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 make-up artists is well known. In our study we attempted to work on the prevalence of cervical pain among make-up artist and hairdressers due to prolonged 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 hairdressers while performing their make-up and hair cutting for consecutive working hours.
Method: It was a cross-sectional study design. 150 participants were taken and it includes makeup artists, hairdressers. 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 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 were 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 experiencing numbness in arms.
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 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 complained 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 make-up 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 hairdressers.[6]

According to Bongers et al. (1993) [7] 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, hairdressers. 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 included, more than 8-9 consecutive working hours.
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. A total of 150 makeup artists and other beautician were included in this research. For data collection Northwick Park neck pain questionnaire was used.

RESULTS

![Pie Chart of pain intensity](image)

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 6.7% of workers had very severe cervical pain.

![Bar Chart of pain during sleep](image)

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.

![Bar Chart of numbness in arms](image)

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.

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 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.

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