

Self-medication and pain catastrophizing in patients with myofascial pain: Are they related?

Dear Editor,

Evidence shows that acute symptoms of temporomandibular dysfunction (TMD) would eventually lead to chronicity and self-medication would play a significant interfering role on such dynamics (Dias, Bastos, Alves, & Leite, 2019; Pastore, Goulart, Pastore, Prati, & de Moraes, 2018). Furthermore, some authors concluded that both propensity to catastrophize and depression contribute to the progression of chronic temporomandibular muscle and joint disorders (Velly et al., 2011). Hence, the aim of this study was to assess the relationship between the habit of self-medicating and the propensity to catastrophize pain in a clinical population with myofascial pain (MP).

A total of 300 patients were assigned to two groups: Group 1 ($n = 150$): non-self-medicating patients with MP; Group 2 ($n = 150$): self-medicating patients with MP. The Pain Catastrophizing Scale (PCS) was applied and scored in order to assess the propensity to catastrophize. Visual Analogic Scale (VAS) was used to evaluate the initial pain scores.

Group 2 showed higher pain scores (6.6 ± 1.6) compared to Group 1 (4.7 ± 1.7 , $p < 0.0001$). Symptoms were also extended for a longer period of time in Group 2 (52.6 ± 53.6 weeks) versus Group 1 (30.9 ± 33.0 weeks, $p < 0.0001$). Regarding to pain catastrophizing, the levels of rumination, magnification, and helplessness were higher in Group 2 (Table 1), and all the differences were statistically significant at 95% level.

Therefore, our results confirm the findings of previous studies (Litt & Porto, 2013; Turner, Dworkin, Mancl, Huggins, & Truelove, 2001; Velly et al., 2011), which found that patients who scored high on pain catastrophizing tend to report high intensity of both acute and chronic pain conditions and show higher levels of disability. Furthermore, pain catastrophizing has been documented as a barrier

to healthy physical and psychological functioning and a key predictor of drug abuse and poor compliance to treatment.

This study has some limitations. No cause-effect relationship can be inferred on a cross-sectional design, and a convenience sample does not allow for definite conclusions (Kang, Lee, Park, Ro, & Auh, 2018). Additionally, we understand that self-medicating patients seeking further care are probably those refractory to previous approaches and may bias the interpretation of the results.

Future studies should focus on comparing matched groups of patients regarding TMD and MP severity. A population-based sample would be important to rule out the aforementioned potential bias. In addition, the type and duration of self-medication, as well as the time elapsed from diagnosis and either the start of self-medicating or presentation to a dental service, should be taken into account. A true interactive dynamics has, however, been established between self-medicating and pain catastrophizing and should be regarded not only as a research "hot topic" for further elucidation of the psychobiological aspects of pain, but also as a highly relevant association clinically.

CONFLICT OF INTEREST

None to declare.

ETHICAL APPROVAL

This study was approved by the Ethics Committee of Faculdade São Leopoldo Mandic (No. 1.963.761).

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TABLE 1 Catastrophic scores of the two groups evaluated

	Score (median and 1st–3rd quartiles)		Mann–Whitney
	Group 1	Group 2	<i>p</i>
Rumination	4 (2–8)	10 (6–13)	<0.0001
Enlargement	2 (4–7)	4 (7–10)	<0.0001
Helplessness	3 (5–9)	8 (13–17)	<0.0001

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