STUDY OF THE PREVALENCE OF TEMPOROMANDIBULAR DISORDERS ON TRADITIONAL BRETON MUSIC PLAYERS

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INTRODUCTION:

It might easily be thought that musicians aren't practising a risky activity. However, we can notice that in recent years more attention has been paid to orofacial problems that affect musicians(1). We call temporomandibular disorders (TMD) a generic term that covers a series of clinical complaints involving the temporomandibular joint (TMJ). These disorders could be considerate to be of a musculoskeletal nature (1) with a complex and multifactorial ethology which many biomechanical factors, neuromuscular, biopsychosocial and neurobiological can contribute for the onset of these disorders (2)(3). There appears to be a consensus on the possible association between TMD and instrumental practice, especially among violinists and cellists (4)(5)(6). However, there are currently very few studies carried out on wind instruments (2).

OBJECTIVE:

This study, entitled "*Study of the Prevalence of Temporomandibular Disorders on Traditional Breton Music Players*", among musicians, with the aim of determining whether there is a relationship between this musical practice and the presence of TMDs

MATERIALS AND METHODS:

A total of 34 individuals, all musicians and aged between 18 and 62, participated in the study. Among them, 18 were Bombarde players and 16 were *Biniou Braz* (Bagpipe) players. Each participant was evaluated using the DC/TMD diagnostic protocol to determine whether a direct relationship exists between the practice of traditional Breton music and the presence of TMD signs and symptoms.

RESULTS:

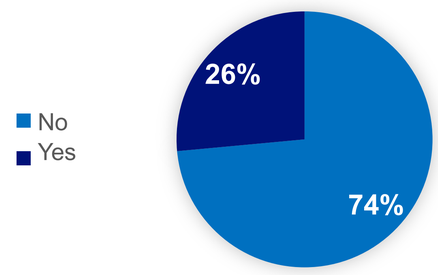
Characterisation

- Sample : 34 traditional Breton musicians;
- Age : 38,4 ±11,11 years;
- Gender : 11 (32%) women and 23 (68%) men;
- Musicals instruments : 18 (53%) are Bombarde players and 16 (47%) are Bagpipe players.

Marec, B. (2015). *Bagpipe player*, given by Enguerrand Marec

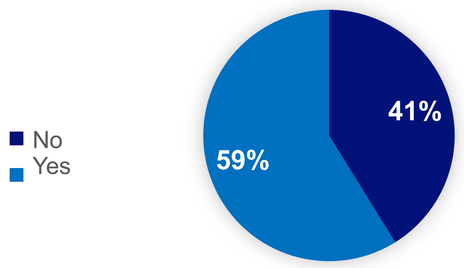
Hellégouarch, A. (2023). *Bombarde player*, given by Martin Le Meur

Presence of Pain Disorders



26% (n=9) of individuals presented pain disorders as symptoms of TMD and 74% (n=25) didn't have any symptom of TMD.

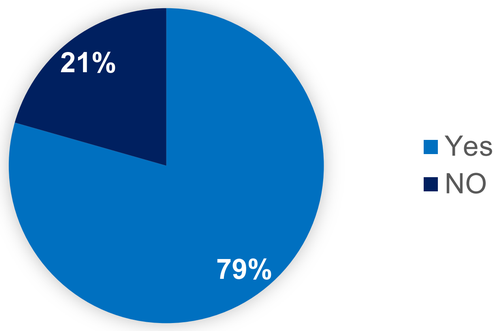
Presence of Signs and Symptoms of TMD



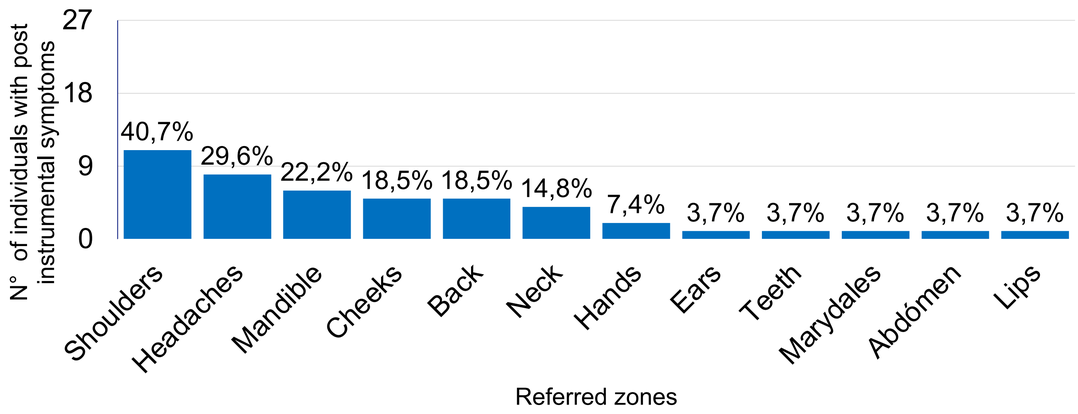
59% (n=20) of individuals presented signs and symptoms of TMD and 41% (n=14) didn't present anything.

Reported Presence of Post Instrumental Symptoms

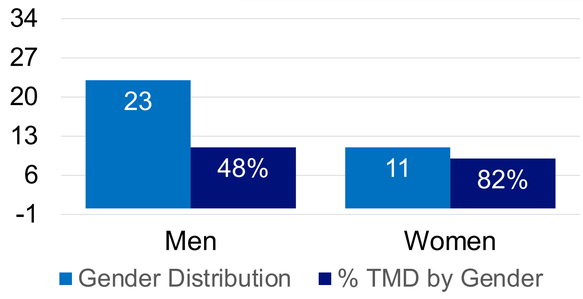
79% (n=27) of individuals reported having experienced pain or discomfort following their instrumental practice and 21% (n=7) didn't reported any pain or discomfort.



Distribution of Referred Zones of Discomfort

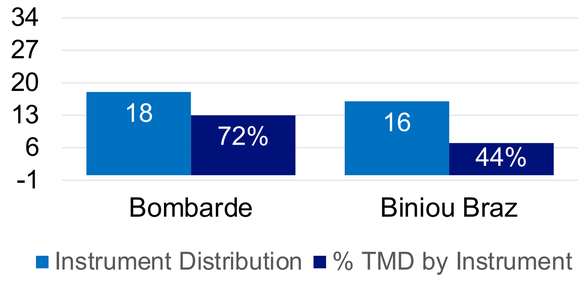


Sign and Symptoms of TMD by Gender



The prevalence of TMD was higher among women than in men with, respectively, values equal to 82% and 48%.

Sign and Symptoms of TMD by Musical Instrument



The prevalence of TMD was higher among the Bombarde players than in Bagpipe players with, respectively, values equal to 72% and 44%.

CONCLUSION:

The results of our study show a hight prevalence of signs and symptoms of TMD among traditional Breton music musicians, particularly among Bombarde players. In fact, 59% of participants versus 5-12% in the general population (7) presented signs and symptoms of TMD with and higher prevalence among bombarde practitioners (72%) than among bagpipe players (44%). There is also higher prevalence in women (82%) than in men (48%), which could also be explained by the hormonal factors influencing physiologically TMD in women. Furthermore, 79% of the musicians reported discomfort post instrumental assuming the impact of this activity on the oro-facial structures. Complementary research with a larger sample could confirm these trends and identify the specific risk factors linked to this instrumental practice.

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