

HKU Faculty of Dentistry researchers report link between facial pain and psychological distress

Having facial pain may be associated with an increased likelihood of experiencing psychological distress such as depression, according to a study jointly conducted by the HKU Faculty of Dentistry and Li Ka Shing Faculty of Medicine.

Among patients at a medical clinic, those who had recently felt pain in the mouth or elsewhere in the face were more likely to feel depressed than those who had not. The likelihood of depression was increased if patients with facial pain reported having pain elsewhere in the body too.

The study, which was performed between May 2005 and May 2007, involved patients who were currently registered at a day-time general medical clinic in Hong Kong. They were randomly contacted by telephone, asked whether they had experienced mouth or face pain in the previous 4 weeks, and then invited to take part in the study. A total of 200 patients with and 200 patients (as controls) without facial pain agreed to take part; all were Cantonese-speaking Chinese people aged 35 to 70 years. The participants underwent clinical examinations of the face and mouth and were asked to complete questionnaires in Chinese on pain above and below the neck and on psychological distress.

Pain in and around the temples (68.5%) or eyes (27.0%) and toothache (57.5%) were the three most frequently reported complaints in the group with facial pain. The two most common diagnoses were tension-type headache (27.5%) and temporomandibular (jaw joint) disorders (15.0%). Patients who had facial pain were roughly 2.5 times as likely as patients in the control group to report feeling pain elsewhere in the body, below the neck (13.5% versus 5.0%).

Data from the depression questionnaire revealed that patients in the facial pain group were about three times as likely as the controls to feel moderately to severely depressed (31.0% versus 11.0%). In turn, within the facial pain group, patients who reported also having other body pains were about 2.5 times as likely to be moderately to severely depressed as those who did not (63.0% versus 26.0%).

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Another questionnaire on psychological distress showed that the facial pain group was twice as likely as the control group to have moderate to severe “non-specific physical symptoms” such as tiredness or general muscle ache, reflecting the mind-body relationship (64.0%-67.0% versus 31.5%-35.0%). In turn, within the facial pain group, patients who reported also having other body pains were about 1.5 times as likely to have moderate to severe “non-specific physical symptoms” as those who did not (88.9%-92.6% versus 60.1%-63.0%).

These findings were confirmed by results of statistical analyses that adjusted the data to account for any differences in age, sex, education level, income, marital status, and birthplace. The analyses showed that the odds of experiencing any psychological distress were at least tripled if patients had facial pain (odds ratios, 2.97-4.22) or both facial and widespread body pain (odds ratios, 3.47-4.80).

The researchers conclude that “psychological distress was common in orofacial pain sufferers, particularly those with widespread pain”, adding that studies published by others point to psychological distress happening before, rather than after, feeling pain. Regarding management of both pain and psychological distress, the research team recommends that in addition to prescribing drugs, “a multidisciplinary approach to treatment including cognitive/behavioural therapy should be considered in Chinese people with orofacial pain as part of a widespread pain pattern”.

As acknowledged by the authors, the study was limited by having only one clinician examine the patients, enrolling participants from a pool of already registered patients, and using psychological survey categories based on U.S. definitions. Furthermore, they note that although patients’ characteristics matched those of adults in the same age group in the general Hong Kong population, there were many more women than men in the facial pain group (74.0% versus 26.0%), so future studies would need to be on a larger scale and more representative of the general population.

The study was published in 2010 in the *Journal of Oral Rehabilitation*.

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Source: McMillan AS, Wong MCM, Zheng J, Luo Y, Lam CLK. Widespread pain symptoms and psychological distress in southern Chinese with orofacial pain. *J Oral Rehab* 2010;37:2-10.
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