



Original Article

Association of Decreased Daily Physical Activities, Disturbed Sleep Pattern with Cervical Pain Among Young Adults

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ABSTRACT

There is broad variety in the manner in which neck pain is defined. While examination when providing details for neck pain there are five key points which apparently represented: 1. the origin of issue and information; 2. the situation or testing outline; 3. the neck pain seriousness, also the outcomes; 4. the neck pain extent; 5. the example after some moments. Other evidence showed there is lacking in amount and quality of sleep results in musculoskeletal displacement by patho-physiologically. The pain occurrence and the progression include many environmental and social causes which is widespread. **Objective:** The purpose of this study was to find the association of decreased daily physical activities, disturbed sleep pattern with cervical pain among young adults. **Methods:** A cross-sectional survey was conducted on 90 persons presenting with cervical pain. Data was collected from students of University of Lahore. Non-probability Convenient Sampling Technique was used. Northwick Park Neck Pain Questionnaire and The Sleep Revolution Sleep Quality Questionnaire by Arianna Huffington were used to collect data. **Results:** The total population was 90, which includes 33 males and 57 females with percentage 36.7% and 63.3% respectively. On pain scale to assess the cervical pain there were 43(47.8%) persons with Mild pain, 37(41.1%) having Moderate pain and 10(11.1%) with severe pain. There were 58 (64.4%) persons are physically active even after cervical pain and 32(35.6%) physically not active. There were 3(3.3%) who have severed sleep problems, 16(17.8%) were with some sleep problems, 43(47.8%) having good sleep and 28(31.1%) sleep is in great shape. In this Study there was no association occurs between daily activities, sleep disturbance with cervical pain in overall results. **Conclusion:** In this study overall, there was no association occurred in persons who were having any sort of cervical pain with daily physical activities and sleep patterns disturbance. As some of the individual activities like daily working, house hold activities, driving is affected in some of the cases with cervical pain.

INTRODUCTION

There is broad variety in the manner in which neck pain is defined in the writing. The task force was started working in 2000-2010 on different types of pain associated with neck and its related diseases as a result of these surveys they concluded almost more than 300 clinical definitions which describes the neck pain. While examination when providing details for neck pain there are five key points which apparently represented: 1. the origin of issue and information; 2. the situation or testing outline; 3. the neck

pain seriousness, also the outcomes; 4. the neck pain extent; and 5. the example after some moments. The clinical neck pain definitions are further approved by additional investigations which given by them in their study [1]. The pain occurrence and the progression includes many environmental and social causes which is widespread [2, 3]. From these causes some of them are changeable or adjustable while others are not. As from some early studies not all, they showed some connection

between age and onset of pain [4, 5], but among women the rate of neck pain is higher according to some studies [6]. From the history of neck pain, it is estimated the onset of neck pain is at increased risk [7]. The neck pain onset also associated with many of the risks like smoking, poor hygiene conditions, wrong postures during working, jobs related, lifestyle, headaches, emotional or psychological problems according to some other evidences [8]. Other evidence showed there is lacking in amount and quality of sleep results in musculoskeletal displacement by patho-physiologically. Resulting opening of radiating center individuals by methods for cortisol and cytokine frameworks has been suggested as one of the possible segments in an inevitable report where rest agitating impacts foreseen hospitalization due to back disorder. Inadequate rest is finished up to build the centralization of cytokines and inflammatory mediators [9]. The inflammatory factors concentration is increased by obesity, smoking and chronic stress [9]. With the advancement and the electronic media, e.g., TV, PCs and the Internet have rebuilt the everyday schedules of numerous young people, bringing about sleeping to poor level on average. With the increased incidence of musculoskeletal pain, the nature and amount of rest or sleep is lacking day by day. Some recent examinations propose the laziness, nodding off, awakening around evening time and other rest issues are chance elements for musculoskeletal pains [10]. Health habits and sedentary lifestyle may also contribute in affecting sleep in young population [11]. Decrease recreational activities and sedentary lifestyle with no routine exercise workup may lead towards sleep deprivation. Another significant factor which affects the sleep pattern is smoking which is very common in young population [12]. All these factors cause sleep disturbance which eventually results in cervical pain. Our aim is to assess the association of daily routine activities and sleep disturbance with cervical pain among young adults. Although other psycho-social parameters will also be assessed to determine their effect on sleep pattern of individuals [13]

METHODS

A cross-sectional study was conducted on 90 young adults presenting with some sort of cervical pain. The time duration was 3 months after approval February 2019 to April 2019. Data was collected from students of University of Lahore via non-probability Convenient Sampling Technique. The sample size was calculated through this formula: $N = Z^2 p(1-p) / D^2$

$Z^2_{1-\alpha/2}$ level of significance which was 95%, P = expected population which was 63%, d = margin of error which was 10%, n = expected sample size which was 90. Both male and

female genders with adult age range 18–30 years were included. Persons with recent injuries (Head Trauma), Any Systemic Infection (R.A, Arrhythmias), Any Cognitive Impairment (Migraine), Psychotic disorders (Depression, Stress, and Anxiety), Any Previous history of Insomnia, Substance Abuse excluded from the study. After taking informed written consent, data was collected through Northwick Park Neck Pain Questionnaire and The Sleep Revolution Sleep Quality Questionnaire by Arianna Huffington. The data was analyzed using SPSS 21.0. For Quantitative Variables Mean and Standard Deviation were calculated and for Qualitative Variables Frequency and Percentage were calculated.

RESULTS

The total population was 90, which includes 33 males and 57 females with percentage 36.7% and 63.3% respectively. The mean age of the subjects was 21.56 years with the standard deviation of 2.00 ranges between 18 to 27 years. On pain scale to assess the cervical pain there were 43 (47.8%) persons with Mild pain, 37 (41.1%) having Moderate pain and 10 (11.1%) with severe pain. There were 58 (64.4%) persons are physically active even after cervical pain and 32 (35.6%) physically not Active. There were 3 (3.3%) who have severe sleep problems, 16 (17.8%) were with some sleep problems, 43 (47.8%) having good sleep and 28 (31.1%) sleep is in great shape. In this Study there is no Association between daily activities, sleep disturbance with cervical pain in overall results. But there is association of working/housework (p value=0.03), driving (p value= 0.05), trouble you in general (p value=0.05) with cervical pain.

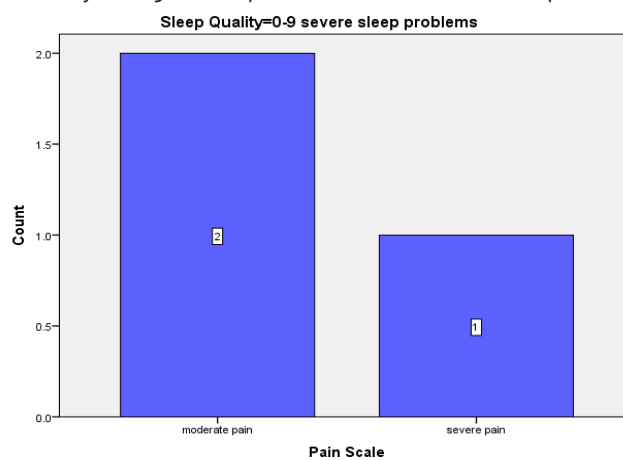


Figure 1: Descriptive Statistics for Crosstabs (pain scale, sleep quality, physical Active)($n=90$)

There is no association between pain intensity, sleep quality and physical active. (No significance)

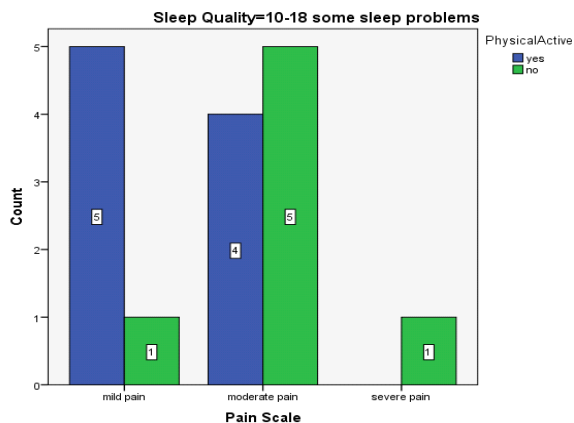


Figure 2: Descriptive Statistics for Crosstabs (pain scale, sleep quality, physical Active)(n=90)
There is no association between pain intensity, sleep quality and physical active.(P-value=0.167)

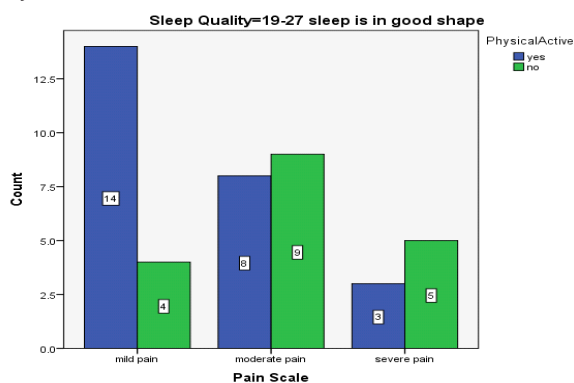


Figure 3: Descriptive Statistics for Crosstabs (pain scale, sleep quality, physical Active)(n=90)
There is no association between pain intensity, sleep quality and physical active.(P-value=0.078)

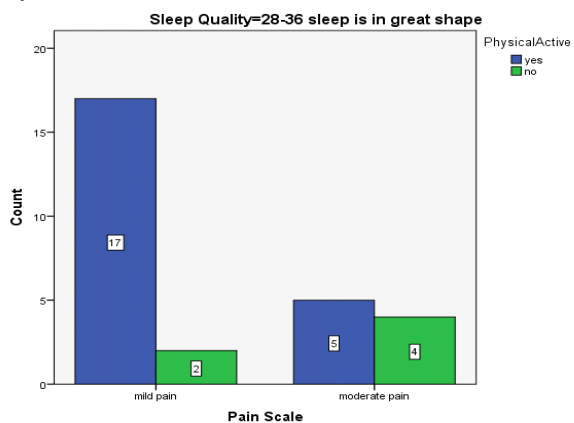


Figure 4: Descriptive Statistics for Crosstabs (pain scale, sleep quality, physical Active)(n=90)
There is no association between pain intensity, sleep quality and physical active.(P-value=0.061)

DISCUSSION

The results of this cross-sectional study showed that there was no connection occurred in daily physical activities and

sleep disturbance with any type of cervical pain. But somehow some of the physical activities are affected in some population like daily working, house work (p-value=0.03) and driving vehicle (p-value=0.005). As per the population size was not very large, this suggested that no such association occurred with cervical pain. There are numerous risk factors which are associated with cervical pain in young adults like their study timings, living standard, diet plans, social pressure, sporting activities and routine workout [14, 15]. The large population of adults and their greater response showed in Finland that these are the key factors for the purpose of this study. It was also in the study to give description and regulate the numerous risk factors which contributes to the neck pain in young population. Some specific laboratory measures are used to check for the sleep patterns which are much reliable as Electroencephalography (EEG). But there is a drawback for this laboratory measure as this is not possible to apply on larger population [16]. In comparison there are also some studies which conducted few years before on small level with small population size or study designs are either case control or cross-sectional which showed sleep disturbance in general adult groups results from any musculoskeletal pain [17]. Also some of the psychological conditions anxiety, depression, distress, strain all these shows some relation with sleep patterns disturbance. A recent discussion gives some conclusions which recommended the quality of sleep is not dependent on any of the risk factors or possibly associated with cervical pain [18, 19]. Some of the social factors including pressures and some social activities like using laptop, mobile phones, TV, caffeine consumption in excess, drugs usage, all these related to the disturbed sleep quality [20].

CONCLUSION

In this study overall there was no association occurred in young persons who are having any sort of cervical pain with daily physical activities and sleep patterns disturbance. As some of the individual activities like daily working, house hold activities, driving is affected in some of the persons with cervical pain. But most commonly the people are with good hygiene, doing routine exercise or any sporting activities having mild cervical pain which did not bother them at all.

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