

## Temporomandibular disorders awareness among dentist's about physical therapy management

Aqsa Anjum, Hassan Javed, Faiza Sharif, Wajeeha Bakhat, Kinza Mubashar

University Institute of Physical Therapy, University of Lahore; University of Sargodha;  
University of Sargodha, Pakistan

**Objective:** To determine the awareness of Physical Therapy to treat temporomandibular disorders among dentists.

**Methodology:** This observational study was included 104 dentists from Fatima Memorial Hospital, University of Lahore Teaching Hospital, Lahore University Dental Clinic and various private dental clinics of Lahore. The duration of the study was from June 1, to August 1, 2018. Nonprobability convenient sampling technique was used. Self-administered questionnaire was made and validated.

**Results:** Among 104 participants, 70(67.3%) were aware that physical therapist can treat

patients with temporomandibular disorders (TMD). 61(58.7%) referred patients to physical therapist when they have TMD. 93(89.4%) were interested to learn about the benefits of physical therapy.

**Conclusion:** Most dentists were aware that physiotherapists can treat patients with TMD and they referred the patients to them. Most were interested in learning about the benefits of physical therapy to treat patients with TMD. (Rawal Med J 202;45:590-592).

**Keywords:** Temporomandibular disorders (TMD), physical therapy, dentists.

### INTRODUCTION

The temporal joint is formed by condyloid process of the mandible that enters the mandible of the temporal bone. Chewing muscles are primarily responsible for the movement of this joint.<sup>1</sup> Temporomandibular disorders (TMD) are frequent cause of face and mouth pain and can produce chronic pain. It is also known to be associated with depression, irritable bowel syndrome, and chronic fatigue.<sup>2</sup>

Temporal disorder affects up to 15% in adults and 7% in adolescents and can be associated with poor quality of patient life.<sup>3</sup> In young and middle-aged women it is the second common cause of facial pain.<sup>4</sup> About 75% adults have one sign of dysfunction<sup>5</sup> and women to men ratio is 2:1.<sup>6</sup>

For treatment of TMJ disease, physiotherapy plays vital role after dental procedures and postoperative operations. Thermotherapy physiotherapeutic procedures include exercises and TMJ mouth opening devices to facilitate the oral opening and reducing pain.<sup>7</sup> One of the most important conservative treatments is physiotherapy. Not all dentists were aware about the importance and use of physiotherapists (PT) to treat TMD pain.<sup>8</sup>

Physiotherapy engages stretching exercises, active

jaw movements and correction of head and body posture.<sup>9</sup> Integrated approach like home exercises and ultrasound application has been used to treat TMJ pain and is useful in enhancing opening of mouth.<sup>10</sup> The aim of this study was to determine the level of awareness of physical therapy to treat TMD among dentists.

### METHODOLOGY

This observational study included 104 dentists from Fatima Memorial Hospital, University of Lahore Teaching Hospital, Dental Hospital University of Lahore and different private dental clinics of Lahore. Non-probability Convenient Sampling Technique was used and self-administered questionnaire was used to collect data. The study was completed within 3 months from June 1, to August 1, 2018. Written permission and ethical approval were obtained from the University Institutional Review Board, Fatima Memorial hospital, University of Lahore Teaching Hospital, Lahore University Dental Clinic and various private dental clinics in Lahore.

Sample size was calculated through Epitool. Confidence level was 90, anticipated population proportion value was 0.57, absolute precision

required value was 0.08 and sample size was 104.

Dentists of both genders and all ages who had minimum 1year of clinical experience and had treated TMD, degenerative joint diseases, dislocated jaw and myofascial pain disorder were included in the study. Dentists who were not registered with PMDC, unwilling subjects and those who had not treated with history of diabetes, CHF, swollen and tendered temporomandibular joint or any chronic infection were excluded.

Statistical Analysis: Descriptive statistics were determined by analyzing the responses of total participants and frequency. The information about PT among the respondents and referral were determined according to dentist specialty.

## RESULTS

Out of 104 participants, 60(57.7%) were male and 44(42.3 %) female with mean age of  $27 \pm 1.0$  year. There were 44(42.3%) who were taking education courses on TMD and 60(57.7%) were not taking education courses on TMD.

Among 104 dentists, 70(67.3%) were aware that PT can treat patients with TMD and 34(32.7%) were not (Table 1).

**Table 1. Descriptive statistic about awareness of physical therapy.**

Among 104 participants, 61(58.7%) referred patients to PT when they have TMD, 8(7.7%) were

| Awareness of Physical Therapy | Frequency | Percent |
|-------------------------------|-----------|---------|
| Yes                           | 70        | 67.3%   |
| No                            | 34        | 32.7%   |

those who said that they don't refer patient and 35 said that may refer patient to PT when its necessary (Table 2).

**Table 2. Dentist's who refer patients of TMD to physical therapist when mandatory.**

| TMD patients to Physical Therapy | Frequency | Percent |
|----------------------------------|-----------|---------|
| Yes                              | 61        | 58.7%   |
| No                               | 8         | 7.7%    |
| may be                           | 35        | 33.7%   |
| Total                            | 104       | 100.0%  |

Among 104 dentists, 93(89.4%) agreed and were interested to learn about the benefits of PT while 11(10.6%) did not agree about learning these benefits (Table 3).

**Table 3. Respondents who were interested in learning more about benefits of physical therapy to treat TMD.**

| Interest | Frequency | Percent |
|----------|-----------|---------|
| Yes      | 93        | 89.4%   |
| No       | 11        | 10.6%   |
| Total    | 104       | 100.0%  |

## DISCUSSION

In this study, there were 61(58.7%) of dentists said that they were agreeable to assign patients with TMD to PT when it is required. Our results showed that 41% dentists did not know that PTs can treat TMD patients. In addition, they also reported that dental surgeons and orthodontists were more aware of PT compared to other specialties. However, dentists (81%) referred their patients to PT and about 80% wanted to take advantage of the benefits of interaction.

A study reported that 88 of the total surveyed dentist did not refer TMD patients to PT, while 65 of the totals did not know benefit of PT for curing TMD. Moreover, it was also reported that referred to PTs might be more beneficial if dentist know the benefits of PT and TMD patients.<sup>11</sup> Another study reported that 1/3 of dentists never evaluated TMD patients for poor head and neck posture and cervicogenic headache, as several studies reported that TMD pain and cervical spine disorders were correlated with neck pain and poor posture.<sup>12-14</sup> For this reason, dentists should know well about the disorder and refer the patients for possible treatment and collaboration.<sup>15</sup>

Previous studies reported that lack of information about the advantages of PT for TMD treatment, dentists could not refer the patients to PT (58%) and 32% were not aware about cervical spine and orofacial symptoms.<sup>16</sup>

PT is an important and integral part of TMD treatments<sup>17</sup> including physiotherapy, behavioral therapy and occlusal devices help improve the recovery of TMD patients.<sup>3</sup> Based on the facts that role of PT on TMD treatment was based on the

dentist's awareness and information about PT and TMD interaction. The study also evidenced that dentist's awareness about advantage of PT for TMD treatment is less in Pakistan. Moreover, study also enhanced the awareness of the dentists and advantage using multidisciplinary approach.

## CONCLUSION

Most dentists were aware that physiotherapists can treat patients with temporomandibular disorders and they referred their patients to physical therapist. Most were interested in learning about the benefits of physical therapy to treat patients with temporomandibular disorder.

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### Author Contributions:

Conception and design: Aqsa Anjum, Wajeeha Bakhat  
Collection and assembly of data: Hassan Javed, Kinza Mubashar  
Analysis and interpretation of the data: Aqsa Anjum, Hassan Javed  
Drafting of the article: Wajeeha Bakhat, Kinza Mubashar  
Critical revision of the article for important intellectual content: Faiza Sharif

Statistical expertise: Aqsa Anjum, Faiza Sharif

Final approval and guarantor of the article: Faiza Sharif

**Corresponding author email:** aqsa.anjum31@gmail.com

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