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ASSOCIATION OF NECK PAIN WITH STRESS, DEPRESSION IN MEDICAL PROFESSION

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ABSTRACT

Neck pain and associated psychological morbidities such as depression are the most common motivations for pursuing medical attention. It was found that 68.4% of the subjects having neck pain suffer from anxiety while 55.7% of these patients have depression. Among these subjects, the factors associated with psychiatric morbidities include cervicobrachial neuralgia, low level of education, and severity of the pain. Despite the established and expected relationship between these common comorbidities, temporal and causal directions and precise mechanisms connecting pain with psychological problems remain indescribable, mainly in developing countries. There is lack of evidence from developing countries on studying the association between neck pain and psychological morbidities.

CNS, or complaints of the arm, neck, and shoulder, refers to a wide range of upper limb and cervical nonacute and nonsystemic musculoskeletal problems that vary in intensity over time throughout clinical presentations.It has serious negative effects on people's and businesses' productivity and the economy for millions of computer users. Musculoskeletal issues of the arm, neck, and/or shoulder that are not brought on by acute trauma or other systemic disease constitute a well recognized definition of CANS, which was established through the application of a Delphi consensus technique. Studies have shown that a sizable population of office workers may be at risk for CANS based on data gathered from all over the world, particularly from industrialized nations. Increased computer usage brought on by fast industrialization and telecommunications drive has resulted in a rise in musculoskeletal pain complaints in emerging nations like Nigeria, Sudan, and Sri Lanka.

INTRODUCTION

Teachers in both industrialized and developing nations frequently have musculoskeletal pain (MSP). The incidence varied from 20% to 95%, according to earlier research [1-4]. The neck, shoulder, low back, and upper limbs were the most often reported MSP locations [1, 4]. A recent systematic review, however, indicated that there is currently a dearth of studies on MSP among teachers; this is especially the case in Malaysia. There are just three MSP studies that we could find that evaluated low back pain (LBP) in Malaysian school teachers [5-7]. Individual, physical, and psychological variables were among the multiple origins of MSP among school teachers, according to the same comprehensive research [1]. Increasing age and female gender were two of the individual characteristics that were found to have a favourable

correlation with MSP. In the meanwhile, prevalent work-related physical issues were bad posture, improper workstations, lifting, and carrying heavy goods. High psychological job demands, little workplace control, and little social support were shown to be the work-related psychosocial components."

Keyword: Cervical Spine, Psychological Anxiety, Thyroid Gland, Parathyroid Gland, Esophagus, Larynx, Trachea, Lymph Glands, Veins, Arteries, and Neck Muscles

According to research on the cervical spine, psychological conditions including anxiety, depression, kinesiophobia, and catastrophizing are linked to persistent neck discomfort. These psychological conditions are thought to trigger a series of physiological reactions that increase pain and disability perception. Due to movement and exercise avoidance or restricting from daily activities, the same eight psychological states might also subtly worsen patients' symptoms.As theseZacharias Dimitriadis is the correspondent. He may be reached at TEI Lamia, Department of Physiotherapy, 3rd kilometer O.N.R. Lamia-Athens, 35100, Lamia, Greece. Research indicates that individuals with psychiatric disorders who suffer from persistent neck discomfort could feel worse about their illness. The presence of increased degrees of pain and impairment in musculoskeletal pain problems is thought to be connected with anxiety, one of the most significant psychological states. A small association was seen between anxiety and pain severity, according to Bru et al. Luo et al. also discovered a similar association between anxiety and neck pain impairment after recruiting a sample composed primarily of individuals with idiopathic chronic neck pain. Leino and Magni discovered that, five years after the first evaluation, the presence of stress symptoms is a significant predictor for the emergence of neck/shoulder discomfort. . Although the results of several research may not always agree with one another, depression also appears to be associated with neck discomfort and impairment. There is a slight association between neck pain impairment and depression. [(3)]

In general, and particularly among computer professionals, neck discomfort is a prevalent health issue. In office workers, prolonged static working positions certainly contribute to low-threshold motor unit activity and subsequent musculoskeletal problems of the neck and shoulder. Most people have experienced some degree of neck discomfort at some point in their lives. The bone components of the neck's vertebrae, which encircle the spinal cord and canal, are seven in number. Discs rest between each vertebrae, and the neck's nerves are located close by. The thyroid gland, parathyroid gland, esophagus, larynx, trachea, lymph glands, veins, arteries, and neck muscles are among the structures found in the neck. Neck discomfort can be caused by illnesses or ailments that impact any of these neck tissues. SThe curvature of the cervical spine forms a "C" and opens at the rear. Because the line of cumulative loading of compressive forces is posterior to the center of the vertebral bodies, a significant portion of weight bearing in a healthy cervical spine with a moderate degree of lordosis occurs on the zygoapophyses. The disc experiences a greater change in superimposed weight when the cervical curve flattens·

Workload, role ambiguity, role conflict, and lack of accountability were among the stressor factors. Absence of understanding, Two scores measuring work-related stresses were: meaninglessness of work and uncertainty about future employment. Because the line of cumulative loading of compressive forces is posterior to the center of the vertebral bodies, a significant portion of weight bearing in a healthy cervical spine with a moderate degree of

lordosis occurs on the zygoapophyses. The disc experiences a greater change in superimposed weight when the cervical curve flattens. Workload, role ambiguity, role conflict, and lack of accountability, as well as ignorance, were stressor factors. Two scores measuring work-related stresses were: meaninglessness of work and uncertainty about future employment.Psychological and health problems, job discontent, and cognitive anxiety were the two categories into which work-related psychological stresses were divided. Absenteeism, as determined by self-reporting the number of days missed from work during the previous year, was also taken into consideration.

OBJECTIVE: to associate of neck pain with stress, depression in Medical Profession.

MATERIAL AND METHODS: An electronic database search, title and abstract search was conducted between 2006 to at present using Google Scholar, PubMed, Physiotherapy Evidence Database (PEDro) and Cochrane database. The study was double checked and the review used only full-text papers. A total of 14 studies were chosen to associate of neck pain with stress, depression in Medical Profession.
This study was ethically approved by ethical committee (BMU/FTP/203).An electronic database search, title and abstract search was conducted between 2006 to at present using Google Scholar, PubMed, Physiotherapy Evidence Database (PEDro) and Cochrane database. The study was double checked and the review used only full-text papers. A total of 14 studies were chosen to associate of neck pain with stress, depression in Medical Profession.

1. B.A.tella, .A.M. akinfeleye, S.N. oghumu, A.R. Adeleye. 2020. In Surulere Local Government Area, Lagos, Nigeria, 260 bankers whose primary work task involved using desktop computers participated in a cross-sectional survey administered by Maastricht. The survey comprises 95 items divided into seven main domains that assess physical and psychological risk factors related to work stations, posture at work, quality of break time, job demands, job control, and social supports. It also raised concerns on the standard of the workplaces and the frequency of CANS. Descriptive statistics of frequencies and percentages were used to summarize the data, and at a significance threshold of $P<0.005$, the Chi-square statistic was used to examine the relationship between CANS and psychological and physical risk factors. A prevalence rate of 70% for Cans was found after a year. While a bad work environment was strongly linked to the occurrence of CANS, poor body posture was considerably linked to symptoms involving the shoulder and lower arm. Body posture, job demands, and work environment are physical and psychological risk factors linked to the incidence of CANS in Nigerian bank workers. (1)
2. E.N.Zamiri, F.M. Moy, V.C.W. Hoe (2017) This cross-sectional survey was carried out among Malaysian teachers in the state of Penang. Two stages of sampling were used to find the participants. A self-administered questionnaire was used to gather data on demographics, psychological distress, work-related psychosocial variables, and musculoskeletal pain (LBP and NSP) within the previous 12 months. The prevalence ratio (PR) for the relationships between psychological distress and work-related psychosocial variables with LBP and NSP was calculated using poisson regression.(2)

3. Zacharias dimitriadis, eleni kapreli,nikolaos strimpakos, Jacqueline ann Oldham.2015. The purpose of this study was to look at the relationship between self-reported pain and disability and the psychological states (catastrophizing, kinesiophobia, sadness, and anxiety) of individuals with chronic idiopathic neck pain.Participating were 45 individuals with idiopathic persistent neck pain (greater than 6 months, at least once a week). The Hospital Anxiety and Depression Scale, the Pain Catastrophizing Scale, and the Tampa Scale for Kinesiophobia were used to evaluate their psychological states. The Neck Disability Index was used to capture self-reported disabilities. A visual analog scale was utilized to capture the level of pain.Anxiety and neck discomfort severity had a strong correlation ($p<0.05$). There was a substantial ($p<0.05$) correlation found between disability and catastrophizing, sadness, and anxiety. Anxiety and catastrophizing can be important predictors of pain-induced impairment, according to multiple regression analysis.[(3)]
4. Veerle de loose, Frederic Burnotte, Barbara cagnie, Veerle stevens, commandant Damien van tiggelen, Belgian defense. 2008. A uniform survey instrument was employed to gather private data. Measurements were taken of the cervical range of motion, the maximal isometric neck flexion/extension and lateral flexion strength, and the neck position sensation.Regarding neck position perception and neck muscular strength, there were no appreciable variations between pilots in good health and those experiencing neck discomfort. Compared to the healthy pilots, the neck pain group showed a restricted CROM in the transversal plane (155 degrees; CI: 140 degrees-170 degrees) and sagittal plane (130 degrees; 116 degrees-144 degrees).In order to identify deficiencies and, if required, execute retraining programs, we tested for a variety of motor skills in the current study. Our findings suggest that customized retraining regimens may lessen neck discomfort; hence, a comprehensive training program should be put in place to ensure an appropriate active CROM. Future research ought to look at how successful these kinds of programs are. se. There was a minimal CROM in the sagi for the neck pain group.[(4)]
5. Sneha Hiren Bhalala,Prevalence of neck pain in computer workers in surat city: a cross-sectional study. 2019cross-sectional investigation on neck discomfort in people aged 20 to 50 who work as computer workers.Procedures and Content: It was a cross-sectional study. After providing written informed permission, 100 computer workers—81 men and 19 women—who should be working on computers for at least three hours every day at various Surat-based companies were polled using a semi-structured questionnaire that included the Neck Disability Index.Findings: According to this study, 55% of adults between the ages of 20 and 50 experience mild to moderate neck pain.[(5)]
6. Gabriele Giorgi, giulio arcangeli, milda perminiene, Chiara lorini, Antonio ariza-montes, Javier fiz-perej, annamaria di Fabio, Nicola mucci. 2017. The objective is to evaluate the phenomenon's scope and the extent to which it directly connects to bank organizational procedures. In order to better understand the phenomena as it pertains to this particular group of workers, we conducted a review of the literature and chose the key research that address work-related stress in the banking industry. The MEDLINE®

database was searched, and a total of 20 articles were selected. Every study agreed that stress levels in the banking industry are at an all-time high and that these levels might negatively impact employees' psychological and physical health as well as organizations. The majority of research revealed that stress was a contributing factor in the rise in mental health issues in the banking industry. Examples started with despair and anxiety, continued with maladaptive behaviors, and concluded with burnout from one's employment.(6)

7. T korhonen, R ketola, r toivonen, R lucckkonen, M hakkanen, E viikari-huntura.2003. Workers use video display units (VDUs). Both the baseline survey from 1998 and the follow-up survey from 1999 were addressed to employees in three administrative units of a medium-sized city in Finland. The trial group consisted of healthy patients who had reported neck discomfort for less than eight days in the previous year, with a response rate of 81% for the baseline. A year later, 78% of respondents had finished the follow-up questionnaire. Those who reported neck pain for at least eight days in the 12 months before were considered incident neck cases. 34.4% of people reported having neck discomfort annually. Neck discomfort was more likely to occur in poorly designed workspaces and in poorly positioned keyboards. Female sex stood up as a significant predictor among the individual components. There was a propensity to associate smoking with a higher incidence of neck discomfort. activity and psychological stress interacted, with individuals who experienced more psychological stress and less physical activity being at a heightened risk. (7).
8. Pooja R Parikh, T. Kanna Amarnath.2021. The purpose of this study was to look into the connection between computer workers' neck discomfort and anxiety and depression. Methodology: Using Google forms and interview techniques, 154 computer professionals (aged 20 to 60) completed and submitted the "Hospital Anxiety and Depression Scale (HADS)" and the "Neck Pain and Disability (NPAD) scale." Result: SPSS version 20 was used for statistical analysis. The Spearman's test was utilized to examine the association between the outcome measures. A significant positive link was seen between neck pain and sadness as well as between neck pain and anxiety. In conclusion, this study showed a significant positive link between neck pain and melancholy as well as between anxiety and neck discomfort. (8)
9. Xuemei Luo, Christopher L. Edwards, William Richardson, Lloyd Hey. 2004. The aim of this research was to investigate the associations between clinical, psychological, and individual characteristics and the functional status of patients with neck pain by utilizing both general and disease-specific functional measures. For this investigation, a thorough computerized survey questionnaire was employed to gather data. Additionally, a disease-specific measure called the Neck Disability Index (NDI) and a general measure called the Short Form 12-Item Survey (SF-12) were included in the questionnaire. The links were investigated using multiple regression analysis and correlation.more levels of neck discomfort, back pain, pain in the arm or shoulder, not working, poorer education, more stress, the presence of depression or anxiety, and smoking were among the factors that predicted a higher NDI.The distinctions between the

generic and disease-specific measures in terms of their corresponding correlations with targeted variables should be taken into account when choosing the most appropriate functional measures for an intervention research. (9).

RESULT: According to a data search from 2010 to at present roughly fifteen free full articles suggest that ergonomics advice that is affected in chronic neck pain.

CONCLUSION: Patients with neck pain with stress, anxiety and depression experience psychological states which are associated with their pain and disability. Anxiety, casastrophizing and depression seem to the psychological stress which are mostly associated with the self-reported disability, whereas anxiety is also associated with pain intensity of patients with idiopathic chronic neck pain.

Subjects were aged 30-60 years. They worked as Medical profession and spent 3-6 hours on the computer/mobile screen each day. In the past 1 year, this study found highest pravelence of complaints in the Neck, followed by the shoulder, wrist and the hand.It is reported that pain in neck with stress, anxiety and depression among teaching, banking and medical profession whose working job with standing/sitting both.It is calculated with Neck disability indesx (NDI) and Four dimensional symptom questionnaire (4DSQ) scale.In our study , there was an increasing trend in the proportion of both NDI & 4DSQ with increase in the score of self reported depression and anxiety.Depression and anxiety are considered as an internalizing type of psychological distress.Some researchers suggested the association of psychological distress might be due to the influence of work-related psychological distress. All thress factors in the domain, including stress, anxiety and depression, demonstrated significant association with the NDI and 4DSQ.

Five studies were conducted in europe, nine in asia, four in america and two in africa. Many differences occurred between contries and ethnicities as regards to cultural charctistics and the approach to work-related stress, that result in different riskperception and evaluation (Zoni and Lucchini 2012; Capasso.et,al. 2016.

All studies in this review show that workplace stress is a critical banking sector issue with poyentially negative effects on workers and organizations, psychological and physical health. Most of the studies showed increases in mental health problems in the sector which were closely related to stress at work.Authors have used a number of different parameters to investigate banking sector a number of different parameters to investigate banking sector jon stress: some (silva and Barreto, 2010,2012; Snorradottir et al. 2013

Valente et al. 2015. Showed that working roles seen as high strain, low social support, high effort/low reward and high over-commitment correlated strongly with depressive stmptoms both major and lesser.

Michailidis and Georgiou 2005, Looked for factors contributing to occupational stress for employees in this sector, and identified the degree of occupational stress experienced by people in different groups. Evidence was presented educational levels, family support and drinking habits had an effect on the degree of stress experienced, while Ahmad and Singh 2011,assessed

how far occupational stresss and certain biographical variables in a sample of indian bank employees influenced employees perceived reactions to organizational change (OC)

Patients with neck pain with stress, anxiety and depression experience psychological states which are associated with their pain and disability. Anxiety, casastrophizing and depression seem to the psychological stress which are mostly associated with the self-reported disability, whereas anxiety is also associated with pain intensity of patients with idiopathic chronic neck pain.

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