

From discomfort to safety: A guide to preventing non-accidental injuries in the office

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ABSTRACT

Purpose of the study: The technological advancements of the past decades have had a significant effect on almost all employees in their office workstations. Non-accidental injuries, especially with intensive computer use, are widespread. The COVID-19 pandemic has exacerbated this. Office employees are subjected to poor occupational practices in their workstations and do not consider ergonomic solutions to prevent office-related injuries. The primary objective was to evaluate the ergonomic status of selected offices with the aim of creating an awareness of the various ergonomic issues that cause non-accidental injuries and the prevention thereof. Literature indicated a paucity of basic ergonomic interventions in preventing office-related injuries.

Design/methodology/approach: A mixed-methods research approach was used to gather data, which enabled the researcher to come to conclusions and to make recommendations regarding the provision of ergonomic interventions for office employees. The data collection technique consisted of two approaches, namely direct observation of offices at Unisa and a web-based questionnaire survey.

Findings: The empirical findings showed that employees are at risk of office-related injuries due to workstations which have ergonomic risk factors, and the potential for injuries exists in the office. The results indicated a need for management interventions to make the employee workstations safer. Implementing ergonomic solutions can make employees more comfortable and increase productivity.

Recommendations/value: It is recommended that employees utilise the guidelines to practice safe working procedures and ensure that their working space is converted into accident-free zones.

Managerial implications: Management commitment, in terms of attitude, managing in a diversified workplace, and the allocation of resources, is essential to the process of ergonomic management in the office. Management should prioritise initiatives to enhance employee wellness, and the stated guidelines provide management with specific actions or strategies which could be taken based on the study results.

Keywords: Cumulative trauma disorders; ergonomics; hazards; musculoskeletal disorders; non-accidental injuries; repetitive strain injuries.

1. INTRODUCTION

Office employees are subjected to poor occupational practices in their workstations and do not consider ergonomic solutions to prevent office-related injuries and enhance their well-being (Sakellari, 2023). Workers worldwide experience a range of occupational musculoskeletal disorders (MSDs) that affect both the functionality of many parts of their body and their overall performance. Musculoskeletal disorders (MSDs) are conditions that affect your body's muscles, joints, tendons, ligaments, and nerves. MSDs can develop over time or can occur immediately due to overload.

The International Ergonomics Association (Salvendy, 2012) defines ergonomics as the scientific discipline concerned with the understanding of the interactions among humans and other elements of a system. Ergonomics is the study of the physical arrangement of the workspace; that is, how a person interfaces with their immediate working area. The goal of ergonomics is to prevent soft tissue injuries and MSDs caused by sudden or sustained exposure to force, vibration, repetitive motion, and awkward posture. In very simple terms, ergonomics is about fitting the job to the person performing the job to reduce the risk of injuries and to minimise fatigue. Normally, when one hears of employees who suffer workplace injuries, the perception is that those who exert a lot of physical energy work in their workplaces or those who work with heavy machinery and equipment. Employees in these work environments may indeed be at greater risk of injury. Still, office workers are also at risk, as reported in the seminal work of the Office Ergonomics Handbook (2008).

Ehrensberger-Dow *et al.* (2016) state that research in the 1990s culminated in good practice recommendations for computer workstations and office ergonomics and had already been identified as a health and safety issue. Rebello *et al.* (2021) add that research in ergonomics and human factors is changing dramatically, due to the constant challenges of technology and organisations. In line with these challenges, new research centres in ergonomics appear, to give solutions and to propose new methodologies to study the implication of those changes in the human safety, health and wellbeing and the performance of new systems.

Due to the lack of adequate office space, a number of academic and administrative employees within the University of South Africa (Unisa) are currently forced to share offices. As a result of this, these employees are subjected to uncomfortable and inefficient work practices in their occupational environment. Even though these employees are faced with such challenges, they do not take ergonomic solutions into consideration in the design of their working space and their daily work routine. Direct observation of Unisa offices revealed that employees lack knowledge of the basics of ergonomic solutions that would improve their daily work activities

and prevent office-related injuries. Owing to the repetitive nature of office work, injuries develop gradually over time and are hence termed 'non-accidental' injuries.

Previous ergonomics seminal studies (for example, Bridger, 2007; Lee & Seppelt, 2004; Brandenburg & Mirka, 2005; Koningsveld *et al.*, 2005) do not detail basic office interventions – such as what is really needed, how the office should be arranged, and the benefits of doing so. The research on which this article is based focused on the basic elements in the office over which employees have control and which they can successfully change to enhance their effectiveness and overall personal well-being. The costs of ignoring these interventions will adversely affect productivity levels. Indeed, ergonomic interventions yield reductions in absenteeism, fewer accidents, improvements in employee morale, productivity, and a reduction in employee compensation costs (Salvendy, 2012).

Most injuries that happen at work are caused by physical stress and strain, such as sitting in the same position for a long time, repetitive movements, and overuse of muscles. These injuries can cause stress and strain on muscles, nerves, tendons, joints, blood vessels and the spine. Poorly designed office environments and improper office procedures are the main causes of work-related musculoskeletal disorders (WMSDs) in offices. The rate of office accidents declines when office workers are informed of potential hazards and safe work practices.

The purpose of this article was to identify, via a research instrument, the challenges encountered by employees in their office environment, and hence to provide a theoretical synopsis of the various ergonomic interventions that employees can implement to adapt to the office. The main research objective on which this article reports was therefore to create an awareness of the various ergonomic issues in the office that can cause employees to develop non-accidental injuries and the prevention thereof. A literature review of the concept of ergonomics is provided, followed by the research methodology of the study. Subsequently, the article reports on the results of the study and concludes with a description of the guidelines for evaluating office workspace towards eliminating injuries.

2. RESEARCH PROBLEM AND OBJECTIVE

In today's digital age and post-COVID-19, ergonomics has become increasingly crucial, and countless employees have had to adjust to working from home (WFH), with many who went on to work permanently from home. This had the potential for considerable risk of employees experiencing discomfort and developing musculoskeletal disorders due to poorly set up home workspaces and a restriction of movement. Office employees are subjected to poor occupational practices in their working environment, and their employers do not consider

ergonomic solutions in order to prevent office-related injuries and enhance their well-being. The primary research objective was to develop a set of guidelines for the ergonomic solutions which employees can use to prevent non-accidental injuries in their workplace.

3. LITERATURE REVIEW

3.1 The need for ergonomic interventions

It is common knowledge that there is a widespread usage of technology in almost every sector of an economy (Endsley & Sasagohar, 2025). Office workers run the risk of contracting discomfort and pain from continuous work on computers. The need for ergonomic interventions in the office emerged from the author's experiences in industry, where employees were subjected to inefficient and hazardous working conditions, which resulted in undue strain on employees. The application of basic ergonomic solutions creates savings in time, methods and human effort, which is critical to the timely manufacture of quality outputs and ultimately, organisational sustainability. There is a large human involvement in the daily service activities at Unisa. As stated in the introduction, direct observation of offices at Unisa showed that employees lack knowledge of the basics of ergonomic solutions, which would improve their daily work activities and prevent office-related injuries. Consequently, the utilisation of ergonomics solutions is justified as it is critical to mitigate the ergonomic risks to protect and maintain the musculoskeletal health of workers (Fyongo & Ramdhan, 2024). Figure 1 depicts the correct seating posture.

Figure 1: Seating correctly when working to avoid diverse health problems

Source: CanStock Photo

3.2 Defining ergonomics

Ergonomics can be defined as the incorporation of human factors in the design of machines, machine systems, work methods, and environments to consider the safety, comfort, and productiveness of human users and operators (Holstein & Chapanis, 2022). It is concerned primarily with the physiological aspects of job design, that is, with the human body and how it fits into its surroundings. Two aspects are considered here: firstly, how a person interfaces with environmental conditions in their immediate working area (for example, the temperature, lighting, and noise) and secondly, how the person interfaces with the physical aspects of their workplaces and computer workstations should have quite adequate physical ergonomic profiles. Every individual is different in terms of size and capabilities, and understanding ergonomic issues helps to improve human performance (Heizer & Render, 2011). In applying ergonomics, we strive to identify work-related musculoskeletal disorders suffered by workers and to fit the work to the body rather than forcing the body to conform to the work (Ahmad *et al.*, 2022). The field is also called workplace engineering, human engineering, and human factors engineering (Holstein & Chapanis, 2022).

3.3 The aim of ergonomics

Musculoskeletal discomfort is very common among office workers, resulting in adverse effects on their activities; however, despite its importance, ergonomics is not receiving as much attention as it should (Osama, 2018). The foremost aim of ergonomics is to enhance and preserve human health and satisfaction and to optimise human performance. Ergonomics principles aim to design workstations, work processes, equipment, and tools to fit the worker. Seminal work by Operations Management guru, Stevenson (2007) argues that ergonomics

seeks to prevent common workplace injuries such as repetitive strain injuries (RSIs) by acknowledging that people vary in their diverse physical dimensions (not everybody is the same size) and capabilities (not everybody has the same competencies). Ergonomics also aims at preventing injuries by controlling risk factors such as force, repetition, posture, and vibration that can cause injuries to develop, and at ensuring a good fit between workers and their jobs. The end goals are to minimise worker effort and maximise worker comfort, safety, productivity, and efficiency. Organisations should aim for initiatives to reduce worker injuries, since they lead to absenteeism and the resultant lower productivity.

3.4 Understanding ergonomics

Ergonomics may sound like a highly technical field of study, and some aspects of ergonomics are in fact complicated, but much of ergonomics is simple common sense, perhaps a natural reaction. Ergonomics focuses on the interaction that people establish with the other elements of the system in which and with which they carry out their work and daily life activities (Tosi, 2020). The traditional focus of ergonomics has been on product and process improvement in the manufacturing sector and not sufficiently on the office environment. It is commonly thought of as how companies design tasks and work areas to maximise the efficiency and quality of their employees' work. However, ergonomics is part and parcel of everything which involves people. Understanding ergonomics will create an awareness that ergonomic interventions can also be implemented in the office to the benefit of office employees.

There is, however, a misguided notion that ergonomics means providing 'cushy' jobs or slowing down production. On the contrary, ergonomics aims at creating a safe and accident-free environment. Managers hear 'ergonomics' and think 'more costs' and 'more problems'. This, unfortunately, gives the impression that ergonomics is just another burden that management has to endure. The ability of an organisation to provide an efficient workplace, free of possible injuries, has a direct bearing on the quality of life of its employees. Although ergonomic solutions can help us to ward off injury, we neglect to implement them in our everyday habits until our muscles and joints really start to hurt (Workman's Compensation Board, 2007). Literature shows that, although ergonomic research is primarily performed by ergonomists who study human capabilities in relation to their work demands, it is not limited to them, as one can also contribute to the design and evaluation of tasks, jobs, products, environments, and systems in order to make them compatible. Ergonomics is a complex approach to assessing and designing the interaction between people and systems (Tosi, 2020). Ergonomics draws on many disciplines in its study of human beings and their environments, and a crucial issue in ergonomics is the translation of ergonomic research findings into practical benefits for employees.

3.5 Work-related injuries

Currently, many Unisa employees place and adjust their workstations without considering the ergonomic requirements of efficient office layout, space allocation, lighting, and ease of accessibility. Workers need to know how to adjust their individual office workstations to suit their needs. Bonfiglioli *et al.* (2022) state that promoting interventions to prevent MSDs and proper placement of equipment can protect an employee from fatigue, over-exertion, and injuries. When we overuse our muscles through repeated movements, we can put stress on our bodies, resulting in repetitive strain injuries (RSIs), also known as cumulative trauma disorders (CTDs), repetitive motion injuries (RMIs) and WMSDs. Injuries that are caused due to repetitive movements are known as RSIs and musculoskeletal injuries (MSIs) (Office Ergonomics Handbook, 2008). Ergonomics is a scientific process that considers employees' needs when organising an office, and research indicates that employees without adjusted workstations have a higher potential for developing MSIs (Birt, 2024). Research conducted for this article indicated that 20.83% of staff had not heard of the term “ergonomics”.

Office jobs often involve performing repetitive motions which are needed for people to carry out their duties. These result in RSIs, which are the most common type of injury found in the office. The first signs of an RSI may be subtle and mild, but the symptoms may appear long after the activity has been performed. For these reasons, people often ignore the slight aches and pains which eventually can become serious problems if ignored. WMSDs typically develop over a long period. If a job does not fit a worker, the worker is more likely to be exposed to risk factors that may lead to MSIs (Office Ergonomics Handbook, 2008). The earlier that employees report symptoms and have them attended to, the better the chance of preventing a serious injury. Musculoskeletal pain is common in office workers and teleworkers, but its causes remain insufficiently visible in society. The occupations with the highest risk of repetitive strain are the ones staffed by secretaries, typists, and people who use computers (Alencar *et al.*, 2024).

4 RESEARCH METHODOLOGY

4.1 Research design

A mixed-methods research approach was used to gather data, which enabled the researcher to come to conclusions and to make recommendations regarding the provision of ergonomic interventions for office employees. The data collection technique consisted of two approaches, namely direct observation of offices at Unisa and a web-based questionnaire survey.

4.2 Measurement instrument

The data for this article were acquired by means of a structured, self-administered, web-based questionnaire. The questionnaire was designed to elicit responses from employees and consisted of five categories, namely biographical details, the office, the workstation, health and safety, and improvement of working conditions. It consisted of 5 categories with a total of 23 questions and was sent out with a covering letter inviting the selected recipients to participate in the survey. The questionnaire was designed using the Lime Survey programme, which is an online survey program. A self-administered approach was followed, utilising a computer-aided web-based questionnaire. A dedicated uniform reference locator (URL) had been established on the website of the Bureau of Market Research (BMR) at Unisa. An email message explaining the procedure to follow in order to complete the questionnaire was sent to respondents. The e-mail message included a hyperlink to the URL where the questionnaire had been hosted. The respondents were invited by mail to go to the URL and complete the questionnaire online. The online approach is appropriate, as surveys enable researchers to generalise their findings (Creswell & Creswell, 2018).

4.3 The population and sampling

The population of the study on which this article is based comprised selected employees from the School of Management Sciences and the Department of Education at Unisa. E-mail addresses were obtained, and the research instrument was forwarded to a total of 301 employees. A procedure known as purposive sampling, popular in qualitative research, was utilised to select the participants. Purposive sampling simply looks for people who can help build the substantive theory further (Saunders *et al.*, 2019). No consideration was given to the ethnicity and level of seniority of participants. One hundred and twenty (120) respondents submitted their surveys online to the database, and all were considered suitable for inclusion, as they had completed at least 95% of the questionnaire items. This constituted a response rate of 39.87%, which was deemed to be representative of the population.

4.4 Data collection and analysis

Data were collected by means of a structured questionnaire administered via a web-based survey, which was sent to the participants. Strengths of web-based surveys include flexibility, speed, convenience, and low administration cost (Martins, 2010). The questionnaire was utilised to elicit responses to the questions to identify the factors which cause problems for employees in offices. A pilot study was conducted using five colleagues at Unisa to pretest the questionnaire. To ensure validity, the participants involved in the pilot study had to decide whether or not the questionnaire was measuring exactly what it was intended to measure.

After the pre-testing of the questionnaire, minor amendments were made. A qualified statistician from the Bureau of Market Research assisted the researcher with the amendments, the setting up of the database, and the analysis of the questionnaire.

Responses were automatically entered and saved on the online database. The questionnaire data were imported into the Statistical Package for Social Sciences (SPSS) in order to perform the statistical analysis. Basic frequencies for each question were calculated. The researcher generated and interpreted all the frequency graphs using Excel. Percentage occurrences were tabulated, and graphs were generated for each question of each category. Thereafter, cross-tabulations of the variables were conducted. In category 1, basic biographical details of participants were required. In categories 2 to 4 – namely ‘your office’, ‘your workstation’ and ‘health and safety’, participants were required to evaluate the current situation of their working environment. The last category concerned management issues. Responses were analysed to determine the extent to which employees encountered problems that could lead to office-related injuries.

5. RESULTS AND DISCUSSION

The results identified salient interventions in the office that the employee has control over and can easily improve with minimal effort. Further to this, health, safety, and management issues were discussed in relation to the objective of the study, which was to create an awareness of the various problems in the office that can cause staff to develop non-accidental injuries and how to prevent such injuries. In addition, the article provided a theoretical synopsis of the various ergonomic interventions that staff can implement to adapt to the office. The following are the main issues that emanated from the data that was analysed.

5.1 Biographical data

The majority of respondents (77.50%) spent between 6 to 8 hours per day in their offices. The longer that one spends in the office, the more susceptible one is to WMSDs. This high incidence (extended durations) displays the urgent need for ergonomic interventions in the office. A total of 20.83% of the respondents indicated that they had never heard the term “ergonomics” before.

5.2 Working environment

This section was divided into five sub-sections, namely office layout, ventilation, computers, seating, and management issues. Table 1 displays the various problems encountered by employees under each of the five sub-sections.

Table 1: Problems encountered by employees

Sub-section	Description of problem	N = 120	
		Count	Percentage
Office layout	Sharing of the office	50	41.67
	Unhappiness with the size of the office	27	22.50
	Poor office layout	31	25.84
Ventilation and temperature	No sunshine in the office	41	34.17
	No heater	36	30.00
	No fans	35	29.17
Computers	Vision problems	37	30.83
	Glare	46	38.33
	Computer screen on the side	23	19.17
Seating	Poor quality chairs	39	32.50
	Backaches	47	39.17
Management issues	Management is unaware of the problems	59	49.50
	Sick leave due to work-related illness	21	17.50

5.3 Office layout

Almost half (41.67%) of the respondents indicated that they shared offices with other employees. Although most of the offices were small, employees were required to share offices due to spatial constraints. It should be borne in mind that sharing offices decreases employee morale and creates disturbances which are not conducive to employee efficiency (Amick *et al.*, 2012). Regarding the size of the office, on a scale where 1 = poor and 5 = excellent, the categories 1 to 3 amounted to a total of 45.83%. This showed that 22.5% of employees were unhappy with the size of their offices. During the direct observation, employees who shared offices complained that the lack of space caused them to sit in cramped spaces. Their movements were restricted, and they were forced to adopt awkward postures.

Regarding the layout of their office, 25.84% of the respondents indicated that they were unhappy with their current layout. Ninety per cent of the employees believed that they had easy access to and out of their offices. Direct observation of about 100 offices showed deficiencies in the layout. Accidents occur in poorly laid-out offices where furniture and filing cabinets are placed without due regard to access. The most common office accident is tripping and falling, and these account for the largest number of disabling injuries (Chang *et al.*, 2016). They result in severe injuries and the highest percentage of lost workdays due to such injuries. Limited space, electric cords, poor housekeeping, and obstructed walkways create the potential for 'trips' and 'falls'. Fall hazards can be prevented through efficient layout of the office and good housekeeping.

5.4 Ventilation and temperature

Achieving the right temperature and ventilation is important in maintaining a comfortable environment for workers (Wymer, 2020). Fresh air is needed for breathing, for diluting and removing impurities and odours, and for dissipating excess heat. As long as people inhabit a room, the air in the room will deteriorate as the day progresses. This is due to breathing, the release of odours, heat, and carbon dioxide. A total of 34.17% of respondents indicated that they did not receive sunshine in their offices, 30% did not have heaters, and 29.17% did not have fans. Buildings in Unisa have long passageways, and the temperature differs considerably (hot, humid air in the summer and cold, dry air in the winter). Employees are exposed to these two extreme conditions.

During the winter months, employees close their doors and windows and switch on heaters due to the cold. This creates indoor air pollution due to poor ventilation. Insufficient outdoor air causes the office air to become contaminated, which could lead to respiratory problems. To achieve a comfortable temperature and ventilation in the workplace, an open window allows for the entry and exit of natural air. Working in a windowed room can result in employees having more positive perceptions (Wymer, 2020). If an office is too warm, it may lead to sleepiness and a decrease in performance, and an atmosphere that is too cool stimulates restlessness and reduces alertness and concentration.

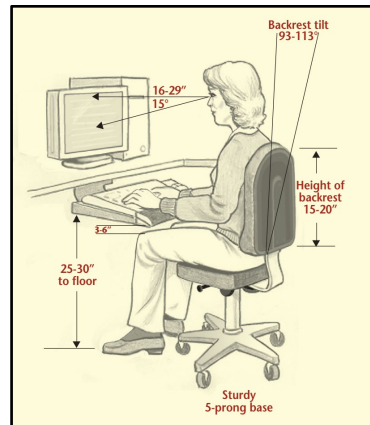
5.5 Computers

Robertson *et al.* (2013) state that WMSDs among office workers with intensive computer use are widespread, and the prevalence of symptoms is growing. A total of 30.83% of respondents indicated that they had vision problems. The nature of office jobs means that employees often face computer screens all day and may suffer eyestrain as a result. Eyestrain is one of the most common repetitive strain injuries, which, if left uncorrected, can lead to overall fatigue and a decrease in overall efficiency (Sawubona, 2011). Refer to Figure 2, which depicts how not to adjust your computer workstation to fit your body.

Another area of concern linked to the above involves sitting with one's back to the window (38.33%), which allows light to shine directly onto the computer screen and cause a glare. Glare is a common problem, and identifying the source of the glare means that the necessary precautions can be taken (Office Ergonomics Handbook, 2008). The level of lighting is important in offices where computers are used. When light levels are too high for computer work, the employee may be forced into adopting an awkward posture in order to see the screen. It is evident that the amount of light affects eyestrain and posture. A total of 19.17% of respondents indicated that their screens were positioned to the side and not directly in front

of them. The disadvantage here is that the continuous turning to access the computer may lead to musculoskeletal injuries such as neck strain and back pain.

Figure 2: Computer workstation



Source: CanStock Photo

5.6 Seating

Devi & Singh (2023) state that excessive screen time is a growing concern in modern society. Sitting in front of a computer for long periods has the potential to create adverse health effects. People who sit for most of the day, such as those who work at a computer, are at high risk of sustaining non-accidental back injury. The office chair is one of the most important workplace accessories; therefore, it must fit the worker. It must be noted that the same style of chair may not suit every worker. It was found that only 10.83% of respondents found their chairs to be acceptable. Almost 33% of respondents were unhappy with the quality of their chairs, yet 52% indicated that they felt uncomfortable about asking management to purchase a new chair.

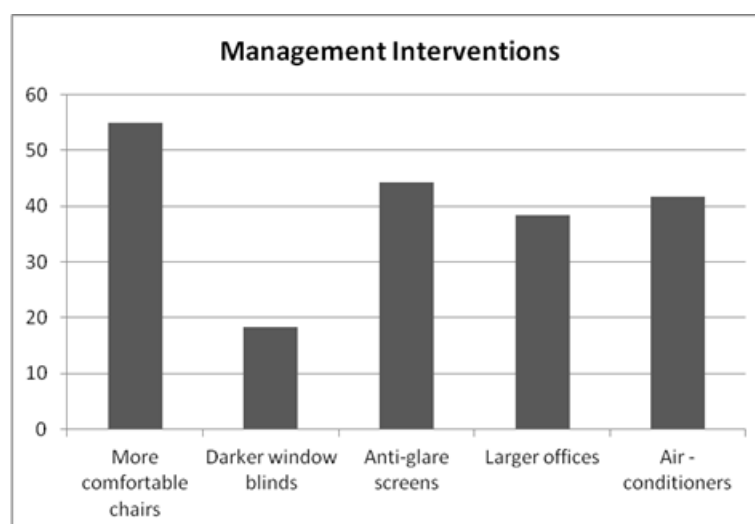
A poor-quality chair is one of the primary causes of back pain, and 39.17% of the respondents indicated that they suffered from back pain. Back pain is one of the most common work-related injuries. The application of basic ergonomic solutions, such as good seating posture and setting the chair to the correct height, can help minimise the risk of injury, prevent back pain, and help maintain a healthy back. Footrests, knee angle, thigh and back support, and arm rests should also be considered. Figure 3 depicts an Ergo Chair.

Figure 3: The Ergo Chair

Source: CanStock Photo

5.7 Management issues

The results of the questionnaire showed that 49.5% of respondents felt that management was unaware of the problems they faced in their workplace. Respondents were given a choice of 5 different interventions and requested to indicate if they required these. Their responses were as follows: more comfortable chair = 55%; anti-glare screens = 44.2%; air-conditioners = 41.7%; larger offices = 38.3%; and darker window blinds = 18%. Figure 4 displays the interventions that employees would like to see management implement to improve their working conditions.

Figure 4: Management interventions

Management must consider ergonomic factors that are critical to the achievement of organisational objectives. Human resource management includes the provision of a safe work environment for the entire organisation. It is common knowledge that absenteeism due to

injuries accounts for a decrease in productivity. A total of 17.50% of respondents indicated that they took sick leave due to work-related illnesses. A consideration of the results and discussion leads to the question: 'What can one do in order to make one's office and daily tasks more comfortable?' Table 2 lists some of the focus items for evaluating office workspace to prevent work-related injuries.

Table 2: Guidelines for evaluating your office workspace.

Description of item	Description of Guidelines
Office layout	You do not have to accept the current layout as the best. Change your entire office to suit you.
	Redesign your office for easy access in and out.
	Allow adequate space for easy movement. Do not use personal space as storage space.
	Telephone, stationery, files and books that are used most often should be kept within reach.
	Do not strain your neck. Face forward and do not look up, down, or to either side.
	If the work surface is too low, raise the desk using a stable support (i.e., blocks under desk legs) until the work surface or keyboard is at elbow height.
	Files should be arranged in a filing cabinet so that frequently used files are in the middle drawer or closest to elbow level. This should reduce the amount of bending and reaching required.
Ventilation and temperature	Most buildings have windows that open; airing out a stuffy room should be common practice.
	Try and get in as much natural air as possible.
	Ensure proper room temperature, humidity, and air movement within offices by opening windows as and when necessary.
	On warmer days, make use of a fan to optimise air movement, as air passing over the skin helps to cool the skin.
	On colder days, use a heater, if necessary, but ensure that you regularly allow natural air into your office to prevent air contamination.
Computers	Reposition your screen, dim overhead lights or install window blinds to prevent glare.
	The screen should be positioned directly in front of you - about an arm's length away from you at a comfortable reading distance.
	The top of the screen should be at or just below eye level.
	Your keyboard and your mouse should be slightly below elbow level and close to your body. To use your keyboard and your mouse in the 'neutral' position, you should adjust your keyboard or your chair.
	Your keyboard should be at a height so that your wrists are straight and your elbows are at approximately 90 degrees.
	Take appropriate breaks throughout the day. Multiple short-duration breaks provide the body with more rest than a single long-duration break. These breaks, often called 'micro-breaks', last anywhere from 10 to 60 seconds.
	When you break up computer work with other office tasks, your eyes and muscles in your arms, neck, and back can rest, relieve tension, and reenergise your body.
Seating	Evaluate your chair and request a new chair. One chair may not suit every worker, so make sure you try it out before you buy.
	Setting your chair to the correct height can help minimise the risk of repetitive injury, prevent back pain and back injury.

Description of item	Description of Guidelines
	Do not slouch in your chair. Relax your shoulders. Arms should be kept low and close to your body.
	Your back should be fully supported, and your feet either flat on the floor or on a footrest.
	Bending and twisting of your wrists, back and neck should also be avoided.
	Knees should be at approximately 90 degrees to the floor when seated.
	Adjust your writing surface to be level with your elbows. Raise your forearms to create approximately a 90-degree angle at the elbow.
	You should not remain in any one position (seated or otherwise) for long periods of time. Changing positions throughout the day will help to reduce the stress and strain that builds up from staying in one position for a long time.
Lighting	Light levels must be high enough for paperwork, but not too bright for computer work.
	If light levels are too low for paperwork, the eye muscles are strained, and you are more likely to work in an awkward posture to see the paper.
	When light levels are too bright for computer work, you may be forced into an awkward posture in order to see the screen.
	Ensure that flickering lights are replaced timeously.

6. CONCLUSION

This research focused on the basic elements in the office that employees have control over and can successfully change, thereby enhancing their effectiveness and overall personal well-being. This study originated in response to the need to create an awareness of the various challenges in the office that can cause employees to develop non-accidental injuries, and to show how such injuries could be prevented. A total of 20.83% of the respondents indicated that they had not heard the term ergonomics before. It is hoped that this paper will assist employees to understand the concept of ergonomics and utilise its solutions to their benefit. Respondents indicated that safety hazards do exist in the office, which, if not corrected, can result in ergonomic-related injuries and decreased productivity. Ergonomics can help to make employees more comfortable at work and help lower stress and injury.

The primary objective of this study was met in the sense that this paper created an awareness of the various ergonomic issues in the office that can cause employees to develop non-accidental injuries and the prevention thereof. The results showed that employees are exposed to and have sustained musculoskeletal injuries in the office, but have not taken steps to prevent them. The study provided some important insights into the basic ergonomic interventions that can be utilised to prevent WMSDs in the office. Almost 20% of respondents indicated that they were unhappy with accessibility to regularly used books and files. The guidelines state that these should be arranged in a filing cabinet so that they are placed in the middle drawer or closest to elbow level and are easily accessible. This should reduce the amount of bending and reaching required. Almost one-third of respondents were unhappy with

the quality of their chairs. A poor-quality chair is one of the primary causes of back pain, and 39.17% of respondents indicated that they suffered from back pain. The results also indicated that there was a need for management interventions to make the working life of employees more comfortable. The costs of ignoring these interventions will adversely affect productivity levels due to decreased outputs and absenteeism.

It is recommended that management pay heed to the concerns of employees and look at the possibility of making certain interventions available to employees. Through common sense, simple, innovative, and creative thinking, work can be improved by the application of basic ergonomic interventions. It is also recommended that employees reassess their current work environment and consult the guidelines (Table 2) with the objective of improving their work situation, the working conditions and the tasks performed. The contribution of this article is a set of common-sense guidelines which offer preventive suggestions for ergonomic improvements. It creates an awareness of simple ergonomic interventions which office employees could implement to prevent injuries. The article succeeds in contributing to ergonomics knowledge as it helps lessen muscle fatigue, increases productivity, and reduces the number and severity of work-related MSDs.

This study provides a theoretical synopsis of the concept of ergonomics and a description of office ergonomics guidelines, which could serve to inform employees of the basic ergonomic solutions that they could easily implement to improve their well-being and prevent injuries. A limitation of this study is that almost two-thirds of the population did not complete the research instrument. Future research could include a survey of employee perceptions after the implementation of the guidelines described in Table 2, which would concur with the statement by Quick and Nelson (2011), which points out that one ergonomics study of 87 administrative municipal employees found lower levels of upper-body pain along with other positive outcomes. It is envisioned that, after reading this paper, employees will be able to evaluate their workplace, detect basic ergonomic problems, and correct those themselves or alternately approach management to conduct these assessments. Implementing ergonomic solutions can make employees more comfortable and increase productivity. Work-related MSDs can be prevented. Ergonomics helps lessen muscle fatigue, increases productivity, and reduces the number and severity of work-related MSDs.

7. MANAGERIAL IMPLICATION

Management commitment, in terms of attitude, managing in a diversified workplace, and the allocation of resources, is essential to the process of ergonomic management in the office. Management should prioritise initiatives to enhance employee wellness, and the stated guidelines provide management with specific actions or strategies which could be

implemented, based on the research results. It could be used by management as actionable insights for decision-making and ergonomic practices within the institution.

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