

## Attitudes and beliefs about knowledge of chronic neck pain among final year MBBS and physiotherapy students

Muhammad Kashif<sup>1</sup>, Ramsha Sohail<sup>2</sup>, Ana Nazir<sup>2</sup>, Mahat Zafar<sup>4</sup>

### ABSTRACT

This Cross sectional observational study was conducted to determine the attitude and behavior about knowledge of chronic neck pain in final year MBBS students and final year physiotherapy students at Riphah College of Rehabilitation Sciences Faisalabad and University of Medical and Dental College, Faisalabad. A self-modified questionnaire was used for data collection which was comprised of two sections; First section, was related to questions regarding demographic information while second section was related to questions regarding knowledge of chronic pain in different domains.

The study included 200 students 100 from each degree (MBBS and DPT). Among MBBS students 23% got knowledge of chronic neck pain from lectures, 45% from books, 14% from articles and 18% from social media. Whereas, among students of DPT, 46% got knowledge from lectures, 32% from books, 16% from articles and 5% from social media. The results regarding the relationship among neck pain and abnormalities, inflammation and injury showed that 86% students from MBBS and 95% students from DPT agreed that abnormalities, inflammatory and injury are causes of chronic neck pain.

**Conclusion:** Most of the beliefs, knowledge and awareness possessed by groups i.e. MBBS and DPT students in almost of the same frequency with slight variations however, DPT students consider this disorder as of high concern as most of them believes that it can lead to the disability whereas less number of MBBS students think so.

**Keywords:** Neck pain, Chronic pain, MBBS students, Physiotherapy student, Attitude, Behaviors, Knowledge,.

### How to Cite This:

Kashif M, Sohail R, Nazir A, Zafar M. Attitudes and beliefs about knowledge of chronic neck pain among final year MBBS and physiotherapy students. *Isra Med J.* 2019; 11(1): 60-63.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

### INTRODUCTION

Neck pain is a commonly reported problem that affects 70% of individuals at some time in their lives. It has significant social and economic impact<sup>1</sup>. Though neck pain is common among adults, but it can occur at any age and remains a common problem in modern world. Chronic neck pain is described as

1. Assistant Professor of Physical Therapy & Rehabilitation
2. Demonstrator of Rehabilitation
3. Lecturer of Rehabilitation

Riphah College and Allied Health Sciences Riphah  
International University Faisalabad Campus, Faisalabad  
Pakistan.

### Correspondence to:

Dr. Muhammad Kashif  
Assistant Professor of Physical Therapy and Rehabilitation  
Riphah College and Allied Health Sciences, Riphah  
International University Faisalabad Campus, Faisalabad.  
Email: kashif.shaffi@gmail.com

Received for Publication: 05-02-19

Accepted for Publication: 28-02-19

persistent pain in the neck over a longer period of time<sup>2</sup>. Chronic neck pain includes pain experienced in the anatomic region of the cervical spine and surrounding musculature only, excluding the shoulders<sup>3</sup>. Neck pain may be axial, radiculopathy and myelopathy. Radiculopathy is neck and arm pain due to nerve root compression, while the myelopathy is a compression on the spinal cord<sup>4,5</sup>. Neck pain is a common health problem in the developed and underdeveloped countries. About 10-40% of adults are affected by neck pain every year, among them 10-15% of adult's neck pain persisted more than 6 months. Chronic neck pain is a common problem in the adult population and its prevalence is 30% to 50% that has substantial impact on health care and society and 14% of the patients have very high pain intensity and disability<sup>6</sup>. It has been estimated that one in four consultations in primary care is caused by problems of the musculoskeletal system and that these conditions may account for up to 60% of all disability problems. Many medical students do not have any clinical training in assessing patients with musculoskeletal problems<sup>7</sup>. Health education and clinical management are key strategies for controlling any ailment and they are associated with the healthcare professionals or therapists' attitudes and beliefs. The attitude and beliefs of a professional has a great influence on the patient's attitudes and beliefs in term of treatment affection, prevention and control of a disease because the patient will adopt these beliefs accordingly<sup>8</sup>.

Doctors and nurses have a pivotal role in patient pain management. The results of the previously reviewed studies revealed that the knowledge about pain among nursing and medical students was generally poor<sup>9</sup>. Physiotherapy is primary health care profession and they are required to understand the reasons and mechanism of pain and trained adequately to cure that ailment properly and satisfied patients with the treatment<sup>10</sup>. Health care professionals with positive attitudes provide their patients with evidence based care in pain management. The physiotherapist student attitudes become more and more positive over the course of their 5-year degree when compared to year one and two students. Clinical placements may play an important positive role in the attitudinal shift and this should be investigated further<sup>11</sup>. The rationale of our study is that little or no knowledge is known about difference in beliefs, knowledge of chronic neck pain among MBBS and physiotherapy students and there is limited data is available on the topic under study. Under the light of above sighted review the following study was aimed to assess and compare the knowledge, beliefs and attitude of final year MBBS and physiotherapy students towards Knowledge of chronic neck pain. The current study is designed to investigate the perception and beliefs of DPT and MBBS final year students regarding knowledge of chronic neck pain. The objective of study is to determine the attitude and behavior about knowledge of chronic neck pain in final year MBBS students and final year physiotherapy students.

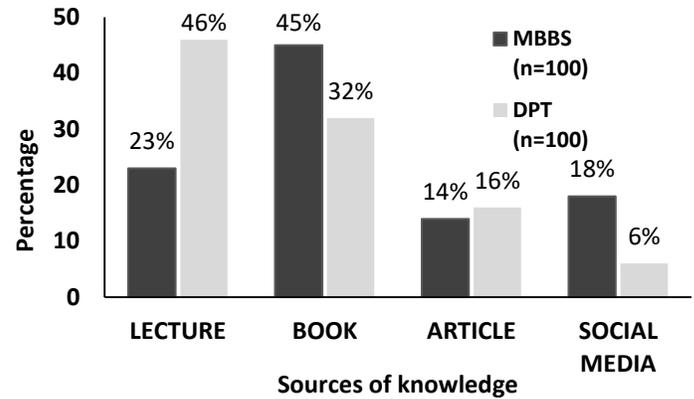
**METHODOLOGY**

This cross sectional study was conducted from 1<sup>st</sup> April to 30<sup>th</sup> September 2017 over two hundred final year medical students from Riphah College of Rehabilitation Sciences Faisalabad and University of Medical and Dental College, Faisalabad. A self-modified questionnaire was used for data collection which was comprised of two sections; First section was related to questions regarding demographic information while second section was related to questions regarding from where they acquired knowledge of chronic pain be attained from lectures, books, Literature or Social media. Students were also asked questions regarding knowledge about different causes of neck pain and the disciplines of medical sciences which deals with it. After obtaining ethical approval from institutional research review committee of Riphah International University, permission was taken from concerned authorities. Informed consent was obtained from all participants. Data was compiled by Microsoft Excel. Data was analyzed by taking the average of the gathered data and plotting it in the form of graphs.

**RESULTS**

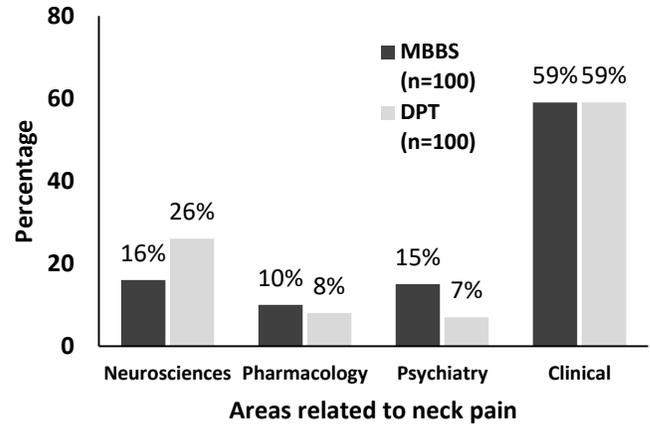
The study included 200 students 100 from each degree (MBBS and DPT). Among students of MBBS 23% students got knowledge of chronic neck pain from lectures, 45% from books, 14% from articles and 18% from social media. While among 100 students of DPT; the DPT students got knowledge 46% from lectures, 32% from books, 16% from articles and 5

from social media (Fig-1).



**Fig-1: Frequency of sources of knowledge of chronic neck pain among students of DPT + MBBS (N=200)**

Regarding to discipline which deals with this pathology. Among MBBS students 16% relate neck pain to neurosciences, 10% to pharmacology, 15% to psychiatry and 59% to clinical side. Whereas 26% students of DPT related neck pain with neurosciences, 8% with pharmacology, 7% with psychiatry and 59% with clinical side (Fig-2).



**Fig-2: Frequency of knowledge about discipline of medical sciences dealing with chronic neck pain among MBBS DPT students (N=200)**

Regarding knowledge about causes of neck pain 87% students of MBBS and 92% DPT agreed that chronic pain is due to musculoskeletal cause. The results regarding the relationship among neck pain and abnormalities, inflammation and injury showed that 86% students from MBBS and 95% students from DPT agreed think that abnormalities, inflammatory and injury are causes of chronic neck pain. About 68% from MBBS and 85% from DPT agreed that prolonged chronic neck pain can lead to disability. Among students of MBBS 77% agreed that myelopathy, atlantoaxial subluxation, cervical radiculopathy, and metastasis are red flags of chronic neck pain as compared to 88% DPT students. Among MBBS student 60% agreed that chronic neck pain is closely related to systemic causes while 72% of DPT agreed with it. Almost 85% MBBS students and 95% DPT students agreed that social activities can be affected due to chronic neck pain (Table-I).

**Table-I: Comparison of knowledge about causes of chronic neck pain among MBBS of DPT student (N=200)**

	MBBS		DPT	
	Agree	Disagree	Agree	Disagree
Chronic neck pain is caused by musculoskeletal cause	87%	13%	92%	8%
Abnormalities inflammatory or injury causes chronic neck pain	86%	14%	95%	5%
Prolong chronic neck pain can lead to disability	68%	32%	85%	15%
Red flags of chronic neck pain	77%	23%	88%	12%
Chronic neck pain is closely related to systemic causes	60%	40%	72%	28%
Effect of chronic neck pain on social activities	85%	15%	95%	5%

## DISCUSSION

The aim of this study was to find out the current level of awareness and knowledge of chronic neck pain among final year MBBS and DPT students. The current findings are identification of different problems and their solution among MBBS and DPT problems and compared the attitude, behavior and preference of both groups. For the purpose present cross sectional study was conducted in different medical institutes of Punjab and 100 final year students from each group (DPT and MBBS) was selected.

Comparison was judged by different questions regarding knowledge of chronic neck pain. Results elucidate that DPT student got information about chronic neck pain mainly through the lectures 46% whereas the MBBS students come to know about chronic neck pain from books 45%. Physician knowledge and educational strategies have a strong impact on clinical practices<sup>12, 13</sup>. Physiotherapy students have more intense course with separate subject exam and binding to attend clinical training. So the physiotherapy students have more command towards pain management<sup>14</sup>. The results of the previously reviewed studies revealed that despite the diversity of standardized tools that have been used to assess knowledge, perceptions and attitude for the management of pain, the knowledge about pain management among nursing and MBBS are generally poor<sup>9</sup>.

Physicians all are highly related to chronic neck pain. They play an important role in its recovery. Our study shows that MBBS and DPT students both agree that these areas are related to chronic neck pain with slight variations in their point of view for each area. Both of them mostly believe that clinical area is more related to the chronic neck pain. Concerning the amount of patient coming to both type of physicians, only 48% of MBBS students examined patient of chronic neck pain; whilst, 86% of DPT students examined the patient of chronic neck pain.

Results showed that 98% MBBS students felt that neck pain is

because of reading book, using mobile phones, laptops and DPT 92% also agreed with MBBS students. Current findings are also in close agreement with that musculoskeletal pains are associated with the chronic neck pain. These musculoskeletal pains are because of improper posture, sitting with neck in a bed position and jerking neck during exercise, heavy lifting or other spinal issues etc<sup>15</sup>

Regarding the concept of different factors that are responsible for chronic neck pain different variation existed. Among DPT and MBBS students' majority (92% and 87% respectively) thought that chronic neck pain is related to musculoskeletal causes. Musculoskeletal disorders are common across the world and costly in terms of impact on an individual and generally on a society. These disorders have been noticed among the most frequently reported work-related illnesses<sup>16</sup>.

Similarly, 86% of MBBS students and 95% DPT students both agreed on same statement that inflammation or injuries are also responsible for the mention illness. Childs and his coworkers investigated that some other factors of neck pain may be abnormalities of the vertebral motion segment, disorders such as cervical radiculopathy and cervical compressive myelopathy (herniated cervical disc) etc<sup>17, 18</sup>.

Both groups MBBS 68% and DPT 85% students have the same opinion that prolonged chronic neck pain can lead to disability. A study shows that 60% of disability occurs due to neck pain<sup>7</sup>. One of the study shows that neck pain is axial, radiculopathy, and myelopathy, this type of neck pain can be acute or chronic. If this pain persists for 6 weeks it is chronic neck pain<sup>19</sup>. According to our study, 77% of MBBS students and 88% of DPT students of final year believed that myelopathy, radiculopathy and atlantoaxial subluxation are red flags for chronic neck pain. Similarly mainstream of MBBS 60% and DPT 72% students are in agreement with the systemic causes. Current judgments are supported by the findings of previous researchers that different factors are responsible equally for the neck ailments<sup>20</sup>.

Chronic pains affect the social life. MBBS students *i.e.* 44.5% thought that social activities can get affected due to chronic neck pain, similarly 47.5% of DPT students agreed with this. One study proved that posture during work can be the most common cause of chronic neck pain<sup>21</sup>. Previous studies revealed that healthcare professionals with biomedical orientation mostly advised their patients to limit physical activities. Such therapists unlikely followed evidence-based education for the treatment of chronic musculoskeletal pain<sup>8,22</sup>. Findings of recent research demonstrated that there was a difference between both disciplines regarding awareness and knowledge of chronic neck pain. According to previous study, final year physiotherapy students have greater knowledge about chronic pain than final year medical students<sup>11</sup>. Current findings of our study shows that DPT final year students have 88% and MBBS final year students have 76% knowledge and awareness about chronic neck pain. Most the beliefs, knowledge and awareness possessed by groups *i.e.* MBBS and DPT students in almost same frequency with slight variations but DPT students consider this disorder as of high concern as most of them believes that it can lead to the

disability whereas less number of MBBS students think so.

### CONCLUSION

Most the beliefs, knowledge and awareness possessed by groups i.e. MBBS and DPT students in almost same frequency with slight variations however, DPT students consider this disorder as of high concern as most of them believes that it can lead to the disability whereas less number of MBBS students think so.

### CONTRIBUTION OF AUTHORS

Kashif M: Conceived idea, Data collection, Manuscript writing, Manuscript final reading and approval

Sohail R: Statistical analysis, Literature review, Manuscript writing

Nazir A: Designed research methodology, Data collection, Data interpretation

Zafar M: Data Analysis, Literature Review, Manuscript final reading and approval

**Disclaimer:** None.

**Conflict of Interest:** None.

**Source of Funding:** None.

### REFERENCES

- Cohen SP, editor Epidemiology, diagnosis, and treatment of neck pain. *Mayo Clin Proc*; 2015: 1321.
- Henschke N, Kamper SJ, Maher CG, editors. The epidemiology and economic consequences of pain. *Mayo Clin Proc*; 2015: 238.
- Hudson JS, Ryan CG. Multimodal group rehabilitation compared to usual care for patients with chronic neck pain: a pilot study. *Manual herapy*. 2010;15(6):552-56.
- Katz J, Rosenbloom BN, Fashler S. Chronic pain, psychopathology, and DSM-5 somatic symptom disorder. *Can J Psychiatry*. 2015;60(4):160-67.
- Manchikanti L, Singh V, Falco FJ, Benyamin RM, Hirsch JA. Epidemiology of low back pain in adults. *Neuromodulation*. 2014;17:3-10.
- Noormohammadpour P, Mansournia MA, Koohpayehzadeh J, Asgari F, Rostami M, Rafei A, et al. Prevalence of Chronic Neck Pain, Low Back Pain, and Knee Pain and Their Related Factors in Community-Dwelling Adults in Iran. *Clin J Pain*. 2017;33(2):181-87.
- Akesson I, Balogh I, Hansson GA. Physical workload in neck, shoulders and wrists/hands in dental hygienists during a work-day. *Applied Ergonomics*. 2012;43(4):803-11.
- Darlow B, Dowell A, Baxter GD, Mathieson F, Perry M, Dean S. The enduring impact of what clinicians say to people with low back pain. *Ann Fam Med*. 2013;11(6):527-34.
- Ung A, Salamonson Y, Hu W, Gallego G. Assessing knowledge, perceptions and attitudes to pain management among medical and nursing students: a review of the literature. *British journal of pain*. 2016;10(1):8-21.
- Mao J. Current challenges in translational pain research. *Trends in pharmacological sciences*. 2012;33(11):568-73.
- Quinn T, Ryan C, Jones D. Physiotherapy Students' Attitudes Towards the Functional Ability of Patients with Chronic Low Back Pain. *Pain and Rehabilitation-the J of Physiother Pain Asso*. 2014;2014(37):20-23.
- Sarrami P, Armstrong E, Naylor JM, Harris IA. Factors predicting outcome in whiplash injury: a systematic meta-review of prognostic factors. *J Orthop Trauma*. 2017;18(1):9-16.
- Childs JD, Cleland JA, Elliott JM, Teyhen DS, Wainner RS, Whitman JM, et al. Neck pain: clinical practice guidelines linked to the International Classification of Functioning, Disability, and Health from the Orthopaedic Section of the American Physical Therapy Association. *J Ortho Sports Phys Ther*. 2008;38(9):A1-A34.
- Bhise MC, Marwale AV, Deshmukh AS, Saoji SG. Impact of differences in psychiatry curriculum of undergraduate medical and physiotherapy students on their attitude towards psychiatry. *Indian J Psychiatry*. 2016;58(2):208.
- Mokdad AH, Forouzanfar MH, Daoud F, Mokdad AA, El Bcheraoui C, Moradi-Lakeh M, et al. Global burden of diseases, injuries, and risk factors for young people's health during 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet*. 2016;387(10036):2383-401.
- Foster NE, Hartvigsen J, Croft PR. Taking responsibility for the early assessment and treatment of patients with musculoskeletal pain: a review and critical analysis. *Arthritis research & therapy*. 2012;14(1):205.
- Childs JD, Flynn TW, Fritz JM, Piva SR, Whitman JM, Wainner RS, et al. Screening for vertebrobasilar insufficiency in patients with neck pain: manual therapy decision-making in the presence of uncertainty. *J of Ortho & Sports Phy Ther*. 2005;35(5):300-306.
- Childs JD, Cleland JA, Elliott JM, Teyhen DS, Wainner RS, Whitman JM, et al. Neck pain: clinical practice guidelines linked to the International Classification of Functioning, Disability, and Health from the Orthopaedic Section of the American Physical Therapy Association. *J of Ortho & Sports Phy Ther*. 2008;38(9):A1-A34.
- Benyamin RM, Datta S, Falco FJ. A perfect storm in interventional pain management: Regulated, but unbalanced. *Pain Physic*. 2010;13(2):109-16.
- Pool JJ, Ostelo RW, Knol DL, Vlaeyen JW, Bouter LM, de Vet HC. Is a Behavioral Graded Activity Program More Effective Than Manual Therapy in Patients With Subacute Neck Pain?: Results of a Randomized Clinical Trial. *Spine*. 2010;35(10):1017-24.
- Darivemula SB, Goswami K, Gupta SK, Salve H, Singh U, Goswami AK. Work-related neck pain among desk job workers of tertiary care hospital in New Delhi, India: Burden and determinants. *Indian J Comm Med*. 2016;41(1):50.
- Kisner C, Colby LA, Borstad J. Therapeutic exercise: foundations and techniques: Fa Davis; 2017. P 203.