# International Journal of Human Sciences Research

### BODY IMAGE AND ORTHOGNATIC SURGERY: A DIALOGUE UNDER CONSTRUCTION IN DENTISTRY AND PSYCHOLOGY

Fernanda Caroline Oliveira Department of Psychology IESB Centro Universitário

*Kátia Regina de Miranda Rossetti* Department of Psychology IESB Centro Universitário

*Maria Renata Cabral Rios* Department of Psychology IESB Centro Universitário

**Rebecca de Castro Moraes** Department of Psychology IESB Centro Universitário

**Paula Madsen Arruda** Department of Psychology IESB Centro Universitário

*Gilson de Assis Pinheiro* Department of Psychology IESB Centro Universitário



All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).

Abstract: This article addresses the need to build an interprofessional dialogue between Psychology and oral and Maxillofacial Surgery, having as a reading point the Body Image (CI) and the socio-emotional aspects of patients with dentofacial deformities undergoing orthognathic surgery. Two health professionals were interviewed (an Oral and Maxillofacial Surgeon and a Hospital Psychologist). It was observed that there are patients, after the surgical intervention, who have difficulties in dealing with the new Body Image. Most manifest satisfaction, improved quality of life, however some have difficulties in dealing with the new Body Image, showing surprise and psychic suffering. The team must deal with expectations, beliefs, feelings and emotions before the surgery and also in the post-surgical period. In addition, the importance of a multidisciplinary team for the planning, execution and post-surgical intervention was noticed. Orthognathic surgery is a considerable option in the treatment of dentofacial deformities and their aggravations, however, given the plurality of results and reactions, the importance of psychological follow-up before and after surgery and also of better dialogue between the professional fields is noted.

**Keywords:** Orthognathic surgery. Body image. Psychology.

#### INTRODUCTION

Orthognathic surgery is an axis of oral and maxillofacial surgery that aims to treat dentofacial deformities, dealing predominantly with aesthetic and functional problems. Such surgical intervention provides a significant change in the quality of life of these patients by correcting malocclusion and joint improvement, respiratory and phonetic function and provides sociopsycho-functional benefits in addition to harmonizing the face (Alves et al, 2018). This action is carried out by a multidisciplinary team coordinated by an oral and maxillofacial surgeon and an orthodontist. For this, it is necessary to plan and prepare the patient's prior and postsurgical psychological preparation, as this will offer the patient a better quality of life in aesthetic, functional and psychosocial aspects. (Guimarães Filho et al, 2014; Frid, Baker & Johnsen, 2022)

It is estimated that 1/5 of the population has dentofacial deformities that lead to corrective surgery (Gonçalves, 2017). These are people who exhibit changes in the facial profile, chin, positioning of the maxilla and mandible with class I, II and III, among other oral and maxillofacial needs (Ambrizzi, et al, 2005) and, in view of this, patients face a series of existential difficulties.

It is not too much to emphasize that having a dentofacial deformity implies changes in feelings, emotions and behaviors, maladaptive thoughts occur that impact on their core of socio-relational interactions. Psychological phenomena emerge that the professional must deal with, such as anxiety, stress, depressive symptoms, negative mental ruminations about body image, low self-esteem, as the patient often reports experiencing Bullying, social exclusion, social prejudice, ridicule. All of this can compromise their development and social performance due to the stigmatization of being aesthetically undesired for being "cheeky", "cheeky and with a lot of gum", "no mouth", among others (Figueiredo, et cols, 2017; Vicentini, 2020).

It is certain that the motivational factors for surgical intervention are loaded with an emotional drama and the decoding of this phenomenon must be uncovered by professionals who deal with such demand (Silva et al, 2016).

Technical-operational knowledge, patient-professional good interaction, collection that is data not centered on only anatomical-functional aspects are fundamental for the design of the intervention. Clinical success must be paved by knowledge of psychosocial variables in the humanization of care. This way, better facial, dental and functional harmony can be provided, better quality of life, meeting aesthetic and emotional needs and demands.

Carrying out the surgical intervention with cases of Class I, II or III is a challenging action, as they propose a functional action on the occlusion, correct and/or change the profile of the face, leading to a significant change in the perception of the body image of the patient submitted to the procedure. surgical procedure and important biopsychosocial issues occur that refer to the construction of personal identity in a context of difficult and slow recovery (Frid, Baker & Johnsen, 2022).

#### ORAL AND MAXILLOFACIAL SURGERY AND PSYCHOLOGY

Having an oral and maxillofacial problem negative psychological may result in consequences such as low self-esteem and self-concept, having beliefs of worthlessness, lack of love and helplessness, anxiety, stress, depressive about the surgery, fantasies self-disqualification due symptoms, to divergence between the real body image and the desired one, not present a culturally expected facial beauty model. Due to the complexity of the clinical condition and the different biopsychosocial variables involved, a multidisciplinary approach is of great importance (Zane, Tavano and Peres, 2002; Vicentini, 2020; Frid, Baker & Johnsen, 2022).

The patient participates in this process, initially dissatisfied with his Body Image, and undergoes an interventional procedure in which edema, speech and eating difficulties may occur in the postoperative period and, some time later, he will realize that his face is no longer the same. He is no longer the same and does not recognize himself anymore. There is alteration in the anatomical and functional body. He does not see himself physically in the same way in terms of the relationship between the maxillomandibular blocks, and facing the new context can lead to a series of questions. Who am I? There are questions about the social, affective, relational role, emerging new meanings about the body.

Patients receiving psychological care before and/or after surgery had better results. Unfortunately, it has been reported that few professionals refer their patients for psychological evaluation and follow-up (Davidson, 2018; Bentes, Oliveira, Martins and Pimenta, 2021; Brito et al, 2022).

The participation of the Psychologist in this context is extremely important, however it has been reported that some obstacles arise in this dialogical construction between oral and Maxillofacial Surgery and Psychology (Mato et al, 2015). There is a need for a greater density of research and to promote knowledge to Psychologists about Psychology applied to CBMF as well as about Psychology. Many professionals are afraid to refer the patient to the psychologist, many want speed in discharging the patient and there are few integrated services with an interdisciplinary approach. This dialogic difficulty predisposes to the occurrence of a compartmentalized and fragmented view of the patient and the clinical-surgical picture

There is a scarcity of data in the literature about this dialogic construction between orthognathic surgery and dentistry regarding Body Image (CI). Scientific findings center on questions about QoL (quality of life) and improved self-esteem. Reading and intervention in the face of the new body identity has not been contemplated. It is known that the language of the two areas is different, the dialogue between professionals is independent and complementary. Addressing this issue is one of the greatest challenges of current studies.

The patient is emotionally undressed before the Oral and Maxillofacial Surgeon. The first presents his desire for change full of uncertainties about the process, which is not only surgically intervening, but mainly is stripped of physical and emotional suffering in the face of Body Image (BI) changes and the second, in addition to technical skill, must offer the instrumentalization of operants to deal with emotional demands.

Body image (BI) is the subject's perception of their own body image, being a complex event that subjects experience. (Ribeiro and Tavares, 2011; Pinheiro and Costa, 2014). It is formed by the vision that each person has of himself, by the environment and social relationships in which he lives, by his culture and day-to-day experiences. A fundamental part for the individual to understand the "subject I" is through self-image. After the surgical intervention, a hiatus occurs. There is no equivalence between who I am, how I am, how I perceive myself, what my new image looks like in the mirror, and a psychological crisis, an identity crisis arises.

This new image breaks with the one known for a lifetime. Hence the importance of psychological follow-up and the relevance of this study to professionals in the area.

The main objective of this article is to (1) understand the need for articulation between orthognathic surgery and Psychology. (2) observe the impact of the surgery on the Body Image of the subject who undergoes the surgical procedure under the gaze of the oral and Maxillofacial Surgeon and the Psychologist

#### **RESEARCH METHODOLOGY**

In order to achieve the objectives outlined in this research, it was decided to use the qualitative research methodology. Content analysis was used

This is a descriptive, exploratory study of a qualitative nature. In order to choose the interviewees, the criteria for inclusion of the Oral and Maxillofacial Surgeon and the Psychologist were: (1) active professionals and members of the respective professional councils, (2) professional experience in the area of more than 10 years, Oral and Maxillofacial Surgery and Psychology Hospital respectively (3) professional experience and service leadership in the area and (4) agreement to participate in the research. On the other hand, the exclusion criteria were (1) not being experts in the area and (2) not wanting to be interviewed.

Respondents were informed about the objectives of the interview. The Informed Consent Form was presented and read, anonymity was reaffirmed and permission for recording was requested. After consent, the interviews were carried out. The interviews took place remotely, through the Google Meet platform and following the guidelines of Resolution CNS 466/12.

The questionnaire addressed data on professional experience, training, working time and which sector he works in and guiding questions of the interview such as interactional communication processes in health between psychologist and oral and maxillofacial surgeon and multidisciplinary team.

For data analysis, Bardin's content analysis was used with previous material analysis, several readings of all the collected material were carried out, apprehending the main ideas and their general meanings. Identifying the nuclei of meanings and treatment of the obtained results and interpretation using the participants' speeches.

## DATA ANALYSIS AND DISCUSSION

The demand for orthognathic surgery is primarily aesthetic and functional, in search of quality of life, such as, for example, patients with facial disharmonies and those who suffer from apnea and have difficulty sleeping.

> "many patients, when seeking orthognathic surgery, intend to change the physical (aesthetic) aspect of their face, accompanied by the search for better self-esteem and standard beauty. If we take into account the aesthetic standards valued and accepted by our society, we can have an idea of how much the stigmatized patient feels rejected, inadequate and not accepted. First, an anamnesis is carried out to discover the patients' motivation and interests. This anamnesis can be carried out by the orthodontic team with the support of a speech therapist and a psychologist. At that moment, it is also analyzed if the patient is in favorable psychological and physical conditions to start the surgery process. The Maxillofacial Surgeon explains that the minimum age recommended for this surgery depends on the physical maturation of the patient's body: (CBMF)

Health, beauty, symmetry, aesthetics, functionality, physical and emotional wellbeing are part of the macro reading that drive people to seek the attention of the Oral and Maxillofacial Surgeon through orthognathic surgery to deal with maxillomandibular disharmonies (Brito et cosl, 2022).

In this context, the relevance of the Dentist (Oral and Maxillofacial Surgeon and Orthodontist) as well as members of the multidisciplinary team (Psychologist, Speech Therapist, Nursing team) to deal with the demand stands out. The motivations, interests, real and imaginary beliefs, the physical changes that are part of the surgical planning are observed in the anamnesis.

The face allows the person better interpersonal interaction, supports the expression of emotions and interferes with social relationships. Having maxillomandibular disharmony implies experiencing significant emotional suffering with low self-esteem and self-concept, as well as interactional difficulties (Gonçalves, 2017; Nascimento Junior, 2022).

> "Usually it is when the individual stops growing, so the girl after the first menstruation usually stops growing, around 14-16 years old, for severe cases, when it is not serious we wait longer, the boy grows longer so it gets more or less after 17-18 years." (CBMF)

Along with the facial disharmonies that drive the patient to undergo surgery, the CBMF will identify the most opportune moment to perform surgical care and observe the impact of growth and development on physical changes in the human body. Associated with the biological aspects, there is the aesthetic aspect, which is a strong component and can have a considerable weight in the patient's expectations regarding the surgery, and psychological follow-up throughout the process is also important.

#### Preoperative:

"Before the surgery, getting to know this patient, identifying his expectations in relation to the surgery, if that is clear to him, because there may be a bit of this fantasy of how this post-surgical period will be and how this patient will be, in particular surgeries that involve some change, be it some correction, there is this side of the body image, what this patient builds, what he fantasizes about." (Psychologist)

#### During:

"During the surgery, it is not a very common step for us to have a psychologist involved, but it is possible, both to assess the patient's behavior and to be in the surgical process, how is this collaboration. There is also the issue of whether he collaborates with the intervention and surgery. If it is a patient who is sedated, if it is a patient who will have some restriction of communication and movement, we can participate in brief moments of observation, but this will not take much time from our participation in the surgery and we can also having communication with family and other companions who are outside the surgical center, at least to start structuring and organizing a support network, this patient may need after surgery." (Psychologist)

#### Postoperative:

"After the surgery, then we have this patient return from the operating room. In this recovery, some behavioral changes may occur. Some become more apathetic, others aggressive with the team. A dissatisfaction with the procedure that is not yet the desired result. There is this time and this recovery process is an interesting demand. (Psychologist)

There may be many factors involved. Some may have behavioral changes due to abstaining from substances such as alcohol and tobacco. We deal with addiction to licit or illicit substances since the pre-surgical period. It must be perceived from the initial contact. So it is interesting for us to pay attention to that, there is always a space for the psychologist to be part of it, we have to look for that." (Psychologist)

The participation of the Psychologist in the pre and post is perceived as extremely important. Hino, Yagi and Miyawaki (2022) in a recent study, point out that patients with skeletal Class I and III have more symptoms of anxiety, depression and tend to have a negative body image. have a negative impact on self-confidence, social relationships. Dissatisfaction with some parts of the body, high defensiveness and greater affective sensitivity

When planning the orthosurgical treatment in a subject with dentofacial skeletal deformity, the CBMF will deal with expectations, beliefs, emotionality and will approach the patient integrally (Basso et cols, 2022) and will foresee actions that

will aim at results that will go beyond the aesthetic aspect and functional, as it will generate an improvement in the meaning of the patient's life, better intrapersonal and interpersonal relationships and greater personal attractiveness.

Coping is defined as "the set of cognitivebehavioral efforts used to handle specific internal and/or external demands" (Carvalho, Grubits, Vera & Durazo, 2021). Some particular factors of the patient can make the coping more vulnerable and sensitive to the patient, as observed in the report below by the Oral and Maxillofacial Surgeon. Expectations regarding the benefits of surgery, insecurity during the decision-making process, lack of knowledge of the emotional costs of surgery, social support not always available and psychological disturbances are some of the elements, pointed out by the literature, as accessible by processes of monitoring and psychological assessment (Carvalho, Martins & Barbosa, 2012). Faced with these factors, psychological follow-up must help to decrease, understand the present circumstance and facilitate the externalization of emotions that are involved in the surgery process (Basso et al, 2022).

In carrying out the planning, it is important to highlight the need to know, prevent and intervene in the face of negative coping. I particularly draw attention to the orthognathic surgical performance in patients who will change their Body Image and present conditions such as body dysmorphic disorder, Obsessive Compulsive Disorder. Multidisciplinary action facilitates coping with stressful situations in the treatment of oral disorders (Pogrel and Scott, 1994; Elkamash and Abuohashish, 2021) with the participation of Dentistry - Psychology-Nursing- Nutrition- Psychiatry and other medical specialties will integrate knowledge and promote physical and mental health.

"I've had cases of people who had the surgery and went into depression, they wanted to do it but suddenly they didn't recognize themselves anymore, so this psychological follow-up is very important, because sometimes the person has the surgery at 40, 50 years old, so it's been 40, 30 years that she sees herself in a way and suddenly she's different."(CBMF)

There is a construction of a negative image historically constructed over the years and at 30, 40, 50 years old, everything changes, many do not (re)know themselves and cease to be "the chin", "the disharmonious", the reference element and he doesn't know who he is anymore. In expectations, internal dialogues appear about the image of the real body x the desired body and, in view of this, there is the possibility of a gap occurring and not being achieved in the imagined way. According to reports, the psychologist will act on these issues. It is then understood the importance of this inter, pluri and transdisciplinary partnership in the coping of orthognathic surgery

> "It would be wonderful if we always had this partnership, not always with other professionals. Many health professionals do not understand what the role of the psychologist will be in the face of a surgical process, (...) the surgeon can also make this type of contact with the psychologist and ask for a pre-surgical evaluation, as we have in other cases, as in the most common cases such as bariatric surgery, some chronic diseases, if this patient has had or is undergoing psychological follow-up.

> But it is interesting for us to have this contact. Is the patient going to have surgery? Are you undergoing psychological and/or psychiatric treatment? Check mood changes, anxiety, expectations regarding the final result. Are you a patient with depression? Are there any psychopathological changes? A depressive disorder, for example, may also be associated with pre-surgery. (Psychologist)

"I have a patient who had obstructive sleep apnea, she had class II, usually apnea is in class II patients, with "Noel Rosa's chin". We had the surgery, her husband loved it, he said she looked younger, she looked wonderful, but she felt bad, she said "but it's not me anymore" and she looked beautiful, she improved a lot. Only after about 4 or 5 months did she say "wow, I'm loving it" but it took a few months for her to realize that she was herself and she was better." (CBMF)

Faced with the needs between the painfully experienced body and the physical body, the need to build an interactional dialogue emerges so that, by adding knowledge, it can offer a therapeutic meeting between health professionals and the patient.

> "it would be interesting if the humanistic formation is offered since graduation. There are undergraduate courses with little content on Psychology applied to dentistry as well as in specialization courses" (CBMF)

> "The construction of this interaction would be very good, however, little is said about Psychology applied to dentistry in Psychology courses. We talk a lot about bariatric surgery. " (Psychologist)

There is a need for the construction of meanings in the dental clinic, particularly in the care of people with maxillofacial disorders and that the professionals involved know how to welcome, therapeutically listen to their needs, open spaces beyond the intermaxillary distance and dialogue with the production of meanings from the first contact patientsurgical clinic-professionals

#### ORTHOGNATHIC SURGERY AND PSYCHOLOGY

Recent works point out the importance of the interaction between Psychologist and Oral and Maxillofacial Surgeon, (Burden et al, 2010, Basso et cols, 2022). Many patients with surgical needs and candidates for surgical intervention have high levels of perfectionism, low self-esteem, feelings of being less attractive, insecure, especially for Class III patients, (Gerzanic, Jagsch and Watzke, 2002; Venete et al, 2017), and, for some patients, psychotherapeutic care is imperative before surgical intervention (Frid, Baker & Johnsen, 2022)

Carvalho et al. (2012) draw attention to the psychosocial characteristics of patients that contribute to orthosurgical treatment, such as psychological support for the prevention of risk factors for psychological dispense distress. One cannot with psychotherapeutic care in the presence of psychopathological conditions such as fear, panic, depression, stress, OCD, OPD, body image disorder. People with DCD. The latter tend to be dissatisfied with the surgical result despite the aesthetics and functionality being satisfactory.

#### CONCLUSION

After analyzing the verbal reports, it was observed how the complexity of oral and maxillofacial surgery and the treatment requires an interaction between the professionals involved, emphasizing the importance of the role of the psychologist with the patient and the surgeon, bringing confidence and better adherence and coping, helping them to o reaching the highest degree of satisfaction at the end of the treatment.

There is still little participation of the psychologist in the course of treatment aimed at orthognathic surgery, both before and after surgery, and it is interesting that in the training of the oral and Maxillofacial Surgeon (graduation and specialization) knowledge of Psychology Applied to Dentistry is added, as well as in the training of the Psychologist. This is a space to be further conquered, both with the patient and with the surgeon and psychologist. For better health care and patient recovery, it is opportune to offer psychologist care, thus better preparing patients, also contributing to other professionals in decision-making, preventing negative coping, helping them to feel better and adapt to this situation. new image more naturally.

#### REFERENCES

Alves, Emanuelle. Ferreira, Torres, Luiz. Henrique. Soares. Siqueira, Natalia Barbosa, Oliveira e Silva, Emanuel, Pereira, Rebeca Valeska Soares, Uchôa. Caio Pimenteira). Cirurgia ortognática: correção cirúrgica de deformidade dentofacial Classe III. (2018) *Archives of Health Investigation* 7( Spec Iss 7 )30. DOI: http://dx.doi.org/10.21270/archi.v7i0.3914

Ambrizzi, D. R.; Gabrielli, M. A. C.; Pereira Filho, V. A.; FRANZI, S. A.. Avaliação das queixas estético-funcionais em pacientes portadores de deformidades dentofaciais. Revista brasileira de cirurgia e traumatologia buco-maxilo-facial, v. 2, p. 26-32, 2005. https://doi.org/10.1590/S1415-54192007000500009

Basso, I. B., Gonçalves, F. M., Martins, A. A., Schroder, A. G. D., Taveira, K. V. M., Stechman-Neto, J., Santos, R. S., Guariza-Filho, O., & de Araujo, C. M. (2022). Psychosocial changes in patients submitted to orthodontic surgery treatment: a systematic review and meta-analysis. *Clinical oral investigations*, *26*(3), 2237–2251. https://doi.org/10.1007/s00784-021-04304-w

Bentes, G. da S. B., de Oliveira, H. S. L., Martins, K. M., & Pimenta, Y. da S. (2021). A influência da cirurgia ortognática no âmbito psicossocial em pacientes com deformidades dentofaciais: Revisão de literatura / The association of orthognathic surgery in the psychosocial contex in patients with dentofacial deformities: Literature review. *Brazilian Journal of Development*, 7(11), 108267–108277. https://doi.org/10.34117/bjdv7n11-449

Brito, T. A.; Andrade, F. S.; Yamashita, R. K.; Klug, R. J. The importance of the correct indication of orthognathic surgery, rehabilitating phonetics and facial Harmony. **Research, Society and Development**, *[S. l.]*, v. 11, n. 15, p. e79111537096, 2022. DOI: 10.33448/rsd-v11i15.37096. Disponível em: https://rsdjournal.org/index.php/rsd/article/view/37096. Acesso em: 24 jan. 2023.

Burden, Donald. J, Hunt, Orlagh; Johnston, Chris; Stevenson, Michael; O'Neil, Ciaran & Hepper, Peter (2010). Psychological Status of Patients Referred for Orthognathic Correction of Skeletal II and III Discrepancies. (2010). The Angle Orthodontist: Jan;80(1):43-8. doi:10.2319/022709-114.1.

Carvalho, S. C; S.; Martins, E. J.; Barbosa, M. R. (2012). Variáveis psicossociais associadas à cirurgia ortognática: uma revisão sistemática da literatura. Psicol. Reflex. Crit. vol.25 no.3 Porto Alegre. https://doi.org/10.1590/S0102-79722012000300007

Carvalho, Anderson; Grubits, Heloisa; Vera, José Angel & Durazo, Francisco (QV E COPING EM PACIENTES NO PERÍODO PÓS-CIRURGIA DE CABEÇA E PESCOÇO. PSICOLOGIA, SAÚDE & DOENÇAS, 2021, 22(1), 240-251. DOI: http://dx.doi. org/10.15309/21psd220121

Davidson, Liliane Vieira Santiago (2018). A avaliação psicológica no procedimento de cirurgia ortognática: uma revisão de literatura. Rev. Ipog Especialize (9)15:1-19 Ano 9, Edição nº 15 Vol. 01

Elkamash, H. M., & Abuohashish, H. M. (2021). The Behavior of Patients with Obsessive-Compulsive Disorder in Dental Clinics. *International journal of dentistry*, 2021, 5561690. https://doi.org/10.1155/2021/5561690

Figueiredo CMBF, Bonardi JP, Pereira RS, Silva LF, Carvalho-Reis ENR, Silva JR, Hochuli-Vieira E (2017) Cirurgia ortognática para correção de retrognatismo: caso clínico rch Health Invest;6 (Spec Iss 2), 147. DOI: http://dx.doi.org/10.21270/archi. v6i0.2255

Frid, P., Baker, S.R., Johnsen, JA.K. (2022). The Psychosocial Impacts of Orofacial Features: With Examples from Orthognathic Surgery. In: Willumsen, T., Lein, J.P.Å., Gorter, R.C., Myran, L. (eds) Oral Health Psychology. Textbooks in Contemporary Dentistry. Springer, Cham. https://doi.org/10.1007/978-3-031-04248-5\_19

Gerzanic, L., Jagsch, R., & Watzke, I. M. (2002). Psychologic implications of orthognathic surgery in patients with skeletal Class II or Class ill malocclusion. *The International journal of adult orthodontics and orthognathic surgery*, *17*(2), 75–81.

Gonçalves, Fernanda Scoralick (2017) Variáveis psicossociais em cirurgia ortognática: subsídios para a preparação de pacientes. Dissertação de Mestrado UNB 140 p

Guimarães Filho R, Oliveira Junior EC, Gomes TRM, Souza TDA de.(2014): Qualidade de vida em pacientes submetidos à cirurgia ortognática: saúde bucal e autoestima. 69 Psicol Ciência e Profissão. 34(1):242–51. https://doi.org/10.1590/S1414-98932014000100017

Hino, S., Maeda-Iino, A., Yagi, T., Nakagawa, S., & Miyawaki, S. (2022). Effects of sex, age, choice of surgical orthodontic treatment, and skeletal pattern on the psychological assessments of orthodontic patients. *Scientific reports*, *12*(1), 9114. https://doi.org/10.1038/s41598-022-12129-0-

Matos, Cléia Cristina, Rosa, Maria Aparecida Emico Kajiura, Figueiredo, Sue Ellen Ferreira Modesto Rey, Barbosa, Darklê Ferreira Modesto. Cirurgia Ortognática e Imagem Corporal. Rev. Odontol. Univ. Cid. São Paulo 2015; 27(1): 20-5, jan-abr Doi https://doi.org/10.26843/ro\_unicid.v27i1.240

Nascimento Junior, Denilson Pereira. (2022).A influência dos aspectos psicossociais nos pacientes submetidos a cirurgia ortognática no pré ao pós-operatório: uma revisão narrativa Trabalho de Conclusão de Curso- UFPE

Pogrel, M. A., & Scott, P. (1994). Is it possible to identify the psychologically "bad risk" orthognathic surgery patient preoperatively?. *The International journal of adult orthodontics and orthognathic surgery*, 9(2), 105–110.

Pinheiro Gilson de Assis; COSTA, Larissa Valente. (2015) Prevalência de insatisfação com imagem corporal em universitários. Revista de Iniciação Científica do IESB, v. 1, p. 133-139, 2015.

Ribeiro, P., & Tavares, M. (2011). As contribuições de Seymour Fisher para os estudos em imagem corporal. Motricidade, 7(4),83-95.https:// www.redalyc.org/articulo.oa?id=273022544009

Silva, Susana; Teixeira, Vitor; Ferreira, Afonso, P. & Ustrell-Torrent, Maria Josep (2016). Autoestima e deformidade dentofacial: um estudo comparativo com a escala de autoestima global de Rosenberg. Revista Portuguesa de Estomatologia, Medicina Dentária e Cirurgia Maxilofacial.;5 7(3):146–150 http://dx.doi.org/10.1016/j.rpemd.2016.04.003

Venete, A., Trillo-Lumbreras, E., Prado-Gascó, V. J., Bellot-Arcís, C., Almerich-Silla, J. M., & Montiel-Company, J. M. (2017). Relação entre o impacto psicossocial da estética dentária e o perfeccionismo e a autoestima. *Jornal de odontologia clínica e experimental*, 9(12), e1453–e1458. https://doi.org/10.4317/jced.54481

Vicentini, Grasielli, (2020). Fatores de risco para depressão em pacientes que necessitam de cirurgia ortognática. Dissertação de mestrado. Universidade Positivo

Zane, V. C., Tavano, L. D. 'A., & Peres, S. P. de B. A. (2002). Avaliação psicológica de pacientes submetidos à cirurgia ortognática. *Revista Dental Press de Ortodontia e Ortodopedia Facial, jan./fe 2002*(1), 85-89.