



CODEN [USA]: IAJPB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1447117>Available online at: <http://www.iajps.com>

Research Article

**A CROSS-SECTIONAL DESCRIPTIVE STUDY ON FACTORS
ASSOCIATED WITH MYOFACIAL PAIN DYSFUNCTION
SYNDROME**¹Dr. Zakia Bibi, ²Kiran Irshad, ³Dr Hooria Ziab¹THQ Hospital Piplan²Services Hospital Lahore³WMO, PHFMC Faisalabad**Abstract:**

Facial pain is considered one of the most common chronic head and neck pain observed in the practice of regular dentistry. Myofascial pain dysfunction syndrome most common finding is headache and neck pain in chronic form.

Objective: The aim of this study was to observe the factors associated with myofascial dysfunction syndrome in patients.

Study Design: A cross-sectional descriptive study.

Place and Duration: In the Oral and Maxillofacial Surgery Department, Mayo Hospital, Lahore for one year period from July 2016 to July 2017.

Methodology: One hundred patients were evaluated with myofascial pain disorder syndrome. The factors recorded were age, gender, marital status, tenderness in the chewing muscles, joint sounds, parafunctional habits, neck pain, headache and the presence of a history of stress and poor sleep patterns due to domestic problems.

Results: One hundred eighty-five patients were studied, of whom 89 were female and 16 were male. The subjects were between 19 and 70 years of age. Stressful lifestyle and sensitivity of the temporal muscle were common findings.

Conclusion: Home stress is closely associated with patients suffering from MPDS. Patients show many signs and symptoms of varying intensity. Appropriate history and examination are very important for an appropriate diagnosis. Please advise on how to deal with the stresses that should be an integral part of the treatment of patients with pharmacotherapy not specified.

Key words: Stress, myofascial pain disorder syndrome, chewing.

Corresponding author:**Dr. Zakia Bibi,**

THQ Hospital Piplan

QR code



Please cite this article in press Zakia Bibi et al., A Cross-Sectional Descriptive Study on Factors Associated With Myofascial Pain Dysfunction Syndrome., Indo Am. J. P. Sci, 2018; 05(09).

INTRODUCTION:

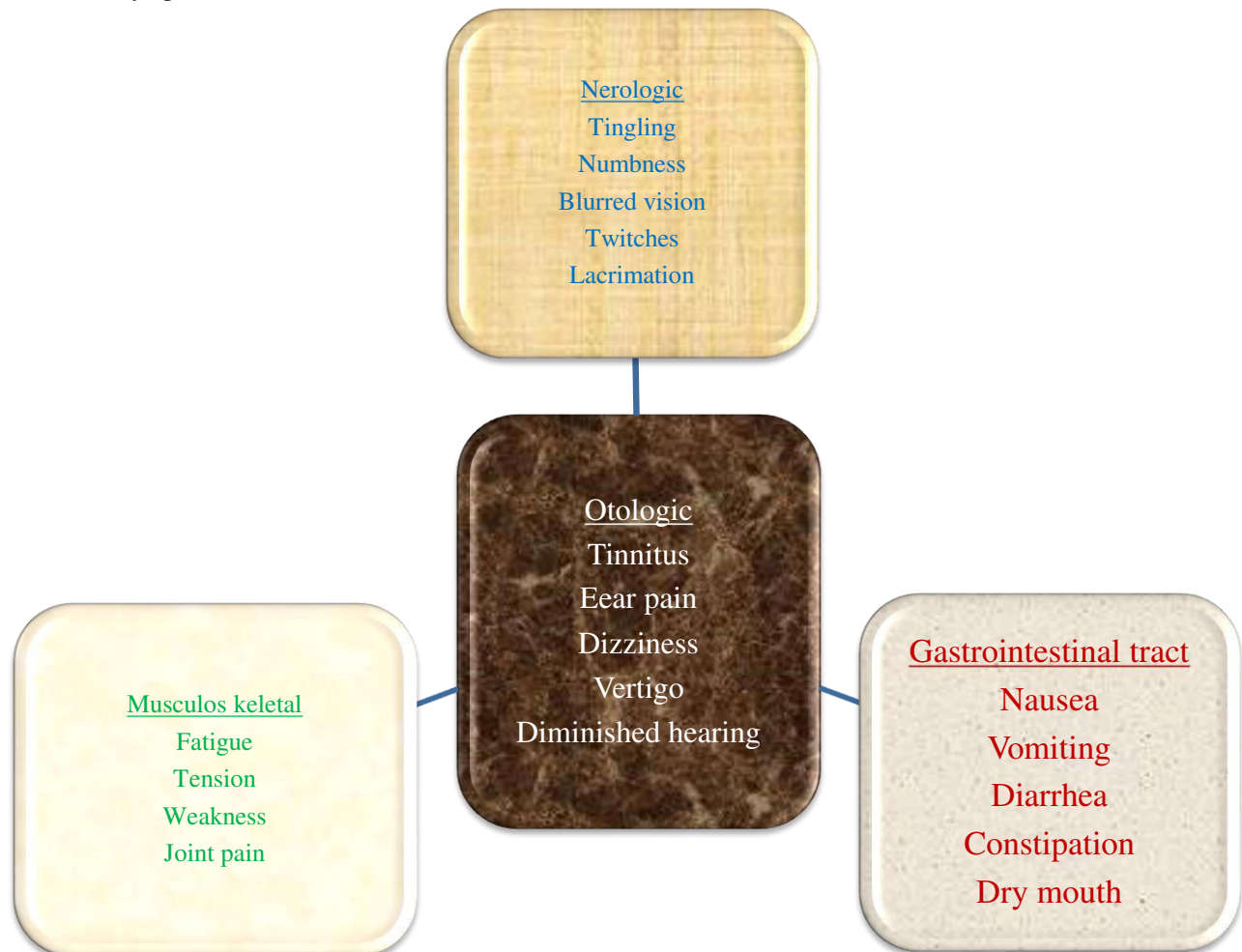
One of the most common forms of temporomandibular joint (TMJ) disorders is the myofascial pain disorder syndrome. Pathology in the masticatory device can cause pain and poor functioning of TMJ. It is not uncommon for patients with myofascial pain disorder (MPDS) to consult a dentist for toothache. MPDS is usually associated with joint pain, pain in the chewing muscles, limited mouth opening and jaw deviation. Other common symptoms are headache, earache and broken teeth. Occlusal dissonance and psychosocial variables have also been shown to play an aggravating role in MPDS. The current MPDS management now considers the psychological aspects of this disorder. However, there is still an ongoing debate about the main cause of the problem.

METHODOLOGY:

This cross-sectional descriptive study was performed in outpatient department of Oral and Maxillofacial Associated Symptoms of MPDS

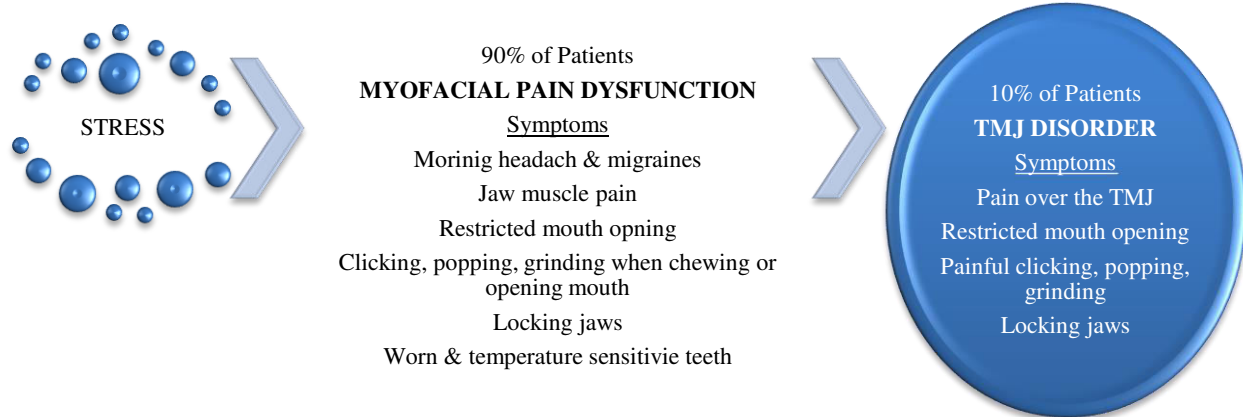
Surgery Department, Mayo Hospital, Lahore for one year period from July 2016 to July 2017 who underwent surgical dentistry. All referenced patients were suspected of having MPDS by the filter clinic, which served as the first call point for all new patients. The study was conducted between July 2016 and July 2017 in a calendar year. The filter clinic selected the patient who presented with TMJ and preauricular region pain, click sound, limited opening of the mouth and associated pain in the chewing muscles and directed to the operative section for a complete evaluation. MPDS. One hundred five patients with MPDS were included and the following variables were evaluated.

1. individual chewing muscle participation
2. Stressful Lifestyle
3. Limited mouth opening (Helkimo Index)
4. The pain of the TMJ
5. Neck muscles stiffness
6. Deviation of jaw.
7. Habits such as locking and bruxism .



Other associated symptoms are shown in figure. Examination of the muscles of chewing and neck muscles by digital palpation is a well accepted method. Under normal conditions, the muscle is not sensitive to touch. In this method, we use the middle number, index number and thumb in continuous method. In addition, tissues around the muscle should be pressed with finger. The patients were also questioned about stress related to financial and local problems. According to the Helkimo Index, the gap of the edges of the incisor is measured when the patient opens the mouth wide. If the mouth is

measured between 30 and 39 mm and is referred to as slight limited and labeled as severe restriction if less than 30 mm is measured, the opening of the opening being marked as slight limitation. If it is 40 mm or more, it is accepted within normal limits. Jaw deviation was defined as deviation anywhere in this study. Deviation means that the jaw is directed to one side during opening of the mouth and returns to its normal position when closing. The patient was asked about the pain around the TMJ and the preauricular area. Patients were also questioned about functional behaviors, especially during stressful life periods.



RESULTS:

Of the patients, 89 (85%) were female and 16 were male (100). The age range was between 19 and 70; the majority fell between 20 and 40 years. 97 out of 105 (92%) were married. It was observed that housewives formed the majority and 105 (74%) of the patients constituted 78.

No of Patients (105)	Female (89)	Male (16)
Age	37 ± 3.5 years	38 ± 3.5 years
Marital status	82 Married 7 Single	15 Married 1 single
Stressful life style due to domestic issues	86	16
Occupation (Majority)	78 House wives	12 Business men
Muscle tenderness	82 (Temporalis)	10 (Temporalis)
Headache	82	10
Parafunctional habits	63	10
Neck pain	74	09
Poor sleep pattern	66	08
Sensitivity of teeth	59	14
History of gastric reflux	79	09
Limitation of mouth opening	54	12

DISCUSSION:

In this study, it was stated that housewives constitute most of the MPDS patients. This may be due to morning synchronization of the dental hospital; This period tends to adapt to the wife of the house, which constitutes most of the 105 patients. In addition, a patient also seems to have an early help to seek behavior. The result of the study shows that stress is a contributing factor to MPDS patients. The positive history of a stressful lifestyle was almost equal in

both sexes (100% in males and 96% in females). In our patriarchal society, women may have additional internal stress, which may be an additional layer of stress. The contribution of social stress to MPDS in our society needs to be further investigated. The mean age of the individuals in this study was 37.4, 26.67, 33.5 and 31.3, respectively. Therefore, the most common age of this syndrome is between 2 and 4, which is the reason for this finding. Different treatment options are given in Table 1.

List of Common and Uncommon Treatments of Myofascial Pain Syndrome

- + Acupuncture
- + Biofeedback
- + Botulinum Toxin A Injections
- + Cognitive Behavioral Therapy
- + Intramuscular Electrical Stimulation Therapy (IMS)
- + Low level Laser Therapy (LLLT)
- + Osteopathic Manipulative Treatment
- + Pharmacologic Management
- + Therapeutic Ultrasound
- + Transcutaneous Electrical Nerve Stimulation (TENS)
- + Trigger Point Injections

This may be due to the huge increase in responsibilities and stresses, which are more norms in our culture, especially after a marriage in both women and men, especially in a common family environment. Madland, Carlsson and Rollman also confirm that patients with MPDS have a lower tolerance for coping with daily problems; increase in anger; Excessive and strong muscle contraction. Increased pain in these patients also contributes to their psychological responsibilities. In a study by Madani, Darbandi, Yap and Deoliveira, MPDS was found to be more common in women. This can be while women tend to delay seeking help until the pain and severity of men's pain becomes unmanageable because they are more sensitive to pain and psychological and domestic tensions that can seek help earlier. The most common muscle in our study (87.6%) was transient, and this was contrary to the Darbandi study showing that the most common muscle involvement was lateral pterygoid (82.68%). This may be due to the widespread complaint of headache in female patients in our population. It has been shown that headache is often associated with depression and migraine in women in our population, and this should be excluded in patients with MPDS. While 63% of the patients had limited mouth opening, Madani and Darbandi were 26% and 40.38%, respectively. These differences may be due to the involvement of the temporal muscle in our study population or the number of

samples and the result of the difference in measurement factors. In our study, 70% of patients reported bruxism, while Honarmand reported that the scales were 45.6%, 38% and 68.9%, respectively. In MFPD syndrome, squeezing and bruxism are common findings. For a longer episode during the tightening of muscle contraction ultimately, the muscle producing muscle spasm produces enough blood metabolic products to accumulate CO₂ and prevent the supply of muscle and results, and painful. Headache, ear pain and neck pain are also very common findings in these patients. In our study, headache was more common than neck pain and neck pain.

CONCLUSION:

The patient with MPDS has many symptoms and symptoms that may be persistent or episodic. There is an important subset of the various tensions, especially in terms of social and economic, home and security issues, particularly in the country's general law and order, and in particular in the current changing situation of the city of Karachi. The attending physician should be aware of the psychological aspects of MPDS and should investigate this factor to provide more holistic care and to apply for a psychiatric referral if necessary.

REFERENCES:

1. Dhanda, Mukesh, Aaron F. Gomes, S. Meru,

- Rishi Ranjan, Ankita Devrani, and Sumit Choudhary. "Comparative evaluation of signs of temporomandibular joint dysfunction and occlusal discrepancies in asymptomatic men and women: A cross-sectional study." *Indian Journal of Dental Sciences* 10, no. 3 (2018): 164.
2. Srivastava, A., kumar Pandey, S., Mallik, A.K., Kumar, A. and Kumar, S., 2018. TRIGGER POINT INJECTION IN MYOFASCIAL PAIN SYNDROME-A RANDOMISED CONTROL TRIAL. *INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH*, 7(4).
 3. Komolov, I. S., and A. Yu Vasil'ev. "Magnetic Resonance Imaging in Assessment of the Effect of Displacements of the Articular Disc in the Formation of the Pain Syndrome in Dysfunction of the Temporomandibular Joint." *Radiology* 2 (2018): 68.
 4. Park, Ki Deok, Woo Yong Lee, Min-ho Park, Jae Ki Ahn, and Yongbum Park. "High-versus low-energy extracorporeal shock-wave therapy for myofascial pain syndrome of upper trapezius: A prospective randomized single blinded pilot study." *Medicine* 97, no. 28 (2018).
 5. Costa, Yuri M., Yoshiko Ariji, Dyna Mara AO Ferreira, Leonardo R. Bonjardim, Paulo César R. Conti, Eiichiro Ariji, and Peter Svensson. "Muscle hardness and masticatory myofascial pain: assessment and clinical relevance." *Journal of oral rehabilitation* (2018).
 6. Cheatham, Scott W., Morey J. Kolber, G. Monique Mokha, and William J. Hanney. "Concurrent validation of a pressure pain threshold scale for individuals with myofascial pain syndrome and fibromyalgia." *Journal of Manual & Manipulative Therapy* 26, no. 1 (2018): 25-35.
 7. Aydın, Tugba, Bahar Dernek, Tülin Sentürk Ege, Ayse Karan, and Cihan Aksoy. "The Effectiveness of Dry Needling and Exercise Therapy in Patients with Dizziness Caused By Cervical Myofascial Pain Syndrome; Prospective Randomized Clinical Study." *Pain Medicine* (2018).
 8. Saccomanno, S., F. Greco, E. De Corso, D. Lucidi, R. Deli, A. D'Addona, and G. Paludetti. "agle's Syndrome, from clinical presentation to diagnosis and surgical treatment: a case report." *Acta Otorhinolaryngologica Italica* 38 (2018): 166-169.
 9. Niraj, Gopinath. "Pathophysiology and Management of Abdominal Myofascial Pain Syndrome (AMPS): A Three-Year Prospective Audit of a Management Pathway in 120 Patients." *Pain Medicine* (2018).
 10. Kilinc, Ozden, Savas Sencan, Tulay Ercalik, Pinar Kahraman Koytak, Hande Alibas, Osman Hakan Gunduz, Tulin Tanridag, and Kayihan Uluc. "Cutaneous silent period in myofascial pain syndrome." *Muscle & nerve* 57, no. 1 (2018): E24-E28.
 11. Blanco, Cleofás Rodríguez, María Ángeles Serrera Figallo, Pedro Vicente Munuera Martínez, Juan José González Gerez, Manuel Fernández Rabadán, Miguel Ángel Lérída Ortega, José Antonio García Vidal, and Manuel Saavedra Hernández. "Short Term Application of the Muscular Inhibition Method of Strain/Counterstrain in the Treatment of Latent Myofascial Trigger Points of the Masticatory Musculature: A Randomized Controlled Trial." *Clinical Advances in Health Research* 1, no. 1 (2018): 9-9.
 12. Bilici, I.Ş., Emes, Y., Aybar, B. and Yalçın, S., 2018. Evaluation of the effects of occlusal splint, trigger point injection and arthrocentesis in the treatment of internal derangement patients with myofascial pain disorders. *Journal of Cranio-Maxillofacial Surgery*, 46(6), pp.916-922.
 13. Hartvigsen, Lisbeth, Alice Kongsted, Werner Vach, Louis-Rachid Salmi, and Lise Hestbaek. "Does a Diagnostic Classification Algorithm Help to Predict the Course of Low Back Pain? A Study of Danish Chiropractic Patients With One-Year Follow Up." *Journal of Orthopaedic & Sports Physical Therapy* 0 (2018): 1-35.
 14. Ishiki, H., Kinkawa, J., Watanabe, A., Watanabe, C., Chiba, T., Yasui, H., Shimada, N., Ariyoshi, K., Nojima, M., Iwase, S. and Tojo, A., 2018. Prevalence of myofascial pain syndrome in patients with incurable cancer. *Journal of bodywork and movement therapies*, 22(2), pp.328-332.
 15. Klotz, Susanne GR, Gesche Ketels, Bernd Löwe, and Christian A. Brünahl. "Myofascial Findings and Psychopathological Factors in Patients with Chronic Pelvic Pain Syndrome." *Pain Medicine* (2018).