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Assessment of awareness level of dentists about role of physiotherapy in diagnosis of TMJ disorders

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ABSTRACT

Background:TMD are musculoskeletal disorders characterized by tenderness, pain, limitations in mandible movements, headache, and clicking within the joint. The present study was conducted to assess awareness level of dentists about role of physiotherapy in diagnosis of TMJ disorders.

Materials & Methods:560 dentists of both genders were enrolled. A questionnaire related to thegeneral knowledge, role of physiotherapy in management of TMDs was recorded.

Results: There were 380 males and 200 females. Year of experience was 0-5 years in 115, 5-10 years in 145, 10-20 years in 120 and >20 years in 180 dentists. There were 150 General dentist, 130 endodontist, 70 prosthodontists, 8-0 periodontist and 40 oral surgeons. The difference was significant (P< 0.05). Treatment methods for TMDs was splint/occlusal guard in 56%, braces in 24%, medication in 15% and other in 5%. Dentists' referral to other professionals was physiotherapist in 50%, oral medicine in 23%, psychologist in 10%, orthodontist in 7%, speech therapist in 8% and other in 2%. Causes of referral to PT was masticatory muscle tenderness in 40%, neck postural alteration in 30%, headache in 20% and neck pain in 10%. The difference was significant (P< 0.05).

Conclusion: Most of the dentists has limited knowledge about role of physiotherapy in diagnosis of TMJ disorders.

Key words:physiotherapy, TMJ disorders, muscular pain

INTRODUCTION

Temporomandibular joint (TMJ) is a synovial joint that helps to move the mandible, and these movements allow opening and closing the mouth. Temporomandibular disorders (TMD) refer to the dysfunction of the TMJ with multifactorial etiologies and pathologies in the orofacial region. TMD are musculoskeletal disorders characterized by tenderness, pain, limitations in mandible movements, headache, and clicking within the joint.[1]

TMJ pain affects about 10% of the population, and 3.6 % –7% of them seek care because of the severity of symptoms. Limited mouth opening, local pain in the TMJ and/or masticatory muscles, TMJ sounds and headaches are all signs and symptoms of TMD.[2] TMD pain was found to be related with cervical spine disorders 70% of the cases. The Diagnostic Criteria for Temporomandibular Disorders (DC/TMD) are used to classify the various forms of TMD. TMD may be acute or chronic, simple or complex, with long-term cognitive, psychosocial, and behavioral consequences.[3]For effective treatment of chronic TMD cases, a multidisciplinary approach is especially necessary. Dentists, physical therapists (PTs), speech pathologists, doctors, and psychologists can be involved in the management of TMD. The least invasive and cost-effective treatment choice will be one that takes into account TMD-related factors such as poor posture, parafunctional habits, poor sleep, widespread discomfort, and depression.[4]

Physiotherapists (PTs) deal with TMJ as they treat other joints in the body and use different electrotherapy modalities such as electrical stimulation, ultrasound, acupuncture, and laser therapy to reduce pain and inflammation which further promotes healing of tissues.[5] Other conservative approaches including occlusal splint therapy, massage, manual therapy, therapeutic exercises, and home exercises program are used to re-establish the proper flexibility and muscular length/ strength. Therefore, it improves mobility/function.[6]The present study was conducted to assess awareness level of dentists about role of physiotherapy in diagnosis of TMJ disorders.

MATERIALS & METHODS

The present study comprised of 560 dentists of both genders. All were made aware of the study and their written consent was obtained.

Demographic data such as name, age, gender etc. was recorded. A questionnaire related to thegeneral knowledge, role of physiotherapy in management of TMDs was recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Demographic data

Parameters	Variables	Number	P value
Gender	Males	380	0.02
	Females	200	
Year of experience	0-5 years	115	0.05
	5-10 years	145	
	10-20 years	120	
	>20 years	180	
Job title	General dentist	150	0.02
	Endodontist	130	
	Prosthodontist	70	
	Periodontist	80	
	Oral surgeon	40	

Table I shows that there were 380 males and 200 females. Year of experience was 0-5 years in 115, 5-10 years in 145, 10-20 years in 120 and >20 years in 180 dentists. There were 150 General dentist, 130 endodontist, 70 prosthodontists, 8-0 periodontist and 40 oral surgeons. The difference was significant (P< 0.05).

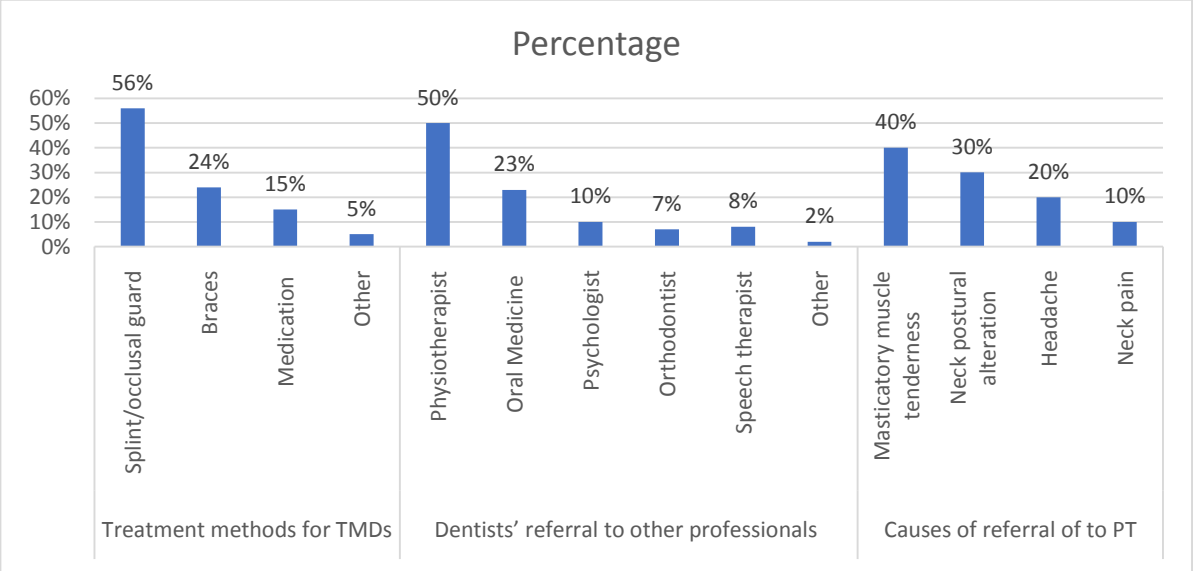
Table II Assessment of parameters

Parameters	Variables	Percentage	P value
Treatment methods for TMDs	Splint/occlusal guard	56%	0.04
	Braces	24%	
	Medication	15%	
	Other	5%	
Dentists' referral to other professionals	Physiotherapist	50%	0.03
	Oral Medicine	23%	
	Psychologist	10%	
	Orthodontist	7%	
	Speech therapist	8%	

	Other	2%	
Causes of referral of to PT	Masticatory muscle tenderness	40%	0.01
	Neck postural alteration	30%	
	Headache	20%	
	Neck pain	10%	

Table II, graph I shows thattreatment methods for TMDs was splint/occlusal guard in 56%, braces in 24%, medication in 15% and other in 5%. Dentists' referral to other professionals was physiotherapist in 50%, oral medicine in 23%, psychologist in 10%, orthodontist in 7%, speech therapist in 8% and other in 2%. Causes of referral to PT was masticatory muscle tenderness in 40%, neck postural alteration in 30%, headache in 20% and neck pain in 10%. The difference was significant (P< 0.05).

Graph IAssessment of parameters



DISCUSSION

The temporomandibular joint (TMJ) have an important role in mastication, deglutition and phonation.[7] TMD is a musculoskeletal state that affects the TMJ, masticatory muscles, dental occlusion and related structures and the cervical spine. It is the most common form of chronic orofacial pain, and it can have a significant impact on a patient's quality of life by limiting their ability to function and communicate socially.[8]One of the most successful conservative therapies for TMD is physical therapy (PT). Other non-invasive interventions that have been shown to help patients with TMD include behavioral therapy and occlusal appliances. The detection of musculoskeletal components that causes the symptoms in patient's is the most significant contribution made by PTs.[9] Since the TMJs are part of the musculoskeletal system, physical therapists can treat TMJ-related pain in the same way they treat pain in other joints. TMD pain caused by masticatory muscle pain, inflammation, disc displacement, TMJ hypo/hypermobility, fibrous adhesion and bruxism may all be treated with PT. Jaw exercises, manual therapy, and postural re-education have all been shown to be affective in minimising pain and improving function in TMD patients in systematic reviews.[10] The present study was conducted to assess awareness level of dentists about role of physiotherapy in diagnosis of TMJ disorders.

In our study, there were 380 males and 200 females. Year of experience was 0-5 years in 115, 5-10 years in 145, 10-20 years in 120 and >20 years in 180 dentists. There were 150 General

dentist, 130 endodontist, 70 prosthodontists, 8-0 periodontist and 40 oral surgeons.Sayedet al[11]conducted research to find out how much dentists have knowledge about the benefits of physical therapy for TMD pain and to raise awareness about collaborations. The research was conducted using an online questionnaire and the complete knowledge and information on patient referral were presented per dentist. The survey was completed by 256 dentists. Before the study, 41% of dentists were unaware that PTs would help patients with TMD. In comparison to other specialties, oral surgeons and orthodontists had knowledge of PT. Following the study, 81 % of dentists said they were more likely to refer their patients of TMD to PT, and 80 % said they wanted to learn more about the advantages of collaborations. This research demonstrates that dentists in Pune are unaware of the advantages of physical therapy for TMD care. This research increased the understanding of benefits of a multidisciplinary approach in Pune dental professional.

We found that treatment methods for TMDs was splint/occlusal guard in 56%, braces in 24%, medication in 15% and other in 5%. Dentists' referral to other professionals was physiotherapist in 50%, oral medicine in 23%, psychologist in 10%, orthodontist in 7%, speech therapist in 8% and other in 2%. Causes of referral to PT was masticatory muscle tenderness in 40%, neck postural alteration in 30%, headache in 20% and neck pain in 10%. Shaheen et al[12] in their study found that out of 1500 dentists, only 162 participated in the survey. About 46.9% of dentists were aware thatPT can treat TMD. Generally, there was lack of awareness about the benefits of PT among dentists (61.8%), and 59.9% was not aware that the evidence suggested that PT can improve TMD symptoms. Only 29% referred patients to PT. 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. The study concluded that, although 46.9% of the dentists are aware about the role of PT in treating TMD, there is a lack of awareness about the benefits of PT among the majority of them. The study helped to extend the awareness of surveyed dentists about the collaboration and multidisciplinary approach.

CONCLUSION

Authors found that most of the dentists has limited knowledge about role of physiotherapy in diagnosis of TMJ disorders.

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