

## ORIGINAL ARTICLE

## KNOWLEDGE ABOUT CHRONIC NECK PAIN MANAGEMENT AMONG FINAL YEAR MBBS AND PHYSIOTHERAPY STUDENTS

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### ABSTRACT

**Objective:** To determine the knowledge of MBBS and Physiotherapy students regarding clinical management of chronic neck pain.

**Material & Methods:** A cross sectional study was conducted from September 2018 to February 2019. Two hundred final year medical students from Riphah College of Rehabilitation Sciences Faisalabad and University of Medical and Dental College, Faisalabad were included using convenient sampling. A self-modified questionnaire was used for data collection. Data was analyzed using SPSS version 20.

**Results:** About 80% DPT and 60% MBBS students responded that chronic neck pain is mostly treated by physical therapists. 83% MBBS and 71% DPT students agreed that investigations are necessary in chronic neck pain. 100% DPT and 84% MBBS students preferred exercise and physical therapy over all other treatment options for the management of chronic neck pain. 83% MBBS and 99% of DPT student reported that changing and modifying lifestyle can be helpful in chronic neck pain management.

**Conclusion:** Majority of both MBBS and DPT students agreed that exercise and physical therapy are the most effective treatment strategy in comparison to all other treatments in the management of chronic neck pain.

**Key Words:** Chronic, MBBS, Neck pain, Physical Therapy, Students

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### INTRODUCTION

Neck pain is a common problem that affects 70% of people at some point in their lives. It has a significant impact on all aspects of life, including biological, psychological, social and economic impacts.<sup>1</sup> The therapeutic treatments used for chronic neck pain are exercises, manipulative therapy, mobilization, massage, physical methods, and multidisciplinary bio psychosocial rehabilitation.<sup>2</sup> The prognosis of chronic neck pain is poor because in majority of patients neck pain relapse even after extensive conservative treatment.<sup>3,4</sup> Literature does not support or negate any specific treatment

approach for chronic neck pain.<sup>5</sup> Especially there is no evidence about effectiveness of specific treatment protocols in terms of expenses, time and alleviating symptoms.<sup>6</sup> Exercise therapy, psychological therapies, massage, physical therapies (including electrotherapeutic modalities like interferential currents, shortwave diathermy, heating, and TENS etc.), and spinal mobilization and manipulation, are commonly used.<sup>7,8</sup> Massage is also used in the treatment of neck pain.<sup>9</sup>

Because medical students are expected to play an important role in managing patients with chronic pain that's why it is necessary to find out views and perception of medical students

regarding chronic neck pain management. The results of the previously reviewed studies revealed that, knowledge of medical students regarding chronic neck pain management was poor.<sup>10</sup> On the other hand, a qualitative study explored physiotherapist's pain beliefs and reported that physiotherapist believe that they play an important role in managing chronic pain patients. Physiotherapist's beliefs about pain have direct relation with management of these chronic pain patients.<sup>11</sup>

Doctors and Physiotherapist with optimistic approach provide their patients with evidence based care in managing chronic pain. 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 also help a lot in the attitudinal shift.<sup>12</sup> Short training program of two to three days or one week is unlikely to revolutionize long term behavior of a therapist as compare to six-month training. It required extensive learning and experience.<sup>13</sup> The current study was conducted to evaluate the perception of final year DPT and MBBS students about management of chronic neck pain. This study was design to highlight the different problems faced by both groups during study due to different examination scenario and to provide them effective solutions to those problems. Also help them to overcome the deficiency in their knowledge and improve their information and awareness about chronic neck pain. The purpose of study was to increase the efficacy of both groups for medical treatment of chronic neck pain.

### **MATERIAL AND METHODS**

A cross sectional study was conducted from September 2018 to February 2019. Two hundred final year medical students from Riphah College of Rehabilitation Sciences Faisalabad and University of Medical and Dental College, Faisalabad were included using convenient sampling. 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 management of chronic pain and Management of chronic pain.

After obtaining ethical approval from institutional research review committee of Riphah International University, permission was taken from concerned authorities of Sargodha Medical College, Sargodha and University of Medical and Dental College, Faisalabad. Informed consent was obtained from all participants. Data was compiled by SPSS 20. Data was analyzed by taking the average of the gathered data and plotting it in the form of graphs.

### **RESULTS**

According to results investigated from 200 students of MBBS and DPT. About 18% of DPT students responded that chronic neck pain is mostly treated by physicians, 80% said that physiotherapists are responsible for the treatments and 2% said that this pain is mostly taken care by the nurses. Not by surgery but 7 % among MBBS students said that family and friends are also helpful in managing chronic neck pain. Result showed that 83 MBBS out of 100 students and 71 DPT agreed that investigations are necessary in chronic neck pain. **(Table 1)** Study was done in 200 students of both MBBS and DPT to find out the treatment options of chronic neck pain. About 68% DPT and 75% MBBS students agreed with NSAIDS while other disagreed with it. 50 and 60% out of total DPT and MBBS students described the effectiveness of corticosteroid injections, respectively. Whereas 70% of both students also supported that muscle relaxants are also vital for managing neck pain. While, 100% DPT and 84% MBBS students preferred exercise and physical therapy on all other treatments. About 75% DPT and 55% MBBS agreed with neck collar while other disagreed with it. Importance of traction was evaluated and 80% of DPT students and 40% of MBBS were aware of that importance. But 35 and 55% among DPT and MBBS respectively felt that surgery is compulsory and 85% of DPT and 58% of MBBS agreed with the need of electrical modalities.. This is inferred from study done in 100 students of MBBS and 100 students of DPT that changing and modifying lifestyle can be helpful in pain management. 83% of MBBS and 99% of DPT agreed with it.

All 100 DPT students agreed with importance of physiotherapy and 83 out of 100 students from MBBS agreed with it. This is inferred from study that chronic neck pain which is radiating to arms and head associated to headache is easily treatable or not. 48 MBBS out of 100 and 54 of DPT student approved that it can be easily treated but other are not in agreement with it.

Out of 100 students of MBBS 74% agreed while 83% of DPT agreed that chronic neck pain requires long term treatment plan. Result was found from study in 100 students of MBBS and 100 students of DPT that patient should avoid pain inducing activities to reduce pain. 86% from MBBS and 98% from DPT agreed with it. (Table 2)

**Table 1: Sources of Knowledge of Pain**

	Study Population			
	DPT Frequency	%Age	MBBS Frequency	%Age
Lecture	46	46	23	23
Book	32	32	45	45
Article	16	16	14	14
Social Media	6	6	18	18

**Table 2: Treatment Methods for chronic neck pain**

Treatment methods	Study Population	Yes		No	
		Frequency	% age	Frequency	% age
NSAIDs	DPT	68	68	32	32
	MBBS	75	75	25	25
Corticosteroid injections	DPT	50	50	50	50
	MBBS	60	60	40	40
Muscle relaxants	DPT	70	70	30	30
	MBBS	70	70	30	30
Exercise and physical therapy	DPT	100	100	0	0
	MBBS	84	84	16	16
A neck collar	DPT	75	75	25	25
	MBBS	55	55	45	45
Traction	DPT	80	80	20	20
	MBBS	40	40	60	60
Surgery	DPT	35	35	65	65
	MBBS	55	55	45	45
Electrical modalities	DPT	85	85	15	15
	MBBS	58	58	42	42

## DISCUSSION

The aim of this study was to find out the knowledge of MBBS and DPT students regarding chronic neck pain management and which management method are popular among them. Comparison was judged by different questions regarding management of chronic neck pain. Majority of DPT and MBBS students strongly agreed with the belief that physiotherapists are responsible with management of Chronic Neck Pain. Current findings are supported by the previous findings. Physiotherapy treatment produced more beneficial outcomes in terms of increased strength, improved function, and health-related quality of life and reduced the neck pain scores. Active physiotherapy exercises are more helpful for all patients in managing neck pain.<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>10,15</sup> Study regarding exercise and spinal manipulation for patients with chronic neck pain concluded that for chronic neck pain, strengthening exercise of neck muscles either combining it with spinal manipulation or using it alone appears to be relieving and beneficial for the patients.<sup>15</sup> Another study about chronic neck pain proved that at week 6, patients with chronic neck pain can get benefit from physiotherapy. Neck exercise program, pain reliever, neck muscle strengthening in different ways, isometrics prevents disability and further aggravation and complication that may affect the living of a person. It shows the efficacy of exercise and physiotherapy for patients with chronic neck pain.<sup>16</sup>

Musculoskeletal complaints among workers in physically demanding occupations are high and increased with age for both sexes and resulted in chronic neck pain too.<sup>17,18</sup> Another study shows that prevention for subjects suffering from chronic neck pain not seeking medical care are sobering. Only exercises provided sufficient evidence to conclude that they are effective interventions for chronic neck pain.<sup>19-21</sup>

According to our study, 71% of DPT and 83% of MBBS students are agreed that investigations are necessary in chronic neck pain. Regarding treatment of chronic neck pain, the majority of both MBBS and DPT students agreed that Physical therapy and NSAIDS are the most effective amongst all the methods. Eighty-four percent (84%) MBBS students preferred physiotherapy in chronic pain management and 100% DPT students believed in their physiotherapy pain management. 75% MBBS and

68% DPT students believe that NSAIDS are the most effective method.

Eighty-three percent (83% of MBBS students believed that changing lifestyle and modifying it can be helpful in pain management. Correspondingly, 99% of DPT students believed too on changing life style pattern to prevent this pain. Earlier study proved that if the patients are treated with proper manual therapy for a 6 week follow-up appointment and tested for pain intensity. Significant pain relief and range of motion improvement is observed after treatment that resulted in improved quality of life.<sup>16</sup>

Another research shows that neck pain radiating into arm, shoulder and head is associated with the mild to severe headache that may lead to chronic condition which can be very difficult to treat.<sup>22</sup> According to our study, 48% of MBBS students and 54% of DPT students agreed that chronic neck pain is radiating to arms and head. They also supported that long term physiotherapy treatment plan is needed for chronic neck pain (74% MBBS and 83% DPT students). Along with the long term treatment plan 86% of MBBS students and 98% DPT students also referred that the patients should avoid pain inducing activities during treatment.<sup>23</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>24,25</sup> Findings of recent research demonstrated that there was a difference between both disciplines regarding awareness, knowledge and management of neck pain.

According to previous study, final year physiotherapy students have greater knowledge about chronic pain treatment than final year medical students. While the medical students have greater understandings about management of chronic pain than that of physiotherapy students.<sup>26</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. Majority of DPT and MBBS students are agreed to prefer the physiotherapy treatment for chronic neck pain treatment.

## CONCLUSION

Majority of both MBBS and DPT students agreed that exercise and physical therapy are the most effective in comparison to all other treatments. While the majority agreed that the surgery is not a good option for chronic neck pain. Majority of DPT students strongly agreed with the belief that modification in lifestyle can help in effective management of Chronic Neck Pain as compared

to MBBS students which are less biased to this idea. Almost the equal number of students agreed and disagreed to the management of chronic neck pain that is radiating to arm and head associated to headache. Most of the students of DPT and MBBS agreed that chronic neck pain requires long term treatment plan. Most of the students supported the statement that patient should avoid the pain inducing activities to manage the chronic neck pain.

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