Awareness of text neck syndrome in young-adult population

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ABSTRACT

Background: Text neck is a repeated stress injury and pain sustained from excessive watching or texting on handheld devices for long periods of time. Dependence of mobile phone is increasing rapidly and people spend long hours on mobile phone that lead to various musculoskeletal problems. This study will help us find the awareness of text neck syndrome and awareness of hazards which are caused by excessive usage of phone. This study also aimed at finding the knowledge regarding the preventive measures of text neck syndrome.

Methods: The study design was an observational study with a sample size of 311. A self-administered questionnaire was distributed to all subjects. Results were calculated in percentile format.

Results: This study stated that 35% population has heard of text neck syndrome out of which only 8% population has knowledge of this syndrome. The results also stated that 21% population have knowledge regarding the preventive measures of this syndrome.

Conclusions: This study has demonstrated a low level of awareness of text neck syndrome amongst young adult population. Also it mentioned about lack of knowledge of preventive measures in this population.

Keywords: Text neck syndrome, Neck pain, Neck posture

INTRODUCTION

A mobile phone is a device which is used for voice and data communication. Along with the basic voice function of a phone, current mobile phones may support many additional services such as text messaging, email, gaming, camera, Whatsapp, Facebook, GPS etc.1

The cervical spine is a continuous and coordinated network of muscles, nerves and joints, the pathway ranging from the brain to the spinal cord. Irritation along this pathway leads to pain.2 A recent systematic review done in Hong Kong suggests that prevalence of musculoskeletal problems with mobile phone usage are high ranging from 17.3% to 67.8% for neck complaints.3 The term “Text neck” was coined by Dr. Dean L. Fishman, a US chiropractor. The term of ‘Text neck or another phrase turtle neck posture can be described as a repeated stress injury and pain sustained from excessive watching or texting on handheld devices for long periods of time’.2 Text neck leads to harmful symptoms such as neck pain, upper back pain, shoulder pain, chronic headaches and increased curvature of the spine.2,4 On using the mobile phone over long periods of time, users usually adopt prolonged forward head posture.4,7 A recent study done in Thailand shows that text neck syndrome has become a global epidemic affecting a large number of population of almost all ages who use mobile phones. Text neck syndrome is a growing health concern and can affect large number of population all over the world.4
If text neck is not treated or corrected in right time it can lead to serious permanent damage and can result into overuse syndrome or repeated stress injury. Long term untreated text neck can result into inflammation of the neck ligaments, muscles and nerves leading to permanent arthritic changes.\(^2\),\(^4\),\(^8\),\(^9\)

It may also lead to some serious damage, such as Flattening of the spinal curve, onset of early arthritis, spinal misalignment, spinal degeneration, disc compression, disc herniation, etc.\(^2\),\(^10\)

As the dependence of mobile phone is increasing rapidly and people spend long hours on mobile phone which lead to various musculoskeletal problems\(^1\),\(^6\),\(^7\),\(^1\),\(^1\)

This study will help us find the awareness of text neck syndrome as neck pain is an already prevalent significant health problem.

Presently less research has been done on Text Neck Syndrome so there is lack of literature. Thus this study will help us gain knowledge regarding this condition and its awareness amongst the population.

The objectives of this study are as follows 1) To check awareness of text neck syndrome in young-adult population. 2) To check the knowledge about text neck syndrome in young-adult population. 3) To check the knowledge of preventive measures for text neck syndrome.

**METHODS**

This is an “observational study” with a sample size of 311. Method of sampling used was “Purposive Sampling”. This study was performed on the population living in Mumbai and Pune cities of Maharashtra. It was performed during the period of August 2017 to February 2018.

**Subjects**

311 subjects from various nonmedical institutions who use mobile phones participated in this study. The inclusion criteria was- Subjects using phone since past 1 year and their age should be between 18-24 years and the Exclusion Criteria was subjects having any congenital cervical problem and subjects with traumatic and pathological cervical problem.

Ethical approval was obtained from the institutional ethical committee and each subject signed an informed consent approved by the committee.

**Questionnaire**

A self-administered questionnaire was prepared in Google docs. The questionnaire included questions pertaining to 1) personal and information related to phone usage 2) awareness and knowledge related to text neck syndrome 3) hazards of excess phone usage.

The questionnaire was pilot tested for its validity by panel of expertise and it was modified based upon feedback received from the final version of the questionnaire was then distributed to all subjects via email.

**Data analysis**

Descriptive statistics was conducted to evaluate the responses obtained from the subjects. The percentage of responses for each question was calculated.

**RESULTS**

![Graph showing the results for question, have you heard about text neck syndrome?](image1.png)

This graph shows us that 65% population is not aware of text neck syndrome, 27% have heard about it but don’t know what it is and 8% know about it.

![Graph showing results on question, do you think you can prevent text neck syndrome?](image2.png)

This graph shows that 4% population think we cannot prevent text neck syndrome, 75% think we can prevent it but the method is not known to them and 21% think we can prevent it and know how it is to be prevented.
Figure 3 shows the causes of text neck syndrome. 13% of the population thinks it is because of talking on phone, 6% think it’s because of reading of text books and 81% population thinks it is because of texting.

This graph shows us the results of awareness of long term complications of text neck syndrome.

The awareness of osteoarthritis of cervical spine is the maximum with a population of 69.72%. The awareness of PIVD is 64.22% and awareness of spondylosis is 54.12%.

This graph shows results of from where has the population heard about text neck syndrome.

11% have heard from medical professional, 6% from multimedia, 59% from the internet, 18% from friends and 6% from other sources.

This graph shows the results on question, what do you think can cause text neck syndrome?

This graph shows us the results on question, do you think your phone can cause the following health hazards?

This graph shows us the results on question, in a day, how many hours do you spend on mobile phones other than calls?
most of them disagree that mobile phone usage can cause shoulder pain and arm pain. From the graph we see that 38.9% population agrees that neck pain could be a health hazard of excess usage of phone. A study done in Lahore, on prevalence of neck pain amongst under graduate students found out that 56.7% subjects from their study suffered from neck pain.14 Out of 109 subjects 75% subjects answered that preventing TNS is possible but the ways of preventing are not known to them. The possible reason for this could be lack of knowledge and ignorance towards this syndrome. Only 21% are aware of the preventive measures of TNS. The forward head position causes weight to be shifted anteriorly which puts stress on the lower cervical segments leading to various degenerative conditions of the neck. Out of 109 subjects, 45.87% are aware of spondylosis as a long term complication, 35.77% are aware of PIVD and 30.27% are aware of OA of cervical spine. Thus we conclude that the awareness regarding TNS is not adequate and knowledge regarding this syndrome is important as it is a cumulative stress injury and can be prevented.

CONCLUSION

This study has demonstrated a low level of awareness of text neck syndrome amongst young adult population. According to this study only 35% population has heard of Text neck syndrome. Also it mentioned about lack of knowledge of Text neck syndrome in this population. Out of the people who have heard of text neck syndrome, only 21% know about the preventive measures.

Limitation of study
- The study is restricted only to young-adult population.
- Also due to time constrain has been done on a lesser population.

Future scope of study
- The scope of this study will be to see prevalence of TNS in young adult population.
- Also the scope will be to study associated risk factors and their prevention in details.

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