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Promoting the Health and Well-Being of Senior Members at the University of Mines and Technology: Stressors and Their Mitigation

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Abstract:

The paper focuses on stressors and their mitigation on senior members at the University of Mines and Technology, Tarkwa, Ghana. It analyses factors such as anxiety, insufficient skills for the job, low self-esteem, prolonged fatigue, inadequate income and socio-economic status, irritability, prolonged illness or injury, heavy workload, tight deadlines, different and incompatible roles simultaneously, and the effect of prolonged stress. A purposive and descriptive research design approach was used to assess the variables. A structured questionnaire facilitated data collection from purposively selected 100 senior members teaching and non-teaching. The data obtained were analyzed with the aid of Stata version 16.0. Results of the study indicated that there were stressors associated with the job of senior members teaching and non-teaching. It was recommended that establishing a keep fit club, strengthening the University's Guidance and Counseling Unit to adequately play its role in psychotherapy for staff and students, and a system that tracks and follows up on treatment for injury and diseases will go a long way to mitigate these stressors.

Keywords: Stressors, mitigation, senior members, university

1. Introduction

Stress seems to be an ever-present phenomenon in everyday life. Therefore, it has become increasingly crucial that the causation of conditions and disease states be widened to include stress-related causes in clinical settings. Stress is a term usually used to describe the response to life demands throughout one's lifetime, and it is related to both positive and negative experiences. Stressors are agents that produce stress and may be physical, emotional, environmental, or theoretically induced (Brown & Campbell, 1990). According to Anisman et al. (1993), stressors or the psychological attributes of stressors may contribute to the provocation and/or the exacerbation of various illnesses.

Such illnesses include:

- Classical psychosomatic disorders,
- Immunologically related illnesses,
- Neoplasia,
- cardiovascular disease, and
- psychological disturbances such as depression

It is inferred that combined stressors can influence humans' physical and cognitive capacities. For example, caring for a terminally ill relative coupled with job demands can be highly stressful. Harvey et al. (2017), in examining the association between work-related stress and health-related quality of life, indicated that work-related stress is a serious occupational health problem. In a related study, Brown, and Campbell (1990) also opined that workers who are employed in police forces have been found to be exposed to a high risk of distress. In a similar vein, Corder (2013) indicated that

the risk of distress derives from their operational duties such as patrol activities, traffic control, criminal investigations, crime prevention, community services, and organizational tasks such as selection and management of personnel/human resources, training of new recruits, public information, record-keeping, and bureaucratic procedures. Gershon et al (2009) evaluated ways of coping with organizational and operational stressors and their effectiveness. The study reported that police officers cope with the distress caused by operational stressors by using their experience and also by adopting strategies that could be useful to decrease the perceived distress, such as active coping, social support, and positive reinterpretation of the situation. The hustle and bustle of life gives rise to more attention on stressors and their impact on health and well-being. Other research that sought to find ways to curb the evils of stressors has revealed that a good sense of humor is related to muscle relaxation, control of pain and discomfort, positive mood states, and overall psychological health, including a healthy self-concept (Deaner & McConatha, 1993; Hudak et al., 1991; Kuiper & Martin, 1993; Kuiper et al., 1992; Kuiper et al., 1998; Labbott et al., 1990; Martin et al., 1993).

1.1. Research Questions

- What are the stressors on Senior Members at the University of Mines and Technology?
- How can they be mitigated?

1.2. Objectives of the Research

The study aimed to assess stressors on Senior Members of the University of Mines and Technology and their mitigation. It specifically set out to:

- Assess stressors on Senior Members at the University of Mines and Technology
- Identify mitigation strategies

1.3. Hypothesis

It is hypothesized that there are no significant stressors on Senior Members of the University of Mines and Technology.

1.4. Related Literature

Stressors can be categorized as dangers or difficulties. A study by Iwasaki et al. (2001) examined the relationship between stress and health using structural equation modeling; they found physically active leisure to directly contribute to higher levels of physical health and well-being and lower levels of mental ill-health. Threat assessments occur when resources, such as knowledge, skills, and money are considered insufficient to deal with a stressor. When people believe they will gain from dealing with the stressor and believe they have the resources, evaluations occur. The relationship between stressors and results like well-being and health is mediated by cognitive appraisals (Lazarus & Folkman, 1987). Threat evaluations, in particular, are favourably correlated with psychological symptoms and adversely correlated with physical symptoms (Folkman et al., 1986).

Threat assessments are linked to physiological reactions that encourage fatigue and disease, such as an excess release of catecholamines and cortisol, whereas challenges assessments have less detrimental effects and foster productivity and focus (Frankenhaeuser, 1986; Benschop et al., 1996). An article published by Schneiderman et al. (2005) noted that acute stress responses in young, healthy individuals may be adaptive and typically do not impose a health burden. However, it is very threatening in older or unhealthy individuals where stressors' long-term effects can damage health. They revealed that the relationship between psychosocial stressors and disease is affected by the nature, number, and persistence of the stressors and the individual's biological vulnerability, psychosocial resources, and learned coping patterns.

Human resource management includes supervision of risk factors that impact employee health and well-being and productivity in the workplace (Becker & Smidt, 2016). The negative impact of work stressors is one area that is often undervalued by workers and by human resource management. According to Rahman (2013), a negative relationship exists between workplace stress and an employee's health. Working conditions such as tiredness, heavy workload, inadequate income, and insufficient job skills can cause stress, and these stressors frequently result in illness.

About 50 to 80 percent of all physical diseases are thought to have psychosomatic or stress-related origins (Rice, 1992). Stress symptoms can manifest physically or mentally. This is referred to as 'storing' stress either physically or mentally. Stress is frequently accompanied by bodily symptoms such as headaches, sore shoulder, backaches, etc. It might also pick up on stress indicators in thinking, acting, or mood. For example, an individual may become agitated and intolerant of even minor disturbances, lose their exhaustion all the time, worry excessively about unimportant things, and believe that opportunities are being missed because they cannot act quickly.

Many people recognize that maintaining stress-free habits is part of making healthy lifestyle choices; however, it can be surprisingly difficult to maintain stress-free habits, which can lead to negative consequences on long-term health.

1.5. Research Approach

The research design used to conduct the study was the descriptive survey design. The study aimed to describe stressors on teaching and non-teaching senior member in the context of the University of Mines and Technology and generalize the results to the large population of these categories of staff (Saunders et al., 2012; Williams, 2007).

The population of the study, which was the focus, involved Two Hundred and Twenty-Seven (227) teaching and non-teaching senior members. Out of them, a non-probability sample size of 100 teaching and non-teaching senior

members who have worked at the university for at least one year was used. This was because this category of staff was envisaged to be in a better position to share their perspectives of the variables as their job may be stressful given the extra workload aside from their normal routine jobs like teaching, research, administrative duties, and extension services. The main instrument used by the researchers to collect data was questionnaires. One hundred (100) questionnaires were administered, and 42 responses were retrieved. The data instrument had two parts: demographic information about the respondents and statements regarding stressors and mitigation strategies with a five Likert scale for respondents to indicate their extent of agreement or disagreement. The data was processed using Stata version 16; the results were descriptively analyzed and presented in tables for easy comprehension.

1.6. Study Setting

The University of Mines and Technology (UMaT), Tarkwa, was the site of the investigation. A 2004 Act of Parliament (Act 677) authorized the creation of UMaT as a publicly funded institution. A University Council, which is the University's top decision-making body, oversees the running of the University. The University has four Faculties and Three schools. The Postgraduate Studies School, the Railways and Infrastructure Development School, and the School of Petroleum Studies are the three schools. The Faculties consist of the Faculties of Engineering, Mining and Mineral Technology, Geosciences and Environmental Studies, and Integrated Management Studies. UMaT has fifteen academic departments with a workforce of six hundred and eight employees. Of this number, two hundred and twenty-seven (227) are teaching and non-teaching Senior Members.

2. Key Findings and Discussion

Variable	Non-teaching Staff		Teaching Staff	
	Frequency (n=27)	Percent (%)	Frequency (n=15)	Percent (%)
Age (Years)				
Mean \pm SD	44.43 \pm 7.99		44.07 \pm 10.55	
<40	8	29.6	6	40.0
40 – 49	8	29.6	4	26.7
50 - 59	7	26.0	5	33.3
Missing values	4	14.8	0	0.0
Designation				
Registry	14	51.9	-	-
Finance	4	14.8	-	-
Library	3	11.1	-	-
Internal audit	2	7.4	-	-
Others	4	14.8	-	-
Lecturer	-	-	7	46.7
Senior lecturer	-	-	3	20.0
Associate professor	-	-	3	20.0
Full professor	-	-	2	13.3

Table 1: Socio-demographic Characteristics of Respondents
Source: Field Survey, 2022

The survey revealed that 69.6% of senior members of the non-teaching and teaching workforce were below the age of forty (40) years. Furthermore, 56.3% of the participants were between the ages of forty and forty-nine (40-49) years, whereas 59.3% were between the ages of fifty to fifty-nine (50-59) years. This indicates that the dominant age group of senior member workforce was less than forty (40) years. The study further revealed that staff from all administrative units and teaching staff, from Full Professors to Lecturers, participated in the study, indicating a wide range of perceptions (Table 1).

Stressors Variable	Non-teaching Staff		Teaching Staff	
	Frequency (n=27)	Percent (%)	Frequency (n=15)	Percent (%)
Anxiety				
Mild	13	48.2	6	40.0
Moderate	11	40.7	5	33.3
Severe	3	11.1	4	26.7
Extreme	0	0.0	0	0.0
Insufficient Skills for Jobs				
Mild	12	44.4	7	46.7
Moderate	12	44.4	4	26.7
Severe	3	11.1	2	13.3
Extreme	0	0.0	2	13.3

Stressors	Non-teaching Staff		Teaching Staff	
Low self-esteem				
Mild	13	48.2	8	53.3
Moderate	11	40.7	4	26.7
Severe	3	11.1	2	13.3
Extreme	0	0.0	1	6.7
Prolong fatigue				
Mild	13	48.2	2	13.3
Moderate	11	40.7	6	40.0
Severe	3	11.1	3	20.0
Extreme	0	0.0	4	26.7
Inadequate Income and Socio-Economic Status				
Mild	8	29.6	4	26.7
Moderate	12	44.4	4	26.7
Severe	3	11.1	6	40.0
Extreme	4	14.8	1	6.6
Irritability				
Mild	17	63.0	4	26.7
Moderate	9	33.3	7	46.7
Severe	1	3.7	3	20.0
Extreme	0	0.0	1	6.6
Prolonged Illness or Injury				
Mild	13	48.2	4	26.7
Moderate	6	22.2	4	26.7
Severe	8	29.6	3	20.0
Extreme	0	0.0	4	26.7
Heavy workload				
Mild	17	63.0	3	20.0
Moderate	5	18.5	4	26.7
Severe	5	18.5	6	40.0
Extreme	0	0.0	2	13.3
Tight deadlines				
Mild	11	40.8	3	20.0
Moderate	9	33.3	3	20.0
Severe	7	25.9	4	26.7
Extreme	0	0.0	5	33.3
Different and Incompatible Roles at the Same Time				
Mild	8	29.6	5	33.3
Moderate	12	44.5	4	26.7
Severe	3	11.1	6	40.0
Extreme	4	14.8	0	0.0
Aware That Prolonged Stress Can Lead to Mental Health Problems				
No	4	14.8	1	6.7
Yes	23	85.2	14	93.3

Table 2: Stressors on Teaching and Non-Teaching Senior Members
Source: Field Survey, 2022

Table 2 shows that 48.2% of non-teaching and 40% of teaching staff have mild anxiety. Insufficient skills for jobs were also mild for non-teaching and teaching senior members. Almost half the non-teaching staff had mild low self-esteem accounting for 48.2%, while more than half (53.3%) of the teaching staff had mild low self-esteem. The survey recorded 48.2% mild prolong fatigue for non-teaching senior members with 40% for teaching staff.

The results also indicated that teaching senior members had severely inadequate income and socio-economic status while non-teaching staff had moderately inadequate income and socio-economic status. Regarding irritability, more than half of the non-teaching staff indicated mild irritability, while almost half of the teaching senior members indicated moderate irritability. Prolong illness or injury was mild among non-teaching staff, while teaching staff had partly mild (26.7%), moderate (26.7%), and extreme (26.7%). Non-teaching staff confirmed having a heavy workload (63%), whereas teaching staff had 33.3% of heavy workload. One of the respondents remarked as follows:

'Factors such as workload and stress can result in high blood pressure, increased heart rate, and raised blood sugar, and when these become chronic, it ends up producing negative results. That is the case for some senior members.'

Tight deadlines were mild among non-teaching staff (40.8%), while it was extreme for teaching staff (33.3%). Many non-teaching staff had moderate, different, and incompatible roles simultaneously, while teaching staff had a severe different and incompatible role simultaneously as per the results obtained. A whopping 85.2% and 93.3% of non-teaching and teaching senior members were aware that prolong stress can lead to mental health problems.

Mitigation Strategies	Non-teaching		Teaching	
	Frequency (n=27)	Percent (%)	Frequency (n=15)	Percent (%)
Keep Fit Club				
No	-	-	1	6.7
Yes	-	-	14	93.3
On-site Fitness Centre				
No	-	-	1	6.7
Yes	-	-	14	93.3
Vigorous Staff Counselling Support				
No	-	-	3	20.0
Yes	-	-	12	80.0
Individual coping strategies				
No	-	-	2	13.3
Yes	-	-	13	86.8

Table 3: Mitigation Strategies

Almost all respondents from teaching and non-teaching categories recommended the establishment of a keep fit club, an on-site fitness centre, as well as vigorous staff counseling support, and individual coping strategies as some of the strategies that the University can adopt to mitigate stressors on senior members.

3. Conclusion and Recommendations

The study clearly established that there were stressors associated with the job of the teaching and non-teaching senior members at the University of Mines and Technology. It is therefore recommended that the University takes steps to encourage senior members to give attention to recreational activities such as joining a keep fit club. It is also recommended that an on-site fitness centre should be built on campus to enable staff to access the services provided. The University's Guidance and Counseling Unit should also be well resourced to adequately play its role in psychotherapy for staff and students. Lastly, the University Clinic should consider building a system that tracks and follow up on treatment for injury and diseases to avoid prolong incapacitation and its attendant stress on staff.

4. Research Limitations and Directions for Further Research

The study was limited in terms of response rate. However, the findings have provided an insight into job-related stressors and measures that could be used to mitigate these stressors for greater productivity. A further study may be conducted for other categories of staff to complement this study and provide a basis for comparative analysis.

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