

ASSOCIATION OF GENDER WITH PAIN PERCEPTION AMONG PATIENTS WITH MYOFASCIAL PAIN SYNDROME

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ABSTRACT: The current study aimed to evaluate the pain perception among patients with Myofascial pain syndrome in both genders. The study was crossectional survey design. Data was collected using consecutive sampling technique. 170 Patients with Myofacial pain syndrome were taken as the sample of the study who visited dental teaching hospital from January, 2020 to April, 2021. Chi-square test was used to assess the pain perception among patients with Myofascial pain syndrome in both genders using SPSS version 23.0. The results of chi-square revealed a significant difference between both genders in terms of prevalence of Myofascial pain syndrome ($X^2=9.110$, $P=.011$). In conclusion, Males were higher in reporting severe pain while females were higher in reported moderate myofascial pain.

Keywords: Myofascial pain Syndrome, Temporomandibular Joint, Pain Perception, Gender.

(Received

14.05.2021

Accepted 03.06.2021)

INTRODUCTION

The most commonly prevalent temporomandibular disorder (TMD) is Myofascial pain syndrome (Wright and North, 2009). According to the literature, among TMD patients, the occurrence of pain in the temporomandibular joint as well as in masticatory muscles is the most basic complaint (Oyetola, Adesina, Oluwadaisi, Adewale, Adewole, and Anizoba, 2017). The localization of TMD associated pain may be reported in the chin, ear, and temporal regions which may varies patient to patients in terms of intensity of pain. In temporomandibular disorder, the myofascial pain is not due to any degeneration in temporomandibular joint (TMJ) which could be observed on radiographic imaging (Anitha, Babu, Sankari, and Malathi, 2016).

It is a very complex joint which bear load due to the movement of jaws as it is bilateral synovial joint which is made by the condyle head and the temporal bone's squamous portion (Wang, Pan, and Mi, 2016). The malfunctioning of the TMJ, for example, Speech and mastication, in relation with pain, is distinguished as masticatory systemic disorders (Wright and North, 2009).

It was evident that the occurrence of TMD may be diagnosed at any age, however, it is more common among females and at early are more common in women and early adulthood (Dimitroulis, 1998). 33% patients of a study were diagnosed with temporomandibular signs

with about 3.6% to7% of these patients were experiencing higher level of pain and requirement of therapy (Wright and North, 2009; Pain and Leeuw, 2011). The prevalence of TMD was relatively higher among developing countries than the developed ones (Otuyemi, Owotade, Ugboko, Ndukwe, and Olusile, 2000). 26.3% patients with mild anamnestic symptomology and 46% patients with clinical dysfunction score were found in Nigeria (Otuyemi, Owotade, Ugboko, Ndukwe, and Olusile, 2000).

Myofascial pain syndrome can leads to headaches, trismus, stiffness, ear pain, clicking sounds, or malocclusion. Myofascial pain is quite prevalent but could be misunderstood as its initiating level and points at myofascial structures are small and delicate trigger regions (Suresh and Sudhan, 2020).

Tension, masticatory muscles' spasm or fatigue, bruxism, nail biting and gum chewing habits, dental trauma or malocclusion is the aetiological aspects of Myofascial pain. Additionally, stress, phone holding poster, yawning as well as chewing are the aetiological factors (Katayayan, Katayayan, Shah, and Patel, 2014). Even though the ultimate pathogenesis of the disorder is presently unidentified, and there is no solitary diagnostic technique is reliably progressive, it is generally supposed to be a psycho-physiological disorder which is induced by stress, initiating in the masticatory muscles which do not have any degenerative symptoms (Van Selms,

Lobbezoo, Visscher, and Naeije, 2007). The major conclusions consist of sensitivity of the Temporomandibular Joint and related masticatory muscles, tooth wear (bruxism), restricted movement of jaws and trismus (Zakrzewska, 2002).

The existing literature has reported the general prevalence of temporomandibular joint pain dysfunction syndrome as well as temporomandibular joint disorders' pattern (Oyetola, Adesina, Oluwadaiyi, Adewale, Adewole, and Anizoba, 2017; Omorogie, and Okoh, 2014; Eweka, Ogundana, and Agbelusi, 2016; Liu, and Steinkeler 2013). But till now no literature has been cited in which the attempted to measure pain perception for the patients of Myofascial pain syndrome on the bases of their gender. So, the current study aimed to evaluate the pain perception among patients with Myofascial pain syndrome in both genders.

MATERIALS AND METHODS

Research design: To explore the pain perception among patients with Myofascial pain syndrome in both genders, this crosssectional survey study was designed.

Sampling technique: Consecutive sampling technique was used for data collection.

Sample size: 170 Patients with Myofacial pain syndrome were taken as the sample of the study who visited dental teaching hospital from January, 2020 to April, 2021.

Procedure: After taking the permission from Medical superintendent of the dental teaching hospital, data was

collected from the walk-in patients complaining about the pain in temporomandibular joint and type of pain falls under Myofascial pain syndrome after explaining the purpose of research to the patients and consent form got signed. The intensity of pain was measured using visual analogue scale for pain assessment.

Data analysis: Chi-square test was used to assess the pain perception among patients with Myofascial pain syndrome in both genders using SPSS version 23.0

RESULTS

Gender was taken as demographic variable for this study. Sample was comprised majorly of females (47%) as compared to males (53%) who had Myofascial Pain syndrome.

Myofascial pain syndrome was assessed on right, left or both sides of the mouth as shown in figure 2.

Patients with severe pain were 33%, patients with moderate pain were 48% whereas patients with mild pain were 19% of the entire sample (Graph 1).

The results of chi-square revealed a significant difference between both genders in terms of prevalence of Myofascial pain syndrome ($\chi^2=9.110$, $P=.011$). Mild Myofascial pain was reported by majority of males 12% as compared to 7% females. Moderate level Myofascial Pain was reported by majority of female patients 30% as compared to males 18%. Myofascial pain of severe intensity was reported majorly by males (13%) as compared to females (10%).

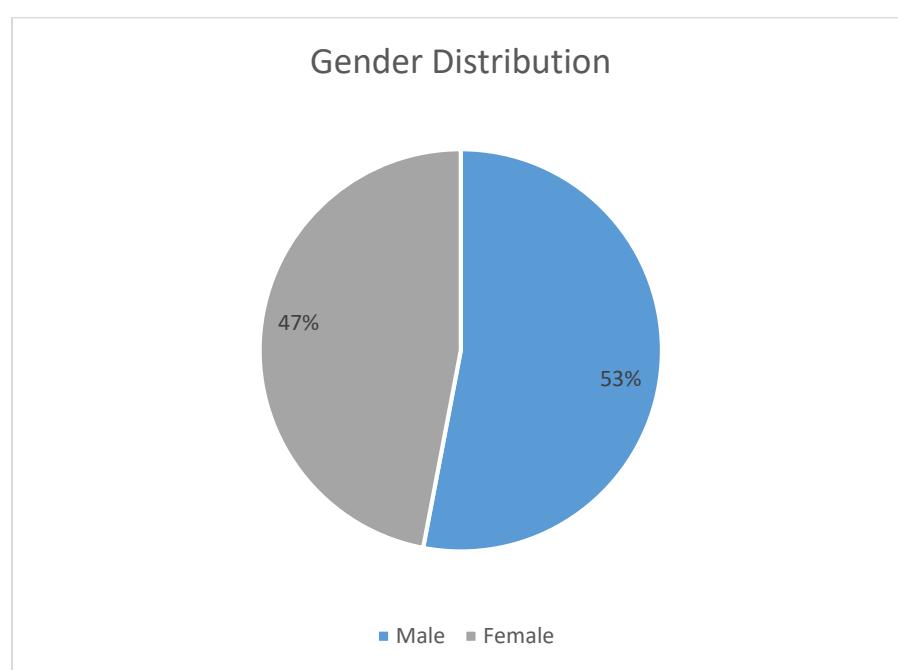


Figure 1: Gender distribution of study sample

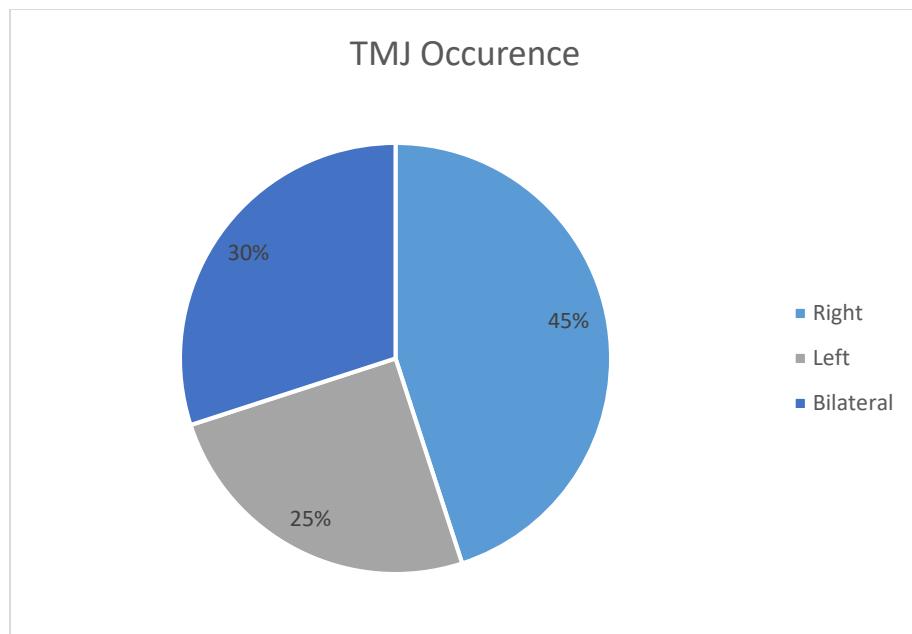
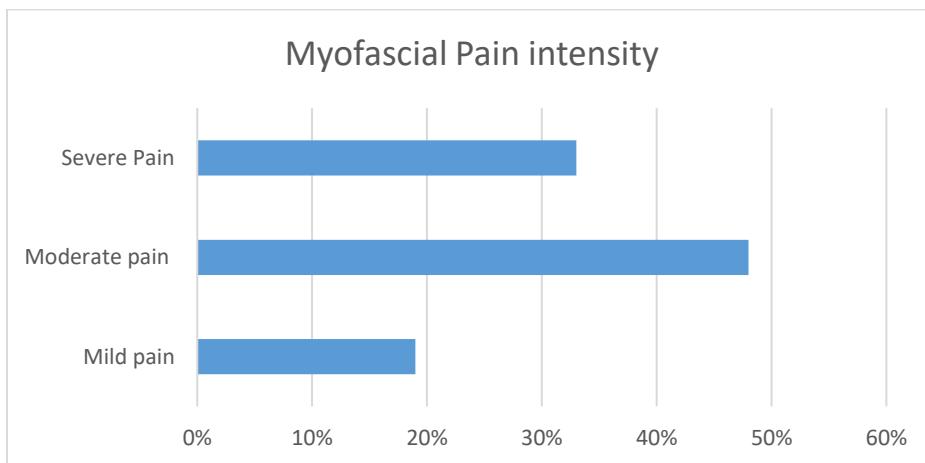


Figure 2: Myofascial pain occurrence site



Graph 1: Overall intensity of Myofascial Pain

Table 2: Prevelance of Myofascial pain.

| | Mild Pain | Moderate Pain | Severe Pain |
|----------------------|-----------|---------------|-------------|
| Male | 12% | 18% | 23% |
| Female | 7% | 30% | 10% |
| $X^2=9.110, P=0.011$ | | | |

DISCUSSION

The findings of current study reported that patients with severe pain were 33%, patients with moderate pain were 48% whereas patients with mild pain were 19% of the entire sample. A significant difference between both genders in terms of prevalence of Myofascial pain syndrome was found which was not in

line with the findings of (Okoh, Onyia, Azeez, and Okoh, 2020). Mild Myofascial pain was reported by majority of males 12% as compared to 7% females. Moderate level Myofascial Pain was reported by majority of female patients 30% as compared to males 18%. Myofascial pain of severe intensity was reported majorly by males (23%) as compared to females (10%) which was also negating the findings of the study conducted by Bagis, Ayaz, Turgut, Durkan, and Ozcan in 2012 concluded that females reported higher pain as compared males in temporomandibular joint.

In conclusion, there was a significant difference between the male and females in terms of reporting Myofascial pain perception. Males were higher in reporting severe pain while females were higher in

reported moderate myofascial pain.

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