

ORIGINAL ARTICLE

Prevalence of Cervical Pain in Make-up Artist and Hair Dressers of Lahore

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ABSTRACT

Background: The overall incidence of cervical pain in makeup artists is well known. In our study we attempted to work on the prevalence of cervical pain among make-up artist and hair dressers due to prolong consecutive working hours and awkward body posture.

Purpose: The sole purpose of this research was to find the prevalence of cervical pain among make-up artist and hair dressers while performing their make-up and hair cutting for consecutive long working hours.

Method: It was a cross-sectional study design. 150 participants were taken and it includes makeup artists, hair dressers. Non-probability Convenient Sampling technique was used and the main target population age lies between 25-40 years. The inclusion criteria were 25-40 years age, both genders are included, more than 8-9 consecutive working hours in salon, static posture for long period of time and use of Dominant hand. The Exclusion criteria was traumatic injury to cervical, Fracture, Tumors, Cervical spondylosis, Recent surgery, Cervical rib, working hours less than inclusion criteria.

Results: Out of 150 workers 37.33% of workers were suffering from mild cervical pain, 22% of workers had moderate pain and 0.67% of workers were suffering from very severe pain. In 40% of individuals sleep was occasionally disturbed and 38.6% of workers reported of experiencing numbness in arms.

Conclusion: This study demonstrates that make-up artist and hairdressers have cervical pain and numbness in arms due to prolong working hours which ultimately affect their ergonomics and posture of neck and body. These consecutive long working hours and use of dominant hand cause strain in cervical muscles which also limit the neck movements.

Keywords: Cervical pain, Incidence, Ergonomics, Mechanics, Salon workers, Prevalence.

INTRODUCTION

In two third of population, cervicalgia is a common problem also known as neck pain. It may arise due to joint disruption and muscular tightness of upper back and neck. Many populations of the world complain neck pain and the causing agent may be social, environmental and psychological.[1] Some of the common causes of neck pain are Prolonged static posture, minor fall or injuries, physical and emotional stress, pinched nerve, referred pain, protruding and bulging disc and extent of activity. [2,3]. In a study, it was revealed that workers who were involved in prolonged activities with flexed neck complain of neck pain.[4] Some symptoms of neck pain include numbness and tingling, stiffness of neck, headache and weakness. Neck pain can be caused with or without neurological deformities. Cervical spondylosis, injuries to soft tissues and ligaments are major reasons of cervical pain. Imaging and physical examination can be used to diagnose cervical pain but these methods cannot locate the exact cause of cervical pain.[5]. Work related musculoskeletal disorders (WMSDs) are also termed as Repetitive strain injury (RST), Repeated Motions Injury (RMI) and Occupational Overuse Disorders (OODs). The risk factors of WMSDs have increased over recent years. As makeup artists perform their job mostly in prolonged standing and in specific postures and flexed cervical region, there is a high risk of them to develop WMSDs. Therefore, the objective of this research is to study prevalence of cervical pain in make-up artist and hair dressers.[6].

According to Bongers et al. (1993) [7] social and psychological characteristics of the workers can directly affect the posture, working conditions and speed therefore may result in physiological changes and hence result into musculoskeletal problems.[8] Physical and socio psychological factors are strongly related to each other.[9].

Makeup artists or beauticians have high incidence of work -related musculoskeletal disorders due to their prolonged standing and abnormal static posture during their work and also due to their poor social and psychological conditions [10]. Very few researches are related to musculoskeletal disorders in make-up artists.[11] The consequences of Musculoskeletal problems in makeup artists may result in chronic pain so focus on the risk factors should be taken in account.[12]. Kuslich et al studied that facet joints are capable of transferring neck pain to low back also the ligaments, fascia and muscles are highly affected. [13,14]. So, the main objective of this study is to report prevalence of neck pain in makeup artists. And to guide them to prevent neck deformities or pain due to poor work postures.

METHODOLOGY

It was a cross-sectional study design. 150 participants were taken and it includes makeup artists, hair dressers. Non-probability Convenient Sampling technique was used and the main target population age lies between 25-40 years. The inclusion criteria were 25-40 years age, both genders are included, more than 8-9 consecutive working

hours in salon, static posture for long period of time and use of Dominant hand. The Exclusion criteria wastraumatic injury to cervical, Fracture, Tumors,Cervical spondylosis, Recent surgery,Cervical rib, working hours less than inclusion criteria. A total of 150makeup artists and other beautician were included in this research. For data collection Northwick Park neck pain questionnaire was used.

RESULTS

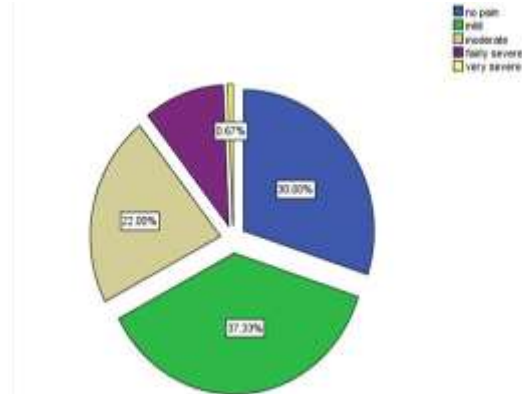


Fig 4.1: Pie Chart of pain intensity shows 37.33% of workers had mild pain, 30% of workers had no pain, 22% of workers had moderate pain and 0.67% of workers had very severe cervical pain.

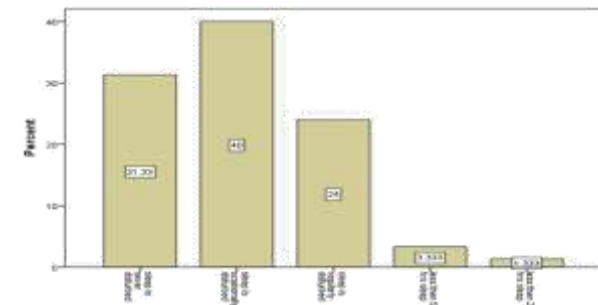


Fig 4.2: Bar Chart of pain during sleep shows that in 40% of workers sleep is occasionally disturbed, in 31.33% of workers sleep is never disturbed, in 24% of workers sleep is regularly disturbed, 3.3% of workers sleep less than 5hrs and 1.33% workers sleep less than 2hrs.

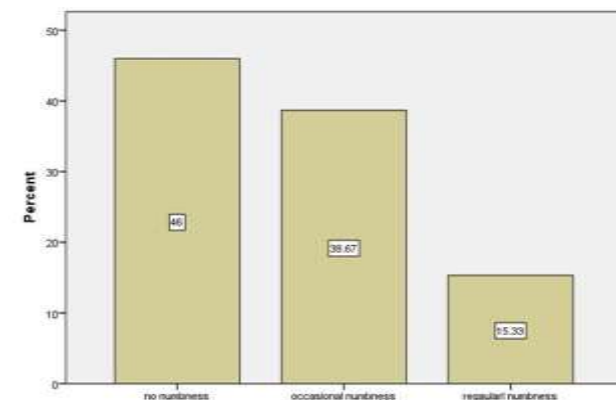


Fig 4.3: Bar Chart of numbness in arms shows that in 46% of workers there is no numbness, in 38.6% workers there is occasional numbness and in 15.33% there is regular numbness.

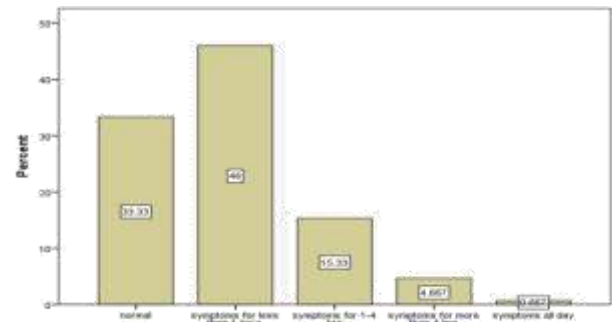


Fig 4.4: Bar Chart of duration of symptoms shows that 33.33% of workers are normal, 46% of workers have symptoms for less than 1 hour, and 15.33% have symptoms for 1-4hrs, 4.66% have symptoms for more than 5hrs and 0.66% have symptoms all day.

DISCUSSION

This study showed that 37.33% workers have mild cervical pain, 22% have moderate pain and 0.67% workers have very severe cervical pain and in disparity with a research by Alexandra Tsigonia, Dimitra Tanagra et al. in 2009 who reported that neck pain was most prevalent musculoskeletal problem workers complained of chronic neck pain.[15]. 40% of workers sleep is occasionally disturbed, in 31.33% of workers sleep is never disturbed, in 24% of workers sleep is regularly disturbed, 3.3% of workers sleep less than 5hrs and 1.33% workers sleep less than 2hrs due to pain. 46% of workers have no numbness, 38.6% workers have occasional numbness and 15.33% there is regular numbness occur because of poor ergonomic and static awkward posture while performing their work. 33.33% of workers are normal, 46% of workers have pain for less than 1 hour, and 15.33% have pain for 1-4hrs, 4.66% have pain for more than 5hrs and 0.66% have pain all day while doing their work.

CONCLUSION

This study demonstrates that make-up artist and hairdressers have cervical pain and numbness in arms due to prolonged working hours which ultimately affect their ergonomics and posture of neck and body. These consecutive long working hours and use of dominant hand cause strain in cervical muscles which also limit the neck movements.

Recommendations:

1. Working hours should be reduced from 8-9 hours so that their WMSK problems might be resolved.
2. Working in shifts
3. Static posture should be avoided.

REFERENCES

1. Kang B, Kim T, Kim MJ, Lee KH, Choi S, Lee DH, et al. Relief of chronic posterior neck pain depending on the type of forest therapy: comparison of the therapeutic effect of forest bathing alone versus forest bathing with exercise. *Annals of rehabilitation medicine*. 2015;39(6):957.
2. Malchaire J, Roquelaure Y, Cock N, Piette A, Vergracht S, Chiron H. Musculoskeletal complaints, functional capacity, personality and psychosocial factors. *International archives of occupational and environmental health*. 2001;74(8):549-57.

3. Cimmino MA, Ferrone C, Cutolo M. Epidemiology of chronic musculoskeletal pain. *Best practice & research Clinical rheumatology*. 2011;25(2):173-83.
4. Yue P, Liu F, Li L. Neck/shoulder pain and low back pain among school teachers in China, prevalence and risk factors. *BMC public health*. 2012;12(1):789.
5. Barnsley L, Bogduk N. Medial branch blocks are specific for the diagnosis of cervical zygapophyseal joint pain. *RegAnesth Pain Med*. 1993;18(6):343-50.
6. Fang H.L, Chen C.C.R, Fang H.P, Xu Q. An ergonomic approach to an investigation into the risk factors leading to work related musculoskeletal disorders for Taiwanese hairdressers. *International Association Of Societies Of Design Research The Hong Kong Polytechnic university* 2007; (1): 2.
7. Bongers PM, de Winter CR, Kompier MA, et al. : Psychosocial factors at work and musculoskeletal disease. *Scand J Work Environ Health*, 1993, 19: 297–312.
8. Choi MG, Choi SB, Cha SE: A survey on the subjective symptoms and risk factors of musculoskeletal disorders in dentists. *J Korean Soc Safe*, 2006, 21: 106–115.
9. Johnston V, Jull G, Souvlis T, Jimmieson NL. Interactive effects from self-reported physical and psychosocial factors in the workplace on neckpain and disability in female office workers. *Ergon*. 2010; 53: 502-513.
10. Burdorf, A; Sorock, G. Positive and negative evidence for risk factors of work-related back disorders. *Scand J. Work Environ. Health* 1997, 23, 243–256.:
11. Mussi, G; Gouveia, N. Prevalence of work-related musculoskeletal disorders in Brazilian hairdressers. *Occup. Med* 2008, 58, 367–369.
12. Alexopoulos, EC; Burdorf, A; Kalokerinou, A. Risk factors for musculoskeletal disorders among nursing personnel in Greek hospital. *Int. Arch. Occup. Environ. Health* 2003, 76, 289–94.
13. Côté DC, Cassidy JD, Carroll L. The Saskatchewan Health and Back Pain Survey. The prevalence of neckpain and related disability in Saskatchewan adults. *Spine* 1998; 23:1689-1698.
14. Côté DC, Cassidy JD, Carroll L. The factors associated with neck pain and its related disability in the Saskatchewan population. *Spine* 2000; 25:1109-1117
15. Aweto HA, Tella BA, Johnson OY. Prevalence of work-related musculoskeletal disorders among hairdressers. *International journal of occupational medicine and environmental health*. 2015;28(3):545.