KNOWLEDGE OF DENTISTS ABOUT THE ROLE OF PHYSIOTHERAPY IN TEMPOROMANDIBULAR DISORDERS

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ABSTRACT

Background: Temporomandibular joint disorder (TMD) is a complex disorder usually characterized by pain, crepitus and reduced movement. It may be due to various causes i.e. unbalanced activity, muscular spasm, or overuse of the jaw muscles.

Objective: - The aim of our study is to find the awareness level of physiotherapy among dentists regarding its role in TMD.

Methodology: A Descriptive case series was conducted among different private dental clinics in Daman, India. A convenient base sample of 500 respondents has been collected in 1 month. Results: According to our study, most common complaints of patients to dentists were pain during eating and yawing (48 %) followed by Crepitus/Clicking (30.0%) as the second most common complaint followed by insufficient mouth opening (15%) and jaw locking ( 7%). According to our results 60% dentists muscle relaxants and rest were most effective treatments for TMD. The results revealed that about 49.9% of the dentists are aware about the role of PT in treating TMD. Only 29% of the dentists advised PT referral. Upon the completion of the survey, almost all dentists (97.5%) were likely to refer patients with TMD to PT, and 90.7% of them showed interest to learn more about collaborating with PTs. Association of dentists’ awareness level of physiotherapy as a treatment for TMD found to be significantly low p=0.0001 in our study.

Conclusion: The study made a difference to extend the surveyed dentists awareness about the collaboration and multidisciplinary approach with PT. The collaboration is extremely important for better outcomes, avoiding the misdiagnosing, and lowering the cost.

Key Words: Temporomandibular Joint, Dentist, Physiotherapy

I. INTRODUCTION

Temporomandibular disorders (TMD) refer to the dysfunction of the TMJ with multifactorial etiologies and pathologies in the orofacial region [1]. TMD are musculoskeletal disorders characterized by tenderness, pain, limitations in mandible movements, headache, and clicking within the joint [2, 3]. TMJ dysfunction is one of the chronic orofacial pain conditions and is associated with symptoms related to head and neck including headache, otitis, neck pain, and it may affect patient’s health related quality of life [4]. TMD can be acute or chronic, and the prevalence may vary by subtype. It is estimated to be between 6% and 13.3% [5, 6]; around 10% of patients may have severe symptoms [6, 7]. Physiotherapists (PTs) deal with TMD as they treat other joints in the body and use different electrotherapy modalities such as electrical stimulation [8–20], ultrasound [21], acupuncture [22–24], and laser therapy [25–27] to reduce pain and inflammation which further promotes healing of tissues. Other conservative approaches including occlusal splint therapy [28], massage [28–30], manual therapy [4, 31, 32], therapeutic exercises, and home exercises program [33, 34] are used to re-establish the proper flexibility and muscular length/strength. Therefore, it improves mobility/function. The awareness about multidisciplinary approach may help health practitioners to refer TMD patients to other specialists for better management of the condition [35], and much better prognosis can be achieved by dentist and PTs collaboration [7]. Up to the authors’ knowledge, no studies were done in Daman. Hence, this study aimed to assess the dentists’ awareness...
level about the role of PT in treating TMD, identify dentists’ willingness to collaborate with PTs, and create collaboration awareness.

METHODOLOGY
This was a descriptive cross-sectional study involving dentists practicing in both public and private clinics in Daman, India. The study was approved by the Vaidik Dental College and Research Centre, Daman Institutional Review Board. Dentists who volunteered to participate completed the survey after providing a written informed consent. All 500 Dentists, of both genders participated in the study. An online link to the survey was sent via email and social media. The survey was done online through Google Forms between January and April 2021. An educational brochure, with information related to PT’s role in treating TMD pain and other symptoms, was available upon the completion of the survey to create/extend the collaboration awareness. Dentists were informed that their participation was voluntary, and any personal information related to their work/job was kept confidential and not published. A reminder email was sent 3 times every 1 week from the initial recruitment email. Instrumentation The final version of the survey included 23 questions. The time required to complete the survey is 5 to 10 min.

II. STATISTICAL ANALYSIS
The data was analyzed by using SPSS version 23 (IBM SPSS Statistics 23.0). The response to survey questions was analyzed using descriptive statistics. Data were presented as mean ± standard deviation (SD) for continuous variables and as frequencies, percentages, and ranges for non-continuous variables. Written information provided by the participants was considered and presented. Meanwhile, the general information regarding PT role and referral was calculated and presented.

III. RESULTS
According to our study, most common complaints of patients to dentists were pain during eating and yawing (48%) followed by Crepitus/Clicking (30%) as the second most common complaint followed by insufficient mouth opening (15%) and jaw locking (7%) as seen in Figure 1. According to our results 60% dentists muscle relaxants and rest were most effective treatments for TMD. The results revealed that about 49.9% of the dentists are aware about the role of PT in treating TMD as seen in Figure 2. Only 29% of the dentists advised PT referral. Upon the completion of the survey, almost all dentists (97.5%) were likely to refer patients with TMD to PT, and 90.7% of them showed interest to learn more about collaborating with PTs. Association of dentists’ awareness level of physiotherapy as a treatment for TMD found to be significantly low p=0.0001 in our study.

Figure -1: -Most Common Complaints of TMD Patients To Dentists

Figure 2: Dentists awareness about the role of PT in treating TMD
IV. DISCUSSION

The present study indicates that dentists need to be more educated about PT. The results showed that only 49.9% had awareness about the role PT in treatment TMD. This proportion was lower than that reported by a previous study in Florida [7]. The likely reasons of this could be lack of education, knowledge, perception about PT, and lack of experience as the majority of the participants have a bachelor’s degree, and 53.1% is practicing from 5 years or less. The results showed that the most common TMD symptom was Bruxism followed by jaw muscle tightness, and the least common symptoms were joint hypermobility and TMJ degeneration. In this study, the most common treatment method of TMD was prescribing bite splints or occlusion guards. On the other hand, Wright and North elaborated that patients improved better by bite splints combined with soft tissue massage of masticatory muscles and oral mobilization exercises than bite splints therapy alone [3].

The majority of the participants referred patients with TMD to oral surgeons, and only 29% of them advised to refer patients to PT. This low rate of referral may be due to (1) the lack of awareness about the benefits of PT among the majority of the participants (61.8%), (2,3) 21.1% of the dentists noted that PT treatment is not essential for the patients, (4) 7.1% believed that they can manage the patients alone without any referral, and (5) unavailability of PT services. Further, other possible cause of low referral rate may be the need of accessible PTs with the ability in treating TMD since not all PTs are prepared and confident about giving care to TMD patients. Therefore, the authors actually agree with the suggestion of Gadotti et al. [7] that more education related to TMJ, TMD, and the multidisciplinary approach between dental practitioners and PTs in the management of TMD patients should be also reinforced in all PT programs. One of the main reasons of PT referral in our study was postural alteration which contradicts with the previous study that considered the cervicogenic headache as an important reason of referral [7]. Kraus reported an association between TMD and head and neck pain [36]. Hence, dentists should be aware of the associative symptoms in TMD patients and refer patients to PT for better outcomes. In fact, awareness about collaboration for better prognosis in TMD patients is not only required for dentists but also needed among PTs. Accordingly, while assessing TMD patients, PTs should be aware of dental problems such as tooth pain and/or dental occlusion problems related to TMJ dysfunction in order to refer the patients to dentists. Actually, this study helped to increase or extend the level of awareness about the collaboration of dentists with PTs whereby upon the completion of the survey, the participants were asked to read the educational brochure containing information related to PT’s role in treating TMD. In addition, the responds on the question about the “After participating in this survey, are you more likely to refer a patient with TMD to a physiotherapist when needed?” revealed that about 97.5% of dentists were willing to refer patients to PT when needed. Besides, almost all the dentists (90%) were interested to learn more about the benefits of the collaborations with PTs to treat TMD patients. TMD is a complex condition with many associated symptoms. Hence, multidisciplinary approach is needed for pain management and better prognosis [37]. Therefore, appropriate strategies must be implemented to enhance the knowledge and educate dentists about the various aspects of PT for the improvement of the healthcare system as a whole. This can be achieved by including information about the role of PT in treating TMD in seminars and lectures in the courses of Dentistry Programs to inform them about the importance of interdisciplinary treatment of TMD patients. Besides, relevant authorities and those within the field of PT should be more proactive in raising the awareness and acknowledgment of the developing PT profession in Daman for the progression of quality healthcare services in Daman.

V. CONCLUSION

This study concludes that even though 49.9% of the dentists reported that they are aware about the role of PT in treating TMD and there is still a lack of awareness about the benefits of PT among the majority of dentists in Daman. The study made a difference to extend the surveyed dentists awareness about the collaboration and multidisciplinary approach with PT. The collaboration is extremely important for better outcomes, avoiding the misdiagnosing, and lowering the cost.

REFERENCES


