



## OFFICE WORK RELATED MUSCULO-SKELETAL DISORDER (OWRMSD) AMONG SECRETARIAL PROFESSIONALS IN EBONYI STATE GOVERNMENT ESTABLISHMENT

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### Abstract

*The study examined that office work related musculo-skeletal discomfort (WRMSD) among secretarial professionals in government establishment in Ebonyi State. Three research questions guided the study. The study adopted descriptive research design. The population of the study was 250 secretaries involving 107 males and 133 females' secretaries who worked in various offices in Government in Ebonyi State. There was no sample since the population is manageable. The instrument for data collection was structured question titled: "office work related musculo-skeletal disorder among secretarial professionals questionnaire (OWRMSDASPQ). Data collected were analyzed using mean and standard deviation. The findings revealed that lower and central back pain after work; knees and leg swelling while working; fingers, thumb, wrist, and arm pain; neck pain; eye and chest pain; body fatigue or tiredness after work; headaches during or after working at the computer; burning eyes; stress and depression; blurred vision when looking up from computer; stiffness in the hands; eyestrain; redness of eyes; double vision; numbness and coldness in the hands; driving/night vision after computer use; need to massage hands; shoulder pain and forearm pain are nature of office work related musculo-skeletal disorder among secretarial staff. The also revealed that the causes of office work related musculo-skeletal disorder among secretarial staff include: awkward posture; forceful exertion; strain contact pressure; exposure to vibration; exposure to intense heat or cold; repetitive movements; poor office layout; noise within office environment and lack of ergonomic chairs in office. The study further showed that providing good workstation for all office civil servants; providing break period while working in office; training office workers on good sitting and work posture in the office can help reduce office work related musculo-skeletal disorder among secretarial staff. Hypotheses tested shows that there is no significance difference in the mean responses of male and female male and female Male and female secretaries on office work related musculo-skeletal disorder among secretarial professionals, there is no significant difference in the mean responses of Male and female secretaries on the causes of office work-related musculoskeletal disorders among secretarial professionals and there is significant difference in the mean responses of Male and female secretaries on the strategies for reducing the office work-related musculoskeletal disorders. Based on the findings it was recommended among others that Government should adopt ergonomic guideline to create a suitable working environment that fit employee's physical capability in all government offices in Ebonyi state.*

**Keyword:** Office, Work Related Musculo-skeletal Disorder (MSDs), Secretarial staff



## **Introduction**

The modernization in different offices including government establishments has led to the introduction of information technology tools in the workplace. Office work is rapidly changing, as new developments in computer technology which make jobs easier are emerging. This emergence presents occupational health and safety problems for both management and employees who work in an office environment. Rapid technological developments in business organizations, especially in the use of electronic data, have affected both workers and the workplace. Electronic data are mainly displayed on visual display terminals. Briggs, Woolf and Karsten (2018) noted that improper body posture and long hours in front of these terminals can result in many health hazards, including eye strain and fatigue and musculoskeletal disorders (MSDs). [Fariborz, Mohammad, Sasan and Forouzan](#) (2018) noted that work-related musculoskeletal disorders (discomforts) are particularly common among office based civil servant who spend much of their time in the office, and secretarial staff are no exception.

Abdu, Ta, Sulzakimin (2017) describe office work related musculo-skeletal disorders/injuries in the context of office safety and health as the injuries and pains which occur to the office workers when exposed to various ergonomic risk factors in the office environment. Work related musculo-skeletal disorders are injuries and pains as a result of damage to soft tissues such as tendinitis or tenosynovitis or a situation of nerve compression leading to the development of Carpal Tunnel or Cubital Tunnel injuries. Okezue, Anamezie, John and John (2020) defined office musculoskeletal disorders (MSDs) as a wide range of inflammatory and degenerative conditions that affect the muscles, tendons, ligaments, joints, peripheral nerves, and supporting blood vessels. These include clinical syndromes such as tendon inflammations and related conditions (tenosynovitis, epicondylitis, bursitis), nerve compression disorders (carpal tunnel syndrome, sciatica), and osteoarthritis. Okezue et al (2020) revealed that MSDs are usually characterized by symptoms of body pain, paraesthesia, hand stiffness, leg swelling, eye redness, body weakness, tingling, and numbness. Fariborz et al (2018) stated that office work related musculo-skeletal disorders affect the neck, shoulders, arms, elbows, wrists, hands, back, legs, and feet. According to Bernard and Putz (2020), musculoskeletal disorders are named according to the body parts affected. The body regions commonly affected is the low back, neck, shoulder, forearm, and hand. According to Centre for Disease Control and Prevention USA (2017) Musculoskeletal disorders (MSDs) can affect the body's muscles, joints, tendons, ligaments, bones and nerves. Rajinder, Lakhwinder, and Neelam Moom (2015) also affirm that Work-related (MSDs) can affect shoulders, arms, elbows, wrists, hands, back, legs and feet. They are caused by forceful or repetitive movements or a poor working posture. Symptoms include tender-ness, aches and pains, tingling, stiffness and swelling. Lower and upper back pain and muscle spasm could be due to incorrect seating, which also affects the cervical spine and neck muscles leading to pain (Deepak, 2019). They are caused by forceful or repetitive movements or a poor working posture. Okezue, et al (2020) observed that body pain, muscle tightness, joint stiffness and swelling alongside other symptoms are work-related musculoskeletal disorders (WMSDs) among office based civil servant which secretarial staff is included and these could ultimately elicit a disability or career ending injury. Ify ThankGod & Adaravmola, (2016) also opined that proper placement of document, writing materials, monitor and key board for easy reach may be a guide for putting in place adequate control measures that could eliminate the prevalence of musculoskeletal disorders experienced by office based civil servants which secretaries is included.

According to National Secretaries' Association (NSA) cited in Ejeka (2017) secretary is defined as an individual who is employed as an office assistant that possess a mastery of office skills and abilities and has the ability to take responsibilities without much supervision; can exercises judgment and takes decisions within the limit of her authority. In this study secretary is also a person employed to handle correspondences, keep files, and do clerical work for another person or an organization. Secretarial staff is an individual who is employed in an organization for providing secretarial, clerical, and administrative support in order to ensure that services are provided in an



effective and efficient manner. He/she is expected to have a proficient knowledge in the following areas: office administration, an understanding of relevant legislation, policies and procedures. Bernard and Putz (2020) noted that the secretarial staff are prone to developing MSDs because of their job often involves prolonged sitting, awkward postures, physically demanding and stressful, long working hours, a repetitive task in front of computers without having adequate rest and recovery time. These injuries develop over time as a result of awkward or un-neutral posture, forceful exertion or strain contact pressure, exposure to vibration, exposure to intense heat or cold. Abdu, Ta, Sulzakimin (2017) opined that work related musculo-skeletal injuries among secretarial staff are being called by various names such as Musculoskeletal Disorders, Repetitive Stress Injuries (RSIs), Repetitive Motion Injuries (RMIs), (MSDs), Exertion Injuries, Cumulative Trauma Disorders (CTDs), or Cumulative Trauma Injuries (CTIs), Occupational overuse injuries. Work-related musculoskeletal injuries and pains are not fatal in nature but cause serious discomfort, disability and loss of productivity of secretaries.

Metgud (2018) studied musculo-skeletal as well as respiratory problems amongst women workers in commercial banks. The study showed that 91% of work related musculo-skeletal disorder pain among women working in commercial banks, but did not specify the nature of the condition, the causes and strategies to avoid this office health issues. Office Work-related musculoskeletal disorders have been investigated and reported to effect on office based civil servant from various sectors. These office based civil servant include secretarial staff, and computer operators/keyboard users. Das, Kumar and Sharma (2020) study also reported that office based civil servant are highly vulnerable to WMSDs with prevalence rates of 38.5% – 100%, and identified the neck, back, knees and upper limbs as the most affected body areas. Similarly, Pronk in Abdu (2017) stated that continuous looking at a computer screen by computer user has been proved to cause vision syndrome and upper back musculo-skeletal disorders. In the same vein, Sethi (2019) noted that improper designs of work furniture, office layout, lighting, office facilities, and poor sitting posture have been connected with various cases of musculo-skeletal disorders. This means the problem of WMSDs among office workers extends to Nigeria, as some studies have shown significant prevalence rates among those in the civil service. In Ebonyi state, office workers who play invaluable roles in various organizations including government establishment, have also been reported to be affected by WMSDs in several offices. A study conducted by Abdu, Seow, and Sulzakimin (2017) revealed that complaints of arms neck and shoulders (CANS) pains are common issues among the typists, secretaries, personal assistants, computer users and other related clerical activities in the governmental offices. This issue of work related musculo-skeletal complaints or disorders has a devastating, negative impacts on the overall workers' output and the organization productivity as a result of incessant absenteeism and loss of workers' productivity. However, there is limited information on WMSDs primarily regarding the diverse risk factors peculiar to local office staff in Ebonyi state. Although many studies have dealt with MSDs among office workers in other countries, the exact nature and prevalence of this important health problem has not been studied before in Ebonyi state. This study was formulated to fill the gap of knowledge in this area. The aims of the study were to assess the office work related musculo-skeletal disorder among secretarial staff in government establishment in Ebonyi State Nigeria.

### **Statement of the Problem**

Office work related musculo-skeletal disorder (WRMSD) is one of the office health problems facing the working population today, especially among the office based civil servants throughout the world. Secretaries who play invaluable roles in various organizations have been reported to be affected by this WRMSD. This is because, their job often involves prolonged sitting, awkward postures, physically demanding and stressful, long working hours, a repetitive task in front of computers without having adequate rest and recovery time. According to Abdu (2017) the issue of office work related musculo-skeletal discomfort among secretarial staff has devastating and negative impacts on the overall workers output and the organization in general as a result of incessant absenteeism and loss of secretarial productivity. However, information about work related musculo-skeletal disorder among



secretarial staff in government establishment is infinitesimal in Ebonyi state, Nigeria. It is also clear that there is a huge literature gap in the magnitude of work related musculo-skeletal disorder and associated factors among secretarial staff in Ebonyi state government establishment. Considering the above deficit with the stated high work related disorder among secretarial staff and current proliferation of government establishment in Ebonyi state, the need to obtain detailed data on this issue of work related disorder in order to understand the predicaments facing secretarial staff in the use of office technologies and help in the successful development of interventions or strategies to check these disorder. Identification of risk factors and magnitude of WRMSDs can help the government and non-governmental organizations working on occupational health and safety to modify the workplace design and adjust the working environment. Hence, this study sought to investigate the office work related musculo-skeletal disorder among secretarial staff in government establishment in Ebonyi State Nigeria.

### **Research Questions**

1. What is the nature office work related musculo-skeletal Disorders perceived by secretarial staff in government offices in Ebonyi state?
2. What are the causes of office work-related musculoskeletal disorders among secretarial professionals in Ebonyi State?
3. What are the strategies for reducing the office work-related musculoskeletal disorders among secretarial professionals in Ebonyi State?

### **Hypotheses**

The following null hypotheses was tested at 0.05 level of significance.

1. There is no significant mean differences between Male and female secretarial professionals on office work related musculo-skeletal disorder among secretarial staff in government establishment in Ebonyi State Nigeria
2. There is no significant mean differences between Male and female secretarial professionals on the causes of office work-related musculoskeletal disorders among secretarial staff in Ebonyi State
3. There is no significant mean differences between Male and female secretarial professionals on the strategies for reducing the office work-related musculoskeletal disorders among secretarial staff in Ebonyi State

### **Methods**

A descriptive design was utilized for this study. The study was conducted in Ebonyi State. Ebonyi State is a state in South Eastern part of Nigeria. The population for this study is two hundred and fifty (250) involving 107 males and 133 females' secretaries who worked in various offices in Government establishment in Ebonyi State. The entire population was used for the study; therefore, no sample size was drawn. A structured questionnaire "titled office work related musculo-skeletal disorder among secretarial staff questionnaire (OWRMSDASSQ)" was designed and used for data collection. The questionnaire was structured on 4 – point Rating scale. The instrument was validated by two experts in Business Education Department and 2 health professionals who corrected typographical errors and subsequently, agreed that it was properly constructed to achieve the objectives of the study. The questionnaire was made up of two parts, A and B. Part "A" was designed to elicit information on the background of the respondents while part B has three sections. In order to establish the reliability of the instrument, a pilot study involving 20 eligible office workers was conducted outside the studied area, and this yielded some positive feedback as the participants revealed that the instrument was clear, easy to understand and complete. These participants were later interviewed and their verbal responses matched those they had filled in the questionnaire, revealing its reliability. Their responses were correlated using Cronbach Alpha, a reliability co-efficient of 0.65 was established. Two hundred and fifty (250) copies of the questionnaire were distributed to



the respondents with the help of 4 trained research assistants only two hundred and seventeen (217) questionnaires were returned to the researchers, thus depicting a response rate of 83.5%. Mean and standard deviation were used to answer the research questions while t-test was used to test the hypothesis at 0.05 level of significance. Any item with a mean rating of 2.50 or above was regarded as accepted while mean rating less than 2.50 was regarded as not accepted. For the hypotheses, any item with t-calculated value greater than critical value was rejected; otherwise the hypothesis of no significant difference was accepted.

## Results

**Research Question One:** What is the nature of Office Work Related musculo-skeletal Disorders perceived by secretarial professionals in government offices in Ebonyi State?

**Table 1:** Mean and standard deviation scores of secretarial staff on the nature Office Work Related musculo-skeletal Disorders

S/N	Office Work Related Musculo-skeletal Disorders	Mean	SD	Decision
1	Lower and central back pain after work	3.40	1.08	Agree
2	Knees and leg swelling while working	2.70	1.00	Agree
3	Fingers, thumb and arm pain	3.30	0.90	Agree
4	Neck pain while working	3.20	0.75	Agree
5	Eye and chest pain after	2.90	0.94	Agree
6	Body fatigue or tiredness after work	3.50	0.54	Strongly agree
7	Hand stiffness	3.29	0.59	Agree
8	Wrist pain	2.93	0.96	Agree
9	Headaches during or after working at the computer	2.70	1.10	Agree
10	Burning eyes	3.29	0.59	Agree
11	Stress and depression	3.00	1.10	Agree
12	Blurred vision when looking up from computer	4.00	0.92	Strongly agree
13	Stiffness in the hands	3.57	0.49	Strongly agree
14	Eyestrain	3.40	0.49	Agree
15	Redness of eyes	3.40	0.49	Agree
16	Double vision	3.60	0.42	Strongly agree
17	Numbness and coldness in the hands	2.50	0.92	Strongly agree
18	Driving/night vision is worse after computer use	3.07	0.82	Agree
19	Need to massage hands, wrists and arms	2.90	0.94	Agree
20	Shoulder pain	3.64	0.61	Strongly agree
21	Forearm pain	4.00	0.01	Strongly agree

The Table 1 shows that the mean scores of respondents range between 2.50 and 4.00 which is above the criterion value of 2.49. This indicates that secretarial staff agreed on the items as the nature of office work related musculo-skeletal disorder experienced by secretarial professionals in government establishment in Ebonyi State

**Research question Two:** What are the causes of office work-related musculoskeletal disorders among secretarial professionals in Ebonyi State?



**Table 2:** Mean and standard deviation scores of secretarial staff on the causes of office work-related musculoskeletal disorders among secretarial staff

S/N	Causes of office work-related musculoskeletal disorders	Mean	SD	Decision
22	Awkward posture	2.59	1.21	Agree
23	Forceful exertion	2.71	1.24	Agree
24	Strain contact pressure	3.01	0.88	Agree
25	Exposure to vibration	3.08	0.99	Agree
26	Exposure to intense heat or cold	2.66	1.08	Agree
27	Repetitive movements	2.86	1.05	Agree
28	Maintaining the same position for long period	2.79	1.06	Agree
29	Working without back support of chair and job stress	2.90	1.13	Agree
30	Lack of ergonomic chairs in office	2.59	1.21	Agree

The Data presented in Table 2 revealed the responses of respondents on causes of office work-related musculoskeletal disorders among secretarial staff. All items have their mean values ranged from 2.59 to 3.08 which is above the criterion value of 2.49. This means that the respondents accepted that all the items are the causes of office work-related musculoskeletal disorders among secretarial staff

**Research Question three:** What are the strategies for reducing the office work-related musculoskeletal disorders among secretarial staff in Ebonyi State?

**Table 3:** Mean and standard deviation scores of secretarial professionals on the strategies for reducing the office work-related musculoskeletal disorders among secretarial staff in Ebonyi State

S/N	Strategy for reducing the office work-related musculoskeletal disorders	Mean	SD	Decision
31	Providing good workstation for all office civil servants	3.53	0.54	Strongly agree
32	Providing break period while working in office	3.59	1.55	Strongly agree
33	Training office workers on good sitting and work posture in the office.	3.55	1.42	Strongly agree
34	Providing swivel chair in office environment	3.63	1.42	Strongly agree
35	Providing precautionary measures aimed at accident prevention in office environment	3.41	1.35	Strongly agree
36	Repositioning yourself while working to release pressure on the nerve	3.60	1.42	Strongly agree
37	Engaging the services of office/medical experts to educate workers on the health implication of incorrect posture of work	3.58	1.39	Strongly agree
38	Organizing seminars and conferences on office ergonomics	3.56	1.42	Strongly agree
39	Putting ergonomic compliant chairs that are rotational and have adjustable height of 38-54cm	3.52	1.44	Strongly agree
40	Avoiding positions that put significant pressure on just one area of the body.	3.40	1.57	Agree
<b>Grand Mean</b>				

Data in table 3 shows that all the items have scores of respondents range between 2.50 and 4.00 which is above the criterion value of 2.49. This indicates that the respondents agreed that all the items



are the strategies office work related musculo-skeletal disorder among secretarial staff in government establishments in Ebonyi state.

### Test of Hypotheses

**Hypothesis One:** There is no significant mean differences between Male and female secretaries on office work related musculo-skeletal disorder among secretarial professionals in government establishment in Ebonyi State Nigeria.

**Table 4:** Summary of t-test Analysis of the Mean Responses of Male and Female secretaries on office work related musculo-skeletal disorder among secretarial professionals

Gender	N	Mean	SD	DF	T.cal	T. crit.	Remarks
Male	102	2.84	1.08	215	1.46	1.96	NS
Female	113	2.97	1.06				

The data in the Table 4 reveals that the calculated t-value of (1.49) is less than the critical t-value of 1.96 at 215 degree of freedom and 0.05 level of significance. This shows that there is no significance difference in the mean responses of male and female male and female Male and female secretaries on office work related musculo-skeletal disorder among secretarial professionals in government establishment in Ebonyi State Nigeria

**Hypothesis Two:** There is no significant mean differences between Male and female secretaries on the causes of office work-related musculoskeletal disorders among secretarial professionals in Ebonyi State

**Table 5:** Summary of t-test Analysis of the Mean Responses of Male and Female secretaries on the causes of office work-related musculoskeletal disorders among secretarial professionals

Gender	N	Mean	SD	DF	T.cal	T. crit.	Remarks
Male	102	2.53	1.13	215	0.23	1.96	NS
Female	113	3.09	1.14				

The results presented on Table 5 above shows that the t-calculated value 0.23 is less than 1.96 critical value ( $0.23 < 1.96$ ) at 0.05 level of significance, and 215 degree of freedom. This implied that there is no significant difference in the mean responses of Male and female secretaries on the causes of office work-related musculoskeletal disorders among secretarial professionals in Ebonyi State

**Hypothesis Three:** There is no significant mean differences between Male and female secretaries on the strategies for reducing the office work-related musculoskeletal disorders among secretarial staff in Ebonyi State

**Table 6:** Summary of t-test Analysis of the Mean Responses of Male and Female secretaries on the strategies for reducing the office work-related musculoskeletal disorders among secretarial professionals

Gender	N	Mean	SD	DF	T.cal	T. crit.	Remarks
Male	102	2.63	1.03	215	0.12	1.96	NS
Female	113	2.64	0.90				

The results presented on Table 6 above shows that the t-calculated value 0.12 is less than 1.96 critical value ( $0.12 < 1.96$ ) at 0.05 level of significance, and 215 degree of freedom. This implied that there is



significant difference in the mean responses of Male and female secretaries on the strategies for reducing the office work-related musculoskeletal disorders

## **Discussion**

The findings of the study regarding the research question one indicated that secretarial staff in government establishment agreed that the nature office work related musculo-skeletal disorder includes: lower and central back pain after work; knees and leg swelling; fingers, thumb, wrist, and arm pain; neck pain while working; headache, eye and chest pain; overall bodily fatigue or tiredness after work; back pain; hand stiffness; wrist pain; headaches during or after working; burning eyes; stress and depression; blurred vision when looking up from computer; stiffness in the hands; eyestrain; redness of eyes; double vision; numbness and coldness in the hands; driving/night vision after computer use; need to massage hands, wrists and arms; shoulder pain and forearm pain. This is in line with the report of Abdu, Seow, and Sulzakimin (2017) who noted that complaints of arms neck and shoulders (CANS) pains are common issues among the typists, secretaries, personal assistants, computer users and other related clerical activities in the governmental offices in Nigeria. Okezue, Anamezie, John and John (2020) observed that body pain, muscle tightness, joint stiffness and swelling alongside other symptoms are work-related musculoskeletal disorders (WMSDs) among office based civil servant which secretarial staff is included and these could ultimately elicit a disability or career ending injury. [Fariborz.Mohammad](#), [Sasan](#) and [Forouzan](#) (2018) noted that work-related musculoskeletal disorders (discomforts) are particularly common among office based civil servant who spend much of their time in the office. Pronk in Abdu (2017) stated that continuous looking at a computer screen by computer user has been proved to cause vision syndrome and upper back musculo-skeletal disorders among office based civil servant.

The findings in respect of the second research question shows that the respondents agreed that the causes of office work related musculo-skeletal disorder among secretarial staff in government establishment in Ebonyi state includes: awkward posture; forceful exertion; strain contact pressure; exposure to vibration; exposure to intense heat or cold; repetitive movements; maintain the same position for long period, working without back support of chair and lack of ergonomic chairs in office. This finding agreed with the view of Bernard and Putz (2020) who reported that the secretarial staff are prone to developing MSDs because of their job often involves prolonged sitting, awkward postures, physically demanding and stressful, long working hours, a repetitive task in front of computers without having adequate rest and recovery time. In the same vein, Sethi (2019) noted that improper designs of work furniture, office layout, lighting, office facilities, and poor sitting posture have been connected with various cases of musculo-skeletal disorders.

The study also show that providing good workstation in all workplace; providing break period while working in office; training office workers on good sitting and work posture in the office; training office workers on good sitting and work posture in the office; providing precautionary measures aimed at accident prevention in office environment; providing ergonomics opportunities within their office environment; engaging the services of office/medical experts to educate workers on the health implication of incorrect posture of work; organizing seminars and conferences on office ergonomics to civil servants learn about work posture and sitting position from time to time; providing ergonomic compliant chairs that are rotational and have adjustable height of 38-54cm and giving out periodicals, manuals or handbooks with guidelines on proper sitting/correct work posture are the strategies for reducing office work related musculo-skeletal disorder. The finding corroborates with the study of Cavalho, (2014) who suggested that all these health related activities in an office environment, the first step towards ensuring safety and health of the office workers and making the office environment sustainable and hazard free is to develop office ergonomics which will reduce hazards and dangers to the health of the office workers within the work environment. Ify ThankGod & Adaravmola, (2016) also opined that proper placement of document, writing materials, monitor and key board for easy reach may be a guide for putting in place adequate control measures that could eliminate the prevalence of



musculoskeletal disorders experienced by office based civil servants which secretaries is included. Briggs et al (2019) who noted that providing good workstation design is the strategy of MSDs in among office workers. The null hypothesis tested shows that there is no significant difference in the mean responses of Male and female secretarial staff on office work related musculo-skeletal disorder among secretarial professionals in government establishment in Ebonyi State.

### **Conclusion**

Occupational Health and Safety are critical health and developmental issues, especially in a growing economy like Nigeria where there is dearth of credible OHS data especially in the public sector. Almost every workplace, including informal small-scale enterprises and business in the formal sector, suffer from one or more hazards. Occupational hazards may have health consequences for both workers and for any other person in the proximity of a production process. This study concludes that secretaries suffered from different types of MSDs due to frequently exposure to certain risk factors, such as use of computers for a long period of time without any rest, using force when striking the keyboard, working with poor postures, remaining in the same position for long period of time with little or no movement, and working without back support of chair and job stress. The most vulnerable sites of pain were neck, finger, lower back muscles and shoulder. Based on this study results, it is imperative to educate secretarial staff on proper ergonomics and physical exercises in preventing occupational injury associated with the use of computer in office environment.

### **Recommendations**

Based on the findings from this study, the following recommendations are made:

1. Government should adopt ergonomic guideline to create a suitable working environment that fit employee's physical capability in all government offices in Ebonyi state;
2. Office-based civil servants including secretarial staff should be trained on ergonomic issues like giving awareness on the effect of bad posture, avoiding prolonged working in the same position, and promoting health and safety practice for secretarial staff may reduce the high prevalence of MSDs.
3. Government should provide adequate control measures to ameliorate or check MSDS disorder by organizing seminars and conferences to office-based civil servants on office ergonomics to learn about work posture and sitting position from time to time

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