# Perception of orthognathic surgery patients on postoperative care

PERCEPÇÃO DOS PACIENTES SUBMETIDOS À CIRURGIA ORTOGNÁTICA SOBRE O CUIDADO PÓS-OPERATÓRIO

LA PERCEPCIÓN DE LOS PACIENTES SOMETIDOS A CIRUGÍA ORTOGNÁTICA SOBRE EL CUIDADO POSTOPERATORIO

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### **ABSTRACT**

Patient's anxiety and worry due to a lack of knowledge about the orthognathic surgery motivated the development of this study. The objective was to identify information needs of postoperative patient undergoing orthognathic surgery. It's an exploratory and qualitative research that used the focus group to collect the dada. Postoperative patients of orthognathic surgery from an oral and maxillofacial surgery and trauma ambulatory were invited to participate in the group. Through content analysis it was possible to identify the following problems related to the postoperative procedure: long recovery time, nutrition, oral hygiene, relief of postoperative signs and symptoms. Themes involving selfimage and satisfaction levels related to the outcome of the surgery were also recognized pointing out the need of future studies to explore these issues.

# **DESCRIPTORS**

Orthognathic surgery Postoperative period Health information consumer Perioperative nursing

### **RESUMO**

O A ansiedade e a preocupação dos pacientes decorrentes da obscuridade das informações relacionadas ao procedimento cirúrgico ortognático despertou o desenvolvimento deste estudo, que objetivou identificar as necessidades de informação do paciente sobre o cuidado pós-operatório da cirurgia ortognática. Trata-se de pesquisa exploratória qualitativa, que utilizou como método de coleta de dados o grupo focal com pacientes em pós-operatório de cirurgia ortognática de um ambulatório de cirurgia e traumatologia bucomaxilofacial. Os dados foram submetidos à análise de conteúdo para identificação das falas significativas para o alcance do objetivo. Entre os assuntos mais abordados, destacaram--se o longo tempo de recuperação e as dificuldades relacionadas à alimentação, higienização e redução dos sinais e sintomas pós-operatórios. Comentários relacionados à autoimagem e à satisfação com os resultados da cirurgia apontam para a necessidade de exploração em futuros estudos.

# **DESCRITORES**

Cirurgia ortognática Período pós-operatório Informação de saúde ao consumidor Enfermagem perioperatória

### **RESUMEN**

La ansiedad y la preocupación de los pacientes por la falta la información acerca de la cirugía ortognática provocaron el desarrollo de este estudio, que tuvo como objetivo identificar las necesidades de información del paciente sobre el cuidado postoperatorio. Es una investigación exploratoria cualitativa, que utilizó la técnica del grupo focal para recoger datos. Pacientes en el postoperatorio de cirugía ortognática de un ambulatorio de cirugía bucomaxilofacial y trauma fueron invitados a participar en el grupo. Los datos fueron sometidos a análisis de contenido y entre las cuestiones que se plantean más frecuentemente, se mencionó el largo tiempo de recuperación, las dificultades relacionadas con la alimentación, la higiene y la reducción de los signos y síntomas después de la operación. Comentarios relacionados con la imagen de sí mismo y la satisfacción con los resultados de la cirugía indican la necesidad de futuros estudios para explorar estos temas.

# **DESCRIPTORES**

Cirugía ortognática Período postoperatorio Información de salud al consumidor Enfermería perioperatoria

Received: 04/10/2012

Approved: 05/18/2012



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## INTRODUCTION

The orthognathic surgery is a surgical procedure aimed to correct maxillomandibular and facial irregularities by means of an adequate dental repositioning process. Such treatment involves a functional component intended to improve the masticatory, speech and breathing performances, besides being an aesthetic element that harmonizes and creates a balanced facial look. People suffering from altered occlusion or mispositioned maxilla and/or mandible<sup>(1)</sup> can benefit from this surgery.

Maxillomandibular development is a slow, gradual process. At times, both the maxilla and the mandible may grow in different rhythms, resulting in masticatory, speech, oral health and appearance-related problems. Maxillomandibular accidents, diseases and unbalanced nutrition may also affect craniofacial growth and development. In certain conditions, the surgical intervention becomes a necessary step, such as in cases of excessive dental crowding, retracted chin, protruding mandible, chewing difficul-

ties, speech problems, difficulties to keep the lips closed, chronic maxillomandibular pain, chronic mouth breathing, open bite, facial injuries, mouth opening difficulty, and facial aesthetic unbalance<sup>(1-2)</sup>.

As any other surgical procedure, the orthognathic surgery involves risks and complications that must be previously communicated to the patient. Some studies conclude that the hemorrhage is the most frequent complication; in most cases, it is manifested as an epistaxis that is easily controlled by a nasal tamponing. Infection is a potential risk following any invasive procedure and it must be treated by the use of antibiotics. Postoperative pain is usually moderate and can be controlled by specific

medication. In spite of not occurring so frequently, nausea and vomiting are consequences of the general anesthesia. The surgical treatment relapse is a rare condition and is usually a result of mistakes in the planning and execution of the treatment<sup>(1,3)</sup>.

In addition to the medical-dental procedure, the success of the surgical treatment depends on the nursing assistance rendered in the pre and postoperative periods of the surgery. Pre-surgical guidance begins between one and three months prior to the surgery; the surgical risk-benefit must be taken into account and the patient must be fully oriented and prepared.

As for the orientations to be conveyed to patients, some authors point out the following aspects: treatment length, information on the diet and the consistence of food, oral hygiene, pain and discomfort periods and presence of postoperative edema, possible employment of maxillomandibular fixation apparatuses, awareness of

the patient regarding the necessary elimination of oral addictions and approaches on the aesthetic change produced by the surgery. The presence of family members on this phase is an essential action; in some cases, psychological counseling can be suitable. Written information can become a useful tool, as it is capable of reinforcing the oral guidelines offered to patients and their family members<sup>(2,4)</sup>.

The postoperative stage determines the phase of the surgical procedure; in this phase, the nurse must embody the following goals: prevention and precocious detection of complications, pain control and the urgent re-establishment of the physiological balance. The patient, his needs and his recovery constitute the major reason for the nursing assistance<sup>(5)</sup>.

The anesthetic-surgical intervention is perceived as an unpleasant experience by those who undergo it, as it tends to instill the fear of the unknown; the performance of invasive and painful procedures, the anxiety of being

in a strange environment, and the concern at the clinical evolution of the treatment are also pertaining hardships. When patients are supplied with reasonable guidelines and information, their insecurity level is reduced, thus favoring the creation of adequate and positive relationships and establishing a trust bond, which is an indispensable aspect toward the success of the treatment<sup>(5)</sup>.

However, no literature record was found to respond to the doubts and difficulties experienced by patients in the orthognathic surgery postoperative period. This stage demands specific, continuous and qualified nursing care that can contribute to the patient's recovery, as well as the

fulfillment of his real needs. The need of the individual represents the problem to be solved and it must be taken very seriously by the perioperative nursing assistance planning<sup>(6)</sup>.

This present study aims to identify patient's information gaps on the postoperative period of the orthognathic surgery. The results of this research will be applied in the elaboration of educational materials aimed to be handed to these patients.

## **METHOD**

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This exploratory, qualitative-based study is a subproject of the thematic project called *Postoperative education: construction and validation of an educational technology toward orthognathic surgery patients*. For the data collection process, this current study used the focal group technique.



The focal group technique is a research technique that makes use of reduced (5-15 participants) group sessions aimed to obtain qualitative-based information and to unveil the perceptions of participants on relevant topics in the investigation. The study assumes that the group activity allows for the diversification and deepening of contents related to interest issues; in other words, the group activity generates more diverse responses and richer details<sup>(7-8)</sup>.

The discussion takes place in a time length not superior to two hours under the coordination of a researcher/mediator, who introduces pertaining themes, stimulates the interaction of participants and supports individuals toward sharing their ideas and contributions. Observers carry out the recordings throughout the meeting by taking into account verbal and non-verbal aspects. Such exchange enables the acknowledgement and comprehension of certain behaviors through the analysis of underlying motivations<sup>(7-8)</sup>.

# Sample

A list of names and phone numbers of orthognathic surgery patients collected from the medical records of the surgical team of an oral, maxillofacial and traumatology surgery outpatient facility located in the city of São Paulo (SP) was used to trigger the composition of the focal group. Ten days prior to date scheduled for the group meeting, 33 patients from the list were called on the phone and invited to take part in the research. Due to several reasons, such as the impossibility to show up and the distance from their homes to the meeting spot, 15 patients refused to participate in the meeting; two patients did not answer the phone call; two other phone numbers did not exist; five patients were either out of the local phone area or unable to receive calls; and nine patients confirmed their presences. On the scheduled date and time, five patients showed up.

The inclusion criteria were as follows: patients who had undergone orthognathic surgery in the previous 24 months, 18 years of age or older, and patients who spontaneously accepted to be part of the research as a subject.

# Collection procedure

The sessions of the focal group occurred on Saturday morning in one of the facility's meeting rooms, where patients are followed up after the surgery. The day of the week was chosen due to the preference of patients, and the absence of medical appointments on this day. The elected place complies with the description of other studies<sup>(8-9)</sup>, which recommend it to be a comfortable, silent spot able to protect privacy and provide easy access to patients.

Chairs were laid out in a circle, in order to promote a satisfactory eye-to-eye contact and benefit interaction among participants. Some snacks, sweets, juice and water to be enjoyed after the meeting were prepared in order to promote a time of socialization.

Aiming to capture the patients' needs of information on the postoperative period of the orthognathic surgery, a thematic guide comprised of five open questions about the development of the issue was elaborated, as follows: Did you find it difficult to understand the orientations related to postoperative care procedures? How do you see the use of an educational material in the process of orienting patients on the postoperative care procedures? Which relevant issues would you expect to be addressed in the educational material? Are you satisfied with the outcomes of the surgery? Is there anything else that has not been explicated and about which you would like to talk, or is there anything else you would like to suggest?

These questions stimulated the participants to express their perceptions, beliefs, doubts and values regarding the investigation of the issue.

The management of the focal group complied with the operational trajectory recommended by pertaining studies (9-10). The session lasted for nearly two hours. In order to promote the interaction of the group, the researcher set 15 minutes apart to introduce all participants and to present the objectives of the study; the time was also used to address the reason for the use of the recorder and to shed light on the focal group technique and on ethical-related issues. The discussion itself was guided by the questions inserted into the thematic guideline, respecting the average time of one and half hour. To wrap the meeting up, the researcher synthesized the work by bringing up the goals of the study; then, he thanked the involvement of all participants and invited them to taste the prepared food and beverage.

Following the agreement of the patients, the conversation was recorded, in order to maximize the data collection process, thus allowing for the full transcription of the discussions carried out by the group and preventing significant losses of content. Non-verbal communication was also registered, aiming to enable the exposure and the comprehension of the behaviors expressed by the participants through the analysis of the motivations that influence them. This non-inductive approach stimulates spontaneous expressions and reflections about feelings, values and attitudes<sup>(8-9)</sup>.

The thematic project was approved by the Research Ethics Committee of the Nursing School of the University of São Paulo under protocol number 972/2010. On the first meeting of the focal group, after the presentation of both the objectives of the investigation and the procedures for the data collection process, all participants signed the Free and Clarified Consent Term.

## **Data Analysis**

This present study decided to make use of the content analysis method. The method comprehends a set of techniques that organizes information/communication subsumed in documents, aiming at grasping the meanings



behind them. Materials are collected either through interviews or observation notes taken in field diaries<sup>(11)</sup>.

Following the transcription of the produced material and an exhaustive reading process, expressions that identified meaning units were signaled for further classification of significant elements into different categories. In order to maintain the anonymity of the participants, the subjects are labeled under letter R (standing for Respondent) and a number for each one of them, from 1 through 5.

### **RESULTS**

The data analysis brought about the following thematic categories: postoperative adversities; surgery recovery time; self-image and aesthetic outcomes of the surgical procedure, and written guidelines.

In the *Postoperative adversities* category, issues related to the paraesthesia, mouth opening, edema, oral hygiene and feeding were repeatedly addressed as difficulties experienced by patients.

The following statements point out the resulting effects of the paraesthesia, such as salivation and lack of sensitivity toward identifying food residues that involuntarily ooze down the patient's chin; and also difficulties to eat or kiss due to a decrease of sensitivity on the lips.

And the drooling bothers very much, doesn't it? I could never tell whether I was laughing or talking seriously, you know, because you just do not feel anything [...] What really upset me was the act of eating in front of other people; you are there eating and thinking you're ok, but your face is terribly dirty with the food or the drooling. That's what most concerned me (R4).

[...] I just can't kiss, I only distribute pecks now (R4).

Mouth opening restrictions were also very much addressed by participants. They indicated several difficulties related to the chewing process and the oral hygiene procedures.

Something that bothers me very much is the chewing issue. I am still not able to chew and I lost the circular movement. I just open and close my mouth (R4).

These are the difficulties [...] the food issue. You just can't stand liquids, liquids, liquids, soup, soup anymore! You see everybody eating and you are just dying for food! (R1).

As a result of the mouth opening restriction, the patient's oral hygiene procedure is also compromised, as shown in the following statement:

The stitches are pressed and everything, and she (the doctor) says that I have to clean them, but I just can't reach every part. She says that I have to [...] sort of rinse my mouth, but I just can't. This issue related to the oral hygiene is really a hard one! (R3).

The issue of the facial edema was strongly debated among the subjects of the research. The length of time for the edema to retreat and the comments of surrounding people on the presence of the edema generated a high degree of discomfort and concern among postoperative patients, as can be observed in the following testimonies:

You are hopeful that the swelling will reduce after some time [...] After several months it hasn't, though. Sometimes you see an improvement, but then you meet people and they say, 'gee, it hasn't retreated yet' (R3).

I looked like Homer Simpson, all swelled! [...] I could sleep only when I made use of an ice bag... You know, there's that gel pack, I placed it in the freezer, wrapped it in a towel and...and... Well, everything was swollen here, you see... Only the ice allowed me to sleep (R5).

Participants also raised the lack of orientation regarding the measures appointed to reduce the edema on the lips and cheeks:

I just could not do anything on my own [...] It would be very interesting to insert the issue of the massage, on how the person can massage those areas, and also about the time... People should be advised that it takes time, a considerable time! Because you think that it will retreat, and after one, two months, it does not (R3).

Although not so much emphasized on the statements, other types of doubts and difficulties emerged; these comments have concrete meanings and depict the needs realized by patients who experienced the surgery, such as the replacement of the elastic rings used to fix the temporary intermaxillar apparatus:

The replacement of the rubber stuff was quite difficult for me (R2).

The surgical positioning and the use of retractors used to open the patient's mouth may cause loss of integrity of the perioral tegument; such profile may last for some time and may be aggravated by the influence of the saliva resulted from the paraesthesia:

It was very hard for me to get rid of the injuries... It was quite injured (R3).

As the surgical procedure is carried out under general anesthesia, the intubation procedure is made through the patient's nose, thus allowing for the oral cavity to be free. This procedure facilitates the surgical manipulation, but oversensitizes the region after the extubation:

My nose hurt a lot and I did not know what it was. I said, 'Doctor, my nose hurts very much, I can't even touch it'. Then she said, 'well, it was the probe that was inserted into your nose...' (R4)

In the *Orthognathic surgery recovery time* category, the subjects of the research mentioned the long recovery time following the procedure:



After the surgery, we firmly believe that on the next appointment the apparatus will be taken off... you are already sick and tired of using it [...] So, we have to be very patient (R3).

The statements make clear that the prolonged recovery period awakens in some patients a feeling of regret for having undergone the orthognathic surgery:

I don't know if I'd do it again, although I liked the result... because of the process. You think that 15 days after the surgery you will be fine, that you life will get back to normal again, that everything will be ok, right? It's a process... (R4).

In the Self-image and aesthetic outcomes of the surgical procedure category, participants addressed the post-surgical facial modifications. They commented on the effects of such alterations to their self-image and social life.

If I had to bring up a word, it would be, uh, shock. Take my photos, for instance. I do not have any picture of myself in which I'm smiling [...] I always disguised that enormous chin! (R5).

I placed my hand on my face every time a photo would be taken... I didn't have a chin, you know! Now I have one [...] Now I'm fine with pictures (R1).

Patients seek for surgical correction procedures not only motivated to improve their functional aspects, but they are also in search for an aesthetic change.

What really bothered me very much was not only the physical look, you know, the difficult things for me to cope with, but also the aesthetic issue. It upset me a lot, much more than the physiological aspects (R4).

The post-surgery facial look may generate different perceptions due to the expectations patients have prior to the surgical procedure.

I was focused on what exactly the result would be...how it would be later. I assure you that if I had to do it again, I would (R5).

I don't regret having done it, but if I had to undergo the whole process again, I don't know if I would [...] The functional aspect improved a lot, because it was quite a problem for me, ending up in the recommendation for the surgery [...] But aesthetically [...] I don't perceive any change. Nothing has changed for me (R4).

The anxiety toward the final result skyrockets, as can be seen in the following statement of a subject who even suggested the creation of a method that could simulate the future look of the face.

I think that a computer program could make this simulation. That would be really important! I think that it would help people make up their minds, so that they could check out if the surgery would be worth it (R4).

In the Written guidelines category, the participants addressed the lack of more precise, detailed and printed

pre and postoperative orientations, in such a way that the patient could be able to comprehend the received information.

Guidelines, I mean, they are conveyed by the doctor. But, the time of the medical appointment is so short, he has other patients, you know. We are capable of assimilating some things, others we just can't, because we are so anxious! [...] Anxiety messes with us and we end up missing things...we miss much information. [...] Then, if everything is written right there on the paper, I think it'll be easier for us to follow up (R1).

My husband was there with me, you know. I mean, I had undergone the surgery and then some things, well, you just can't remember. But he was with me and he said, 'she did not say this'. Then, I responded, 'what did she say, then?' The person seems to be much more aware than we are, after all (R3).

In the postoperative period, written information is an essential action to be taken. As patients are still impacted by the anesthetic effects of the surgery, pain and edema, they are not capable of focusing their attention on the given orientations. In this way, the presence of a companion is highly relevant to the success of the home-based care process.

## **DISCUSSION**

The awareness of the adversities experienced by orthognathic surgery patients is vital for the preparation of the perioperative nursing assistance to be rendered to surgical patients, in such a way that their real needs for information is supplied and the stress and anxiety is reduced.

The paraesthesia, indicated by the participants of the research as an unpleasant experienced adversity, is a complication resulted from the lesion of the inferior alveolar nerve during the surgical manipulation. It appears in the majority of patients and brings about intense discomfort and difficulties related to their social life<sup>(12)</sup>.

The loss or the diminishment of facial, dental or tongue sensitivity also occurs in a frequent basis; it generally vanishes prior to a six-month period. However, some patients experience permanent alterations<sup>(1-3)</sup>.

In order to ensure the consolidation of the mandibular repositioning, patients have restricted movements to open their mouths on the first months following the orthognathic surgery procedure, which will weaken their capacity of chewing food; besides, patients will be required to establish a liquid and soup-based diet on the first weeks after the surgery. In addition to the nutrition challenges, the hygiene of the oral cavity is also compromised, demanding them to pay special attention to this procedure.

As the surgical procedure entangles the dissection of the mandibular region and the section of the bones<sup>(13)</sup>,



the provoked trauma produces an intense edema in the region of the face. Although it will markedly retreat during the first weeks, some patients will experience a slower process in which the edema will still show up even after a couple of months.

The temporary edema on the lips and cheeks is a normal reaction that is usually intensified between 24 and 72 hours following the surgery; the edema should be totally retreated on the fourth week<sup>(1)</sup>. The employment of low temperature procedures, called *cryotherapy*, may be recommended to patients in order to reduce their discomfort level. Studies show that the therapeutic use of the cold is beneficial toward treating pain, infection and edema, as the low temperature slows down painful impulses forwarded to the brain, decreasing muscle spasms, reducing the activity of inflammatory enzymes and provoking vasoconstriction, thus diminishing bleeding and hematoma<sup>(14-15)</sup>.

According to the comment of one of the subjects, other measures, such as facial massage and lymphatic drainage, or soft laser procedures, can also contribute to the reduction of the edema, in addition to the cryotherapy; however, patients are not usually educated on these issues.

Other doubts were also brought to the conversations, such as the replacement of the elastic rings. Elastic rings can be applied to temporary intermaxillar fixation, either prior to or after the orthognathic treatment, in order to aid the dental positioning. The procedure makes use of a clamping force right on the teeth. These elastic pieces are connected to the hooks of the fixed orthodontic apparatus<sup>(17)</sup> and need to be periodically replaced. However, an eventual lack of technical skills, the intensity of the edema, or the difficulty the patient has to open his mouth in the postoperative period can turn the replacement process into quite an unpleasant experience.

As a consequence of the surgical technique, patients displaying perioral lesions may need clear orientation on how to care for their skin on this region, so that the discomfort level can be decreased and the progression of the problem can be interrupted. Despite being an advantageous approach in dental procedures, the nasotracheal intubation procedure is not free of complications. Epistaxis and lesions on the nasal mucosa are quite common and may cause postoperative discomfort<sup>(18)</sup>.

The major postoperative complications following an orthognathic surgery, such as nerve lesion and infection<sup>(19)</sup>, were not reported by patients; the adversities were related both to the physiological reverberations of the surgical anesthetic trauma and the postoperative care.

The absence of knowledge on the recovery and rehabilitation process may lead patients to emotional conflicts, such as depression and regret for the surgical decision, thus reinforcing the need of a satisfactory preparation and the creation of a set of guidelines that enable them to

positively experience the surgery. Besides depending on the medical-dental procedure, the favorable outcome of an orthognathic surgery treatment also depends on a specific, continuous and qualified nursing care that aims to reduce the patient's anxiety levels, collaborating toward his recovery by offering detailed, clear and objective information on the procedures, potential complications and the recovery process to be coped with, so that he fully understands the whole picture<sup>(4,20)</sup>.

The testimonies of the participants highlighted the relevance of the orthognathic surgery, not only toward correcting dentofacial deformities, but also toward facial aesthetic purposes. Psychosocial aspects are deemed to be directly connected with this type of treatment, and the facial look has already proven to influence the person's body image, identity and self-esteem<sup>(21)</sup>.

The impact of post-surgical facial modifications on the self-image and social life led one of the participants to even propose the adoption of methods that could be capable of forecasting and visualizing, prior to the surgery, the post-surgical facial profile of patients.

The cephalometric tracing procedure is able to simulate the facial profile; the process can be carried out manually, electronically or through a computerized simulation of the facial look by joining the cephalometric tracing to the photographic image of the patient's profile. The employment of this computerized simulation visual resource may supply eventual deficiencies of the medical professional whenever the patient's case has to be presented, thus facilitating the comprehension of the procedure to be developed<sup>(22)</sup>.

The major goal of the patient is that the surgical correction procedure improves his look. He expects the physical change to solve his personal and social difficulties. The more these aspects are disregarded, the more the patient tends to be unsatisfied with the outcomes of the surgical treatment<sup>(21)</sup>.

The patient's determining satisfaction factor with the surgery in the orthognathic treatment is his expectation of aesthetically improving his look. The statements of the participants confirm that an improved facial aesthetic fatally increases the level of satisfaction with the surgical result, regardless the emergence of eventual functional problems. On the other hand, in compliance with the observations of other authors<sup>(23)</sup>, whenever the aesthetic results do not correspond to the expectations of the patient, he will experience a sense of regret regarding the surgical treatment.

The satisfaction of the orthognathic surgery patient concerning the outcomes of the surgical procedure will depend upon his preoperative expectations and also on the information he previously receives. Fully oriented patients feel they are more prepared for the surgical proceeding, and this fact echoes positively in his recovery and satisfaction toward the outcomes of the treatment<sup>(5,23)</sup>.



The statements of the participants clearly show that in order for the information to be internalized, patients should not only be informed; they need to understand what the health professional says. This process will empower them toward easily coping with experienced adversities in the postoperative period of the orthognathic surgery.

Whenever a nursing care process is rendered in a continuous and qualified way, consequently relieving pain, reestablishing the patient's physiological balance and fulfilling his needs, the success of the surgical treatment will be a possibility. Properly oriented patients feel much more prepared for surgical procedures, more positively cope with the difficulties experienced in the postoperative period and ultimately manifest greater satisfaction toward the outcomes of the treatment. The insertion of a family member or companion into the process may benefit a suitable postoperative evolution, free of physical and emotional discomforts.

Although the findings of this research met its demands, this study presented some limitations. One of them is the fact that the focal group encompassed patients assisted in a single specialized clinic. Perhaps the patients assisted by the public healthcare system would have shown other social-economic-based difficulties not mentioned by this present group of patients. Additionally, only 80% of the contacted list showed up in the meeting. Besides the distance issue, some of them could possibly have presented surgical complications, or faced care-based difficulties that could have prevented them from showing up.

### CONCLUSION

While listening to subjects, we could identify the perception of individuals on the postoperative period following orthograthic surgeries, as well as their concrete

doubts and lack of information, which can correspond neither to the information offered by the medical professional nor are believed to be interesting to the patient. Such knowledge is vital for the planning of the perioperative nursing care in orthognathic surgeries, enabling the assistance of these needs and the reduction of the patient's stress and anxiety.

The postoperative adversities experienced by patients in this surgical technique, which compromises the chewing tissues, as well as the long recovery time, were more emphatically addressed by the participants. However, other issues, such as the self-image and the aesthetic results of the surgical procedure, were also identified, arousing in the patients the expectation that the physical change would solve their personal and social problems. This perspective indicates that future studies should explore the self-image issue.

The study subjects also highlighted the difficulty of memorizing oral postoperative orientations, hence showing the relevance of a printed educational material to be handed to patients submitted to surgical procedures, in a way to reinforce verbal orientations and to help them cope with the adversities experienced in the orthognathic postoperative treatment.

Besides revealing the need of being handed written information, participants also affirmed that the presence of a family member in the moment the guidelines are being given would help and reinforce the apprehension of the verbal instructions.

This study aims to contribute to the expansion of the nurse's performance in this type of procedure, in order to supply the demands of this population that unfortunately lack information. The achieved results will be applied in the elaboration of an educational material toward orienting patients on the postoperative care of orthognathic surgeries.

#### **REFERENCES**

- Lima Júnior N, Moro MA, Tanaka FY, Souza-Fattah CMR, Renon MA. O que significa cirurgia ortognática? Arq Ciênc Saúde UNIPAR. 1999;3(3):273-6.
- Aléssio CV, Mezzomo CL, Körbes D. Intervenção fonoaudiológica nos casos de pacientes classe III com indicação à cirurgia ortognática. Arq Cent Estudo Curso Odontol Univ Fed Minas Gerais. 2007;43(3):102-10.
- 3. Bonilla JA, Pedraza Y. Complicaciones de la cirugía ortognática: Hospital de San José de Bogotá 2004 2007. Repert Med Cir. 2008;17(4):205-9.
- 4. Bueno M, Noronha R, Araújo IEM. Visita pós-operatória de enfermagem: aplicação de instrumento e apreciação dos enfermeiros. Acta Paul Enferm. 2002;15(4):45-54.

- Razera APR, Braga EM. The importance of communication during the postoperative recovery period. Rev Esc Enferm USP [Intenet]. 2011 [cited 2011 Oct 16];45(3):632-7. Available from: http://www.scielo.br/pdf/reeusp/v45n3/en\_v45n3a12.pdf
- Marin MJS, Santana FHS, Moracvick MYAD. The perception of hypertensive elderly patients regarding their health needs. Rev Esc Enferm USP [Internet]. 2012 [cited 2012 Apr 22];46(1):103-10. Available from: http://www.scielo.br/pdf/reeusp/v46n1/en\_v46n1a14.pdf
- Polit DF, Hungler BP. Nursing research: principles and methods. Baltimore: Lippincott; 1999. Self-reports; p. 332.



- 8. Faria Westphal M, Bogus CM, Mello Faria M. Grupos focais: experiências precursoras em programas educativos em saúde no Brasil. Bol Oficina Sanit Panam. 1996;120(6):472-82.
- Iervolino SA, Pelicioni MCF. A utilização do grupo focal como metodologia qualitativa na promoção da saúde. Rev Esc Enferm USP. 2001;35(2):115-21.
- Soares CB, Reale D, Brites CM. Uso de grupo focal como instrumento de avaliação de programa educacional em saúde. Rev Esc Enferm USP. 2000;34(3):317-22.
- 11. Campos CJG, Turato ER. Content analysis in studies using the clinical-qualitative method: application and perspectives. Rev Latino Am Enferm. 2009;17(2):259-64.
- Kim YK, Kim SG, Kim JH. Altered sensation after orthognathic surgery. J Oral Maxillofac Surg. 2011;69(3):893-8.
- 13. Quevedo Rojas LA. Osteotomía sagital de rama mandibular en cirugía ortognática. Rev Esp Cir Oral Maxilofac. 2004;26(1):14-21.
- Laureano Filho JR, Silva EDO, Camargo IB, Gouveia FMV. The influence of cryotherapy on reductionof swelling, pain and trismus afterthird-molar extraction: a preliminarystudy. J Am Dent Assoc. 2005;136(6):774-8.
- Leventhal LC, Bianchi RC, Oliveira SMJV. Clinical trial comparing three types of cryotherapy in non-pregnant women. Rev Esc Enferm USP [Internet]. 2010 [cited 2011 Oct 16];44(2):339-45. Available from: http://www.scielo.br/pdf/reeusp/v44n2/en\_14.pdf
- Rana M, Gellrich NC, Joos U, Piffkó J, Kater W. 3D evaluation of postoperative swelling using two different cooling methods following orthognathic surgery: a randomised observer blind prospective pilot study. Int J Oral Maxillofac Surg. 2011;40(7):690-6.

- Smith AT. The use of orthodontic chain elastic for temporary intermaxillary fixation. Br J Oral Maxillofac Surg. 1993;31(4):250-1.
- 18. Wong A, Subar P, Witherell H, Ovodov KJ. Reducing nasopharyngeal trauma: the urethral catheter-assisted nasotracheal intubation technique. Anesth Prog. 2011;58(1): 26-30.
- 19. Sousa CS, Turrini RNT. Complications in orthognathic surgery: a comprehensive review. J Oral Maxillofac Surg Med Pathol. 2012;24(1):67-74.
- 20. Paula AAD, Carvalho EC. Ensino sobre perioperatório a pacientes: estudo comparativo de recursos audiovisual (vídeo) e oral. Rev Latino Am Enferm. 1997;5(3):35-42.
- 21. Nicodemo D, Pereira MD, Ferreira LM. Cirurgia ortognática: abordagem psicossocial em pacientes Classe III de Angle submetidos à correção cirúrgica da deformidade dentofacial. Rev Dent Press Ortodon Ortopedi Facial. 2007;12(5):46-54
- 22. Motta ATS, Brunharo IHP, Miguel JAM, Capelli Junior J, Medeiros PJA, Almeida MAO. S Simulação computadorizada do perfil facial em cirurgia ortognática: precisão cefalométrica e avaliação por ortodontistas. Rev Dent Press Ortodon Ortopedi Facial. 2007;12(5):71-84.
- 23. Rustemeyer J, Eke Z, Bremerich A. Perception of improvement after orthognathic surgery: the important variables affecting patient satisfaction. Oral Maxillofac Surg. 2010;14(3):155-62.