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*Corresponding author: Bermúdez Bejarano E, PhD in Dentistry from the University of Seville, Clinical Practice at the Institute of Advanced Oral Medicine and Surgery, Malaga, Spain, E-mail: jabsmeba@hotmail.com; elenabermudezbejarano@hotmail.com

ORCID: <https://orcid.org/0009-0003-0381-9820>

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Mini Review

Factors that Influence the Appearance of Dental Anxiety and Fear in Daily Dental Practice in Patients with Mental Disorders

Bermúdez Bejarano E^{1*} and Bermúdez Sánchez JA²

¹PhD in Dentistry from the University of Seville, Clinical Practice at the Institute of Advanced Oral Medicine and Surgery, Malaga, Spain

²PhD in Medicine and Surgery, psychiatrist and Forensic Psychiatry, Private Practice in Psychiatry, Málaga, Spain

Abstract

Introduction: Dental anxiety and fear in conjunction with mental disorders can constitute a threat to the patient who comes to the dental office, appearing in a vicious circle of avoidance, if the necessary measures are not implemented.

Materials and methods: A literature search was carried out in Pubmed for the last 10 years (2014-2024) under the keywords "Dental anxiety AND dental fear AND mental disorder" and "Dental anxiety AND dental fear AND dentistry".

Results: After the search was performed, it was complemented with a manual verification of the selected articles, choosing a total of 36 articles.

Conclusion: Mental disorders, anxiety, and dental fear are multifactorial entities influenced by the evolution of the mental state, the socio-demographic factors and the dental therapy to be carried out. Good training of dentists in this field is necessary due to the existing relationship between mental disorders, anxiety, and dental fear and the impoverishment of the oral health of the patient.

Introduction

Anxiety is a beneficial response to stress, however, when it becomes excessive and with symptoms of distress, it can be harmful to the patient, which precedes the circumstance, situation, and feared object. As opposed to fear, which prepares the organism to act in the face of a real threat [1-3].

In the general population, there is a marked level of fear, anxiety, rejection, and even phobia of anything that involves dental treatment, this circumstance varies according to the procedure or technique to be performed, being at its maximum when oral surgery is necessary [4,5].

Oral surgical treatment, which is normally irreversible,

should always be preceded by a detailed and meticulous explanation of the pros and cons of the surgical technique to be performed, its advantages and disadvantages, its possible complications, and always the patient's signature of informed consent.

A person's ability to process all this information is usually negatively influenced by the level of stress and the previous psychological state of the subject.

Another factor to take into account is the degree of aggressiveness of the surgical technique to be performed and the pain involved since dental cleaning is not the same as third molar surgery.



It is also necessary to evaluate the state of anxiety, stress, fear, and expectation of the previous experience of pain since all of these have a great influence on the ability to recognize and correctly process the information provided by the dentist before the dental intervention [6-8].

The appearance and development of dental anxiety and/or fear is determined by the theory of the learning model, which can give different degrees of dental anxiety [9,10], its origin being multifactorial and would include among others, genetic vulnerability, negative emotional state, attitude and preparation before stressful situations, previous cognitive conditioning, reinforced behaviors (positive and negative), the vicarious model, verbal transmission, cognitive contents (behaviors in the acquisition and maintenance of mental disorders) and the content of the bias (previous threatening experiences).

In one way or another, a person's poor oral health increases feelings of guilt, shame, and inferiority, thus contributing to an increase in general anxiety and dental anxiety [11]; dental anxiety has negative social and personal consequences, as well as avoidance behaviors [12,13] that lead to the appearance of a vicious circle with the consequent influence on the deterioration of social relationships and quality of life [11,12,14]. For this reason, the aim of this mini-review is to focus on the factors that lead to the appearance of dental anxiety and fear in daily dental practice in patients with mental disorders.

Materials and methods

A literature search was carried out in PubMed under the keywords and mesh terms: "Dental anxiety AND dental fear AND mental disorder" and "Dental anxiety AND dental fear AND dentistry" with a series of established criteria:

Inclusion criteria

Articles from the last 10 years (2014-2024), performed on adults over 18 years of age, in English language and in accordance with the exclusion criteria.

Exclusion criteria

Not meeting the inclusion criteria, duplicate articles, lacking abstracts, with anonymous authors, and not related to the topic to be investigated. Letters to the editor, expert opinions, and doctoral theses were also excluded.

A manual verification of the selected articles was completed.

Results

After searching Pubmed and taking into account the proposed eligibility criteria. The first search returned 257 results, of which 9 articles were selected and the second search returned 681 articles, of which 9 articles were selected. From the manual verification, 18 articles were selected. A total of 36 articles were selected.

A flow chart (Figure 1) was drawn from the established eligibility criteria to visualize the results obtained.

Discussion

According to the literature consulted, there are factors that can exacerbate dental anxiety and fear [15-18], including socio-demographic factors [14-17], past experiences in the dental office [19-21], type of dental treatment (oral surgery is a more invasive procedure than restorative dentistry, which is a less invasive therapy) [22-23], as well as whether the patient suffers from associated mental disorders. It is not the same to present an anxiety disorder or an adaptive disorder as the conjunction of both in the form of a mixed anxiety-depression disorder, because when two disorders are added, the clinical picture becomes more florid and all the factors mentioned above would be enhanced, worsening both the dental anxiety and fear and the previous mental pathology [22-25]. It is therefore essential to improve optimism and coping skills, both if they have dental anxiety and/or fear [26-28] and if they have any associated mental disorder since we can favor the health and stability of both the psycho-physical and dental health and the quality of life of these patients.

For all these reasons it is essential to detect the probable existence of a previous underlying psychic alteration early, before any odontological technique [29,30] as well as the side effects produced by the psychotropic drugs prescribed for this type of pathology (anxiolytics, antidepressants, antipsychotics, antimaniacs, mood stabilizers ...) which tend to reduce the salivary protection factors [29], producing xerostomia or pathological dry mouth, making it necessary to use artificial saliva substitute products, in addition to rinses and topical fluoride applications, as a prophylactic against dental caries secondary to the xerostomia produced by these types of drugs [29,30]; this pathology also accelerates the appearance of gingivitis and periodontitis [30,31], loss of dental pieces and edentulism [32].

After the above, we have to confirm that all dental treatment implies, to a greater or lesser extent, an instability in the self-control of the management of the daily anxiety of any person who is a priori healthy. This imbalance is intensified when the detailed procedure is to be performed on a subject suffering from a mental disorder.

Their already unstable ego structure is further diminished or altered with this type of treatment, and in fact, many patients refuse to undergo this type of surgical procedure, however minimally invasive it may be, because it involves an alteration of their fragile daily psychic equilibrium [24].

It should be taken into account that the level of anxiety, dental anxiety, and fear, as well as previous painful experiences in a dental office [33-34], has a modulating effect on the ability to correctly recognize the potentially important information provided by the professional before the surgical procedure, all these factors should be taken into account by the dentist and/or oral surgeon [22].

Therefore, the feeling of lack of self-control, anticipation of pain, and/or previous negative experiences in a dental office [5,6], both in the anxious and depressed patient, can have a

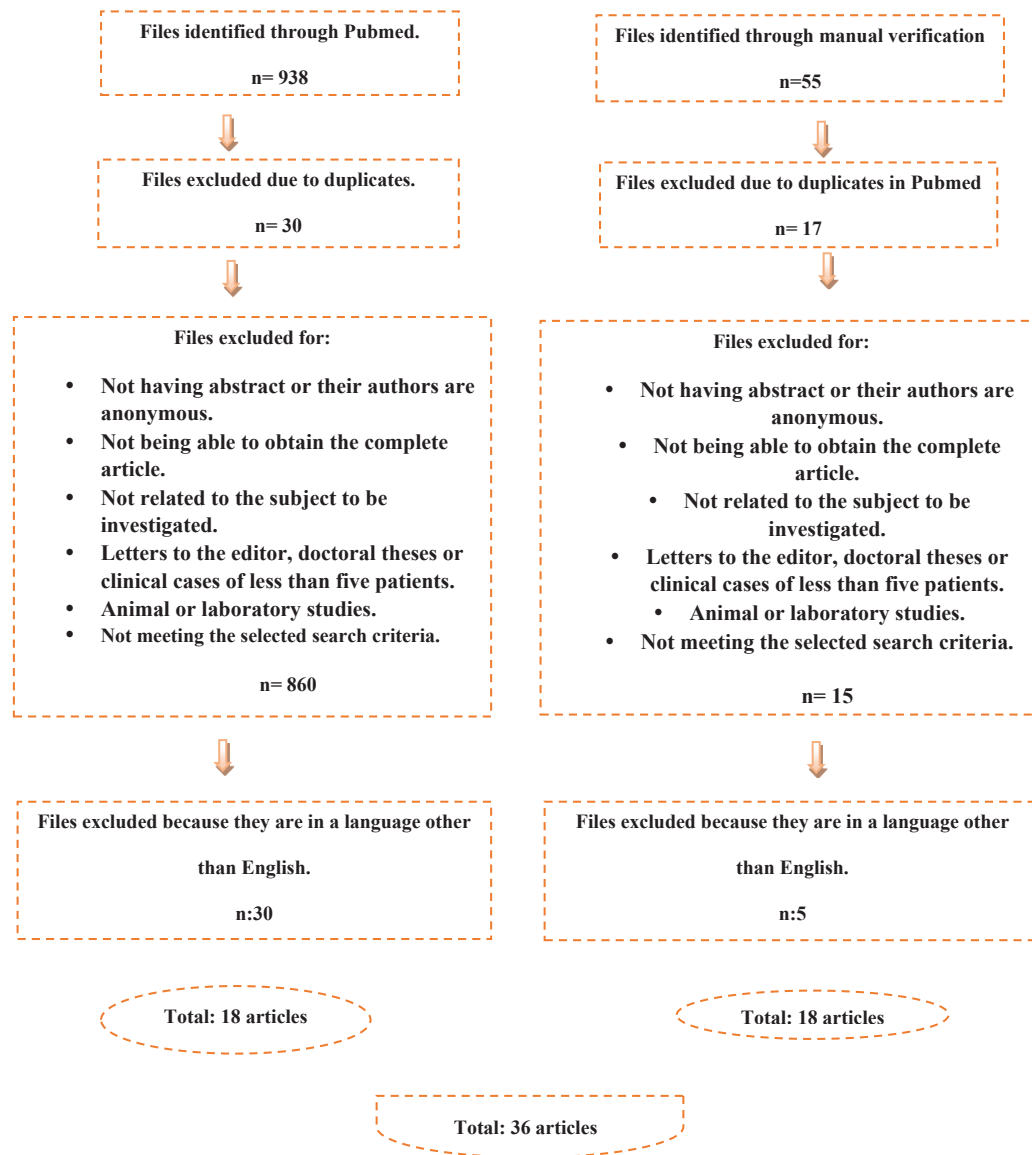


Figure 1: Flow chart of the selection process.

great influence on the avoidance behaviors of regular dental care [35-37] and by worsening their poor oral health, worsen their quality of life [26,38,39]. Recent studies emphasize the possible relationship between mental health and oral health, with both sharing biological, social, behavioral, behavioral, and psychological factors, associated with an increase in periodontal disease, abscesses, carious teeth, and finally, tooth loss [40-42]. In the case of periodontitis, the change in behavior and in the psychic sphere would cause a reduction in oral hygiene which, if chronic and untreated, could lead to tooth loss. On a biological level, in both periodontitis and mental health, there is inflammation on a systemic level, which will affect the immune system and will affect the periodontium, favoring the establishment of periodontal disease. With all these previous situations, tooth loss is more favorable and therefore, the patient would register changes at a social level (work and personal), with negative repercussions on his mental disorder and oral health [42-45].

Finally, we must emphasize that since this type of disorder has a multifactorial etiology, it is essential to carry out adequate prophylaxis, and oral health programs aimed at the different social strata, as well as at patients with mental disorders, anxiety, and/or dental fear, are very useful for a better control of this type of situation [46]. At the same time, it will be necessary to act on all the professionals involved in oral health (dentists, surgeons, hygienists, ...) to update and improve their theoretical and practical knowledge of this type of pathology, through continuing education courses, recycling, etc., to improve clinical care for this type of patient and prevent or minimize these episodes of stress that are becoming more and more frequent in the daily practice.

Therefore, in order to achieve better management in the dental office, there are a series of non-invasive techniques such as music therapy, hypnosis, virtual reality [47], and therapy with dogs [48], among others. These can be combined with informing the patient about the dental therapy to be performed in order to improve their behavior and acceptance



of the dental treatment, and it is also necessary to inform the patient of their oral deterioration and what can affect their oral health and quality of life [41,45]. Virtual reality is a promising tool for desensitizing patients with dental phobia [49].

If these measures have not had the expected result, sedation with nitrous oxide or benzodiazepines can be prescribed, or general anesthesia in selected cases [45].

In the dental management of these patients, interconsultation with a psychiatrist will be necessary to help the patient to restructure his mental sphere in the dental office, as well as to treat the associated mental disorder.

Limitations

Since this is a literature review, statistical and clinical data cannot be given in this respect. More studies are needed to corroborate different protocols in patients with mental disorders with and without anxiety and/or dental fear.

Futures directions

It would be necessary to establish appropriate protocols with specialists versed in this subject, as well as to create guidelines (depending on the stage of the mental disorder and level of dental anxiety and/or fear) that could help dentists less experienced with mental patients to resolve doubts in this regard.

Conclusion

Mental disorders, anxiety, and dental fear are frequent multifactorial entities in the dental office. They can be aggravated according to the evolution of the patient's mental state, socio-demographic factors and dental therapy to be performed (invasive therapy being more traumatic than non-invasive therapy).

Therefore, there is a relationship between oral pathology and mental pathology, which the dentist should be aware of in order to better manage this type of patient in the dental office.

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