



CODEN [USA]: IAJ PBB

ISSN : 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**

SJIF Impact Factor: 7.187

<http://doi.org/10.5281/zenodo.4277775>Available online at: <http://www.iajps.com>

Research Article

**PREVALENCE OF NECK PAIN IN BANK WORKERS OF
LAHORE, PAKISTAN****Mehak Hassan, Attiya Irshad, Nida Ghaffar, Kinza Mubashar, Saba Saleem**
University of Sargodha**Article Received:** September 2020 **Accepted:** October 2020 **Published:** November 2020**Abstract**

Neck pain includes general pain and stiffness in neck muscles which also includes neck area, shoulders, arms, hands or head. Neck pain affects up to 71% of adults at some point in life. Most common associated risk factor is work related and postural musculoskeletal disorders. Bank workers face this problem due to their workplace ergonomics in relation to computer use and prolonged hours of working. An observational study is done in 150 bank workers from different banks of Lahore. Objective of study was to determine the prevalence of neck pain among bank workers. Participants completed a well-tested questionnaire and data was analyzed by SPSS version 20. In analysis, low back pain is dependent variable and age, height and BMI are independent variables, Results shows that Male frequency in bank is 107 and percentage is 71.3. the Female frequency is 43 and percentage is 28.72. 74% of bank workers reported neck pain of which 56% of participants reported that their work performance is reduced to neck pain. These findings show that neck pain may be associated with type of job, design of work station and job demand.

Corresponding author:**Mehak Hassan,**
University of Sargodha

QR code



Please cite this article in press Mehak Hassan et al, *Prevalence Of Neck Pain In Bank Workers Of Lahore, Pakistan*, *Indo Am. J. P. Sci*, 2020; 07(11).

INTRODUCTION:

Chronic neck pain is a sensation of hyperalgesia to skin palpation, ligaments, and muscles during both active and passive movement. Physical therapies for treating chronic pain include different exercises. Conventional physical therapy uses static muscle stretching, which consists of stretching a muscle up to a tolerable point and sustaining the position for a certain period of time. In Brazil, France, Italy, and Spain, therapists are increasingly resorting to a method called global posture re-education (GPR) which focuses on entire muscle groups instead of targeting individual muscles. Based on the existence of muscle chains – didactically divided into posterior and anterior chains. Postural stress is one of the most common causes of neck pain. Poor posture stresses your neck, ligaments; muscles tired and joints and nerves are put under pressure. It's easy to get into bad posture habits without even realizing it. Poor posture can contribute to movement dysfunctions that can cause deterioration in daily activities. The main function of the muscles is to hold the head up, maintaining normal posture, supporting and moving the neck. Heightened people comparatively suffer more. The reason being they have to modify their posture even more to do daily activities resulting in faulty posture. Abnormalities in position of head posture are often associated with the development and persistence of neck pain. Neck pain is common among adults, affecting 14-71% of adults at some point in their lives. In adults ranges at 16-75 % a substantial 19-37% proportion of neck pain patients will develop Chronic neck pain. Neck pain causes considerable Personal discomfort due to pain, disability, and impaired Quality of life, and may affect work.

The economic consequences of treating disabling neck pain are significant. Bernard et al recently postulated that the Total yearly cost of neck and upper limb symptoms in The Netherlands due to decreased productivity, sick Leave, chronic disability for work, and medical costs was 2.1 billion Euros. Adolescents with neck pain are at high risk of having such symptoms in adulthood. Thus, to Reduce the prevalence of neck pain in adults, knowledge. Regarding factors that can predict its onset and persistence in younger population is important. In a Swedish cohort of university students 15% developed neck or upper back pain during 1-year follow-up. In the general population McLean et al systematically reviewed 14 prospective cohort studies and revealed that female sex, older age, high job Demands, low social/work support, ex-smoker, and history of low back and neck disorders were linked to the Onset of neck pain. 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 have been published with regard to its relation to onset of neck pain.

METHODOLOGY:

The design of this study was an Observational study. This Study was conducted at different bank of Thokar Niaz Baig and chung, Lahore. Bank workers were included in the study. The sample of study was 150 bank workers from different banks of Lahore. This Study was conducted within 6 months after the approval of synopsis. The purposive sampling technique was used for sampling.

Sample Selection**Inclusion Criteria**

- Both male and female selected who are involved in desk job.
- All age group was selected.
- Subject who were willing to participate in the study.

Exclusion criteria

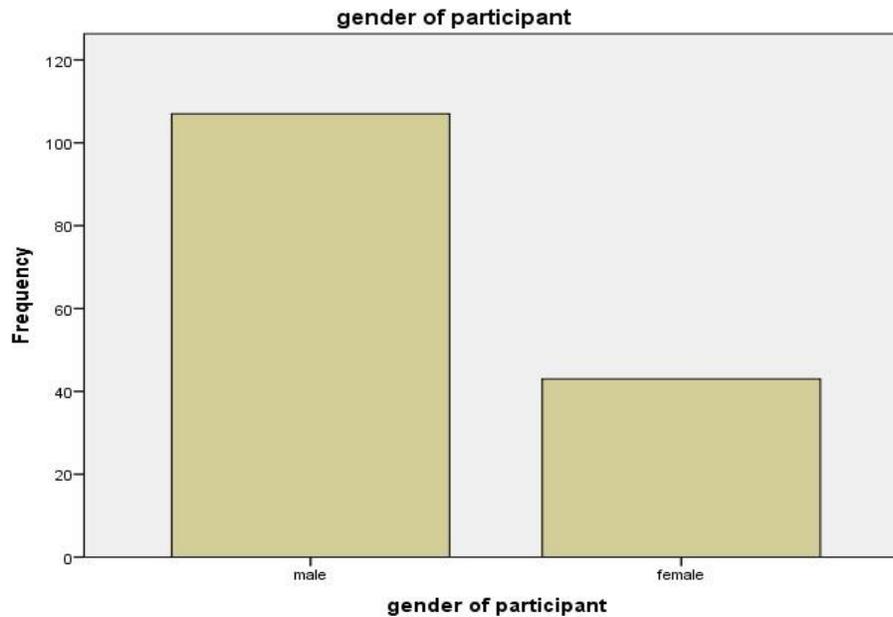
- Subjects who had thyroid problem- thyroid problem causes muscle weakness
- Subjects who had cancer problem- this problem causes a general sense of discomfort. Pains with neck Muscle twitches and cramps. These sign symptoms are similar as neck pain symptoms.
- Subjects who had major accident or major surgery in any part of the body- It any major surgery or 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: Gender of Participant

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	107	71.3	71.3	71.3
Valid Female	43	28.7	28.7	100.0
Total	150	100.0	100.0	

The result shows that the Male frequency in Bank is 107 and percentage is 71.3. The female frequency is 43 and percentage is 28.7.

Figure 1

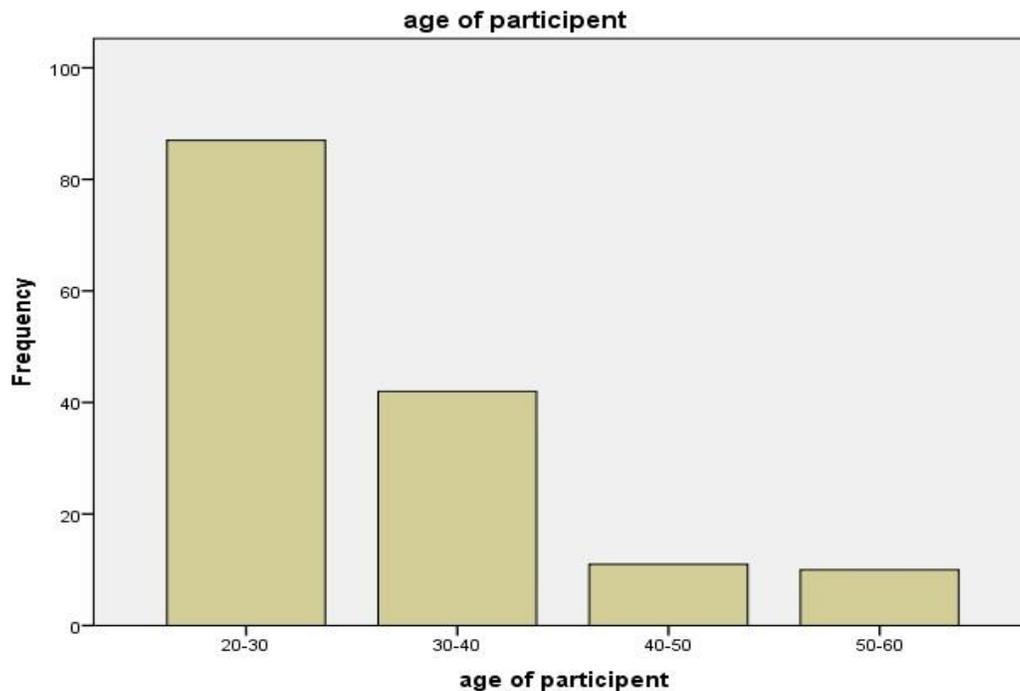
The respective Bar Chart analysis state that the frequency of Male is above 100 and female frequency is between 40-60.

Table 2: Age of Participant

	Frequency	Percent	Valid Percent	Cumulative Percent
20-30	87	58.0	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 87 and percentage is 58.0. The age of participant between 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.

Figure 2



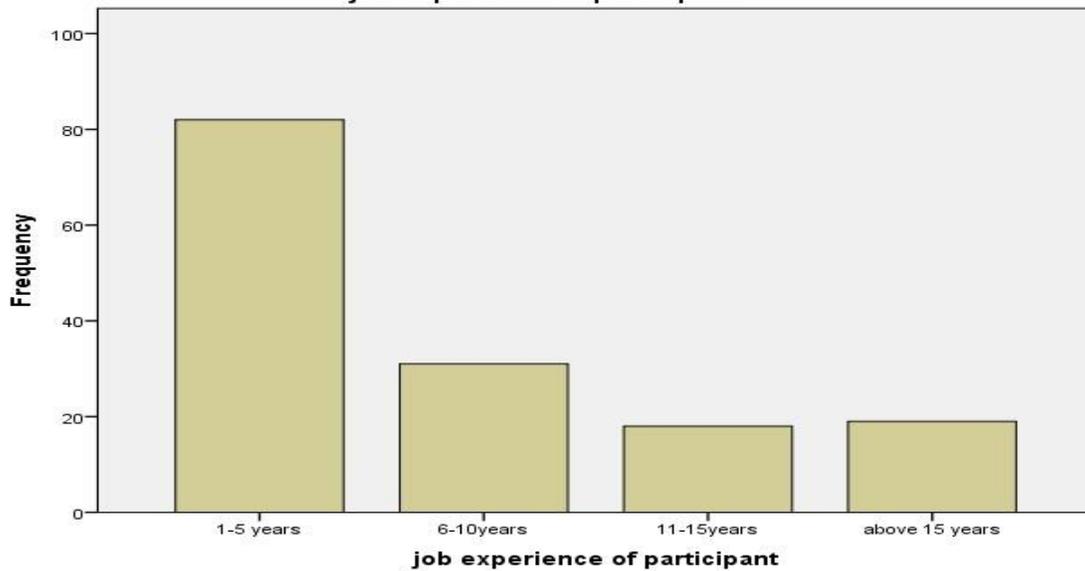
The respective bar chart analysis state that frequency of the age of participant between 20-30 is above 80. The frequency of age of participant between 30-40 is between 40-45. The frequency of age of participant between 40-50 is below 20. The frequency of age of participant between 50-60 is also below 20.

Table 3: Job Experience of Participant

	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.

Figure 3: Job Experience of Participant
job experience of participant



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 11-15 year is 20. The frequency of job experience above 15 years is between 20-25.

Table 4: 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.

Figure 4: 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; 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, working posture are known neck pain risk factor. To prevent repetitive strain injury proper agronomics design is necessary.

CONCLUSION:

The finding of this study suggested that neck pain prevalent among bank workers at Thokar Niaz Baig and Chung and 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 Lahore.

REFERENCES:

1. Souchard P. Principes et originalité de la rééducation posturale globale. Paris: Le Poussoë. 2003.
2. Marques AP. Cadeiras musculares: um programa para ensinar avaliação fisioterapêutica global: Manole; 2000.
3. Zahid FM, Faheem H, Haq U. Prevalence of Neck Pain in Heightened Students of Rawalpindi and Islamabad. *Journal of Riphah College of Rehabilitation Sciences*. 2013;1(2):3-5.
4. Silva AG, Punt TD, Sharples P, Vilas-Boas JP, Johnson MI. Head posture and neck pain of chronic nontraumatic origin: a comparison

between patients and pain-free persons. *Archives of physical medicine and rehabilitation*. 2009;90(4):669-74.

5. Fejer R, Kyvik KO, Hartvigsen J. The prevalence of neck pain in the world population: a systematic critical review of the literature. *European spine journal*. 2006;15(6):834-48.
6. Breivik H, Collett B, Ventafridda V, Cohen R, Gallacher D. Survey of chronic pain in Europe: prevalence, impact on daily life, and treatment. *European journal of pain*. 2006;10(4):287333.
7. Côté P, Cassidy JD, Carroll LJ, Kristman V. The annual incidence and course of neck pain in the general population: a population-based cohort study. *Pain*. 2004;112(3):267-73.
8. Ariëns GA, Bongers PM, Hoogendoorn WE, Van Der Wal G, Van Mechelen W. High physical and psychosocial load at work and sickness absence due to neck pain. *Scandinavian journal of work, environment & health*. 2002:222-31.
9. Côté P, van der Velde G, Cassidy JD, Carroll LJ, Hogg-Johnson S, Holm LW, et al. The burden and determinants of neck pain in workers. *European spine journal*. 2008;17(1):60-74.
10. Hogg-Johnson S, van der Velde G, Carroll LJ, Holm LW, Cassidy JD, Guzman J, et al. 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*. 2009;32(2): S46-S60.
11. Hanvold TN, Veiersted KB, Wærsted M. A prospective study of neck, shoulder, and upper back pain among technical school students entering working life. *Journal of Adolescent Health*. 2010;46(5):488-94.
12. Siivola SM, Levoska S, Latvala K, Hoskio E, Vanharanta H, Keinänen-Kiukaanniemi S. Predictive factors for neck and shoulder pain: a longitudinal study in young adults. *Spine*. 2004;29(15):1662-9.
13. Grimby-Ekman A, Andersson EM, Hagberg M. Analyzing musculoskeletal neck pain, measured as present pain and periods of pain, with three different regression models: a cohort study. *BMC musculoskeletal disorders*. 2009;10(1):73.
14. McLean SM, May S, Klaber-Moffett J, Sharp DM, Gardiner E. Risk factors for the onset of non-specific neck pain: a systematic review. *Journal of epidemiology and community health*. 2010;64(7):565-72.
15. Côté P, van der Velde G, Cassidy JD, Carroll LJ, Hogg-Johnson S, Holm LW, et al. 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. *Journal of manipulative and physiological therapeutics*. 2009;32(2):S70-S86.
16. Hayes M, Smith D, Cockrell D. Prevalence and correlates of musculoskeletal disorders among Australian workers. *International journal of workers*. 2009;7(3):176-81.
 17. Noack-Cooper KL, Sommerich CM, Mirka GA. office workers and computers: assessment of usage patterns and musculoskeletal discomfort. *Work*. 2009;32(3):285-98.
 18. Jensen C. Development of neck and hand-wrist symptoms in relation to duration of computer use at work. *Scandinavian journal of work, environment & health*. 2003:197-205.
 19. Eltayeb S, Staal JB, Hassan A, De Bie RA. Work related risk factors for neck, shoulder and arms complaints: a cohort study among Dutch computer office workers. *Journal of occupational rehabilitation*. 2009;19(4):315-22.
 20. Tornqvist EW, Hagberg M, Hagman M, Risberg EH, Toomingas A. The influence of working conditions and individual factors on the incidence of neck and upper limb symptoms among professional computer users. *International archives of occupational and environmental health*. 2009;82(6):689-702.
 21. Chang ChJ, Amick BC, Menendez CC, Katz JN, Johnson PW, Robertson M, et al. Daily computer usage correlated with bank workers' musculoskeletal symptoms. *American journal of industrial medicine*. 2007;50(6):481-8.
 22. Zetterberg C, Forsberg A, Hansson E, Johansson H, Nielsen P, Danielsson B, et al. Neck and upper extremity problems in car assembly workers. A comparison of subjective complaints, work satisfaction, physical examination and gender. *International Journal of Industrial Ergonomics*. 1997;19(4):277-89.
 23. Kilbom Å. Isometric strength and occupational muscle disorders. *European journal of applied physiology and occupational physiology*. 1988;57(3):322-6.
 24. Hamberg-van Reenen H, Ariens G, Blatter B, Twisk J, Van Mechelen W, Bongers P. Physical capacity in relation to low back, neck, or shoulder pain in a working population. *Occupational and environmental medicine*. 2006;63(6):371-7.
 25. Jaggi R, Shapiro J, Weinstein DF. Perceived impact of resident work hour limitations on bank workers clerkships: a survey study. *Academic Medicine*. 2005;80(8):752-7.