Patient’s perception of the communication of clinical doctors and surgeons in a university hospital

Percepção de pacientes sobre a comunicação de médicos clínicos e cirurgiões em um hospital universitário

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ABSTRACT

Introduction: The way information is transmitted is of crucial importance in the doctor-patient relationship, as good communication reduces complaints about inadequate practices and patient concerns and improves treatment adherence and health recovery. However, patient dissatisfaction on this subject is not unusual.

Objectives: The objective of this work was to evaluate the perception of patients admitted to a Hospital Complex about the communication of clinical doctors and surgeons during the hospitalization period.

Method: Cross-sectional, descriptive, analytical inquiry study, with the application of a questionnaire with questions about physicians’ general communication. The instrument was built by the researchers and was answered by 120 adult patients. The sample was defined by convenience and stratified by medical and surgical clinic. Frequency and statistical analyses were performed on the obtained results.

Results: Of 120 patients, 53.33%(n=64) were admitted to the Surgical Clinic and 46.67%(n=56) to the Medical Clinic. Of this total, 57.5%(n=69) had high school to college/university education. Patients reported more negative than positive responses to the following questions: information about the side effects of medications (66%), advice on post-surgical procedures (68.75%) and information on health promotion and prevention in the hospital environment (63.3%). The surgical clinic had significantly lower proportions of positive responses for: The doctor said their name (p <0.01; crude OR: 0.33; 95% CI 0.15-0.76); The patient was informed about how their treatment would be conducted (p=0.02; crude OR: 0.38; 95% CI 0.17-0.87); and the patient was informed about the need to undergo tests (p=0.02; crude OR: 0.40; 95% CI 0.18-0.90), which remained significant after adjustment for certain confounding factors. There were no significant differences regarding the other questions. When analyzing the question: “What grade would you give to the doctor’s general communication?” a significantly higher value (p=0.007) was given to the Medical Clinic (average 4.46±0.76) when compared to the Surgical Clinic (average 4±1.19).

Conclusion: The doctor-patient communication showed significant deficits. Therefore, it is necessary for medical schools to offer students the development of this competence. Additionally, for an adequate generalization of the obtained results, new studies need to be carried out at different levels of medical care.

Keywords: Medical Specialties; Health Communication; Doctor-Patient Relationships.

RESUMO

Introdução: A maneira de transmitir informações é essencial na relação médico-paciente, pois a boa comunicação reduz queixas por práticas inadequadas e preocupações dos pacientes, e melhora a adesão aos tratamentos e a recuperação da saúde. Porém, não são raras as insatisfações dos pacientes sobre esse assunto.

Objetivo: O objetivo deste trabalho foi avaliar a percepção dos pacientes internados em um complexo hospitalar sobre a comunicação de médicos clínicos e cirurgiões durante o período de internação.

Método: Trata-se de estudo transversal, descritivo e analítico, do tipo inquirito, com aplicação de um questionário com perguntas sobre a comunicação geral do médico. O instrumento foi construído pelos pesquisadores e respondido por 120 pacientes adultos. A amostra foi definida por conveniência, estratificada pelo clínica médica e cirúrgica. Realizaram-se análises de frequência e estatística dos resultados encontrados.

Resultados: Dos 120 pacientes, 53,33% (n=64) foram internados na clínica cirúrgica e 46,67% (n=56) na clínica médica. Desse total, 57,5% (n=69) tinham escolaridade que variava de ensino médio a superior. Os pacientes relataram respostas mais negativas do que positivas em questões referentes a: informações sobre os efeitos colaterais dos medicamentos (66%), orientações de procedimentos pós-cirúrgicos (68,75%) e informações sobre promoção e prevenção da saúde no ambiente hospitalar (63,3%). A clínica cirúrgica teve proporções de respostas positivas significativamente menores para: “O médico disse o nome dele” (p<0,01; OR bruta 0,33; IC95% 0,15-0,76); “O paciente foi informado sobre como será seu tratamento” (p=0,02; OR bruta 0,38; IC95% 0,17-0,87); e “O paciente foi informado sobre a necessidade de realizar exames” (p=0,02; OR bruta 0,40; IC95% 0,18-0,90), que se mantiveram significativas após o ajuste por determinados fatores intervenientes. Não se observaram diferenças significativas para as demais questões. Na análise da questão “Que nota você daria para a comunicação geral do médico?” verificou-se valor significativamente maior (p=0,007) para a clínica médica (média 4,46±0,76) quando comparada à clínica cirúrgica (média 4±1,19).

Conclusão: A comunicação médico-paciente apresentou déficits significativos. Por isso, é necessário que as escolas médicas ofereçam para os discentes o desenvolvimento dessa competência. Além disso, para uma generalização adequada dos resultados encontrados, novos estudos precisam ser realizados em níveis diferentes do cuidado médico.

Palavras-chave: Especialidade Médica; Comunicação em Saúde; Relações Médico-Paciente.

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INTRODUCTION

The Curricular Guidelines for Undergraduate Health Courses in Brazil aim to build an academic and professional profile of doctors with skills that fit the approach of the Brazilian Unified Health System (SUS, Sistema Único de Saúde). Therefore, the professional must be able to perform their activities with quality, efficiency and problem-solving capacity\(^1\). In this context, the physician’s language must be accessible to patients, coworkers and family members, through adequate communication with each group. The way information is transmitted is essential for the doctor-patient relationship, as good communication reduces complaints about inadequate practices and patient concerns, improves adherence to treatments and improves health recovery, both physical and mental\(^2\).

Also, in the world scenario, the ability to communicate with the patient is essential, being part of mandatory programs for residents in the United States, such as in the US Medical Licensing Examination\(^3\).

However, patient dissatisfaction regarding their communication with medical professionals is not unusual. Patients complain about the use of overly technical and poorly understood medical jargon, the inability to receive enough information to draw conclusions from the clinical condition, the cold attitude shown by the medical professional about the patient’s situation, among others, which are reasons that can lead to complaints in medical councils and lawsuits\(^4\).

In this sense, a study by Loge (1996) observed that the way information was transmitted limited the understanding of health issues in 497 patients with breast cancer. Just as a Cochrane review concluded that many people, upon receiving a diagnosis of their pathology, have difficulty remembering the information provided to them during the consultation\(^5,6\), a meta-analysis showed that medical communication has a positive impact for greater patient adherence to treatment\(^7\).

Therefore, identifying the characteristics of communication, especially in hospitalized patients, is essential to strengthen the importance of the topic to members of this professional environment.

Objective: To evaluate patients’ perception of the communication with clinical doctors and surgeons during the hospitalization period, specifically: 1. professional’s introduction: knowledge of their name and specialty; 2. clarification on diagnoses, exams, therapy, evolution and conduct; 3. application of the Informed Consent form; 4. information on therapeutic and diagnostic actions during hospitalization; 5. surgical patients: information related to preoperative (such as anesthesia and medications) and postoperative care (such as side effects and personal care); 6. advice on preventive and health-promoting measures in the hospital environment; 7. general quality of medical communication.

METHODS

This was a cross-sectional, descriptive, analytical and inquiry study, with the application of a questionnaire built by the researchers, with the objective of analyzing the perceptions of patients admitted to the Conjunto Hospitalar de Sorocaba (CHS), about medical communication during the hospitalization period\(^8\).

Reference Population

Administered by Social Service of Civil Construction of the State of São Paulo (Seconci-SP), the CHS comprises the hospitals Prof. Dr. Lineu Matos Silveira, Leonor Mendes de Barros and the outpatient clinic Nelson da Costa Chaves. The Complex has more than 2,200 employees and is responsible for the tertiary care level of 48 municipalities in the southwest of the state of São Paulo, with a population of more than 3 million inhabitants. The unit has 450 beds, of which 350 are fixed and 100 are mobile. The hospital bed occupancy rate during hospitalization is approximately 93.6% at the Medical Clinic and 83.1% at the Surgical Clinic\(^9\).

Sample

The sample was defined by convenience, stratified by medical and surgical clinic, with an expected total of 120 patients to be interviewed. There was no sample calculation.

The patients were invited to participate in the study when the interviewer entered random rooms and explained verbally about the project. It was decided not to approach visibly severe patients, who were under sedative medications and had an altered level of consciousness. This assessment was carried out quickly, through questions about the patient’s orientation, both auto- and allopsychically.

Patients hospitalized for at least two days at the Medical Clinic and Surgical Clinic, regardless of the specialty, were interviewed and signed the Free and Informed Consent Form (ICF). Patients must be 18 years of age or older and have the mental and emotional capacity to participate.

Patients under 18 years, those who did not have the mental capacity to respond, those who did not provide true information about their overall condition and sociodemographic data, those who had been admitted to the hospital for less than two days and those who were not interested in participating in the study were excluded. The patients’ medical records were not analyzed.

Questionnaire

The questionnaire was built for the present study with interval questions, according to the Likert scale, and
dichotomous questions (yes/no options), which totaled 25 questions. Topics related to medical communication were selected for its construction, having as reference the National Curriculum Guidelines for Undergraduate Medical Courses of the Ministry of Education of Brazil. At the Surgical Clinic, there was a topic related to the surgical procedure. The questionnaire used in the research was submitted to a pre-test with 15 patients, so the necessary corrections could be made for its application. There was no validation procedure.

The questions about the patients’ perception of medical communication were mostly yes or no questions and, therefore, there is no modulation.

Variables and Categories

The collected sociodemographic data were divided into groups: age (over 45 and under 45), gender (female and male), ethnicity (white/yellow and brown/black), marital status (married/common-law marriage and single/separated/widowed), level of schooling (elementary school, high school, higher education) and origin (Sorocaba and other municipalities). In the category information on hospitalization, the reason for the patient’s hospitalization and the hospital length of stay were recorded.

For the category of medical communication evaluation, data were asked in relation to the doctor’s gender; how the doctor introduced themselves to the patient; if the doctor’s specialty was informed, if so, what it was; how the doctor referred to the patient; if they asked about possible doubts and if so, if they were clarified; if the diagnosis was clarified by the doctor; whether the need for hospitalization was explained and whether it was informed about how the treatment would be carried out; whether it was explained about the need for exams; if the patient agreed with the procedure and if the Informed Consent Term was applied; if they were informed about possible complications of the treatment and if they were instructed on health promotion and prevention in the hospital environment. In this last topic, they were verbally asked if the doctor informed the patient about ambulation, change of position and bed inclination, aiming to prevent possible complications from prolonged immobilization, such as pressure ulcers or deep venous thrombosis. At the end, the patient was asked about what grade they would give for the doctor’s general communication, with the options being excellent, good, regular, bad or very bad.

Specifically for patients admitted to the surgical ward, they were asked whether they received information about the types of anesthesia, medications during the surgery, about the risks and benefits of performing the surgery, about personal care and hygiene in the post-surgical period and about the possible side effects after the surgery was performed.

Data Collection Procedure

The questionnaire was applied according to the following steps: the researcher explained about the research, awaiting confirmation of the interviewee’s participation, read the questionnaire and asked each patient to sign the Free and Informed Consent Form, who gave their opinion about each question, in addition to informing on sociodemographic data. The answers were recorded in writing by the researcher, after verbally asking the questions to the patient, to prevent missing data. Data collection took place from March to November 2018, at the patient’s bedside.

Data Analysis Procedure

The collected data were tabulated in an Excel spreadsheet and hypothesis tests – Chi-square, from the STATA 16.0 program – were performed, followed by assessment of the significance of the raised hypotheses.

An analysis of the distribution of absolute and relative frequencies of the assessed variables was carried out, in addition to Association tests (chi2) between the questionnaire/sociodemographic answers with the specialty.

Univariate and multivariate logistic regression was performed using the Odds Ratio and respective 95% Confidence Intervals. In addition, adjustments were made for potential confounding variables. Student’s t test was performed for the score assigned to the doctor’s general communication.

A sensitivity analysis was indirectly performed by adjusting for variables associated with the patient’s perception of medical communication, which are shown in Table 2.

Ethical aspects

This study was approved by the Research Ethics Committee of Pontifícia Universidade Católica de São Paulo (PUCSP), Sorocaba campus - Certificate of Presentation of Ethical Appreciation (CAAE: 83741918.0.0000.5373).

RESULTS

Of the 120 patients, 53.33% (n = 64) were admitted to the Surgical Clinic and 46.67% (n = 56) to the Medical Clinic. Of this total, 57.5% (n = 69) had finished High School or College/University and 47.5% (n = 51) had finished Elementary School. The interviewed patients came from 29 different municipalities, all from the regional health district. The interviews took place from 04/09/2018 to 12/15/2018, between 8 am and 6 pm.

The sample distribution according to possible intervening factors and the analysis of their associations with the medical or surgical clinic, shows a significant difference only for the gender variable, with a predominance of men in...
the medical clinic (p = 0.04). No differences were observed for the other sociodemographic variables, as well as no difference was observed for the hospital length of stay or gender of the attending doctor. (Table 1).

In the analysis of the association between the questions that assessed the patient’s perception of the doctor’s communication and the type of clinic, there are significant differences between the surgical and the medical clinic. **The Surgical Clinic had significantly lower proportions of positive responses for:** *The doctor said their name* (p < 0.01; crude OR 0.33; 95% CI 0.15-0.76); and *The patient was informed about how their treatment would be conducted* (p = 0.02; crude OR 0.38; 95% CI 0.17-0.87); and *The patient was informed about the need to undergo tests* (p = 0.02; crude OR 0.40; 95% CI 0.18-0.90), which remained significant after adjustment for certain intervening factors. No significant differences were observed for the other questions. The only variable that showed a difference higher than 10% between the crude and adjusted OR was: *The doctor explained about the need for hospitalization* (crude OR = 1.00; OR adjusted by gender = 1.30; both non-significant – p >0.05). (Table 2).

When analyzing the question: *What score would you give to the doctor’s general communication?* a significantly higher value (p = 0.007) was observed for the Medical Clinic (mean 4.46/standard deviation 0.76) when compared to the Surgical Clinic (mean 4/standard deviation 1.19).

As for the analysis of the specific questions applied to the Surgical Clinic, it was observed that only the information on side effects affects the majority of patients, with the remaining items showing a much lower proportion.

### Table 1. Sample distribution according to possible intervening factors and analysis of their associations with the type of clinic.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Medical clinic</th>
<th>Surgical Clinic</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>33 (58.9)</td>
<td>26 (40.6)</td>
<td>0.04</td>
</tr>
<tr>
<td>Female</td>
<td>23 (41.1)</td>
<td>38 (59.4)</td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td>0.26</td>
</tr>
<tr>
<td>&lt;45 years</td>
<td>24 (42.8)</td>
<td>34 (53.1)</td>
<td></td>
</tr>
<tr>
<td>45 years or older</td>
<td>32 (57.2)</td>
<td>30 (46.9)</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity/Race</strong></td>
<td></td>
<td></td>
<td>0.61</td>
</tr>
<tr>
<td>White/yellow</td>
<td>28 (50.0)</td>
<td>29 (45.3)</td>
<td></td>
</tr>
<tr>
<td>Black/Brown</td>
<td>28 (50.0)</td>
<td>35 (54.7)</td>
<td></td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
<td>0.79</td>
</tr>
<tr>
<td>Married or common-law marriage</td>
<td>33 (58.9)</td>
<td>37 (57.8)</td>
<td></td>
</tr>
<tr>
<td>Single, separated or widowed</td>
<td>23 (41.1)</td>
<td>27 (42.2)</td>
<td></td>
</tr>
<tr>
<td><strong>Level of schooling</strong></td>
<td></td>
<td></td>
<td>0.50</td>
</tr>
<tr>
<td>High school or higher education</td>
<td>34 (60.7)</td>
<td>35 (54.7)</td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>22 (39.3)</td>
<td>29 (45.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Origin</strong></td>
<td></td>
<td></td>
<td>0.89</td>
</tr>
<tr>
<td>Sorocaba</td>
<td>16 (28.6)</td>
<td>19 (29.7)</td>
<td></td>
</tr>
<tr>
<td>Other municipalities in the region</td>
<td>40 (71.4)</td>
<td>45 (70.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Hospital length of stay</strong></td>
<td></td>
<td></td>
<td>0.70</td>
</tr>
<tr>
<td>&lt; 8 days</td>
<td>30 (53.6)</td>
<td>32 (50.0)</td>
<td></td>
</tr>
<tr>
<td>8 days or longer</td>
<td>26 (46.4)</td>
<td>32 (50.0)</td>
<td></td>
</tr>
<tr>
<td><strong>Doctor’s gender</strong></td>
<td></td>
<td></td>
<td>0.74</td>
</tr>
<tr>
<td>Male</td>
<td>20 (35.7)</td>
<td>24 (37.5)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>36 (64.3)</td>
<td>40 (62.5)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>56 (100.0)</td>
<td>64 (100.0)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.
Table 2. Analysis of the association between the questions that assessed the patient’s perception of the doctor’s communication and the type of clinic.

<table>
<thead>
<tr>
<th>Question</th>
<th>Medical Yes/No</th>
<th>Surgical Yes/No</th>
<th>P</th>
<th>OR and 95% CI Crude Surgical/Medical</th>
<th>OR and 95% CI Adjusted Surgical/Medical</th>
<th>Variables In the Model*</th>
</tr>
</thead>
<tbody>
<tr>
<td>The doctor said their name</td>
<td>45/11</td>
<td>37/27</td>
<td>&lt;0.01</td>
<td>0.33</td>
<td>0.36</td>
<td>1,2,4</td>
</tr>
<tr>
<td>The doctor’s specialty was informed</td>
<td>32/24</td>
<td>25/29</td>
<td>0.16</td>
<td>0.51</td>
<td>0.54</td>
<td>1</td>
</tr>
<tr>
<td>The doctor asked if the patient had any questions</td>
<td>33/23</td>
<td>34/30</td>
<td>0.52</td>
<td>0.79</td>
<td>0.87</td>
<td>1</td>
</tr>
<tr>
<td>The doctor informed the patient about the diagnosis</td>
<td>45/11</td>
<td>54/10</td>
<td>0.56</td>
<td>1.32</td>
<td>1.35</td>
<td>1</td>
</tr>
<tr>
<td>The doctor explained about the need for hospitalization</td>
<td>49/7</td>
<td>56/8</td>
<td>1.0</td>
<td>1.00</td>
<td>1.30</td>
<td>1</td>
</tr>
<tr>
<td>The patient was informed about how the treatment would be conducted</td>
<td>45/11</td>
<td>39/25</td>
<td>0.02</td>
<td>0.38</td>
<td>0.40</td>
<td>1,4</td>
</tr>
<tr>
<td>The patient was informed about the need to undergo tests</td>
<td>44/12</td>
<td>38/26</td>
<td>0.02</td>
<td>0.40</td>
<td>0.39</td>
<td>1,3</td>
</tr>
<tr>
<td>The doctor asked the patient if they agreed with the treatment/surgery</td>
<td>32/24</td>
<td>30/34</td>
<td>0.26</td>
<td>0.66</td>
<td>0.63</td>
<td>1</td>
</tr>
<tr>
<td>The patient was informed about possible side effects</td>
<td>30/26</td>
<td>24/40</td>
<td>0.08</td>
<td>0.52</td>
<td>0.54</td>
<td>1</td>
</tr>
<tr>
<td>The doctor informed about the case evolution</td>
<td>43/13</td>
<td>41/23</td>
<td>0.13</td>
<td>0.54</td>
<td>0.52</td>
<td>1</td>
</tr>
<tr>
<td>The doctor advised on health promotion and prevention in the hospital environment</td>
<td>22/34</td>
<td>22/42</td>
<td>0.58</td>
<td>0.81</td>
<td>0.78</td>
<td>1,5</td>
</tr>
</tbody>
</table>

Abbreviations: 1=location 2=age 3=ethnicity 4=level of schooling 5=hospital length of stay.
Source: Research data.

Table 3. Description of answers to specific questions applied to patients at the Surgical Clinic (N = 64).

<table>
<thead>
<tr>
<th>Question</th>
<th>YES/NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you been informed about the type of anesthesia and medications?</td>
<td>25/39</td>
</tr>
<tr>
<td>Have you been informed about the risks and benefits of undergoing the surgery?</td>
<td>24/40</td>
</tr>
<tr>
<td>Have you been informed about special care of the surgical wound and post-surgical hygiene issues?</td>
<td>27/37</td>
</tr>
<tr>
<td>Have you been informed about the side effects of the procedures?</td>
<td>44/20</td>
</tr>
</tbody>
</table>

Source: Research data.

DISCUSSION

As the patients were not informed about bed inclination, change of position, ambulation and advice on lifestyle habits, the answers were more negative than positive for the following questions: information on the side effects of the medications (66%), advice on post-surgical procedures to patients submitted to surgery (68.75%) and information on health promotion and prevention in the hospital environment (63.33%). One can perceive a gap in health promotion, which deviates from projects such as the Health Promotion Hospital, which was built with the objective of promoting patient education to reduce health risks and problems, disease prevention and to address the patient’s lifestyle in the hospital environment.12

According to Razera (2011), patients need to be informed about surgical procedures to attain benefits in mental and physical health, such as decrease in anxiety and distress.13 Moreover, in the study by Singer et al. (2009) when investigating the patients’ opinions on the quality of care and emotional support received during treatment, it was verified that the information provided before the procedures is one of the most frequently cited domains as being extremely important.14

Our data show gaps in medical communication in
A meta-analysis on the impact of medical communication on the health care process concluded that better informed patients show better treatment adherence, understand their pathology better and are more involved in the decision-making process, with an increase of more than 19% in adherence to therapeutic proposals. A study by Feba et al. (2010) evaluated the contrasts of personality between clinical doctors and surgeons, noticing that clinicians tended to be more sentimental. Surgeons, on the other hand, demonstrated greater objectivity in their contact with patients. In 2015, Kang et al. described that surgeons are faster and more impulsive and, despite showing interest in interpersonal contact, this was shown less frequently when compared with clinical doctors, considered more focused on detail, reflective and imaginative. Bellodi (2003) demonstrated the perception of the characteristics of different medical specialties and their impact on the way patient care is conducted, illustrating the surgeons’ practicality and caution in the interpersonal relationships, with an objective and concrete handling of reality. On the other hand, clinical doctors were defined as prudent, vigilant and consultants.

These definitions are important in the way information is transmitted to the patient and the family, as a professional with more attentive communication skills can facilitate the process of advising on procedures and therapies, ensuring that the least number of doubts remain after their contact with the patient. Separating the clinical and surgical specialties, a German study found that 39% of clinicians worked more than 60 hours a week, while 68% of surgeons worked this average number of hours, demonstrating the different way of approaching the patient as a reflection of an intense and stressful workday.

Considering that many of the medical professionals working at the CHS can provide emergency care, such as polytrauma patients, it is important to understand the working conditions and their impact on the quality of care provided, since the increased demand for urgency and emergency services can generate disorganization within the unit, low quality of care, unnecessary expenses and dissatisfaction of workers and patients.

Despite the negative points in the doctor-patient communication that were visible in the results obtained in this study (no clarification on the effects of medications and procedures, health promotion and questions related to surgical procedures), many respondents (81%) considered medical communication excellent or good. When questioned whether the doctor asked if they had any questions, 55.8% of patients said they had been asked that, with a level of clarification of doubts of 97%. However, there was a difference in the scores between clinical doctors and surgeons (p = 0.007), with the highest score in the communication given to the medical clinic professionals.

**Medical professional introduction**

Regarding the medical professional introduction, informing their name and specialty, although most patients reported that the doctor gave the patient their name, the hypothesis test found a statistically significant association between the lack of information about the health professional’s name and specialty and the area of expertise (p < 0.01).

The lack of introduction by the doctor is a negative point highlighted in the studies published by Rolter (2000), which defined the need for the professionals to introduce themselves to the patient, greeting them, creating a reliable and constructive environment in the relationship, facilitating the exchange of information. However, other authors have highlighted other problems related to doctors’ communication. For instance, Sheppard et al. (2010) showed that many hospitalized patients had communication problems with medical professionals, who showed unpreparedness to discuss treatment options. A similar condition was observed by Endo et al. (2008), where the greatest obstacle identified in the care of patients with lung cancer was the lack of correct information or understanding about the available treatment options. Arora et al. (2009) and Singer et al. (2009) reported the importance to provide emotional support to the patient, aiming to maintain their confidence in the doctor throughout the treatment, in addition to improving their mental health.

Similarly, Ruberton et al. (2015) and Schaller (2008) demonstrated an association between the quality of medical communication and patient satisfaction with the received care. Doctors defined as being less arrogant obtained better scores, according to patient satisfaction.

**Free and Informed Consent Form**

The application of the Free and Informed Consent Form by medical professionals, although verbal, did not take place for almost half of the interviewed patients, but there is a tendency of non-application by the different medical specialties. In a study conducted at Hospital Universitário,
Universidade Federal de Sergipe (Brazil), the medical records of patients undergoing invasive interventions did not include the free and informed consent form. Among the observed justifications, doctors reported not having time for the application due to the excessive volume of consultations, despite fearing that patients would feel insecure in undergoing the procedure.  

The verbal communication is more frequently used in the majority of procedures, followed by the register in the medical record. However, the recommendation of the Federal Council of Medicine is that there should be a written version of the form. The Free and Informed Consent Form (FICF) must be a document in which the patient or guardian is informed about the disease, treatment alternatives, expected adverse effects and prognosis.

Other results on the advice about health prevention and promotion, evaluations regarding the question about agreeing to the procedure, information about possible side effects of the treatment and evaluation in relation to being asked whether they had any questions, did not obtain a p-value <0.05 and, therefore, were not statistically significant.

**Limitations**

When assessing the presence of a selection bias, it was observed that there was a significant difference only in the distribution of intervening variables between medical and surgical clinic for the gender (p = 0.04).  

Positively, the questionnaire was pre-tested with 15 patients, to eliminate possible confounding questions, despite the fact that no validation procedure was performed (analysis of the construct and of the discriminating power).

Two points that could possibly generate bias was the lack of data recording of patients who refused to participate in the research and the fact that the applied questionnaire was dichotomous, which may have limited the definition of the hospital sample at that time and a more accurate analysis of the patients’ opinion, respectively. However, it was necessary for the questionnaire to have yes/no answers to almost all questions to facilitate the application, as it is more practical and less time-consuming, which was a stimulus for the patient to participate in the study. Additionally, it prevented greater doubts about which answer to give, as it does not have several options to choose from.

Regarding the type of specialty, some patients had difficulty defining which would be the best option, since they received treatment from a varied team, undergoing both clinical and surgical procedures. In these cases, the patient was asked to evaluate the doctor with whom they had the longest contact to evaluate medical communication.

**Sensitivity analysis**

To annul the differences observed in the questions – The doctor said their name, The patient was informed about how their treatment would be conducted, whether they were informed about the need for hospitalization and what score they would give to the doctor’s general communication, it would be necessary that the individuals who refused to answer the survey represented a number equivalent to a minimum of 20% of clinical patients and 20% of surgical patients who were interviewed, and had an opinion or gave a grade opposite to the trend observed in their category (clinical or surgical), which are: yes instead of no, and vice versa; and 4.46 instead of 4.0, and vice versa. Although it was not recorded, this refusal rate is unlikely, since patient refusal was minimal – about two or three at the medical clinic and none at the Surgical Clinic decided not to participate in the study. The interviewers’ impression is that the sample was homogeneous between the participants and non-participants, since they were patients at the same age group as most of the study patients, using the same health system, attended by the same medical team and undergoing procedures similar to the other patients.

**Generalization**

CHS is a university hospital, with highly qualified medical professionals (teachers, preceptors and assistants), in addition to residents and interns, with a strong presence in the services. It is also a teaching hospital for other health professions. However, despite being a teaching hospital, it is also a public hospital, which restricts its possibilities when compared to high-complexity private hospitals. This can have a stronger impact on procedures that are highly dependent on these resources, such as the Surgical Clinic.

Since the data collection field is a hospital with more complex cases and already screened by the Health Services Offering Regulation Center (CROSS, Central de Regulação de Ofertas de Serviços de Saúde) or Mobile Emergency Care Service (SAMU, Serviço de Atendimento Móvel de Urgência) systems, the obtained data may not be generalizable to all levels of health and do not represent the population of the region, since the CHS is a referral hospital for certain specialties, and not all of them.

When assessing the level of complexity of the treatments offered at CHS, studies indicate that the majority of health team professionals are uncomfortable and unprepared for the moment when they must talk to the patient when dealing with severe and life-threatening diseases. Moreover, it is necessary to consider the individual tolerance capacity of each person when relaying bad news, both in relation to the diagnosis, prognosis and cure, as well as therapeutics.

Therefore, for an adequate generalization of the obtained results, new studies need to be carried out at different levels of medical care, aiming to assess the patients’ perception of medical communication, which can have a more
comprehensive view of the interviewed groups, sample size and elimination of possible biases.

CONCLUSION
Considering the relevance of the assessed subject and the deficits still present in medical communication, it is essential to address the issue with professionals in the health area, especially during undergraduate school, emphasizing the importance of communication, aiming at developing a good relationship between doctor and patient and its impact factor on the individual’s quality of life during hospitalization. Therefore, it is necessary to invest in interventions aimed at developing communication skills in medical education.

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AUTHORS’ CONTRIBUTION
All authors contributed equally to the study.

CONFLICTS OF INTEREST
The authors declare no conflicts of interest.

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