profile questionnaire to determine the demographic features of the primary school teachers who participated in the study. Age, gender, working status, qualification, marital status, years of teaching experience, and location are the demographic characteristics of the participants considered in this study. The researchers adapted the Copenhagen Psychosocial Questionnaire (COPSOQ) developed by Kristensen et al. (2005) for the study. At the course of modification of the original COPSOQ which is a 30-item self-report questionnaire that evaluates psychosocial characteristics such as stress, personal health and well-being, and personality traits (coping style, sense of coherence, etc.), the researchers removed two items that were not needed for the current study and arrived at a 28-item questionnaire which was used for the study (see Appendix 1).

COPSOQ was structured on response categories (ranging from "to a great extent" to "to a great extent") and frequency (ranging from "always" to "never"). Some examples of its items are Do you have enough time for your work tasks? Does your work require that you remember a lot of things? Is your work emotionally demanding? Does your work require that you hide your feelings? Does your work require that you have very clear and precise eyesight? Do you have a large degree of influence concerning your work? Do you have the possibility of learning new things through your work? The COPSOQ is available in a variety of languages, including Dutch, Chinese, Danish, English, Flemish, German, Croatian, Malaysian, Norwegian, Persian, Portuguese, Spanish, and Swedish.

3 | VALIDITY AND RELIABILITY OF MEASURES

To determine the measures' face validity, they were put to constructive inspection by professionals in educational psychology, measurement, and assessment from the researchers' universities' faculties of education. The experts were asked to critically examine the items of the measures in terms of their appropriateness in relation to the



research objectives. They were asked to give suggestions that might aid the researchers in achieving their research goals. As a result, the expert opinions were used to make changes to the draft instrument, resulting in the final version of the instruments. Following that, the COPSOQ was put to the test on 20 primary school teachers in Ebonyi State to evaluate its reliability. With the Nigerian sample, the data were analyzed using the Cronbach alpha method, which yielded a reliability index of 0.74 indicating that the instrument is trustworthy.

3.1 Ethical considerations

In compliance with the university's ethical standards, the researchers requested ethical clearance from the University of Nigeria's Faculty of Education, as well as authorization to perform the study in primary schools. This follows the guidelines set forth by the American Psychological Association for conducting human-related research. In addition, before the actual data collection, the participants were given informed consent forms to fill out and sign.

3.2 | Procedure for data collection

Before data collection, the researchers received ethical approval for the study as well as gatekeepers' letters from the several elementary schools that were used in the study. The data collection took four weeks to complete. Each participant was given 20 min to complete the measures that had been presented to them. The researchers administered the measures directly to the participants in their respective classrooms, and they completed the copies of the questionnaire offline. Once they finished filling them out, the researchers were able to retrieve the completed copies on the spot.

3.3 | Method of data analysis

The data were analyzed using a statistical technique that included frequency and percentage, Chi-square test of independent samples, hierarchical multiple regression analysis, and structural equation modeling. Frequency, percentage, chi-square test of independent samples were used to analyze the data that pertain to the demographic profiles of the participants. Similarly, while hierarchical multiple regression analysis was used to investigate the influence of teachers' demographic profiles on their psychosocial work hazards, a structural equation modeling statistical approach was used to develop the causal model for explaining the influence of teachers' demographic profiles on their psychosocial work hazards. The analysis was conducted using SPSS version 26.0 and IBM-AMOS version 26.0. These statistical methodologies have been used by several researchers (Agboeze et al., 2021; Ene et al., 2021; Ugwuanyi et al., 2021). It is worthy to note that age, gender, working status, qualification, marital status, years of teaching experience, and location of the teachers were regarded as the non-referenced categories or exogenous variables in the causal model, while psychosocial work hazard was the only referenced or endogenous variable for this study. The endogenous variables were coded as categorical or classificatory scale while the psychosocial work hazards data were coded as ordinal scale. These data were later converted to interval data to meet the assumptions of structural equation modeling.

4 | RESULTS

Table 1 shows that there were significant differences in the six out of the seven demographic characteristics of the participants, age ($\chi^2 = 41.118$, p = 0.000), working status ($\chi^2 = 122.228$, p = 0.000), qualification ($\chi^2 = 67.858$, p = 0.000), gender ($\chi^2 = 36.283$, p = 0.000), marital status ($\chi^2 = 279.134$, p = 0.000), and years

of teaching experience (χ^2 = 120.866, p = 0.000). This implies that the participants did not differ by location (χ^2 = .567, p = 0.892) Table 2.

A seven-model hierarchical multiple regression study of the impact of teachers' demographics on their psychological work hazards is shown in Table 1. The first model featured a substantial association between the age of primary school teachers and their psychosocial work hazards, R (254) = 0.259, R^2 (254) = 0.067, F (1, 252) = 18.068, P = 0.000. The second model involved connecting primary school teachers' age and employment/working status with

TABLE 1 Percentage analysis of the demographic profiles of the participants

Demographics	F (%)	Chi-square value (χ^2)	р
Age			
Below 25 years	24 (9.4%)	41.118	0.000
26-35 years	88 (34.6%)		
36-54 years	84 (33.1%)		
45 years and above	58 (22.8%)		
Working status			
Lower cadre	34 (13.4%	122.228	0.000
Middle cadre	167 (65.7%)		
Upper cadre	53 (20.9%)		
Qualification			
Bachelor's degree	115 (45.3%)	67.858	0.000
Master's degree	54 (21.3%)		
PhD degree	61 (24.0%)		
Others	24 (9.4%)		
Gender			
Male	79 (31.1%)	36.283	0.000
Female	175 (68.9%)		
Marital status			
Single	66 (26.0%)	279.134	0.000
Married	171 (67.3%)		
Separated	16 (6.3%)		
Divorced	1 (0.4%)		
Years of teaching experience			
Below 10 years	106 (41.7%)	120.866	0.000
10-20 years	106 (41.7%)		
21-30 years	36 (14.2%)		
31-40 years	6 (2.4%)		
Location			
Urban	121 (47.6%)	0.567	0.892
Rural	133 (52.3%)		

their psychosocial work hazards, which revealed a significant relationship, R (254) = 0.259, R^2 (254) = 0.067, F (1, 252) = 9.002, p = 0.000. In the third model, primary school teachers' age, working status, and qualification were correlated with their psychosocial work hazards, which showed a significant correlation, R (254) = 0.265, R^2 (254) = 0.070, F (1, 252) = 6.302, p = 0.000. In the fourth model, primary school teachers' age, working status, qualification, and gender were correlated with their psychosocial work hazards, which revealed a significant association, R (254) = 0.276, R^2 (254) = 0.076, F (1, 252) = 5.114, p = 0.000. Fifth model featured a significant association between primary school teachers' age, working status, qualification, gender, and marital status and their psychosocial work hazards, R (254) = 0.343, R^2 (254) = 0.118, F (1, 252) = 6.628, p = 0.000. The sixth model featured a significant

TABLE 2 Hierarchical multiple regression analysis of the influence of teachers' demographics on their psychosocial work hazards

Model	R	R ²		Sum of Squares	Df	Mean square	F	Sig.
1	0.259	0.067	Regression	21,643.449	1	21,643.449	18.068	0.000 ^a
			Residual	301,870.665	252	1197.899		
			Total	323,514.114	253			
2	0.259	0.067	Regression	21,651.259	2	10,825.629	9.002	0.000 ^b
			Residual	301,862.856	251	1202.641		
			Total	323,514.114	253			
3	0.265	0.070	Regression	22,744.374	3	7581.458	6.302	0.000°
			Residual	300,769.740	250	1203.079		
			Total	323,514.114	253			
4	0.276	0.076	Regression	24,557.672	4	6139.418	5.114	0.001 ^d
			Residual	298,956.443	249	1200.628		
			Total	323,514.114	253			
5	0.343	0.118	Regression	38,137.054	5	7627.411	6.628	0.000 ^e
			Residual	285,377.060	248	1150.714		
			Total	323,514.114	253			
6	0.360	0.130	Regression	41,908.550	6	6984.758	6.126	0.000 ^f
			Residual	281,605.564	247	1140.103		
			Total	323,514.114	253			
7	0.423	0.179	Regression	57,848.770	7	8264.110	7.652	$0.000^{\rm g}$
			Residual	265,665.344	246	1079.940		
			Total	323,514.114	253			

^aPredictors: (constant), age.

^bPredictors: (constant), age, working status.

^cPredictors: (constant), age, working status, qualification.

^dPredictors: (constant), age, working status, qualification, gender.

^ePredictors: (constant), age, working status, qualification, gender, marital status.

^fPredictors: (constant), age, working status, qualification, gender, marital status, years of experience.

gPredictors: (constant), age, working status, qualification, gender, marital status, years of experience, location.

association between primary school teachers' age, working status, qualification, gender, marital status, and years of teaching experience and their psychosocial work hazards, R (254) = 0.360, R^2 (254) = 0.130, F (1, 252) = 6.126, p = 0.000. The seventh model featured a significant association between age, employment position, qualification, gender, marital status, years of teaching experience, and location of primary school teachers and their psychosocial work hazards, R (254) = 0.423, R^2 (254) = 0.179, F (1, 252) = 7.652, P = 0.000.

Figure 3 depicts the standardized path diagram of the structural model for explaining primary school teachers' psychosocial work hazards based on their demographic factors. With a Goodness of Fit index (GFI) of 0.945, the structural equation modeling resulted in a satisfactory model fit.

Table 3 demonstrates a strong positive association between the age of primary school teachers and their psychosocial work hazards, β (254) = 0.322, p = 0.000. Primary school teachers' working status had a positive but no significant relationship with their psychosocial work hazards, β (254) = 0.030, p = 0.650. Primary school teachers' qualifications had a negative but no significant relationship with their psychosocial work hazards, β (254) = -0.072, p = 0.236. Primary school teachers' gender had no significant positive relationship with their psychosocial work hazards, β (254) = 0.033, p = 0.584. Primary school teachers' marital status had a negative but no statistically significant relationship with their psychosocial work hazards, β (254) = -0.109, p = 0.099. Primary school teachers' years of teaching experience showed a negative but no significant association with their psychosocial work hazards, β (254) = -0.131, p = 0.074. Primary school teachers' location had a significant positive correlation with their psychosocial work hazards, β (254) = 0.241, p = 0.000. These data suggest that primary school teachers' age and location are significant determinants of their psychosocial work hazards.

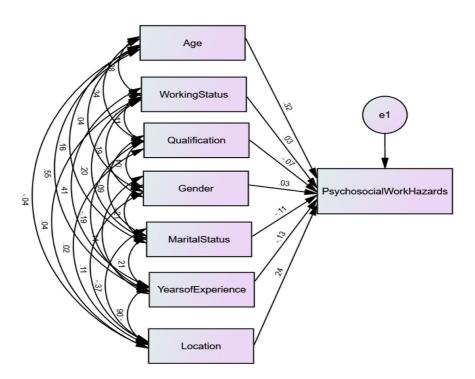


FIGURE 3 Path diagram of the structural model for the explanation of psychosocial work hazards of teachers by their demographics

TABLE 3 Standardized beta coefficients of the teachers' demographics (nonreferenced categories) on their psychosocial work hazards (referenced category)

			β	S.E.	C.R.	р
Psychosocial work hazards	<	Age	0.322	2.760	4.500	0.000
Psychosocial work hazards	<	Working status	0.030	3.992	0.454	0.650
Psychosocial work hazards	<	Qualification	072	2.095	-1.184	0.236
Psychosocial work hazards	<	Gender	0.033	4.573	0.547	0.584
Psychosocial work hazards	<	Marital status	-0.109	4.264	-1.651	0.099
Psychosocial work hazards	<	Years of experience	-0.131	3.371	-1.784	0.074
Psychosocial work hazards	<	Location	0.241	4.422	3.889	0.000

Note: β, beta coefficient.

5 | DISCUSSION

This study sought to explore the relationships among primary school teachers' demographic characteristics and their psychosocial work hazards using both hierarchical and structural equation modeling approaches. It was revealed that while age, working status, gender, and location of teachers correlated positively with their psychosocial work hazards, qualification, marital status, and years of teaching experience correlated negatively with their psychosocial work hazards. However, only the age and location of teachers had significant relationships with their psychosocial work hazards. These findings imply that the more the age primary school teachers, the more exposed to psychosocial work hazards they will be. Similarly, primary school teachers with higher educational qualifications are more prone to psychosocial work hazards than those with low educational qualifications. These findings are consistent with the experiences of the researchers as University lecturers. In the university system, it is common to see aged and high qualification lecturers working overtime and engaging in other academic responsibilities that are sources of psychosocial work hazards than the younger lecturers.

Buttressing these findings, it was found that the characteristics of workplace psychosocial factors were found to have a significant relationship with the age of workers (Xu et al., 2022). Kindergarten teachers' age had a significant impact on the psychosocial hazards they face at work (Čecho et al., 2019). The age of Italian workers is a significant determinant of their work-related psychological hazards (La Torre et al., 2018). According to Alias et al. (2020), the age of primary school teachers in Malaysia had a significant correlation with psychological work hazards. Psychosocial work dangers were significantly influenced by age, high job demand, and inadequate job control of workers(Kabito & Mekonnen, 2020). Increased age of workers was found to have a significant relationship with a higher risk of psychosocial job hazards (Lee et al., 2021).

However, we found also that gender, marital status, years of teaching experience, and working status had no significant relationships with psychosocial work hazards. This finding was supported by a study that found that according to several work organization models, gender was not significantly connected to exposure to psychosocial elements at work (Migliore et al., 2021). On the contrary, several recent studies did not support that gender, marital status, years of teaching experience and working status had no significant relationship with psychosocial work hazards. For example, women in low levels of work-family conflict were found to have low psychosocial work hazards than men (Weale et al., 2021). Female principals reported greater signs of suspected psychosocial work disorder than male principals, although school level was not linked to reports of psychosocial work disorder (Persson et al., 2021). The length of work experience of male principals was linked to tiredness symptoms of psychosocial work disorder (Persson et al., 2021). Work-related stress is influenced by workers' marital status and

workspace (Wireko-Gyebi & Ametepeh, 2016). The level of education of teachers was found to have a significant relationship with psychosocial work hazards (Azizah et al., 2016). The education level of Italian workers is significant determinant of their work-related psychological hazards (La Torre et al., 2018).

This particular research has practically strengthened tenets of the Job-Demand-Control-Support theory. The practical implication of the findings of this study is that the psychosocial work hazards of workers are dependent on the teachers' demographic characteristics, especially their age and location. This implies that older teachers would not be expected to experience the same psychosocial work hazards as the younger teachers. It also implies that the urban-rural location of schools in which teachers work determines their psychosocial work hazards. However, the above findings have shown that there are a lot of inconsistencies in the nature of the relationships among teachers' demographic characteristics and their psychosocial work hazards. This situation calls for more empirical studies on the subject matter. Thus, the researchers suggest that future researchers can replicate this study in the same context or different contexts to compare the findings of such research with the present findings. This will help to understand very well the nature of the relationships among teachers' demographic profiles and their psychosocial work hazards.

6 | LIMITATIONS OF THE STUDY

Some restricting circumstances may have influenced the findings of this study. Because the demographics of the teachers in this study were limited to age, working status, qualification, marital status, gender, years of teaching experience, and location, the generalizability of the findings of this study may be limited, as family structure, number of children, and other demographics were not included in the structural model. Based on the aforementioned constraint, the researchers proposed that future researchers replicate this study by taking into account the aforementioned factors.

7 | CONCLUSION AND RECOMMENDATIONS

This study has shown through the use of structural equation modeling that the teachers' demographics are related to their psychosocial work hazards. Specifically, the researchers concluded that out of the demographic characteristics of the teachers explored in this study, only age and location had a significant relationship with their psychosocial work hazards. This means that older teachers are unlikely to face the same psychological workplace risks as younger teachers. It also implies that the psychosocial work hazards of teachers are determined by their school's urban-rural location. In other words, how teachers deal with psychosocial dangers at work is determined by their age and location. The researchers suggested that while hiring primary school teachers, the employees of the Local Government Education Authority take into account the demographics of the teachers to prevent hiring teachers who are more prone to psychosocial work hazards.

ACKNOWLEDGMENTS

All those who participated in this study, especially the primary school teachers are immensely appreciated for their adequate participation in the research.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ORCID

Christian S. Ugwuanyi http://orcid.org/0000-0003-2174-3674

Charity C. Okeke http://orcid.org/0000-0001-7004-2933

Chinedu I. O. Okeke http://orcid.org/0000-0002-9959-8019

PEER REVIEW

The peer review history for this article is available at https://publons.com/publon/10.1002/jcop.22857

REFERENCES

- Agboeze, M. U., Ugwuanyi, C. S., & Okeke, C. I. O. (2021). Psychometric properties of Spence Children's Anxiety Scale in Nigerian Primary Schools: Implication for community development. *International Journal of Psychosocial Rehabilitation*, 25(01), 564–574.
- Alias, A. N., Karuppiah, K., How, V., & Perumal, V. (2020). Prevalence of musculoskeletal disorders (MSDS) among primary school female teachers in Terengganu, Malaysia. *International Journal of Industrial Ergonomics*, 77(April), 102957. https://doi.org/10.1016/j.ergon.2020.102957
- Azizah, A., Rozainee, K., Nada, I., Izreen, S., & Norhafizah, Z. (2016). The prevalence of occupational stress and its association with socio-demographic factors among lecturers in a private university in Malaysia. *International Journal of Public Health and Clinical Sciences*, 3(4), 2289–7577.
- Cheng, Y. (2018). Emerging psychosocial work hazards and evolving policy actions: experiences of Taiwan and other East Asian countries. *Occupational and Environmental Medicine*, 75(Suppl 2), A4–A5.
- Ene, C. U., Ugwuanyi, C. S., Okeke, C. I. O., Nworgu, B. G., Okeke, A. O., Agah, J. J., Oguguo, B. C., Eze, K. O., Ugwu, F. C., Agugoesi, O. J., Nnadi, E. M., Eze, U. N., Ngwoke, D. U., & Ekwueme, U. H. (2021). Factorial validation of teachers' self-efficacy scale using pre-service teachers: implications for teacher education curriculum. *International Journal of Higher Education*, 10(1), 113–121. https://doi.org/10.5430/ijhe.v10n1p113
- Feijó, F. R., Gräf, D. D., Pearce, N., & Fassa, A. G. (2019). Risk factors for workplace bullying: A systematic review. International Journal of Environmental Research and Public Health, 16(11):1945. https://doi.org/10.3390/ijerph16111945
- Gimeno Ruiz De Porras, D., Rojas Garbanzo, M., Aragón, A., Carmenate-Milián, L., & Benavides, F. G. (2017). Effect of informal employment on the relationship between psychosocial work risk factors and musculoskeletal pain in Central American workers. Occupational and Environmental Medicine, 74(9), 645–651. https://doi.org/10.1136/oemed-2016-103881
- Ibrahim, R. Z. A. R., Zalam, W. Z. M., Foster, B., Afrizal, T., Johansyah, M. D., Saputra, J., Bakar, A. A., Dagang, M. M., & Ali, S. N. M. (2021). Psychosocial work environment and teachers' psychological well-being: The moderating role of job control and social support. *International Journal of Environmental Research and Public Health*, 18(14), 1–19. https://doi.org/10.3390/ijerph18147308
- Kabito, G. G., & Mekonnen, T. H. (2020). Psychological distress symptoms among healthcare professionals are significantly influenced by psychosocial work context, Ethiopia: A cross-sectional analysis. *PLoS One*, 15, 1–12. https://doi.org/10. 1371/journal.pone.0239346
- Karasek, R. A., & Theorell, T. (1990). Healthy work: Stress, productivity, and the reconstruction of working life. Basic Books. Kennedy, N. A. (2018). Assessment of psychosocial hazards among workers at the University of Port Harcourt. Clinical Depression, 4(135), 2572–0791. https://doi.org/10.4172/2572-0791.1000135
- Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & stress*, 19(3), 192-207.
- Lee, Y. T., Huang, Y. H., Tsai, F. J., Liu, H. C., Sun, F. J., Tsai, Y. J., & Liu, S. I. (2021). Prevalence and psychosocial risk factors associated with current cigarette smoking and hazardous alcohol drinking among adolescents in Taiwan. *Journal of the Formosan Medical Association*, 120(1), 265–274. https://doi.org/10.1016/j.jfma.2020.05.003
- Liang, Y. Z., Chu, X., Meng, S. J., Zhang, J., Wu, L. J., & Yan, Y. X. (2018). Relationship between stress-related psychosocial work factors and suboptimal health among Chinese medical staff: A cross-sectional study. *BMJ Open*, 8(3), 1–11. https://doi.org/10.1136/bmjopen-2017-018485
- Migliore, M. C., Ricceri, F., Lazzarato, F., & d'Errico, A. (2021). Impact of different work organizational models on gender differences in exposure to psychosocial and ergonomic hazards at work and in mental and physical health. International Archives of Occupational and Environmental Health, 94(8), 1889–1904. https://doi.org/10.1007/s00420-021-01720-z
- Misiak, B., Sierżantowicz, R., Krajewska-Kutak, E., Lewko, K., Chilińska, J., & Lewko, J. (2020). Psychosocial work-related hazards and their relationship to the quality of life of nurses—a cross-sectional study. *International Journal of Environmental Research and Public Health*, 17(3), 1–11. https://doi.org/10.3390/ijerph17030755

- Mohd Anuar, N. F., Rasdi, I., Saliluddin, S. M., & Zainal Abidin, E. (2016). Work task and job satisfaction predicting low back pain among secondary school teachers in Putrajaya. *Iranian Journal of Public Health*, 45(1), 85–92.
- Ng, Y. M., Voo, P., & Maakip, I. (2019). Psychosocial factors, depression, and musculoskeletal disorders among teachers. BMC Public Health, 19(1), 1–10. https://doi.org/10.1186/s12889-019-6553-3
- Onigbogi, C., & Banerjee, S. (2019). Prevalence of psychosocial stress and its risk factors among health-care workers in Nigeria: A systematic review and meta-analysis. *Nigerian Medical Journal*, 60(5), 238–244. https://doi.org/10.4103/nmj.nmj.67_19
- Persson, R., Leo, U., Arvidsson, I., Håkansson, C., Nilsson, K., & Österberg, K. (2021). Prevalence of exhaustion symptoms and associations with school level, length of work experience and gender: A nationwide cross-sectional study of Swedish principals. BMC Public Health, 21(1), 1–13. https://doi.org/10.1186/s12889-021-10317-7
- Tai, K. L., Ng, Y. G., & Lim, P. Y. (2019). Systematic review on the prevalence of illness and stress and their associated risk factors among educators in Malaysia. *PLoS One*, 14(5), 1–18. https://doi.org/10.1371/journal.pone.0217430
- La Torre, G., Sestili, C., Mannocci, A., Sinopoli, A., De Paolis, M., De Francesco, S., Rapaccini, L., Barone, M., Iodice, V., Lojodice, B., Sernia, S., De Sio, S., Del Cimmuto, A., & De Giusti, M. (2018). Association between work related stress and health related quality of life: The impact of socio-demographic variables. a cross sectional study in a region of central Italy. *International Journal of Environmental Research and Public Health*, 15(1), 1–9. https://doi.org/10.3390/ijerph15010159
- Ugwuanyi, C. C., Ugwuanyi, C. S., Onu, E. A., Kalu, I. A., Eze, B. A., Ani, M. I., Metu, I. C., Onuoha, J. C., Ugwu, C., Okeke, A. M., Odo, I. O., Ugwuanyi, C. K., & Eze, U. N. (2021). Factorial validation of sense of community scale using Nigerian mathematics, science, and social science education students: Implication for educational administrators and evaluators. *Journal of Community Psychology*, 50, 1257–1268. https://doi.org/10.1002/jcop.22713
- Ugwuanyi, C. S., Okeke, C. I., & Ageda, T. A. (2020). Motivation and self-efficacy as predictors of learners' academic achievement. *Journal of Sociology and Social Anthropology*, 11(3-4), 215–222. https://doi.org/10.31901/24566764. 2020/11.3-4.351
- Ugwuanyi, C. S., Okeke, C. I., & Njeze, K. C. (2020). Parenting style and parental support on learners' academic achievement. *Journal of Sociology and Social Anthropology*, 11(3-4), 198–205. https://doi.org/10.31901/24566764.2020/11.3-4.352
- Weale, V., Oakman, J., & Clays, E. (2021). Does work-family conflict play a role in the relationship between work-related hazards and musculoskeletal pain? *American Journal of Industrial Medicine*, 64(9), 781–791. https://doi.org/10.1002/aiim.23280
- Wireko-Gyebi, S., & Ametepeh, R. S. (2016). Influence of socio-demographic characteristics and occupational attributes on work-related stress among frontline hotel employees in the Kumasi metropolis. *African Journal of Hospitality, Tourism and Leisure*, 5(2), 1–16.
- Wray, S., & Kinman, G. (2020). The psychosocial hazards of academic work: An analysis of trends. Studies in Higher Education, 1-12. https://doi.org/10.1080/03075079.2020.1793934
- Xu, T., Clark, A. J., Pentti, J., Rugulies, R., Lange, T., Vahtera, J., Magnusson Hanson, L. L., Westerlund, H., Kivimäki, M., & Rod, N. H. (2022). Characteristics of workplace psychosocial resources and risk of diabetes: A prospective cohort study. *Diabetes Care*, 45(1), 59-66. https://doi.org/10.2337/dc20-2943
- Čecho, R., Švihrová, V., Čecho, D., Novák, M., & Hudečková, H. (2019). Exposure to mental load and psychosocial risks in kindergarten teachers. *Zdravstveno Varstvo*, *58*(3), 120–128. https://doi.org/10.2478/sjph-2019-0016

How to cite this article: Ugwuanyi, C. S., Okeke, C. C., & Okeke, C. I. O. (2022). Structural equation modeling of the influence of primary school teachers' demographics on their psychosocial work hazards. *Journal of Community Psychology*, 1–17. https://doi.org/10.1002/jcop.22857



APPENDIX

PSYCHOSOCIAL QUESTIONNAIRE (COPSOQ)

Section 1: Sociodemographic Information Inventory (SII)

Kindly select one item by ticking $(\sqrt{\ })$ any option that applies to you

	Age
1	Below 25
2	26-35
3	36-45
4	46 and Above
	Gender
1	Male
2	Female

	Marital status
1	Single
2	Married
3	Separated
4	Divorced
5	Others
	Working status
1	Lower Cadre
2	Middle Cadre
3	Upper Cadre
	Qualification
1	Bachelor's degree
2	Master's degree
3	PhD Degree
3	Others
	Years of Experience
1	Below 10
2	10 to 20
3	21 to 30
4	31 to 40
	Location
1	Urban
2	Rural

Kindly respond to the item statement in this scale using the response option as it appeals to you

S/N	Statement	Never	Once a Year	Twice a Year	Several Times a Year	Monthly	Weekly	Daily
1	Having enough time for your work tasks							
2	Thinking that your work require that you remember a lot of things							
3	Thinking that your work is emotionally demanding							
4	Thinking that your work requires that you hide your feelings							
5	Believing that your work requires that you have very clear and precise eyesight							
6	Having a large degree of influence concerning your work							
7	Having the possibility of learning new things through your work							
8	Deciding when to take a break							
9	Feeling that the work you do is important							
10	Enjoy telling others about your place of work							
11	Knowing exactly how much say you have at work							
12	Getting help and support from your colleagues							
13	Working isolated from your colleagues							
14	Not having a good atmosphere between you and your colleagues							
15	Being worried about becoming unemployed							
16	Being pleased with the people you work with							

S/N	Statement	Never	Once a Year	Twice a Year	Several Times a Year	Monthly	Weekly	Daily
17	Feeling very nervous at work							
18	Feeling worn out at during and after work							
19	Feeling relaxed during and after work							
20	Accepting the situation because there is nothing to do about it anyway							
21	While working, you should keep your eyes on a variety of things.							
22	Your job necessitates that you remember a lot of information.							
23	Your job requires you to keep your opinions to yourself.							
24	Your job requires you to keep your emotions hidden.							
25	At work, you made a mistake that resulted in the injury of others.							
26	At work, your blunder has resulted in financial losses.							
27	Others are making decisions about your work.							
28	Possessing a significant amount of power over your work							