Publisher homepage: www.universepg.com, ISSN: 2663-7529 (Online) & 2663-7510 (Print)

https://doi.org/10.34104/ejmhs.023.01690174

European Journal of Medical and Health Sciences

Journal homepage: www.universepg.com/journal/ejmhs

Incidence of Cervical Pain in Bank Workers of Jalalabad City Afghanistan

Farhad AwalKhail[1]* and Samsoor Walizada[2]

[1]Department of Orthopedic, Medical Faculty, Nangarhar University, Afghanistan; [2]Department of Neurosurgery, Medical faculty, Nangarhar University, Afghanistan.

*Correspondence: dr.farhadawalkhil@gmail.com (Dr. Farhad AwalKhail, Lecturer, Department of Orthopedic, Medical Faculty, Nangarhar University, Afghanistan).

ABSTRACT

Neck pain is pain that starts in the neck and can be associated with radiating pain down one or both of the arms. Neck pain can be caused by a variety of conditions or diseases that affect any of the tissues in the neck, including nerves, bones, joints, ligaments, and muscles. The cervical spine, or neck portion of the spinal column, is made up of seven bones (C1-C7) that are divided from each other by intervertebral discs. During exercise, these discs allow the spine to move freely and function as shock absorbers. Up to 75% of individuals will have neck discomfort at some time in their lives. Bank workers face this problem due to their workplace in relation to computer use and prolonged hours of working. An observational study is done in 150 bank workers from different banks of Jalalabad city. Participants completed a well-tested questionnaire and data was analyzed by Ms office excel program. In analysis, neck pain is dependent variable and age, height and BMI are independent variables, Results shows that Male frequency in bank is 150 and percentage is 100 because according to our community female are not allowed by their families to work in bank. These findings show that neck pain may be associated with type of job, design of work station and job demand (Hogg-Johnson S, 2009; Ariëns GA, 2002; Côté P, 2004). The study aims to find the appearance of pain in the neck v among bank workers of different private and governmental banks also exploring association of different posture, work hours and different mode of setting with neck pain among Bank workers. All the findings of this study strongly supports the hypothesis that neck pain is common in bank workers and showed association with posture of setting, work hours, continuous working hours, type of chairs.

Keywords: Incidence, Cervical pain, Jalalabad city, Bank workers, BMI, Neck pain, and Chronic disability.

INTRODUCTION:

Arthritis, disc degeneration, spinal canal constriction, muscular inflammation, strain, or trauma can all lead to neck discomfort. Rarely, it could be a symptom of meningitis or malignancy. A primary care physician and sometimes a specialist, such as a neurosurgeon, should be consulted in order to establish an appropriate diagnosis and prescribe therapy for major neck issues (Sweta KM, 2018; Jakhotia KA, 2015; Hanvold TN, 2010). Age, accident, bad posture, or illnesses such as arthritis can cause deterioration of the cervical spine's bones or joints, resulting in disc herniation or bone spurs. Sudden severe neck injury may also lead to disc herniation, whiplash, blood vessel damage, spinal injury, and, in severe cases, irreversible paralysis. Herniated discs or bone spurs can cause the spinal canal, or the tiny apertures through which spinal nerve roots leave, to constrict, exerting pressure on the spinal cord

or nerves. Because practically all nerves to the rest of the body must travel via the neck to reach their final destination (arms, chest, belly, legs) pressure on the spinal cord in the cervical area can be a major problem. This has the potential to impair the function of numerous vital organs. Pressure on a nerve can cause numbness, discomfort, or weakness in the arm region served by the nerve (Côté P and van der Velde G, 2009; McLean SM, 2010; Grimby-Ekman, 2009).

In the working population in their systematic literature review reported. That risk factors associated with neck pain included age, Previous musculoskeletal pain, high quantitative job Demands, low social support at work, job insecurity, low Physical capacity, poor computer workstation design and work posture, sedentary work position, repetitive Work and precision work. However, in bank workers' only cross-sectional studies have been previously conducted on factors associated with neck and upper extremity pain. Computer use is very common among bank workers and some epidemiological studies hassle been published with regard to its relation to onset of neck pain (Souchard P, 2003; Marques AP, 2000; Zahid FM, 2013). A neurosurgeon makes a diagnosis based on the patient's history, symptoms, physical examination, and, if required, the findings of diagnostic investigations. If medicine and physical therapy are inadequate, some individuals may be treated conservatively before undergoing imaging investigations. Among these tests are

1) Computed Tomography Scan (CT or CAT scan)
2) Discography
3) Electromyography (EMG)
4) Nerve Conduction Studies (NCS)
5) Magnetic Resonance Imaging (MRI)
6) Myelogram
7) Selective Nerve Root Block
8) X-rays

The majority of causes of neck discomfort are not life threatening and can be resolved with time and conservative medical care. Determining a therapeutic plan is primarily dependent on determining the location and origin of the pain. Although neck discomfort can be debilitating and agonizing, nonsurgical treatment can relieve many of the symptoms. The doctor may prescribe drugs to relieve pain or inflammation, as well as muscle relaxants to give the body time to recuperate. Reducing physical activity or wearing a cervical collar may assist give spinal support, minimize movement, and lessen discomfort and irritation. Trigger point injections, which include corticosteroids, can provide temporary pain relief. Epidural steroids are occasionally prescribed. Conservative therapy approaches may be used for another six to eight weeks.

Seek medical assistance right once if the patient has any weakness or numbness in the arms or legs. If the patient has been injured and is now experiencing neck discomfort, weakness, or numbness, an urgent visit with a neurosurgeon is advised (Côté P, 2009; Cervone M, 2018; Sweta KM, 2018). When non-surgical treatments for neck discomfort fail to offer relief, surgery may be required. Patients may be candidates for the surgery if they meet the following criteria

1) Conventional treatment is ineffective.
2) The patient has decreased function owing to chronic pain;
3) The patient has increasing neurological symptoms involving the arms and legs;
4) The patient has problems with balance or walking; and
5) The patient is otherwise healthy.

MATERIALS AND METHODS:

A cross sectional study was carried out among the 150 participants who were enrolled in the bank working. Demographics and the pain onset were two of the questions on a self-made questionnaire that the participants were required to answer. The social sciences statistical program MS Office Excel was used to analyze the collected data. The design of this study was an Observational cross sectional study. This Study was conducted at different bank of Jalalabad city from 02/02.020 up to 02/08/020. For six months. The Bank workers were included in the study. The 150 bank employees from different banks in the city of Jalalabad made up the study's sample. This study was carried out within six months following the synopsis's clearance. The technique of purposive sampling was employed.

Inclusion Criteria

1) Both Governmental and Private bank workers selected who are involved in desk job.
2) All age group was selected.

3) Subject who were willing to participate in the study.

Exclusion criteria

1) Subjects who had thyroid problem- the thyroid problem causes muscle weakness
2) Subjects who had cancer problem- this problem causes a general sense of discomfort. Pains with neck Muscle twitches and cramps. These sign symptoms are similar as neck pain symptoms.
3) Subjects who had major accident or the major surgery in any part of the body- It any major surgery or the accident may cause pain or any discomfort in any part of the body which may be not neck pain. This can mislead the result of the study.

Participants will complete a well-tested Questionnaire. Clinical parameters like pain, disability due to pain, mobility and functional status of back will be collected through these questions. All data analysis was performed using statistical software SPSS 20.0 version. In the analysis, low back pain is dependent variable and age, height, and BMI are independent variables.

Table 1: Age of participants.

		Frequency	Percent	Valid Percent	Cumulative Percent 58.0
	20-30	87	58.0	58.0	
	30-40	42	28.0	28.0	86.0
	40-50	11	7.3	7.3	93.3
Valid	50-60	9	6.0	6.0	99.3
	Total	150	100.0	100.0	

The result show that age of participant between 20-30 has frequency 87and percentage is 58.0. The age of participant between the 30-40 has frequency 42 and percentage 28.0. The age of participant between 40-50 has frequency 11 and percentage 7.3 for the age of participant 50-60.

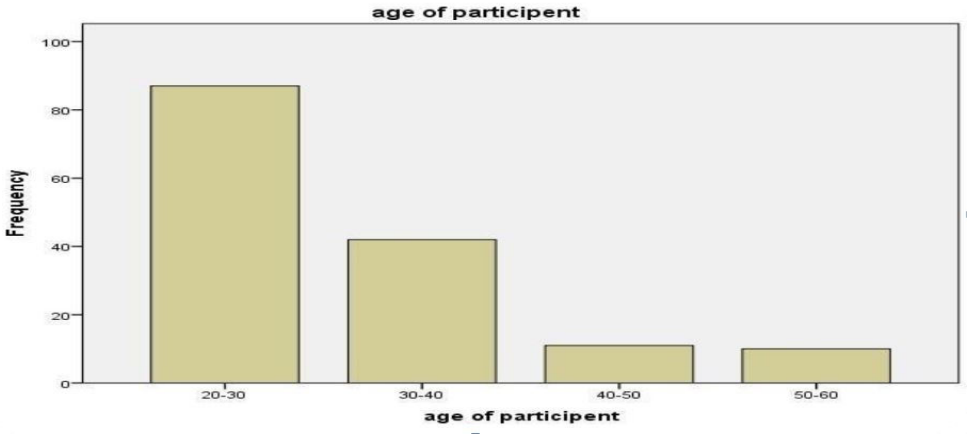

Fig. 1: Age of participants.

The respective bar chart analysis state that frequency of the age of participant between 20-30 is above 80. The frequency of age of participant between 30-40 is between 40-45. The frequency of age of participant between 40-50 is below 20. The frequency of age of participant between 5060 is also below 20.

Table 2: Experience of participants.

		Frequency	Percent	Valid Percent	Cumulative Percent
	1-5 years	82	54.7	54.7	54.7
	6-10years	31	20.7	20.7	75.3
Valid	11-15years	18	12.0	12.0	87.3
	above 15 years	19	12.7	12.7	100.0
	Total	150	100.0	100.0	

The result show that the job experience of participant between 1-5 year has frequency 82 and percentage is 54.7. The job experience of participant between 6-10 years has frequency 31 and percentage 20.7. The job experience between 11-15 year has frequency 18 and percentage is 12.0. The job experience above 15 years has frequency 19 and percentage is 12.7. The total frequency is 150 and percentage is 100.

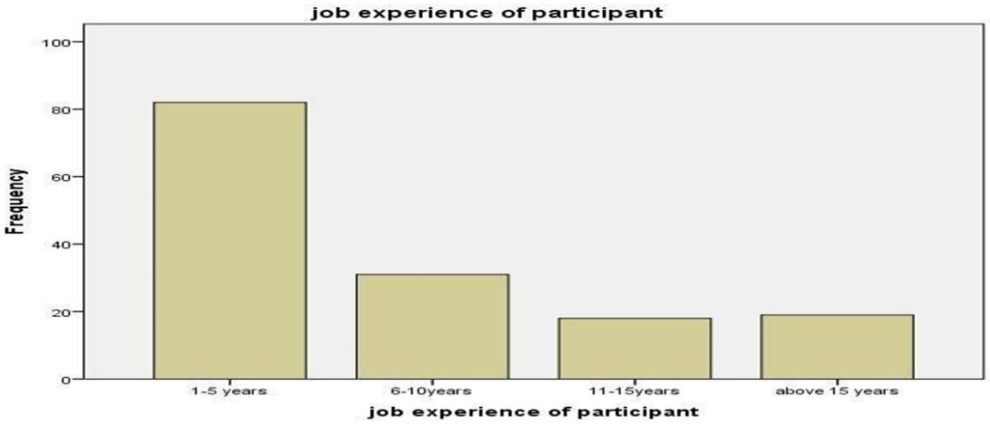

Fig. 2: Job experience of participants.

The respective bar chart state that the frequency of job experience of participant between 1-5 year is 80. The frequency of job experience of participant between 6-10 year is 20-40. The frequency of job experience between 1115 year is 20. The frequency of job experience above 15 years is between 20-25.

Table 3: Experience Work Related Pain or Discomfort in Your Neck.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	112	74.7	74.7	74.7
Valid	No	38	25.3	25.3	100.0
	Total	150	100.0	100.0	

The result shows that frequency of experience work related pain in neck is 112 and percentage is 74.7. The frequency of not experience work related pain in neck is 38 and percentage is 25.3.

Fig. 3: Experience work related pain or discomfort in your neck.

The respective bar chart states that frequency of experience work related pain is above 100 and the frequency of not experience work related pain is 40.

DISCUSSION:

The prevalence of neck pain was 74.7% among the bank workers. The prevalence of neck pain was higher

among male bank workers at 71.3% than female workers. The highest prevalence was found among computer users 72.7%. The most vulnerable age of neck pain was 20 to 30 years. 56% neck experience participants said that their working performance reduced due to neck pain. The neck pain is mostly cause due to static loading and repetitive work. All risk factor performing (Silva AG, 2009; Fejer R and Kyvik KO, 2006; Breivik H, 2006; Rana *et al*., 2021) excessive working same position for long period, performing manual techniques, working in awkward bending or twisting back in awkward way, not having enough break during day, continuous work when injured and in adequate training in injury prevention are responsible for their neck pain. Working in a same position for long period, performing same task over and over were the common risk factor of neck pain. There is a relationship between neck and posture of the bank worker. This is mostly due to unequal demand and work load. Among the bank workers the neck pain prevalence is very high with the poor ergonomics and work station such as in appropriate location of mouse, screen and keyboard.

The work station design, typing, repetitive movement, postural attributes, and working posture are the known neck pain risk factor. To prevent repetitive strain injury proper agronomics design is necessary.

CONCLUSION AND RECOMMENDATIONS:

The finding of this study suggested that neck pain prevalent among bank workers at Jalalabad city; this may be associated with the type of job work, station, design and job demand. There are few studies on bank workers. These cannot cover all aspects of the vast area. So, the next generation of physiotherapy members should continue study regarding this area, this may involve use of large sample size and participant of different bank of Jalalabad city. The study was conducted among the bank workers of Jalalabad city Nangarhar Province. In future the studies should be conducted in other working places too in detail as well, in order to analyze the factors and predictors of neck pain.

Limitations

The study was conducted among the Nangarhar Jalalabad city bank workers only in male gender, in future the study should be conducted in other places too which are working in front of table and setting in chairs and also in female gender.

Ethical Concern

As the approval was taken from the Department of Nuriosrugery and Orthopedic, Nangarhar University Medical Faculty. Informed consent was taken from participants containing that their participation is voluntary, their information will be kept confidential and anytime they can leave the study, after that the preform was filled for data collection.

ACKNOWLEDGEMENT:

We are grateful to all the Dear Professors and the participants for providing their information regarding this research.

CONFLICTS OF INTEREST:

The authors declare there are no conflicts of interest.

REFERENCES:

1) Ariëns GA, Bongers PM, and Van Mechelen W. (2002). High physical and psychosocial load at work and sickness absence due to neck pain. *Scandinavian journal of work, environment & health*, 222-31. https://doi.org/10.1080/14034950410021862
2) Breivik H, Collett B, and Gallacher D. (2006). Survey of chronic pain in Europe: prevalence, impact on daily life, and treatment. *European journal of pain*, **10**(4), 287333.
3) Cervone M, Neville C, (2018). Mula Bandha and Raising Awareness about Pelvic Floor Dysfunction *J. of Yoga and Physiotherapy*, **4**(5).
4) Côté P, Cassidy JD, and Kristman V. (2004). The annual incidence and course of neck pain in the general population: a population-based cohort study. *Pain*, **112**(3), 267-73. https://doi.org/10.1016/j.pain.2004.09.004
5) Côté P *et al.* (2008). The burden and determinants of neck pain in workers. *European spine journal*, **17**(1), 60-74.
6) Côté P *et al.* (2009). The burden and determinants of neck pain in workers: results of the Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. *J. of manipulative and physiological therapeutics*, **32** (2), S70-S86.

7) Fejer R, Kyvik KO, Hartvigsen J. (2006). The prevalence of neck pain in the world population: a systematic critical review of the literature. *European spine journal*, **15**(6), 834-48. 6. https://www.unboundmedicine.com/medline/citation/15999284/abstract/The_prevalence
8) Ferreira M, Mariana Saavedra M, Santos P, (2018). Yoga therapy in pregnancy. *J. of Yoga and Physiotherapy*, **4**(1).
9) Grimby-Ekman A, Andersson EM, Hagberg M. (2009). Analyzing musculoskeletal neck pain, measured as present pain and periods of pain, with three different regression models: a cohort study. *BMC musculoskeletal disorders*, **10**(1), 73.
10) Hanvold TN, Veiersted KB, and Wærsted M. (2010). A prospective study of neck, shoulder, and upper back pain among technical school students entering working life. *J. of Adolescent Health*, **46**(5), 488-94. https://doi.org/10.1016/j.jadohealth.2009.11.200
11) Hogg-Johnson S *et al.* (2009). The burden and determinants of neck pain in the general population: results of the Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. *Journal of manipulative and physiological therapeutics*, **32**(2), S46S60.
12) Jakhotia KA *et al.* (2015). Surya namaskar: An equivalent approach towards management of physical fitness in obese females. *Int J Yoga*, **8**(1), 27-36. https://doi.org/10.4103/0973-6131.146053
13) Marques AP. (2000). Cadeias musculares: um programa para ensinar avaliação fisioterapêutica global: Manole.
14) McLean SM, May S, and Gardiner E. (2010). Risk factors for the onset of non-specific neck pain: a systematic review. *J. of epidemiology and community health,* **64**(7), 565-72.
15) Rana S, Hossen M, Islam A, Shah S, Parvin T, Muraduzzaman SM, and Jalali MA. (2021). Interpretation of the common MRI findings in patients with painful knee joint, *Eur. J. Med. Health Sci*., **3**(1), 19-26. https://doi.org/10.34104/ejmhs.021.019026
16) Silva AG, Punt TD, and Johnson MI. (2009). Head posture and neck pain of chronic non-traumatic origin: a comparison between patients and pain-free persons. *Archives of physical medicine and rehabilitation*, **90**(4), 669-74. https://doi.org/10.1016/j.apmr.2008.10.018
17) Souchard P. (2003). Principes et originalité de la reéducation posturale globale. *Paris: Le Pousoë*.
18) Sweta KM, Godbole A, Awasthi HH, Pandey U, (2018). Effect of Mula Bandha Yoga in Mild Grade Pelvic Organ Prolapse: A Randomized Controlled Trial. *Int J Yoga*, **11**(2), 116-121.
19) Zahid FM, Faheem H, Haq U. (2013). Prevalence of Neck Pain in Heightened Students of Rawalpindi and Islamabad. *J. of Riphah College of Rehabilitaion Sciences.,* **1**(2), 3-5. https://journals.riphah.edu.pk/index.php/jrcrs/article/view/409

Citation: AwalKhail F., and Walizada S. (2023). Incidence of cervical pain in bank workers of the Jalalabad city Afghanistan,*Eur. J. Med. Health Sci.*, **5**(5),169-174. https://doi.org/10.34104/ejmhs.023.01690174