Assesment of Neck Pain Causes and Its Intensity among the Students of Department of Eastern Medicine, University of Balochistan, Quetta, Pakistan

Aadil Ameer Ali[1], Noman Haq[2], Amjad Hussain[3], Muhammad Rafique[4], Muhammad Ishaque M.R[3], Piriha Abbasi[5], Taufiq Ahmad[3]

[1]Lecturer Institute of Physiotherapy & Rehabilitation Sciences, Shaheed Mohtarma Benazir Bhutto, Medical University, Larkana, Pakistan, [2]Professor, Faculty of Pharmacy & Health Sciences, University of Balochistan, Quetta, Pakistan, [3]Lecturer, Department of Eastern Medicine, Government College University, Faisalabad, Pakistan, [4]Lecturer, Department of Statistics, University of Sindh, Jamshoro, Pakistan, [5]Assistant Professor, Department of Anatomy, Faculty of Basic Sciences, Isra Medical University, Hyderabad, Pakistan

Abstract

Background: In musculoskeletal disorders the neck pain is the fourth common disorder. Annually it affects huge numbers of patients specially the working males, who are more likely to get affected by neck pain. Among the students the intensity was found dependent mainly on the affected area and gender.

Methods: A cross sectional study was conducted among the Eastern medicine students of city campus, university of Balochistan, Quetta, Pakistan from June to August 2018. A self-constructed proforma was used among 284 participants and Spss version 23 was used.

Results: The majority (n=229, 80.6%) belongs to age group of 18 to 23 years and (n=149,50.4%) were male. In the involvement of side (unilateral/ bilateral) were significantly associated with the higher intensity of neck pain (p=0.05).

Conclusion: The study summarized that the male participants who were suffering from bilateral neck pain were experiencing severe pain and were facing hindrances during their regular personal care. They should keep themselves aware regarding their neck heath.

Keywords: *Neck pain, Causes, Pain intensity, students, Quetta, Pakistan.*

Introduction

In musculoskeletal disorders after low back pain the neck pain is found the most common throughout the world[1]. Neck pain is found more common specially in females, people with low socio economic status and in population of urban areas[2, 3]. The persons who are in between the age of 35 to 49 are more prone to develop the neck pain[4]. Aging, gender, genetics, use of alcohol and obesity are the main risk factors for neck pain. Age, gender and heredity are being considered as the non-modifiable risk factors for neck pain, while the modifiable risk factors are obesity, excessive use of alcohol or tobacco and increased mental stress. However, In modern society it puts a significant impact on patients personal life ,on their families, on their business, on community and also on health care system[1, 5]. The estimated annual incidence of neck pain ranges from

Corresponding author:
Dr Aadil Ameer Ali (PT)
Institute of Physiotherapy & Rehabilitation sciences,
Shaheed Mohtarama Benazir Bhutto Medical University, Larkana, Pakistan
E-mail: aadilamirali@hotmail.com
Cont. No. +923002929464

12% to 20.6%, furthermore the higher incidence were noted in students, office workers and computer users. The higher incidence of neck pain among the students , office workers and computer users is because of the lack of posture awareness and lack of knowledge regarding the their correct working positions[2, 5]. The mean score for the prevalence of neck pain among general population is 27%[2, 6]. It was reported that annual recovery of neck pain patients ranges from 30% to 70%[2, 3].

In the treatment of neck pain, studies suggests the use of muscle relaxants, exercise therapy, epidural corticosteroid injections and surgery. The muscle relaxants along with exercise therapy are more beneficial in mild to moderate neck pain while in patients with radiculopathy or myelopathy the epidural corticosteroids and surgery are indicated and found more beneficial [1, 6-8].

Methods

Study Design, Settings and Duration

A cross sectional descriptive study was conducted from June to August 2018, and data was collected from the undergraduate students of Department of Eastern Medicine, university of Balochistan, Quetta, Pakistan

Sampling

Convenient Non-Probability Sampling Technique among the 284 selected participants were used. Participants with both genders (male & female), willing to participate were included in the study. While, patient with a previous history of any surgical intervention, with any pathology, with central nervous system alteration and not willing to sign inform consent were excluded.

.Data Collection Tool

A self-constructed proforma was used to collect the data, which include the demographic Characterstics age, gender, marital status and Speciality. While, the included disease Characterstics were the involvement of side (unilateral or bilateral), use of medication (yes or no) and the causes of pain (sleeping, working, reading, lifting objects, concentrating or recreational activates)

Data Analysis Procedure

Descriptive statistics; categorical variables were measured as frequency and percentage where continuous variables were expressed as mean standard deviation. Inferential statistics. Data was analyzed by using Statistical Package for Social Sciences (SPSS) version 23

Ethical Concern

As the approval was taken from the ethical review committee of Faculty of Pharmacy & Health Sciences, University of Balochistan, Quetta, Pakistan. 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 proforma was filled for data collection.

Results

DEMOGRAPHICS CHARACTERSTICS

Demographics Characterstics are described in table 1, which states that the majority (n=229, 80.6%) belongs to age group of 18 to 23 years and (n=149, 52.5%) were male. After checking the marital status of participants we found that (n=261, 91.9%) were unmarried.

Table 1: Demographic Characterstics

Characterstics	Frequency	Percentage
Age group		
18-23 years	229	80.6
24-29 years	55	19.3
Gender		
Male	149	52.5
Female	135	47.5
Marital status		
Married	23	8.1
Unmarried	261	91.9

INVOLVEMENT OF SIDE AND USE OF MEDICATION

Involvement of side and use of medication are described in table II, which states that majority (n=188, 66.2%) of participants experienced unilateral neck pain and (n=151, 53.2%) were using medications to subside the pain.

Table II: INVOLVEMENT OF SIDE AND USE OF MEDICATION

Variable	Frequency	Percentage
Involvement of Side		
Unilateral	188	66.2
Bilateral	96	33.8
Medication		
Yes	151	53.2
No	133	46.8

VISUAL ANALOGUE SCALE STATUS

Visual analogue scale status is described in table III, which states that majority (n=95, 33.5%) reported with level 3 pain followed by (n=72, 25.4%) reported the level 4 pain.

Table III: VISUAL ANALOGUE SCALE STATUS

Variable	Frequency	Percentage
1	15	5.3
2	47	16.5
3	95	33.5
4	72	25.4
5	28	9.9
6	19	6.7
7	08	2.8

PRIMARY CAUSE OF PAIN

Primary Cause of pain is described in table IV, which states that the majority (n=180, 63.4%) of participants experienced the neck pain during their sleep, followed by (n=33, 11.6%) experienced the pain during reading book**.**

Table IV: PRIMARY CAUSE OF PAIN

Variable	Frequency	Percentage
Sleeping	180	63.4
Working	17	06
Reading book	33	11.6
Lifting objects	19	6.7
Concentrating	18	6.3
Recreational activities	17	06

CORRELATION BETWEEN VISUAL ANALOGUE SCALE, DEMOGRAPHICS CHARATCERTSTICS AND DISEASE CHARACTERSTICS.

Correlation between visual analogue scale, demographics Characterstics and disease Characterstics are described in table 5, which states that the gender and involvement of side (unilateral or bilateral) are statically significant ($p<0.05$) with neck pain (visual analogue scale).

Table V: CORRELATION BETWEEN VISUAL ANALOGUE SCALE, DEMOGRAPHICS CHARATCERTSTICS AND DISEASE CHARACTERSTICS.

Variable	Correlation coefficient	P VALUE
Vas Vs Age	0.877	0.189
Vas Vs Gender*	0.377	0.00
Vas Vs Marital status	0.359	0.591
Vas Vs Involvement of side*	0.261	0.002
Vas Vs use of medicine	0.80	0.177
Vas Vs cause of pain	0.084	0.160

*p value is significant at 0.05 level

**Correlation is significant at 0.01 level (2-tailed).

Discussion

The current study which was conducted among the students of department of eastern medicine, university of Balochistan, Quetta and disclosed that there is significant relationship between the neck pain (scaled through visual analogue scale) gender and involvement of side. Our study were in line with study conducted by Raftery et al in 1995 and Smith et al in 2008, and concluded that according to their survey female patients reported with more pain as compare to men, they also use powerful analgesics to subside their neck pain[9, 10]. During the literature search we found contrarily results, study conducted by Carstensen et al in 2012, Hagen et al in 1997, and concluded that there is no significant relationship found between the gender and neck pain.

Theses contradictory results can be due to their selection of population[11].

In our study we finalized that the gender is one of the significantly associated factor with neck pain, males are more prone to develop neck pain as compare to the female. The more male affection can because the male gender have more exposure of working environment. The male gender are more likely to perform the challenging tasks like professional drivers, forest machine operators, computer operators, weight lifting. Furthermore among the students, observed reason for neck pain were there in appropriate neck posture especially in their study time [12-17].

Secondly, the involvement of side (unilateral/ bilateral) is significantly associated with neck pain, the participants who were suffering from bilateral neck pain had experienced more pain then the participants who experienced unilateral neck pain[18, 19]. The participants who had experienced bilateral neck were feeling more difficulties in their personal care, while the participants who were suffering from unilateral neck pain were also feeling difficulties in their personal care but the level of difficulty were not so much high like the patients of bilateral neck pain [16-18, 20].

The participants who are male and belongs to personal and professional tasks which are more vulnerable for neck pain should aware themselves regarding their neck health. They ought to keep their necks pain free in order to enhance their health related quality of life and reduce the burden on health care facilities [2, 17, 19].

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