Covenant Journal of Library & Information Science (CJLIS) Vol. 5 No 1, June 2022
ISSN*: p. 2682-5295 e. 2682-5309 DOI: xxxxxxxxxxxxxxxx*

An Open Access Journal Available Online

Ergonomics as Determinant of Workplace Attitude of Librarians in Federal Universities in Southern Nigeria

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Received: 22nd April 2022 Accepted: 23rd May 2022 Date of Publication: 5th June 2022

Abstract
Purpose: The study was carried out to examine the influence of ergonomics and its attendant symptoms on workplace attitude of librarians in federal university libraries in Southern Nigeria.
Methodology: The research design adopted for the study was survey design. The population of the study was made collection of three hundred and seventeen (317) librarians from the 17 federal universities in southern Nigeria. Total enumeration technique was adopted for the study. The instrument for data collection was structured and validated questionnaire that was distributed to the 317 librarians that work in the federal universities in southern Nigeria but only 294 (92.7%) were found useable. Data gathered from this research study was analyzed using both
Findings: Though the workstations were ergonomically compliant, some of the librarians still experience ergonomic symptoms at the lower back. Some also experience this at the shoulders, upper back, ankle/feet, knee, wrist/hands, and at the elbows. This connotes that some librarians in federal universities in southern Nigeria experienced ergonomic symptoms in diverse areas of the body such as lower back, shoulders, upper back ankle/feet, knee, wrist/hands and at the elbows. It was also found that that the ergonomics symptoms librarians experience do not influence their work attitude negatively.
Originality/Value: The study increases scientific knowledge on the impact of ergonomics on workplace attitude from the university library perspective.

Keywords: *Ergonomics, Federal Universities, Librarians, Southern Nigeria, Workplace Attitude*

Introduction

Workplace attitude is an important area of attention in any profession that deals with the expression of emotion by personnel of an organization while carrying out his/her daily activities in an organization. Aduama (2016) cited Eagly and Chaiken (1998) described workplace attitude as a psychological predisposition that is displayed by observing personnel with some extent of favour or disfavour. In the context of librarianship, workplace attitude may likewise be referred to as the display of librarians' emotional state in a work environment (Asaolu, 2022). This emotional state is related to positive or negative feelings, value systems, or the type of attitude that personnel express in carrying out their job duties. Specifically, absenteeism, personnel incivility, and unfriendly approach are considered as parts of workplace attitude (Hon, 2013). Workplace attitude can be influenced by various issues such as interaction with other people, environmental issues, work environment, policies and ergonomics.

Ergonomics is the science of designing the workstation and work environment, making it safer and pleasant for workers. It is human-focused, multidisciplinary, and can be implemented in any organization. The origin of ergonomics can be traced to two Greek words which are "ergon" meaning, "work" and "nomos" which refers to "law" (Holstein & Chapanis, 2018). Therefore, ergonomics can be referred to as following the laws and operations that guide the job one does. In North America, Ergonomics, is referred to as human factors, and is an area of knowledge that focuses on the study of human capabilities and

restrains, as well as the application of findings to improve human's interaction with products, systems, and environments (Chapanis, 2020). Ergonomics describes the positioning of body parts (arms, legs, feet, back, etc.) and distance while seated working at a computer and its peripherals. When the parts of the body are not properly positioned, it implies that ergonomics was not put into consideration while designing the workstation and this can result to ergonomic symptoms. These symptoms include back ache, wrist pain, lower back pain, ankle pain, and neck pain among others. Human body shape, size and individual needs of librarians vary, which implies that there will be a need for separate equipment or one that is adjustable to cater for the differences. The furniture or gadget used by several librarians may not be able to meet all the varying features of their demands.

The lack of provision of and information about the appropriate ergonomic paraphernalia, space, and work plan/activities can result in injuries to librarians. Injuries can result in absenteeism from work or loss of work and permanent disability. Occupational Safety and Health Administration (2003) as cited in Labajo (2017) described ergonomics as the study of the interfacing of humans with machines and the factors that affect their interactions. It was noted that the use of computer system and other peripherals of ICT have ergonomic effects on the health of librarians, and this reflected in their workplace attitude (Asaolu & Itsekor, 2014).

The demands of work in a library can be tasking and lead to physical stress. Working with computers, mouse, and monitors may result to the development of ergonomic disorder/injuries. Continuous static posture is a potentially harmful condition that leads to back, leg and/or arm injuries. A healthy body is noted to have the ability of maintaining a position for about 20 minutes (Triano, 2006). The nature of librarians' job is sedentary; they sit for long hours processing library resources or attending to the information needs of patrons. Prolonged deskbound activities have the tendency to create discomfort, and if sustained for extended period tends to cause back pain, cramps, and other symptoms of ergonomics. Holding the same position slowly diminishes elasticity in the soft tissues (muscles, ligaments, and tendons in the back), then, stress builds up and causes back discomfort and / or leg discomfort.

Ikonne and Yacob (2014) emphasized the importance of space consideration while designing the workplace so that it can be ergonomically compliant in relations to the comfort of the user and the environment to alleviate injuries that could trigger workplace attitude. This is needed for librarians to achieve cosiness, job satisfaction, and enhanced quality of life, which will foster positive workplace attitude. It is in line with this, that the current study therefore seeks to examine the influence of ergonomics on the workplace attitude of librarians in federal universities in southern Nigeria.

Statement of Problem

Workplace attitude is the positive or negative reaction to the environment, people, things, and interaction at the workplace. Workplace attitude of librarians is crucial to the image making, productivity, rating, and impact of the library within the university as well as attract patrons to make use of the library space and resources. However, evidence from the literature as well as the observation of the researchers revealed that librarians display series of attitudes both positive and negative at the workplace (Tella & Ibinaiye, 2019, Ikonne & Onuoha, 2015). The display of negative attitudes by librarians is detrimental to the profession as well as the continuous utilization of the library and its resources. Some negative workplace attitudes displayed by librarians include incivility, absenteeism, unfriendly approach to patrons. On the other hand, some positive attitude displayed by librarians include organizational commitment and job satisfaction.

Several studies have examined the workplace attitude of librarians (Tella & Ibinaiye, 2019, Ikonne & Onuoha, 2015). Other researchers examined ergonomics separately (Asaolu &

Itsekor, 2014, Ikonne 2014). It was discovered that there is a dart of literature on the influence of ergonomics on the workplace attitude of librarians. It was in the light of the above, that the study examined the workplace attitude of the librarians, ergonomic symptoms, and influence of ergonomics on the workplace attitude of librarians in federal universities located in Southern Nigeria.

Objective of the Study

i. examine whether librarians in federal university libraries in Southern Nigeria experience ergonomic symptoms
ii. examine the Is the workstation design ergonomically compliant in federal universities in Southern Nigeria?
iii. investigate the relative influence of ergonomics on workplace attitude of librarians in federal university libraries in Southern Nigeria.

Research Questions

i. Do librarians in federal universities in Southern Nigeria experience ergonomic symptoms?
ii. Are the workstations ergonomically designed in federal universities libraries in Southern Nigeria?
iii. Is the workplace attitude of librarians in federal university libraries in Southern Nigeria influenced by ergonomics?

Research Hypotheses

Ho_1: Ergonomics has no significant influence on the workplace attitude of librarians in federal universities in Southern Nigeria.

Ho_2: Ergonomics will not have relative influence on workplace attitude of librarians in federal universities in Southern Nigeria.

LITERATURE REVIEW

Workplace attitudes are the way personnel, especially librarians, react or respond to patrons, colleagues or even the organization or institution (Asaolu, 2022). This may influence the productivity and utilization of resources and services rendered by the library Khan, Dongping, and Ghauri (2014) confirmed this in a research work carried out with 83% response rate of the administered questionnaire. The study revealed that all attitude related factors influence the productivity of the personnel of the organization examined. In this study, workplace attitude was empirically reviewed using job satisfaction, absenteeism, personnel incivility, and unfriendly approach to patrons as components of attitude.

Subramanian (2016) conducted a study on employee attitudes and management dilemma. One of the focuses of the author is on how employee's attitude will determine the altitude of the company. The study found that employees' attitudes are based on both business environment and internal environment. It was also revealed that employees' attitude is influence by interaction with other employees and peers. Attitudes to work and leisure are influenced by co-workers and the supervisors. Other factors that influence work attitude as found by Subramanian (2016) include competitive forces, work culture and ethics as well as employee's self-actualization needs from the job. However, the study failed to indicate the type of workplace that was focused on. The study also lacks some fact findings because it is not a survey research design.

As noticed by Labajo (2017), university management give preferential treatment and more attention to the deployment of technological equipment and other peripherals of Information Communication and Technology (ICT) than the working environment of librarians. More occupational hazards are bound to happen continuously even among young professional librarians due to the long sitting hours in front of computers, moving books from shelf to shelf and typing continuously for a very long time and many more activities may lead to muscle tension, eyestrain, sore wrists, headache, and backache. The same viewpoint was shared by Turci, Gorla, and Bersanetti (2019). The implication of this is that ergonomic traps, human error,

and system failure are causes of ergonomic disorder/injuries which are indicators of ergonomics. There is the possibility that these health problems could attribute for the causes of workplace attitude among librarians if not catered for on time, because this will affect their job performances in their various libraries. These health issues could include ergonomic symptoms such as back ache, wrist strain, neck pain and joint pain.

Rajan-Pillai and Jayalatha (2016) described ergonomics in libraries as the study and the outcome of the health of librarians due to the diseases and ailments contracted by librarians through the daily long gazing at computer screen to carry out daily library routines. They further related health problems as the causes of some of the workplace attitudes of the librarians. Some of these health problems caused by lack of appropriate deployment of ergonomics at the work environment of librarians include cumulative trauma disorder, ergonomic symptoms/injuries, loss of concentration, irritability, dizziness, and muscle pain, all of which may influence the workplace attitude of librarians. Notwithstanding, there are other factors that may lead to these health-related problems.

Labajo (2017) investigated work-related ergonomics in the library workplace among 91 librarians in Cebu City, Philippines. The study used descriptive survey technique with the questionnaire as the instrument for data collection. The findings of the study showed that majority of the libraries investigated were basically ergonomically design. Though, the practice of ergonomics was relatively poor as none of the librarians had document holder and wrist/palm rest, all the librarians understudied do not use armrest when carrying out computer task and nearly all librarians did not have a stable feet rest on the floor. Ghazi Mirsaeid, Sheikhshoaei, Dehdari Rad, and Nasirian, (2018) studied faculty librarians' working environment conditions from an ergonomic perspective in Tehran. The study adopted descriptive and cross-sectional survey and census method was used to select 85 faculty librarians at Universities of Medical Sciences in Tehran. Data was collected using questionnaire. The findings of the study revealed that the status of factors like body conditions, workspace, equipment, and environmental conditions was average in terms of ergonomic principles and health factors, and safety factors and welfare facilities were at a disagreeable level. In each of the ergonomic practice, workspace, body condition, equipment and safety aspects and ergonomic conditions did not have significant difference among the selected University libraries. It was also reported that the workplace of librarians was not ergonomically satisfactory. In a comparative study also carried out in Tehran by Mirsaied, Sheikhoaei, Rad and Nasirian (2018), on ergonomics principles and academic librarians working environment conditions. The study reported that librarians in selected university libraries in Tehran were working in a non-ergonomically friendly environment.

In Iran, Kouhnavard, Mihanpour, Barkhordari, Roshanaei and Parvin (2017) investigated ergonomic conditions and productivity of librarians working in Shahid Sadoughi University of Medical Sciences in India. The cross-sectional survey was adopted, the Hersey and Goldsmith questionnaire was used as major data collection instrument. The findings revealed that respondents indicated workspace ergonomic conditions were satisfactory, but safety factors were low. The study recommended that library administrators (librarians) need to respect the practice of ergonomics. Zhu (2013) studied ergonomics in the physical library environment among 498 Librarians working at technical services in American Research libraries. The survey method was adopted using questionnaire as the major research instrument. The study revealed that majority of librarians (82.4%) agreed that the design or renovation of physical library environment should be an issue of concern to library administrator. This implies that library investigated was nor ergonomically designed, as majority of librarians were not satisfied with their work environments. Also majority of respondents indicated the top ten elements that are very important to them; 72% indicated

availability of technology to support individual work, 60% indicated seating comfort and adjustability, 59% indicated physical security, 58% indicated emergency detection, 56% indicated acoustic privacy/conversational privacy, 54% indicated indoor air quality, 54% indicated hazard-free environment, 53% indicated ventilation, 51% indicated noise control and 49 indicated room temperature control.

In Nigeria, Nwokedi, Gupiyem and Agbenu (2019) studied awareness of ergonomics ethics which is mandatory for computer workstation among 144 library employees at University of Jos Library, Nigeria. The study adopted survey research method and total enumeration technique to study 144 library employees and questionnaire was the major data gathering instrument. The findings of the study revealed that majority (58.25%) of the library employees were slightly comfortable with their computer workstations and large proportion (94.44%) of library employees indicated that they use the computer to perform library tasks daily, 61.11% were keeping the right posture for the hands and wrists while using the computer to perform library tasks. Fifty percent (50%) of library employees indicated that they slightly conform with the ergonomics principle of standing up and moving around regularly when using the computer to perform tasks. It was also reported that few (44.44%) of librarians comply to the ergonomics principle of keeping the monitor some distance away from the face, and (44.44%) moderately comply with the ergonomics principle of resting the eyes for at least few seconds after every two hours of working with the computer. and 47.22% slightly comply with the ergonomics principle of maintaining a good sitting posture at the computer workstation.

Owolabi, Aregbesola and Oyesola (2015) investigated workplace technostress among 20 library staff at Landmark University Library in Nigeria. Total enumeration was used, and structured questionnaire was used to gather data. The findings of the study revealed that majority of library employees (58.8%) indicated poorly designed workstations, (58.8%) ICTs tools and poor sedentary positions to have been sources of technostress among library employees. The study reported that good office furniture, steady training, consistent breaks, and enactment of better ergonomic practice among other reasons will ameliorate the level of technostress.

Funminiyi, Akinlolu and Agboola (2014) surveyed ergonomic hazards and related technostress among the 100 academic and 100 non-academic employees of Obafemi Awolowo University, Ile-Ife, Nigeria. The study adopted a cross-sectional survey design and questionnaire was used as the major data collection instrument. The outcomes of the study showed that ergonomic principles were practiced among university employees and majority of university personnel are suffering from ergonomic hazards, 75% of the employees were not conversant with health problems related with ergonomic hazards, majority (83%) did not understand the concept of ergonomics.

Adeyemi (2010) used survey research method with self-designed questionnaire to compare ergonomic condition among 94 academic librarians from both Covenant University (CU) and University of Lagos (Unilag), in South-West, Nigeria. The result of the findings showed that majority of librarians (97% CU and 91% Unilag), indicated that library workstations have poorly designed seats, and this result to stress at workplace, (93% CU; 95% Unilag), also 91% from Unilag, and 90% reported awkward posture and 90% from CU and 91% from Unilag are expose to computer screens on daily basis without protectors. Majority of librarians from the two university libraries indicated that the most common ergonomic measures available in their libraries are elevators and trolleys, computer monitor protectors and a compulsory one-hour break.

Similarly, Ikonne and Yacob (2014) used survey research method to study environmental workplace ergonomics and spatial comfort of librarians in the federal University libraries in Southern Nigeria. The study adopted a total enumeration sampling

method to select 500 librarians and a well-structured questionnaire was used as the major instrument for data gathering. The results of the study showed that majority (mean = 2.86) of librarians were satisfied with having a closed office for their privacy, followed by (mean = 2.81) workspace design that permits communal contact with their colleagues, and majority (mean = 2.68) of librarians also indicated that their workplace is an undisturbed environment for work concentration. The findings of the study also revealed that there was a positive relationship between ergonomics (spatial comfort and environmental workplace factors) and job satisfaction.

Asaolu and Itsekor (2014) studied ergonomic workstation among 35 library staff of Covenant University Ota, Ogun State in South-West, Nigeria. The survey method was adopted, and Ergonomic questionnaire was the major data collection instrument. Based on the findings of the study 70% of librarians take break from their workstations. It was also reported that majority of librarians (63%) could adjust their chairs and 25% have screen protector on their workstations. The reviewed literature discussed workplace attitude and ergonomics in libraries separately but failed to discuss the influence of ergonomics on the workplace attitude of librarians, which is the crust of this study.

METHODOLOGY

The research design adopted for the study was survey design. The instrument for data collection was structured and validated questionnaire designed by the researcher with some aspects adapted from instruments by other research work to ascertain the level of ergonomic compliance of the library. The instrument was vetted for constructive criticism and validation on the relevance of each item in the questionnaire to the variables by the experts in the field of Information Resources Management, Babcock University, Ilisan, Ogun State, Nigeria. The questionnaire was also pretested using the data supplied by 30 librarians outside the scope of the study. The individual's construct or variable has a KMO value not less than 0.5, indicating that all variables are adequate for factor analysis. Total enumeration technique was adopted for the study. Etikan, Musa and Alkassim (2016) averted that total enumeration, which was referred to in a study as Total Population Sampling, is a technique where the entire population that meet the criteria are included in the research being conducted. Total Population Sampling is more commonly used where the number of cases being investigated is relatively small. The population of the study comprised three hundred and seventeen (317) librarians from the 17 federal universities in Southern Nigeria. This is shown in table 1 below:

Table 1: Population of librarians in federal universities in Southern Nigeria

S/N	Federal Universities in Southern Nigeria	Librarians
1	Federal University, Ndufu – Alike, Ebonyi State	5
2	Federal University, Otuoke, Bayelsa State	11
3	Federal University, Oye-Ekiti, Ekiti State	5
4	Federal University of Agriculture, Abeokuta	23
5	Federal University of Petroleum Resources, Effurun, Delta State	8
6	Federal University of Technology, Akure, Ondo State	13
7	Federal University of Technology, Owerri, Imo State	25
8	Michael Okpara University of Agriculture, Umudike, Abia State	11
9	Nnamdi Azikiwe University, Awka, Anambra State	16
10	Obafemi Awolowo University, Ile-Ife, Osun State	23
11	University of Benin, Benin-City, Edo State	15
12	University of Calabar, Calabar, Cross River State	22
13	University of Ibadan, Ibadan, Oyo State	24
14	University of Lagos, Lagos State	18
15	University of Nigeria, Nsukka, Enugu State	50
16	University of Port Harcourt, Port Harcourt, Rivers State	23
17	University of Uyo, Uyo, Akwa Ibom State	25
	TOTAL	**317**

The study examined the workplace attitude of librarians at federal universities in Southern Nigeria as influenced by ergonomics and psychosocial wellbeing. According to Mogaji (2019), there are 17 federal universities in Southern Nigeria. The study was limited to the 17 federal university libraries in Southern Nigerian with only three hundred and seventeen (317) librarians. The Southern Nigeria is made of three (3) geopolitical zones. The South-West zone is made up of Osun, Oyo, Ogun, Lagos, Ekiti and Ondo States. South-East geopolitical zone is made up of Abia, Anambra, Ebonyi, Enugu and Imo states. South-South geopolitical zone is made up of Akwa-Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers states.

DATA ANALYSIS AND RESULTS

Research Question 1: Do librarians in federal universities in Southern Nigeria experience ergonomic symptoms?

Table 1: Ergonomic Symptoms experienced by Librarians in Southern Nigeria

Body Parts	**Yes (Freq. %)**	**No (Freq. %)**
Ankle/feet	103 (35)	191 (65)
Elbows	73 (24.8)	221 (75.2)
Hip/Thigh	89 (30.3)	205 (69.7)
Knee	99 (33.7)	195 (66.3)
Lower back	172 (58.5)	122 (41.5)
Neck	125 (42.5)	169 (57.5)
Shoulders	119 (40.5)	175 (59.5)
Upper back	104 (35.4)	190 (64.6)
Wrists/hands	82 (27.9)	212 (72.1)

Source: Field Survey 2022; **Freq. = Frequency**

Table 2 revealed that majority of the librarians that experienced ergonomic symptoms experienced it at the lower back (58.5%). Some also experience this at the shoulders (40.5%), upper back (35.4%), ankle/feet (35%), knee (33.7%), wrist/hands (27.9%) and at the elbows (24.8%). This connotes that some librarians in federal universities in southern Nigeria experienced ergonomic symptoms in diverse areas of the body such as lower back, shoulders, upper back ankle/feet, knee, wrist/hands and at the elbows. Supporting the findings of this study, Yan, Li, Li and Zhang (2017) reported 80% prevalent of work-related ergonomic disorders such as lower back and neck amongst construction employees in China as major ergonomic symptoms identified. James, James, Nie, Schumacher, Guest, Tessier, Marley, Bohatko-Naismith and Snodgrass (2018) asserted that there was a high prevalence of ergonomic symptoms among university personnel, 80% with neck discomfort, 60% with shoulder pains, 53% and lower back discomfort 47% being the major occurrence of ergonomic symptoms caused workstation designs. Converse to the findings of this study, Griffiths, Mackey, Adamson, and Pepper (2012) found that there was prevalence of 68% in the low-back symptoms, 69% lower and 83% upper-extremity.

Maimaiti, Wang, Jin, Wang, Qin, He, Wang, Zhang, Forsman, Yang, Yang and Wang (2019) reported that majority of employees who had (Mean ± SD 4.22 ± 1.84) intensity symptoms, also had neck symptoms such as uneasiness, deadness, pain, or restraint of movement. This study found that librarians agreed with their workstation design, and they disagreed that they had ergonomic symptoms which affected their work. Supporting the findings of this study, Ikonne and Yacob (2014) discovered that majority (mean = 2.86) of librarians were satisfied with having a closed office for their privacy, followed by (mean = 2.81) workspace design that permits communal contact with their colleagues, and majority (mean = 2.68) of librarians also indicated that their workplace is an undisturbed environment for work concentration. Labajo (2017) reported that majority of the libraries investigated were basically ergonomically designed. Ghazi Mirsaeid, Sheikhshoaei, Dehdari Rad, and Nasirian, (2018) also discovered that factors like body conditions, workspace, equipment,

and environmental conditions was average in terms of ergonomic principles and health factors, and safety factors and welfare facilities were at a disagreeable level.

Mirsaied, Sheikhoaei, Rad and Nasirian (2018) reported that librarians were working in a non-ergonomically friendly environment. Kouhnavard, Mihanpour, Barkhordari, Roshanaei and Parvin (2017) found that workspace ergonomic conditions were satisfactory, but safety factors were low. Nwokedi, Gupiyem and Agbenu (2019) found that majority (58.25%) of the library employees were slightly comfortable with their computer workstations. Owolabi et al (2015) reported that majority of library employees (58.8%) indicated poorly designed workstations, (58.8%) ICTs tools and poor sedentary positions to have been sources of technostress among library employees. Funminiyi et al (2014) demonstrated that ergonomic principles were practiced among university employees and majority of university personnel are suffering from ergonomic hazards, 75% of the employees were not conversant with health problems related with ergonomic hazards, majority (83%) did not understand the concept of ergonomics. Asaolu and Itsekor (2014) also found that 70% of librarians take break from their workstations. It was also reported that majority of librarians (63%) could adjust their chairs and 25% have screen protector on their workstations. Supporting the findings of this study Ikonne (2014) reported that majority (66.4%) of the respondents indicated that computer workstation and equipment were suitable and satisfactory, 56.3% indicated that their computer workstation design was comfortable for their work posture (sitting/standing), 55.9% indicated sufficient room between the top of thighs and computer, 54.3% indicated that their ergonomic workstation was designed to ensure that their wrist and hands do not rest on sharp or hard edges, while 52.3% indicated that the workstation was designed to suit their work in the library.

Research Questions 2: Are the workstations ergonomically designed in federal universities libraries in Southern Nigeria?

Table 2: Workstation Ergonomics in Federal University Libraries in Southern Nigeria

Items	**SA Freq. (%)**	**A Freq. (%)**	**D Freq. (%)**	**SD Freq. (%)**	**Mean $\bar{x}$**	**Standard Deviation (SD)**
Workstation Design/ Systems Failure (Mean = 2.70, SD = 0.87)						
The height of my worktable is satisfactory in relation to my posture and viewing	71 (24.1)	152 (51.7)	54 (18.4)	17 (5.8)	2.94	0.81
My workstation is designed to ensure that my wrist and hands do not rest on sharp or hard edges	68 (23.1)	139 (47.3)	64 (21.8)	23 (7.8)	2.86	0.86
My office is bright enough through natural/electrical lighting	68 (23.1)	122 (41.5)	78 (26.5)	26 (8.8)	2.79	0.90
I have sufficient room between the top of my thighs and my computer table	57 (19.4)	137 (46.6)	78 (26.5)	22 (7.5)	2.78	0.84
My computer workstation is comfortable for my work posture (sitting/standing)	59 (20.1)	136 (46.3)	74 (25.2)	25 (8.5)	2.78	0.86
The quality of my workstation equipment is good enough for me to work effectively	55 (18.7)	142 (48.3)	71 (24.1)	26 (8.8)	2.77	0.86
My computer workstation is large enough for my work	52 (17.7)	148 (50.3)	68 (23.1)	26 (8.8)	2.77	0.84
My computer workstation furniture is flexible and suitable enough for me to adjust, rearrange or reorganized my work	50 (17)	111 (37.8)	96 (32.7)	37 (12.6)	2.59	0.91
My chairs are adjustable to fit my workstation	55 (18.7)	95 (32.3)	112 (38.1)	32 (10.9)	2.59	0.92
The backrest of my chair adequately supports my lower back as I work	49 (16.7)	103 (35)	111 (37.8)	31 (10.5)	2.58	0.89
My workstation design is adequately equipped for my typical office needs	49 (16.7)	100 (34)	106 (36.1)	39 (13.3)	2.54	0.92
My workstation and equipment have sufficient adjustability that ensures a healthy working posture	38 (12.9)	94 (32)	125 (42.5)	37 (12.6)	2.45	0.87

Source: Field Survey 2022; **Freq. = Frequency**
KEY: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree*Decision Rule if mean is 1 to 1.74 = Strongly Disagree; 1.75 to 2.49 =Disagree; 2.50 to 3.24 =Agree; 3.25 to 4= Strongly Agree**

Table 3 shows librarians specifically agreed with their workstation design ($\bar{x}$= 2.70). They however disagreed that they had ergonomic symptoms which affected their work ($\bar{x}$= 1.93). This connotes that, librarians agreed with their workstation design, and they disagreed that they had ergonomic symptoms which affected their work. Librarians specifically agreed with the workstation design as follows: the height of their worktable was satisfactory in relation to their posture and viewing ($\bar{x}$= 2.94), their workstation was designed to ensure that their wrist and hands did not rest on sharp or hard edges ($\bar{x}$= 2.86) and that their workstation design was adequately equipped for their typical office needs ($\bar{x}$= 2.54). Librarians in federal universities in southern Nigeria disagreed that they had ergonomic symptoms which affected their workplace attitude in terms of: Shoulders ($\bar{x}$= 2.15), knee ($\bar{x}$= 1.95) and wrist/hands ($\bar{x}$= 1.72).

HO1: Ergonomics has no significant influence on the workplace attitude of librarians in federal university, southern Nigeria.

Variables	B	Std. Error	Beta (β)	T	p	R^2
(Constant)	55.828	1.917		29.119	.000	0.196
Ergonomics	.316	.037	.443	8.443	.000	
Dependent Variable: Workplace Attitude						

This study discovered that ergonomics has a positive significant influence on workplace attitude of librarians in federal university, southern Nigeria (R^2= 0.196, β= 0.443, t = 8.443, p< 0.05). This implies that improvement in librarians' ergonomic in federal university, southern Nigeria would lead to better workplace attitude among them. The regression model shows that ergonomics could explain 19.6% (R^2= 0.196) variation in librarians' workplace attitude in federal university, southern Nigeria. Similarly, Ikonne and Yacob (2014) revealed there was a positive relationship between ergonomics (spatial comfort and environmental workplace factors) and job satisfaction.

HO2: Ergonomics has no relative significant influence on the workplace attitude of librarians in federal university, southern Nigeria.

Variables	B	Std. Error	Beta (β)	T	p	Adj.R^2	F	Df	P
(Constant)	57.017	1.908		29.877	.000	0.225	43.53	2	.000
Ergonomic Symptoms	.492	.061	.418	8.045	.000				
Dependent Variable: Workplace Attitude									

Source: Field Survey 2022, Note: β= Standardized Coefficient, significant at 0.05

This study asserted that ergonomics has a relative significant influence on the workplace attitude of librarians in federal university, southern Nigeria in terms of the positive individual influence that ergonomic symptoms (β= 0.418, t = 8.045, p< 0.05) have on librarians' workplace attitude. This suggests that improvement on things that cause ergonomic symptoms would lead to better workplace attitude among librarians in federal university, southern Nigeria. In addition, a standard deviation unit improvement in ergonomic symptoms and workstation design/systems failure would lead to 41.8% enhancement of librarians' workplace attitude.

CONCLUSION

This study examined ergonomics as determinants of workplace attitude of librarians in Southern Nigeria. It was discovered that librarians in federal universities in southern Nigeria experience musculoskeletal/ergonomic symptoms though their workstations were ergonomically designed. The study concluded that librarians in federal university libraries in Southern Nigeria exhibited workplace attitudes. Though they disagreed that the ergonomic symptoms they experience affected their workplace attitude.

RECOMMENDATION

1. Policies should be formulated and implemented by library administrators and institutional management that will ensure conducive and ergonomically fit work environment for librarians.
2. The involvement of librarians in the design and furnishing of libraries, especially the workstation of librarians should be mandated.
3. When librarians are comfortable within their workstation, it will enhance interpersonal relationship among colleagues and towards library patrons. Therefore, the workplace should be made conducive to enhance peace and harmony.

4. The study of ergonomics should be incorporated into the curriculum of library schools.

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