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The degree of knowledge of patients in a general outpatient clinic regarding potential risks of complications in outpatient surgeries

LARA LORENZON CARIM¹ , CLARA DE SOUSA GOMES¹ , LETÍCIA ALVES MOREIRA¹ , BÁRBARA CRISTINA ROCHA LISBOA DA COSTA¹ 
 LUIZA OHASI DE FIGUEIREDO² 

¹ACADÊMICAS DE MEDICINA DA FACULDADE CIÊNCIAS MÉDICAS DE MINAS GERAIS, MG-BRASIL.

²PROFESSORA DA FACULDADE CIÊNCIAS MÉDICAS DE MINAS GERAIS, BELO HORIZONTE, MG-BRASIL.

CORRESPONDING AUTHOR: LARA LORENZON CARIM – RUA: BERNARDO GUIMARÃES, Nº 1581. BAIRRO: FUNCIONÁRIOS – CEP: 30.140-082 - BELO HORIZONTE, MG- BRASIL. E-MAIL: LLORENZON02@GMAIL.COM

ABSTRACT

Introduction: Outpatient surgery has associated risks of complications. The patient is expected to arrive at the consultation with an understanding of the reason for the referral and that the professional responsible for the care guides and clarifies the therapeutic proposals. However, there is a gap in the patient's level of knowledge and understanding regarding these referrals and the possible complications of an outpatient surgical procedure. **Objective:** To analyze patients' level of knowledge regarding the risks of complications in outpatient surgeries and their associated factors. **Method:** This is a quantitative and qualitative cross-sectional study carried out from October to May 2023. Data collection was performed with the voluntary participation of 386 patients in an outpatient clinic in Belo Horizonte. A questionnaire was applied to assess the patient's understanding of the risks of outpatient surgical procedures. **Results:** Of the 386 participants, 205 (53%) denied knowledge regarding the complications of outpatient surgeries, and of these, only 69 (34%) had completed high school. 250 (66%) participants denied knowledge about keloids, and 266 (71%) were unaware of necrosis. Furthermore, 378 (98%) patients stated the importance of knowledge. Finally, 141 (77.5%) stated that the lack of medical guidance was a triggering factor for having undergone outpatient surgeries without prior knowledge of the possible complications. **Conclusion:** It was concluded that low education level is an important factor in the lack of knowledge of patients regarding outpatient surgeries. Finally, there is a need to implement measures that can change or improve this scenario.

Keywords: Ambulatory Surgery; Postoperative Complications; Intraoperative Complications.

INTRODUCTION

AOperations performed in the surgery office or outpatient clinic include, mainly, incisional and excisional biopsies of skin, subcutaneous, annex, and soft tissue lesions, among other procedures¹. Due to the lower complexity of surgical interventions, an important characteristic of the minor outpatient surgery service under local anesthesia is the immediate release of the patient after the procedure, with no need to remain on site².

It is important to note that all medical decisions related to interventions, whether clinical or surgical, must be guided by the evidence that supports them, by the guidelines, and by the particular factors of the doctor-patient

binomial, and the benefits must invariably outweigh the risks³. In this context, the need for a differentiated approach to the care of patients undergoing surgical procedures is highlighted to identify factors that may affect patient safety and implement measures to prevent risks and harm resulting from the care⁴.

The outpatient surgery service is not the patient's first contact with primary health care. Every patient who arrives for care at the surgery unit has been referred by another professional. Therefore, it is expected that the patient arrives at the surgery consultation with an understanding of why a surgical procedure is necessary and what the associated risks are⁵.

To this end, surgical risk stratification is characterized by a medical examination performed before all surgeries, from the least invasive and superficial to highly complex surgeries, aiming to assess the patient's health status in the preoperative period. In this sense, it is worth noting that, in situations in which the patient has prior knowledge of the possible risks of complications, it is easier to approach and collect data to stratify the patient, since the patient is familiar with the factors that may interfere with surgical decision-making, in the perioperative period and recovery after the procedure^{6,7}.

However, contrary to what is expected, it is noted, in many cases, that the patient referred to the outpatient surgery service by the primary care physician does not understand why the referral was made, either due to lack of knowledge of the professional in question or negligence towards the patient. In other words, there are situations in which the patient demonstrates that he or she is not involved in his or her case, thus not understanding his or her condition⁸.

Furthermore, another factor that has been observed in outpatient surgery services is the lack of guidance from professionals responsible for the care regarding

the potential risks of complications from the procedure that will be performed. That is, even though it is minimally invasive, a procedure has risks of complications that must be clear to the patient. Among the potential risks of complications from a surgical procedure, the following are present: bleeding, hematoma, exacerbated inflammatory response to trauma, tissue necrosis, scarring with aesthetic damage, and, in more severe cases, anesthetic toxicity^{9,10}.

Therefore, the objective of this study is to analyze the patient's level of knowledge of the risk of complications from outpatient surgeries and their associated factors.

METHODS

Study design

This is a cross-sectional quantitative and qualitative analytical study, carried out through the voluntary participation of 385 patients of both sexes, from the surgical clinic outpatient clinic of a private higher education institution from October to May 2023.

The research project was submitted and approved by the Research Ethics Committee (CAAE: 58870221.1.0000.5134). Following Resolution No. 466/12 of the National Health Council, volunteers were provided with a Free and Informed Consent Form (FICF).

Sample

The number for sampling was estimated considering a confidence level of 95% and a margin of error of $\pm 5\%$. The defined sample size was 385 participants. The inclusion criteria were: any patient at the outpatient clinic where the study was developed who had already undergone some outpatient surgery, agreed to participate in the research voluntarily, and signed the Free and Informed Consent Form (FICF). On the other hand, the exclusion criterion was the refusal to fill in the answers to the questions in the questionnaire.

Instruments

For data collection, a questionnaire prepared by the researchers was used, which contained 16 questions, addressing issues related to the profile of patients, understanding of peri and postoperative complications related to outpatient surgical procedures; and the importance of such understanding. The questions were produced based on a study published in 2020¹¹. Each questionnaire was accompanied by an informed consent form, which should be read and signed by the participant before the interview. Data collection was carried out exclusively in person, through manual completion of the questionnaires by patients in the outpatient clinic, and applied through an interview by the researchers.

Procedures

The questionnaires were administered by the researchers, who were responsible for inviting patients to participate in the research. Responses were collected between October 2022 and May 2023.

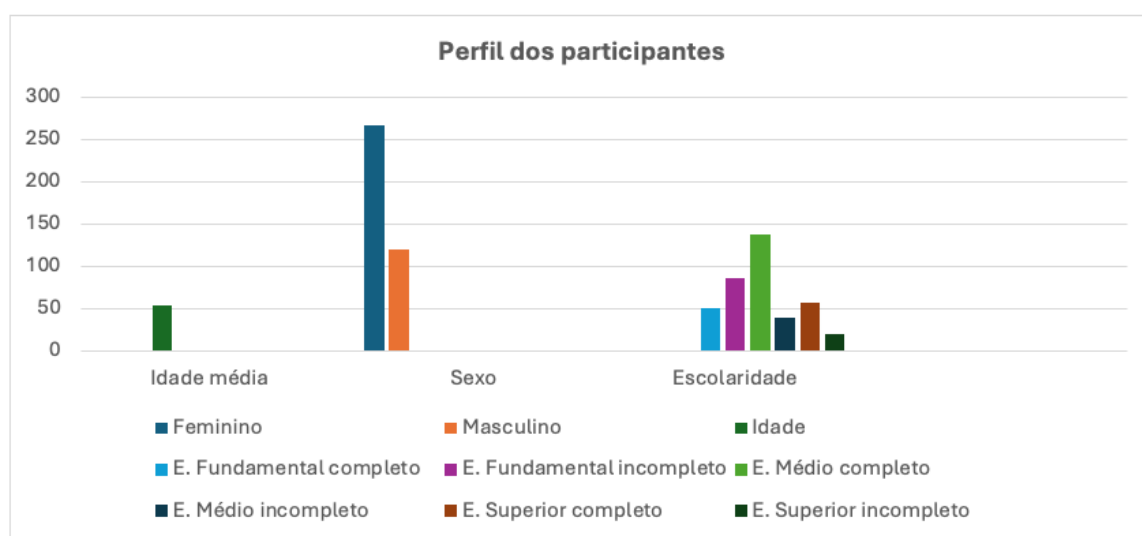
Statistical analysis:

Categorical variables were presented as absolute and relative frequencies and numerical variables as mean \pm standard deviation and/or median (1st quartile – 3rd quartile). Numerical variables were subjected to Anderson's Normality test. The Chi-square test was used to assess associations between categorical variables. The significance level used was 5% and the data were analyzed using R software version 4.0.3.

RESULTS

Of the 386 volunteer patients, with a mean age of 54 years (Standard Deviation – SD = 15), 267 (69%) were female. When assessing education, it was noted that 137 (35%) of the participants had completed high school and, on the other hand, only 75 (19.9%) had higher education, with 56 (15%) completing the same. Graph 1 illustrates this characterization of the sample group regarding the profile of the participants.

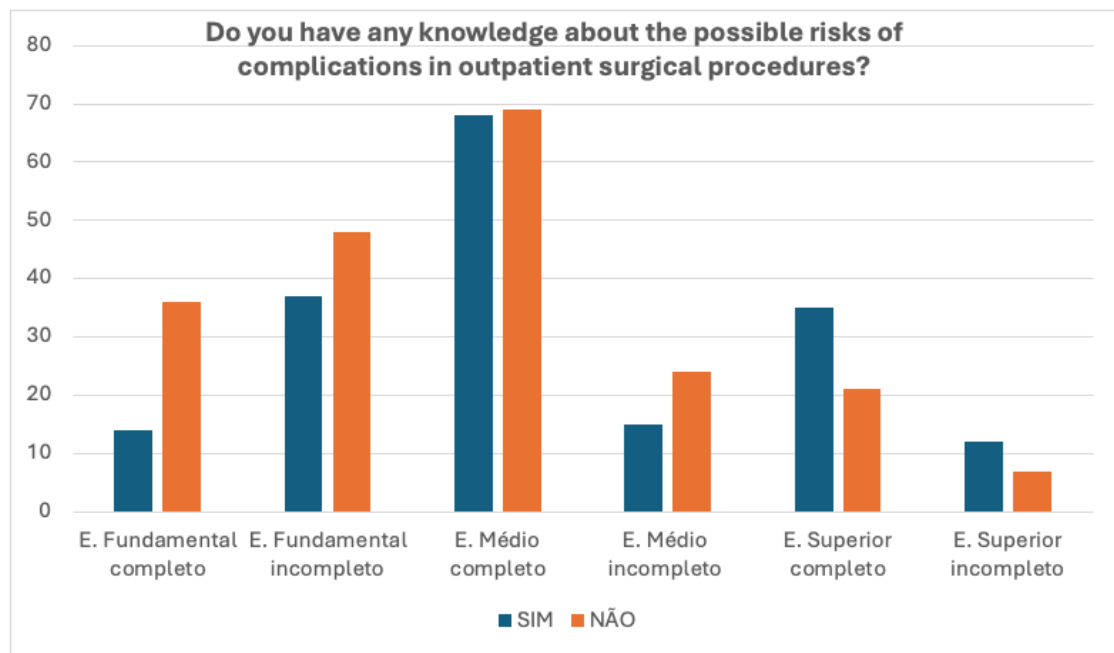
Graph 1 – Participant profile



Graph 2 compares the patients' level of education with the question regarding knowledge about possible complications of outpatient surgeries. Thus, there were significant associations between education and knowledge

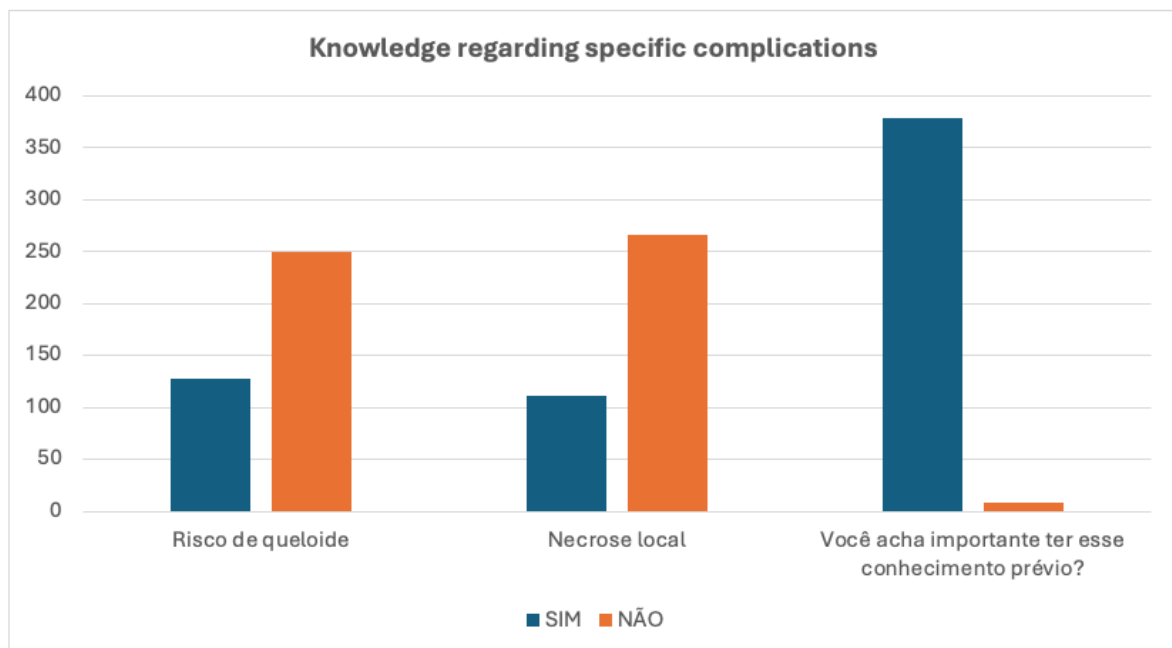
about the possible risks of complications, and of the 205 participants who denied knowledge, 69 (33.7%) had completed high school, while 48 (23.4%) had an incomplete elementary school.

Graph 2 – Knowledge and education.



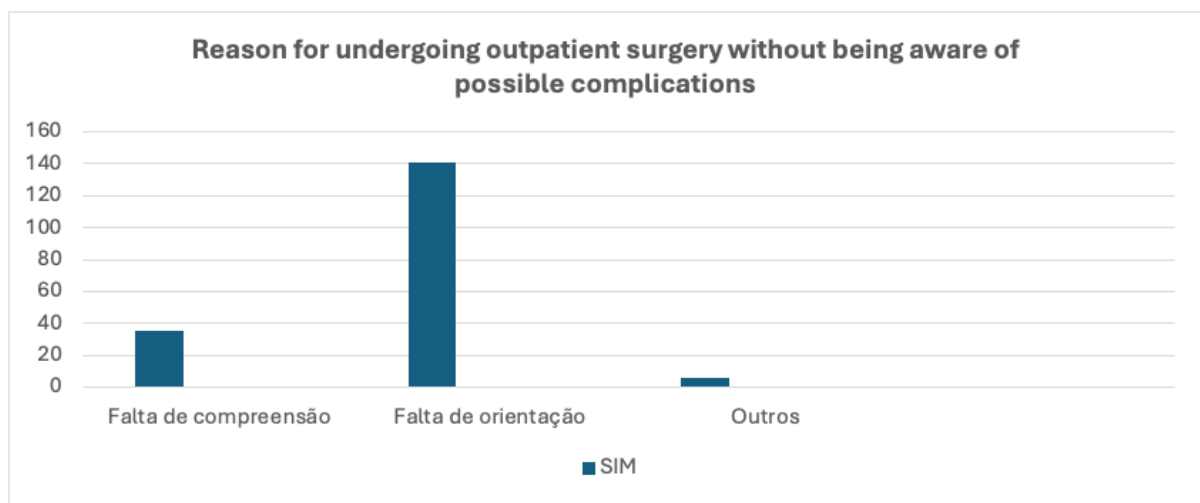
Graph 3 illustrates the more specific knowledge regarding some complications: risk of keloid and necrosis. Regarding the risk of keloid, 250 participants (66%) denied knowledge. Also, 266 participants (71%) denied knowledge regarding the risk of necrosis. Regarding obtaining this knowledge of possible complications, 378 participants (98%) stated its importance.

Table 2: Correlation between adequate adherence to prescribed medication and clinical asthma control



In Graph 4, we can see a comparison between patients who have already undergone outpatient surgeries without prior knowledge of possible complications and their triggering factors. Thus, 141 participants (77.5%) stated that the factor causing this failure was a lack of medical guidance. Despite the relevance, there was no statistically significant association between the variables “Have you ever undergone outpatient surgeries without being aware of the possible complications?”, “lack of understanding”, “lack of guidance” and “other reasons”.

Graph 4 – Reason for undergoing outpatient surgery without knowledge of possible complications



DISCUSSION

To understand the level of knowledge of patients regarding potential risks of complications in outpatient surgeries, among the results obtained in this study, the most important findings were the participants' level of education and knowledge regarding some complications, in addition to their importance. A high rate of lack of medical guidance was also observed for those patients who had already undergone outpatient surgeries without knowledge of the possible complications. Thus, there is evidence of a relationship between the level of education and lack of knowledge about complications, in addition to an association between lack of knowledge about specific risks of procedures and the importance of obtaining it¹².

Regarding the profile of patients, the study showed a statistically significant association between education level and lack of knowledge regarding the potential risks of complications in outpatient surgeries. Of the total number of patients who denied knowledge, only 33.7% had completed high school. This suggests that medical guidance should be adapted to the patient's educational level, avoiding limitations in understanding due to low education levels. A study conducted by Oliveira, Souza, and Pellanda found that the use of audiovisual resources through explanatory videos and devices improved patients' knowledge regarding perioperative care in cardiac surgeries compared to isolated verbal guidance. Thus, this would be one of the numerous strategies for better medical guidance for greater patient understanding^{13,14,15}.

Also, among the total number of patients interviewed (n=386), 66% denied knowledge regarding the risk of keloids as a possible complication of outpatient surgeries, which is characterized by an exacerbated production of collagen through the proliferation of fibroblasts, causing scarring with aesthetic damage. There are many

treatments available for this, but the rates of recurrence and therapeutic failure are high. Therefore, the patient must be aware that the procedure to which he/she will undergo has a risk of complications, including keloids^{16,17}.

Another factor that can be considered a complication of outpatient surgeries is tissue necrosis. This complication occurs due to decreased oxygenation at the site and ischemia. Factors such as poor flap planning, very tight sutures, and excessively compressive dressings can cause tissue hypoperfusion. It was observed that 266 participants (71%) were unaware of this complication. This demonstrates a worrying scenario, considering that when the patient undergoes surgery and knows the risks of complication, he or she better understands the necessary care and warning signs for immediate evaluation^{18,19}.

It is worth noting that, of the total number of participants, 378 (98%) stated that prior knowledge regarding complications of outpatient surgeries was important. The informed consent form does not always perform the function it is intended to, and it is necessary to confirm the patient's understanding and clearly explain the proposed procedure and its possible risks^{20,21}.

When questioning 145 participants who had already undergone outpatient surgeries without prior knowledge, 141 stated that the lack of medical guidance was the reason for such failure. This strongly demonstrates a need for intervention in this area, since health professionals must be prepared to clarify therapeutic proposals, even if the time of care is short. Therefore, medical care can be improved through Patient-Centered Medicine, which addresses cultural aspects and the expectations of the individual, making it possible for them to participate in their health care. So, in addition to creating means for professionals to pay attention to this approach, knowledge of human and social sciences should be emphasized in medical schools, since, in this way, the patient becomes the focus of care and not the disease itself²².

CONCLUSION

The prevalence of asthma diagnosed by clinical criteria in the sample was 22.94%, while the prevalence of active asthma was 12.84%. These data corroborate the importance of this disease in the Brazilian scenario and explain the need for good monitoring of asthmatic patients, especially considering that asthma is the main cause of morbidity in childhood and, when uncontrolled, can lead to death. Among the difficulties in adequately treating asthmatics, the low number of functional diagnoses and the lack of standardization and information in medical records stand out.

The lack of information essentially compromises not only the analysis of symptom control but also the understanding of the epidemiological profile and the individual treatment plan. Taking the "steps" recommended by GINA to adjust medication based on symptom control requires a solid foundation of consistent and accessible data. Especially in a university setting, where different students may be involved in patient assessment, standardization of medical records becomes even more crucial. Therefore, it is imperative to establish efficient regularization of medical records to ensure that each asthmatic patient receives adequate monitoring and treatment, regardless of the health professional who cares for them. This not only improves

patient-centered care but also provides the information needed to conduct research and understand your asthma.

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THE AUTHORS DECLARE THAT THERE IS NO
CONFLICT OF INTERESTS IN RELATION TO THIS ARTICLE.