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Short Communication

Transdisciplinarity: The Basic Concept in Diagnostic and Management of Temporomandibular Disorders and Orofacial Pain

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The development of science has been accompanied of different interconnecting situations. Therefore, the physical, biological, social and psychological conditions of our patients interact reciprocally in their health-like aspect of sickness.

The specialty of temporomandibular disorders and orofacial pain (TMD/DOF), have developed from a unidirectional or disciplinary approach to a multidisciplinary and finally to a interdisciplinary one. Multidisciplinarity, what already integrates the biopsicosocial concept, involves a parallel or sequenced work that maintains a specific discipline as a base to solve a problem [1]. Is so that, under this modality, different professionals work individually and they meet to discuss their results based on their own goals. Although interdisciplinary approach respond to a cooperative work, in which there are common topics between the different disciplines and each one contributes with their problems and concepts in different instances, a specific discipline persists. The big difference with the previous approach is that the objectives are discussed as a team [2]. However, transdisciplinarity implies simultaneity and integration of different specialties. It provides holistic schemas that subordinate the disciplines integrating the dynamics of the systems as a whole [3]. This means that transdisciplinarity integrates disciplines, adopts the disciplines and goes further the disciplines. Team members share roles so that each one of the specialists not only shares information about their expertise, but also helps other members to acquire skills related to the area of specialization [4]. So, transdisciplinary integrates the natural, social and health sciences in an humanity context. Whit this, each one transcends their traditional borders [5].

In relation to TMD/DOF, there are different lines of thought, some more traditional and dogmatic and other more holistic. Despite the fact that the aim is to "broadening" and "integrating" different disciplines in the diagnostic and in the treatment phases as well (mainly psychology and physiotherapy), in practice there is not a real integration. Although the new protocol for clinical examination and diagnosis called Diagnostic Criteria for Temporomandibular Disorders (DC/TMD) [6] includes behavioral aspects, it does not include many clinical aspects of other specialties. The temporomandibular unit does not correspond to an isolated system and is fully integrated to the rest of the organism through structures and systems such as the hyoid [7], the cervical spine [8], the cervical musculature [9], the fascia's [10] etc. Therefore, the Temporomandibular unit must be analyze regardless of the other structures; as an example, that anatomical and functional unit must be studied integrating concepts as growth and development. If the tempormomandibular unit has a common physiology, a common pathology must to exist. An example of this is the prevalence of pain in cervical structures in patients with temporomandibular disorders, which is evidenced between a 54% and a 88% [11,12].

Considering the foregoing, the concept of transdisciplinary implies a profound change in the approach of temporomandibular disorders, from diagnosis to management. This should consider different dental disciplines (e.g. growth and maxillofacial development, oral physiology and occlusion), medical disciplines (e.g. neurology, rheumatology, psychiatry), medical support disciplines (e.g. kinesiology and physiotherapy, speech), other professionals involved in some way in the management of health (e.g. physical education teachers) and disciplines focused on medicine complementary.

In conclusion, the specialist involved in a transdisciplinary diagnosis and management of TMD/DOF should be able to work in a biopsychosocial context and have a deep knowledge of the other involved areas in order to deliver the patient the best choice for the treatment of his pathology and essentially against their disability. and loss of function. This requires a change of basis in the current diagnostic instruments parallel to an integral disciplinary development of the specialists.

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