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## PATIENT SATISFACTION WITH THE CARE PROVIDED DURING HOSPITALIZATION BY COVID-19

# SATISFAÇÃO DOS PACIENTES COM A ASSISTÊNCIA PRESTADA DURANTE A INTERNAÇÃO POR COVID-19

# SATISFACCIÓN DEL PACIENTE CON LA ATENCIÓN BRINDADA DURANTE LA HOSPITALIZACIÓN POR COVID-19

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#### **ABSTRACT**

**Objective**: To evaluate the satisfaction of patients hospitalized for COVID-19 with the assistance provided during hospitalization. **Method**: Cross-sectional study carried out in an Intensive Care Unit and respiratory unit for COVID-19 of a teaching hospital in the northwest of São Paulo. Data were collected with the support of the Hospital Consumer Assessment of Healthcare Providers and Systems instrument. Descriptive and inferential statistical analysis was performed. **Results**: 100 patients participated and overall patient satisfaction was influenced by the nursing team (61%), doctors (62%), hospital professionals (49%), physical facilities (65%), meals (57%), infirmary (47%), ICU (58%), discharge guidelines (38%), mental and emotional health after discharge (35%), general health after discharge (25%), privacy and confidentiality (36%) and communication with family members (32%). **Conclusion**: The overall satisfaction of patients during the hospitalization period with the care provided was 65% during the pandemic. Both the nursing and medical staff were factors that influenced patient satisfaction, as well as the frequency of treatment with courtesy and respect.

**Descriptors**: Patient Satisfaction; COVID-19; Health Management; Total Quality Management; Hospitals, Teaching.

#### **RESUMO**

**Objetivo**: Avaliar a satisfação de pacientes hospitalizados por COVID-19 com a assistência prestada durante a internação. **Método**: Estudo transversal realizado numa Unidade de Terapia Intensiva e unidade respiratória para COVID-19 de um hospital de ensino do noroeste paulista. Os dados foram coletados com o apoio do instrumento *Hospital Consumer Assessment of Healthcare Providers and Systems*. Realizou-se análise estatística descritiva e inferencial. **Resultados**: Participaram 100 pacientes e a satisfação geral dos pacientes foi influenciada pela equipe de enfermagem (61%), médica (62%), profissionais do hospital (49%), instalações físicas (65%), refeições (57%), enfermaria (47%), UTI (58%), orientações de alta (38%), saúde mental e emocional após alta (35%), saúde geral após alta (25%), privacidade e sigilo (36%) e comunicação com familiares (32%). **Conclusão**: A satisfação geral dos pacientes no período de internação com a assistência prestada foi de 65% durante a pandemia. Tanto a equipe de enfermagem quanto a médica foram fatores que influenciaram na satisfação do paciente, bem como a frequência do tratamento com cortesia e respeito.

**Descritores**: Satisfação do Paciente; COVID-19; Gestão em Saúde; Gestão da Qualidade; Hospital de Ensino.

#### RESUMEN

**Objetivo**: Evaluar la satisfacción de los pacientes hospitalizados por COVID-19 con la atención brindada durante la hospitalización. **Método**: Estudio transversal realizado en una Unidad de Cuidados Intensivos y una unidad respiratoria para COVID-19 en un hospital escuela en el noroeste de São Paulo. Los datos fueron recolectados con el apoyo del instrumento Hospital Consumer Assessment of Healthcare Providers and Systems. Se realizó análisis estadístico descriptivo e inferencial. **Resultados**: participaron 100 pacientes y la satisfacción general del paciente estuvo influenciada por el personal de enfermería (61%), médico (62%), personal del hospital (49%), instalaciones físicas (65%), alimentación (57%), sala (47%), UCI (58 %), pautas de alta (38 %), salud mental y emocional posterior al alta (35 %), salud general posterior al alta (25 %), privacidad y confidencialidad (36 %) y comunicación con familiares (32 %). **Conclusión:** La satisfacción del paciente durante la hospitalización fue del 65% durante la pandemia. Existe la necesidad de intervenciones de mejora dirigidas a la experiencia del paciente durante su trayecto en el entorno hospitalario.

**Descriptores**: Satisfacción del Paciente; COVID-19; Gestión en Salud; Gestión de la Calidad Total; Hospitales de Enseñanza

#### INTRODUCTION

Coronaviruses are non-segmented enveloped positive RNA viruses that belong to the family Coronaviridae and the order Nidovirales. Extensively distributed among mammals, the betacoronaviruses of SARS-CoV (severe acute respiratory syndrome), East respiratory MERS-CoV (Middle 2019-nCoV syndrome) and (new coronavirus) are responsible for respiratory and gastrointestinal infections.<sup>1</sup>

In early December 2019, multiple cases of pneumonia of unknown etiology began to emerge in Wuhan, China. The cause of this respiratory disease was attributed to a new coronavirus, named 2019-nCoV and, later, SARS-CoV-2. Human-to-human transmission through close contact was identified in mid-December 2019, progressively spreading within a month.<sup>2</sup> On March 11, 2020, the World Health Organization characterized coronavirus disease (COVID-19) as pandemic.<sup>3</sup>

The main symptoms include fever, cough, myalgia or fatigue, however sputum production, headache, hemoptysis and diarrhea were considered less common. 1,3-4 Ground glass opacity and bilateral pneumonia are the most frequent radiological findings. Estimated duration

average from the appearance of symptoms to death in 17.8 days and average hospital discharge in 24.7 days.<sup>5</sup> The characteristics and risk factors related to the severity of the disease, recovery and mortality were evaluated and it was observed that, when Overall, 0.5% presented a mild condition, 37.8% moderate, 47.5% severe and 14.2% critical. The fatality rate was 3.8% and 37.3% of patients had some chronic disease. Patients over 60 years of age and those with chronic diseases were more likely to develop critical conditions, deterioration and death.<sup>6</sup>

Most patients (80%) have mild symptoms, but 14% need to be hospitalized and require oxygen therapy, and 5% are admitted to the Intensive Care Unit (ICU)6, leading to a growing demand for hospitalizations, increasing the burden of professionals who provide care to patients, generating a negative impact on the care provided.

In this sense, understanding how hospitalized patients evaluated the care provided in this chaotic moment in global health, through the assessment of satisfaction with the care provided, is important to support management in times of crisis, such as COVID-19.

The concept of satisfaction can be understood as the way in which the user

responds to the experience and expectations in relation to the service provided, therefore building quality standards. The objective of satisfaction is to guarantee successful care by meeting the needs and desires of users, whether they are patients or companions, so that a bond is established between them and the institution. Scientific studies in the health area have emphasized the relevance of research evaluating the quality of services in the user's conception. In Brazil, such studies began to stand out in the domain of the Unified Health System (SUS) from the 1990s onwards, where health services consider achieving user satisfaction to be a goal.7

This study will be useful to direct and improve hospital management, considering that satisfaction is an indicator increasingly recommended by health institutions, which must value this component of the patient's experience, understood as a biopsychosocial being. Therefore, based on the above context, the study aimed to evaluate the satisfaction of patients hospitalized for COVID-19 with the care provided in a teaching hospital.

#### **METHOD**

Cross-sectional observational study, which was guided by the precepts of the Strengthening the Reporting of Observational studies in Epidemiology (STROBE) checklist.<sup>8</sup> The research site was a special-sized teaching hospital (914 beds),

in the northwest region of São Paulo, Brazil. This institution provides hospital outpatient care in various medical specialties a reference center 102 municipalities for coronavirus care. The service is intended for SUS patients and private and health plans and insurers; totaling, on average, 46,000 consultations/month. Specifically, this research was applied to patients admitted to the structure designed to care for COVID-19, in 2020, which had respiratory urgency, 27 beds in the respiratory hospitalization unit and 40 ICU beds.

**Participants** were selected by convenience and included adult patients, over the age of 18, who had suspected or confirmed COVID-19 and were conscious and in an emotional and physical condition to participate in the research. Data were collected from May to November 2020 in the ICU and respiratory unit for COVID-19, following measures to prevent contamination and transmission of COVID-19, such as social distancing, use of masks, hand hygiene with alcohol gel. The research received approval from the Research Ethics Committee (CEP) – Opinion nº 4053917.

Data collection was carried out in three stages: 1) The Electronic Patient Record (PEP) was accessed and sociodemographic and clinical data of the patients, hospitalization unit and length of hospital stay were collected, as well as the

telephone number by which they were contacted; 2) It consisted of inviting patients to participate in the research; 3) Application of the instrument adapted from the Hospital Consumer Assessment of Healthcare **Providers** (HCAHPS)9 and **Systems** questionnaire, consisting of nursing care, doctors, experience in the hospital, health status and general classification of the hospital. The HCAHPS is an instrument that measures patients' perceptions of their hospital experience. It has 29 questions, with 19 central questions on aspects involving communication, feedback on demands, organization, cleaning, tranquility, among other aspects.9

The response options were guided by the Likert scale with four items with 0 being the worst and 3 being the best rating. After and frequency (never, sometimes, often, always) with a grade from 0 to 10.

The data were analyzed using the SPSS version 20.0 program after creating a Microsoft® Office Excel spreadsheet in which the qualitative and quantitative variables were subjected to descriptive and inferential statistical analysis. The qualitative variables (age group, sex, color,

marital status, education, religion, obesity, transportation (SAMU), living with family, comorbidities, imaging tests and signs and symptoms) were presented in absolute numbers and percentages. The quantitative values (Age in years, Body Mass Index (BMI), time between onset of symptoms and first medical care and Time between first medical care and hospitalization in days) were presented in central tendency (average) dispersion values (standard deviation, minimum and maximum values). Pearson's test was used for the correlation analysis, with a significance level of 5% (p<0.05). In addition, weak correlation was considered for r values up to 0.30, moderate for values between 0.40 and 0.60, and strong for values greater than 0.70.14 A significance level of 95% (p≤0.05) was adopted for all calculations.

#### **RESULTS**

The research participants were 100 patients, predominantly men (62.0%), with an average age of 51 (min 20 and max 81) years. Among the elderly, the majority have some illness (96%) and are hypertensive (79%), as can be seen in Table 1.

**Table 1**: Characterization of participants (n=100). Southeast, Brazil, 2021

Obesity       27       27.0         Transport (SAMU)       78       78.0         Health system       Health insurance SUS       22       22.0         SUS       78       78.0         Lives with family       93       93.0         HAS       51       51.0         SAH ≥ 60 years       23       23.0         Diabetes mellitus       26       26.0         Comorbidities       Diabetes mellitus ≥ 60 years       12       12.0         SAH and Diabetes mellitus ≥ 60 years       11       11.0         Any illness       70       70.0         Any illness ≥ 60 years old       28       28.0         Imaging exams       Chest x-ray       51       51.0         Imaging exams       Chest tomography       54       54.0         Magnetic Resonance       0       0.0         Signs and symptoms       Fever       69       69.0         Pever       69       69.0         Dyspnea       67       67.0         Myalgia       35       35.0         Desaturation       19       19.0         Headache       15       15.0         <	Variables		N	%	
Gender         Female Male         38 38. 38. 38. 38. 38. 38. 38. 38. 38. 3	A go vango	Up to 59	71	71.0	
Gender         Male         62         62.0           Color         Not white         84         84.0           White         16         16.0           Marital status         With partner         72         72.0           No companion         28         28.0           Education         Elementary School         34         34.0           High school         36         36.0         36.0           High school         18         18.0           Has religion         89         89.0           Obesity         27         27.0           Transport (SAMU)         78         78.0           Health system         Health insurance         22         22.2           SUS         78         78.0           Lives with family         93         93.0           Lives with family         93         93.0           SAH ≥ 60 years         23         23.0           Diabetes mellitus<≥ 60 years         23         23.0           Diabetes mellitus ≥ 60 years         11         11.0           Comorbidities         Diabetes mellitus ≥ 60 years         12         12.0           Any illness         60 years         70	Age range	60 and over	29	29.0	
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Color         White         16         16.0           Marital status         With partner No companion         72         72.0           Marital status         With partner No companion         28         28.0           Education         Illiterate         12         12.0           Education         34         34.4         34.4           High school         36         36.0         36.0           University education         18         18.0           Has religion         89         89.0           Obesity         27         27.0           Transport (SAMU)         78         78.0           Health system         Health insurance         22         22.0           SUS         78         78.0           Lives with family         93         93.0           Lives with family         14         11.0           Comorbidities         Diabetes mellitus ≥ 60	Genuer	Male	62	62.0	
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Marital status         No companion         28         28.0           Letucation         Elementary School         34         34.0           High school         36         36.0           High school         18         18.0           Has religion         89         89.0           Obesity         27         27.0           Transport (SAMU)         78         78.0           Health system         18         18.0           Elives with family         93         93.0           Lives with family         93         93.0           Elives with family         93         93.0           Comorbidities         Elia Status e	Color	White	16	16.0	
No companion   28   28.0     Illiterate   12   12.0     Education   Elementary School   34   34.0     High school   36   36.0     University education   18   18.0     Has religion   27   27.0     Transport (SAMU)   78   78.0     Health system   Health insurance   22   22.0     SUS   78   78.0     Lives with family   93   93.0     Lives with	Marital status	With partner	72	72.0	
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Education       High school       36       36.0         University education       18       18.0         Has religion       89       89.0         Obesity       27       27.0         Transport (SAMU)       78       78.0         Health insurance       22       22.2       22.0         SUS       78       78.0         Lives with family       93       93.0         Lives with family       4AS       51       51.0         Education       14AS       51       51.0         SAH ≥ 60 years       23       23.0       23.0         Comorbidities       Diabetes mellitus ≥ 60 years       12       12.0         SAH and Diabetes mellitus ≥ 60 years       11       11.0       11.0         Any illness ≥ 60 years old       28       28.0         Imaging exams       Chest x-ray       51       51.0         Imaging exams       Chest tomography       54       54.0         Magnetic Resonance       6       6.0         Ough       6       6.0         Fever       69       69.0         Myalgia       35       35.0         Diarrhea and vomiting       13 <th< td=""><td></td><td>Illiterate</td><td>12</td><td>12.0</td></th<>		Illiterate	12	12.0	
High school   18   18.0     University education   18   18.0     Has religion   27   27.0     Transport (SAMU)   78   78.0     Health system   Health insurance   22   22.0     SUS   78   78.0     Lives with family   93   93.0     Example   HAS   51   51.0     SAH ≥ 60 years   23   23.0     Diabetes mellitus   26   26.0     SAH and Diabetes mellitus ≥ 60 years   11   11.0     Any illness   Any illness   70   70.0     Any illness ≥ 60 years old   28   28.0     Tanaging exams   Chest x-ray   51   51.0     Magnetic Resonance   0   0.0     Fever   69   69.0     Dyspnea   67   67.0     Any digia   35   35.0     Signs and symptoms   19   19.0     Headache   15   15.0     Headache   15   15.0     Headache   15   15.0     Diarrhea and vomiting   13   13.0     Others   20   20.0     Mage years   51.53   15.10     Age years   51.53   15.10     Signs and symptoms   15   15.0     Age years   51.53   15.0     Signs and symptoms   15   15.0     Signs and sym	Education	Elementary School	34	34.0	
Has religion       89       89.0         Obesity       27       27.0         Transport (SAMU)       78       78.0         Health system       Health insurance SUS       22       22.0         SUS       78       78.0         Lives with family       93       93.0         HAS       51       51.0         SAH ≥ 60 years       23       23.0         Diabetes mellitus ≥ 60 years       12       12.0         SAH and Diabetes mellitus ≥ 60 years       11       11.0         Any illness       70       70.0         Any illness ≥ 60 years old       28       28.0         Imaging exams       Chest x-ray       51       51.0         Imaging exams       Chest tomography       54       54.0         Magnetic Resonance       0       0.0         Dispnea       6       6.0         Fever       69       69.0         Dyspnea       67       67.0         Myalgia       35       35.0         Disarturation       19       19.0 <th c<="" td=""><td>Education</td><td>High school</td><td>36</td><td>36.0</td></th>	<td>Education</td> <td>High school</td> <td>36</td> <td>36.0</td>	Education	High school	36	36.0
Obesity       27       27.0         Transport (SAMU)       78       78.0         Health system       Health insurance       22       22.0         SUS       78       78.0         Lives with family       93       93.0         HAS       51       51.0         SAH ≥ 60 years       23       23.0         Diabetes mellitus ≥ 60 years       12       12.0         SAH and Diabetes mellitus ≥ 60 years       11       11.0         Any illness ≥ 60 years old       28       28.0         Any illness ≥ 60 years old       28       28.0         Imaging exams       Chest tomography       54       54.0         Magnetic Resonance       0       0.0         Cough       6       6.0         Fever       69       69.0         Dyspnea       67       67.0         Myalgia       35       35.0         Desaturation       19       19.0         Headache       15       15.0         Diarrhea and vomiting       13       13.0		University education	18	18.0	
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Health system         Health insurance SUS         22         22.0 mm           Lives with family         93         93.0           Lives with family         93         93.0           HAS         51         51.0           SAH ≥ 60 years         23         23.0           Diabetes mellitus         26         26.0           Comorbidities         Diabetes mellitus ≥ 60 years         12         12.0           SAH and Diabetes mellitus ≥ 60 years         11         11.0           Any illness         70         70.0           Any illness         60 years old         28         28.0           Imaging exams         Chest x-ray         51         51.0           Imaging exams         Chest tomography         54         54.0           Magnetic Resonance         0         0.0           Signs and symptoms         Fever         69         69.0           Pever         69         69.0           Dyspnea         67         67.0           Myalgia         35         35.0           Desaturation         19         19.0           Headache         15         15.0           Diarrhea and vomiting         31         13.0 <td>Obesity</td> <td></td> <td>27</td> <td>27.0</td>	Obesity		27	27.0	
Health system         SUS         78.         78.0           Lives with family         93         93.0           HAS         51         51.0           SAH ≥ 60 years         23         23.0           Diabetes mellitus         26         26.0           Comorbidities         Diabetes mellitus ≥ 60 years         12         12.0           SAH and Diabetes mellitus ≥ 60 years         11         11.0           Any illness         70         70.0           Any illness ≥ 60 years old         28         28.0           Tamaging exams         Chest tomography         54         54.0           Magnetic Resonance         0         0.0           Cough         6         6.0           Fever         69         69.0           Dyspnea         67         67.0           Myalgia         35         35.0           Desaturation         19         19.0           Headache         15         15.0           Diarrhea and vomiting         13         13.0           Others         20         20.0           Memax)           Age years)         51.53         ±6.439 (20.8 ±6.439 (20.8 ±	Transport (SAMU)		78	78.0	
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SAH and Diabetes mellitus ≥ 60 years       11       11.0         Any illness       70       70.0         Any illness ≥ 60 years old       28       28.0         Chest x-ray       51       51.0         Imaging exams       Chest tomography       54       54.0         Magnetic Resonance       0       0.0         Cough       6       6.0         Fever       69       69.0         Dyspnea       67       67.0         Myalgia       35       35.0         Desaturation       19       19.0         Headache       15       15.0         Diarrhea and vomiting       13       13.0         Others       20       20.0         Age years)         Age years)       51.53 $\frac{13.104 (20-8-38)}{81)$ BMI       31.82 $\frac{46.439 (20.8-58.8)}{58.8}$		Diabetes mellitus	26	26.0	
Any illness       70       70.0         Any illness ≥ 60 years old       28       28.0         Imaging exams       Chest x-ray       51       51.0         Imaging exams       Chest tomography       54       54.0         Magnetic Resonance       0       0.0         Fever       69       69.0         Dyspnea       67       67.0         Myalgia       35       35.0         Desaturation       19       19.0         Headache       15       15.0         Diarrhea and vomiting       13       13.0         Others       20       20.0         Age years)       51.53       ±13.104 (20-8)         BMI       31.82       ±6.439 (20.8-58.8)	Comorbidities	Diabetes mellitus ≥ 60 years	12	12.0	
Any illness ≥ 60 years old       28       28.0         Imaging exams       Chest x-ray       51       51.0         Imaging exams       Chest tomography       54       54.0         Magnetic Resonance       0       0.0         Cough       6       6.0         Fever       69       69.0         Dyspnea       67       67.0         Myalgia       35       35.0         Desaturation       19       19.0         Headache       15       15.0         Diarrhea and vomiting       13       13.0         Others       20       20.0         Age years)       51.53       ±13.104 (20-81)         BMI       31.82       ±6.439 (20.8-58.8)		SAH and Diabetes mellitus ≥ 60 years	11	11.0	
Chest x-ray   51   51.0     Imaging exams   Chest tomography   54   54.0     Magnetic Resonance   0   0.0     Cough   6   6.0     Fever   69   69.0     Dyspnea   67   67.0     Myalgia   35   35.0     Desaturation   19   19.0     Headache   15   15.0     Diarrhea and vomiting   13   13.0     Others   20   20.0     Mage years   51.53   ±13.104 (20-81)     BMI   51.53   ±6.439 (20.8-58.8)     Signs and symptoms   51.53   ±6.439 (20.8-58.8)     Chest x-ray   51.53   ±6.439 (20.8-58.8)     Chest tomography   54.0     51.0   51.0     51.0		Any illness	70	70.0	
Imaging exams         Chest x-ray         51         51.0           Chest tomography         54         54.0           Magnetic Resonance         0         0.0           Cough         6         6.0           Fever         69         69.0           Dyspnea         67         67.0           Myalgia         35         35.0           Desaturation         19         19.0           Headache         15         15.0           Diarrhea and vomiting         13         13.0           Others         20         20.0           Age years)         51.53         #13.104 (20-81)           BMI         31.82         #6.439 (20.8-58.8)		Any illness $\geq 60$ years old	28	28.0	
Imaging exams         Chest tomography         54         54.0           Magnetic Resonance         0         0.0           Cough         6         6.0           Fever         69         69.0           Dyspnea         67         67.0           Myalgia         35         35.0           Desaturation         19         19.0           Headache         15         15.0           Diarrhea and vomiting         13         13.0           Others         20         20.0           Age years)         51.53         #13.104 (20-81)           BMI         31.82         #6.439 (20.8-58.8)			51	51.0	
Magnetic Resonance   0   0.0	Imaging exams	•	28 51	54.0	
Cough   6   6.0     Fever   69   69.0     Dyspnea   67   67.0     Myalgia   35   35.0     Desaturation   19   19.0     Headache   15   15.0     Diarrhea and vomiting   13   13.0     Others   20   20.0     Myalgia   35   35.0     Desaturation   19   19.0     Headache   15   15.0     Diarrhea and vomiting   13   13.0     Others   20   20.0     Myalgia   35   35.0     Desaturation   19   19.0     Headache   15   15.0     Diarrhea and vomiting   13   13.0     Age years)   31.82   ±13.104 (20-8)     BMI   31.82   ±6.439 (20.8-58.8)	Imaging exams				
Fever       69       69.0         Dyspnea       67       67.0         Myalgia       35       35.0         Desaturation       19       19.0         Headache       15       15.0         Diarrhea and vomiting       13       13.0         Others       20       20.0         Age years)       51.53					
Signs and symptoms       Dyspnea       67       67.0         Myalgia       35       35.0         Desaturation       19       19.0         Headache       15       15.0         Diarrhea and vomiting       13       13.0         Others       20       20.0         Age years)       51.53					
Signs and symptoms       Myalgia       35       35.0         Desaturation       19       19.0         Headache       15       15.0         Diarrhea and vomiting       13       13.0         Others       20       20.0         M       DP (minmax)         Age years)       51.53       \frac{\pmax(1).104 (20-81)}{81)} \frac{\pmax(20-81)}{81}         BMI       31.82       \frac{\pmax(4.39) (20.8-58.8)}{58.8}					
Desaturation   19   19.0     Headache   15   15.0     Diarrhea and vomiting   13   13.0     Others   20   20.0     Maxy   DP (min-max)     Age years   51.53   \frac{\pmax}{81} \frac{\pmax}{81} \right)     \frac{\pmax}{64.439} (20.8-58.8)					
Desaturation	Signs and symptoms				
Diarrhea and vomiting   13   13.0   20   20.0     20.0	Signs and symptoms				
Others         20         20.0           M         DP (min-max)           Age years)         51.53         ±13.104 (20-81)           BMI         31.82         ±6.439 (20.8-58.8)		Headache	15	15.0	
M         DP (min-max) max)           Age years)         51.53         ±13.104 (20-81)           BMI         31.82         ±6.439 (20.8-58.8)		Diarrhea and vomiting	13	13.0	
Mge years)     max)       BMI     51.53     \$\frac{\pmax}{81}\$.104 (20-\\ 81)       \$\frac{\pmax}{81}\$     \$\frac{\pmax}{81}\$.20.8-\\ 58.8)		Others	20		
Age years) 51.53 ±13.104 (20- 81) ±6.439 (20.8- 58.8)			M	•	
<b>BMI</b> 31.82 $\pm 6.439$ (20.8-58.8)	Age years)		51.53	±13.104 (20-	
·	BMI		31.82	±6.439 (20.8-	
	Time between onset of	f symptoms and first medical care (days)	6.53	,	

M: Average; DP: standard deviation; Min:minimum; Max: maximum; SAH: Systemic Arterial Hypertension; ICU: Intensive Care Unit; SUS: Unified Health System; SAMU: Mobile Emergency Care Service; DM: Diabetes Mellitus; BMI: Body Mass Index (kg/m²= kilograms per square meter).

Regarding participant satisfaction, it is observed that between 0 and 10 the hospital received an average rating of 9.48 (minimum of 6 and maximum of 10). The correlation was positive for all variables, being moderate between satisfaction with the nursing team, medical team, hospital professionals, meals provided and ICU in general and strong between physical facilities (Table 2).

Overall satisfaction with the nursing team received a median of 10 (9-10) and the medical team received a median of

10 (10-10), with no significant difference between the two in terms of service. The majority of participants attributed "always" frequency to being treated with courtesy and respect (77%; 79%), listened to attentively (68%; 72%), receiving clear explanations about health and treatment (66%; 70%), being called by name (81%; 86%), as well as the professional identifying themselves (72%; 82%) and hand hygiene before procedures (87%; 92%) in relation to the nursing and medical team respectively.

**Table 2**: Correlation between participants' general satisfaction (n=100) and variables. Southeast, Brazil, 2021

Variables	(M-Dp)	p-value	r
Overall hospital satisfaction	9.48 (0.969)	-	1
Nursing team	9.45 (1.123)	< 0.01	0.514
Medical team	9.48 (1.132)	< 0.01	0.580
Hospital professionals	9.36 (1.185)	< 0.01	0.437
Physical facilities	8.88 (1.887)	< 0.01	0.728
Meals provided	8.46 (2.393)	< 0.01	0.509
Communication with family members	8.22 (2.848)	< 0.01	0.292
Privacy and confidentiality respected	9.51 (1.159)	< 0.01	0.137
Discharge instructions from healthcare professionals	8.92 (2.214)	< 0.01	0.140
Infirmary in general	9.20 (1.511)	< 0.01	0.244
ICU in general	9.41 (1.538)	< 0.01	0.402
General health after discharge	8.98 (1,563)	< 0.01	0.260
Mental and emotional health after discharge	7.83 (2.44)	< 0.01	0.320

M: Average; DP: standard deviation; r:Pearson correlation; ICU -Intensive Care Unit

### **DISCUSSION**

In this research, the majority of the 100 participants admitted to the ICU due to COVID-19 were men, who have some illness and a high BMI. SAH and DM were

less common in this population, however, in those aged 60 and over, it was found that the presence of SAH was dominant. The literature points out that age, sex and associated comorbidities are determining risk factors for the worsening of the disease, increasing the risk of admission to the ICU and death outcome.<sup>10</sup>

In relation to comorbidities, studies indicate that hypertension and obesity contribute to a greater chance of positive infection and, consequently, severity of the condition. Research shows that obesity is associated with a negative prognosis as it offers a greater risk of positive infection for SARS-CoV-2 (46%), hospitalization (113%) and death (48%), especially in the case of individuals with morbid obesity. The same was also observed when there is a combination of risk factors hypertension and diabetes, which has a modulating effect. 12

In relation to this research, both the nursing and medical teams were factors that influenced patient satisfaction, as well as the frequency of treatment with courtesy and respect, the median of which was 10 for both teams. A study carried out in a teaching hospital in the Brazilian Center-West using the Patient Satisfaction Instrument (ISP), detected that the level of satisfaction was high (92%) in relation to the care received by nursing staff.<sup>13</sup> In another study carried out in a university hospital in Maceió revealed that 97% of cancer patients undergoing outpatient care reported satisfaction with the assistance provided, highlighting that 34.2% of these indicated that charisma, respect for one's own decisions and clear communication are

decisive for obtaining greater satisfaction.<sup>14</sup> Likewise. in another hospital, the perceptions of patients admitted to medical clinic wards in relation to the doctors who attended to them were analyzed and gratitude, satisfaction with the doctor's attention and with the discovery of the diagnosis in the reports predominated, showing that 90.9% of those interviewed revealed confidence and satisfaction with the doctor's competence. 15 Thus, it is observed how the emotional fragility, pain and concern experienced in the hospital environment influence the need for an empathetic relationship between patients and professionals and how This stands out in the customer's perception of satisfaction with the care provided.<sup>16</sup>

As for the variable relating to explaining health and treatment in a clear way, there was also no difference between the nursing team and the medical team, both receiving a median of 10 and discharge instructions from health professionals were decisive in satisfaction. However, a study carried out in a university hospital in Paraná, also using the ISP questionnaire, showed that all 59 patients analyzed were satisfied with the nursing service in the medical and surgical clinic, but the clarity in understanding the explanation provided by nursing professionals reached a lower score (3.81 points) according to the Likert scale (1-5 points), highlighting the need for the nurse, as care coordinator, to be more active in this aspect.<sup>16</sup> In the same hospital in this study, the doctor was considered the professional who provides the most information about the health situation and treatment during hospitalization.<sup>17</sup>

Overall satisfaction with the ICUwas notable in this research. According to the literature, it is known how complex the treatment of patients with COVID-19 in the ICU is, considering the need for staff, material, high demand for patients with a severe clinical condition, characterized by Acute Respiratory Distress Syndrome (ARDS), in which oxygenation is greatly impaired, as well as a large number of hospitalizations in a short period of time. <sup>18</sup>

In this pandemic context, the suffering of the family, who are not authorized to make visits, must also be taken into account. In this sense, it is necessary to use some form of communication with family members, a factor that also determined patient satisfaction in this research. An investigation of virtual methods such as telephone calls and video calls revealed that they help prevent social isolation and loneliness in elderly people confined to healthcare facilities. It also showed that these strategies achieved similar levels of satisfaction when assistance was provided to establish communication. In this suffering the same strategies achieved similar levels of satisfaction when assistance was provided to establish communication.

With regard to physical facilities from the patient's perspective, a median of

10 was identified and a relevant factor to determine satisfaction. Furthermore. determined that respect for privacy and confidentiality was another relevant aspect in patient satisfaction when correlated with general satisfaction (36%). Corroborating these data, in a study carried out in a teaching hospital, the majority (81%) of patients interviewed revealed a high level of satisfaction regarding the environmental conditions presented by the hospital during care. Lighting, thermal comfort, furniture and equipment stood out, as opposed to comfort. territoriality, pleasantness, cleanliness. privacy, silence and communication, identified as the least pleasant variables.<sup>20</sup>

The same relevance could be observed regarding the meals provided, whose median score was 10. Furthermore, a study carried out in a university hospital in Campinas with 206 patients, 52.4% women and 47.6% men, aged between 16 and 83 years old and a minimum hospitalization period of two days found that gender and age are factors that determine the level of satisfaction with the meals offered.<sup>20</sup>

#### **CONCLUSION**

The overall satisfaction of patients during the hospitalization period with the care provided was 65% during the pandemic. Both the nursing and medical staff were factors that influenced patient satisfaction,

as well as the frequency of treatment with respect. **Patients** courtesy and also physical facilities, highlighted meals, communication with family members, privacy and confidentiality, and instructions for discharge from health professionals as satisfactory items.

The main limitations of this research are related to data collection in the electronic medical record, which presented incomplete or missing data. As contributions, identified that there was patient satisfaction during the hospitalization period during the pandemic bringing and, implications for future research. It is suggested that the adapted questionnaire be used in different scenarios, as well as a by decision-making tool management professionals to encourage improvements in the quality of care provided.

#### **FINANCING**

The authors.

#### REFERENCES

1. Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet [Internet]. 2020 [citado em 22 set 2023]; 395(10223):497-506. Disponível em: https://www.thelancet.com/action/showPdf? pii=S0140-6736%2820%2930183-5
2. Zhou F, Yu T, Du R, Fan G, Liu Y, Liu Z, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort

study. Lancet [Internet]. 2020 [citado em 22 set 2023]; 395(10229):1054-62. Disponível em:

https://www.thelancet.com/action/showPdf? pii=S0140-6736%2820%2930566-3 3. Pan American Health Organization. WHO characterizes COVID-19 as a pandemic [Internet]. Washington, DC: PAHO; 2020 [citado em 10 abr 2020]. Disponível em: https://www.paho.org/en/news/11-3-2020who-characterizes-covid-19-pandemic 4. Fu L, Wang B, Yuan T, Chen X, Ao Y, Fitzpatrick T, et al. Clinical characteristics of coronavirus disease 2019 (COVID-19) in China: a systematic review and metaanalysis. J Infect. [Internet]. 2020 [citado em 22 set 2023]; 80:656-65. Disponível em: https://www.journalofinfection.com/action/s howPdf?pii=S0163-4453%2820%2930170-

- 5. Verity R, Okell CL, Dorigatti I, Winskill P, Whittaker C, Natsuko I, et al. Estimates of the severity of coronavirus disease 2019: a model-based analysis. Lancet Infect Dis. [Internet]. 2020 [citado em 22 set 2023]; 3099(20)30243-7. Disponível em: https://www.thelancet.com/action/showPdf? pii=S1473-3099%2820%2930243-7 6. Zhang J, Wang X, Jia X, Li J, Hu K, Chen G, et al. Risk factors for disease severity, unimprovement, and mortality of COVID-19 patients in Wuhan, China. Clin Microbiol Infect. [Internet]. 2020 [citado em 22 set 2023]; 26(6):767-72. Disponível em: https://www.clinicalmicrobiologyandinfecti on.com/action/showPdf?pii=S1198-743X%2820%2930217-2
- 7. Santos MA, Sardinha AHL, Santos LN. Satisfação dos usuários com os cuidados dos enfermeiros. Rev Gaúch Enferm. [Internet]. 2017 [citado em 22 set 2023]; 38(1):e57506. Disponível em:

https://www.scielo.br/j/rgenf/a/TxTRGwffQ cVtWVTsmXWLZbf/?format=pdf&lang=pt 8. Von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. PLoS Med.

[Internet]. 2007 [citado em 22 set 2023]; 4(10):e296. Disponível em:

https://journals.plos.org/plosmedicine/article/file?id=10.1371/journal.pmed.0040296&type=printable

9. Agency for Healthcare Research and Quality. Estudo HCAHPS (Avaliação do Paciente Hospitalar relativamente aos Sistemas e Prestadores de Cuidados de Saúde) [Internet]. Rockville, MD: AHRQ; 2020 [citado em 12 maio 2020]. Disponível em:

https://hcahpsonline.org/globalassets/hcahps/survey-instruments/mail/effective-july-1-2020-and-forward-discharges/2020\_survey-instruments\_portuguese\_mail.pdf
10. Villalobos F, Verónica N, Ott JJ, Klett-Tammen CJ, Bockey A, Vanella P, et al. Effect modification of the association between comorbidities and severe course of COVID-19 disease by age of study participants: a systematic review and meta-analysis. Syst Rev. [Internet]. 2021 [citado em 22 set 2023]; 10:194. Disponível em: https://systematicreviewsjournal.biomedcent ral.com/counter/pdf/10.1186/s13643-021-01732-3.pdf

11. Liu B, Spokes P, He W, Kaldor J. High risk groups for severe COVID-19 in a whole of population cohort in Australia. BMC Infect Dis. [Internet]. 2021 [citado em 22 set 2023]; 21:685. Disponível em: https://bmcinfectdis.biomedcentral.com/counter/pdf/10.1186/s12879-021-06378-z.pdf 12. Bil J, Możeńska O. The vicious cycle: a history of obesity and COVID-19. BMC Cardiovasc Disord. [Internet]. 2021 [citado em 22 set 2023]; 21:332. Disponível em: https://bmccardiovascdisord.biomedcentral.com/counter/pdf/10.1186/s12872-021-02134-y.pdf

13. Freitas JS, Silva AEBC, Minimisava R, Bezerra ALQ, Sousa MRG. Qualidade dos cuidados de enfermagem e satisfação do paciente atendido em um hospital de ensino. Rev Latinoam Enferm. [Internet]. 2014 [citado em 22 set 2023]; 22(3):454-60. Disponível em:

https://www.scielo.br/j/rlae/a/jFsJ5q96F8s4b VcmxsFBQpF/?format=pdf&lang=pt 14. Silva LDC, Duprat IP, Correia MDS, Ramalho HTP, Lima JDA. Satisfação do paciente oncológico diante da assistência de enfermagem. Rev Rene. [Internet]. 2015 [citado em 22 set 2023]; 16(6):856-62. Disponível em:

http://www.revenf.bvs.br/pdf/rene/v16n6/15 17-3852-rene-16-6-0856.pdf 15. Wanderley VS, Araújo KFG, Santos MMM, Maroja JLS, Muñoz RLS. Identificando elementos do cuidado centrado na pessoa: estudo qualitativo a partir da perspectiva de pacientes hospitalizados. Semina Cienc Biol Saúde [Internet]. 2020 [citado em 22 set 2023]; 41(2 Supl):283-308. Disponível em:

https://ojs.uel.br/revistas/uel/index.php/semi nabio/article/view/37599
16. Marques LGS, Schran LS, Oliveira JLC, Carvalho A, Tonini NS, Nicola AL. Satisfação do paciente sobre a assistência de enfermagem hospitalar. Enferm Bras. [Internet]. 2018 [citado em 22 set 2023]; 17(3):236-44. Disponível em: https://convergenceseditorial.com.br/index.p hp/enfermagembrasil/article/view/1114/374

17. Pedro DRC, Silva GKT, Molin TD, Oliveira JLC, Nicola AL, Tonini NS. Conhecimento do paciente sobre a assistência hospitalar recebida durante sua internação. REME Rev Min Enferm. [Internet]. 2016 [citado em 22 set 2023]; 20(1):e978. Disponível em: http://www.revenf.bvs.br/scielo.php?script= sci arttext&pid=S1415-27622016000100234&lng=pt&nrm=iso&tln 18. Jakob SM, Michel K, Kindler A. COVID-19 in der Intensivstation: medizinische, pflegerische und physiotherapeutische Herausforderungen [COVID-19 in the Intensive Care Unit: Medical, Nursing, and Physical Therapy Challenges]. Praxis (Bern 1994) [Internet]. 2021 [citado em 22 set 2023]; 110(9):512-6. German. Disponível em: https://econtent.hogrefe.com/doi/10.1024/16 61-8157/a003684?url ver=Z39.882003&rfr id=ori:rid:crossref.org&rfr dat=cr pub%20%200pubmed 19. Sacco G, Lléonart S, Simon R, Noublanche F, Annweiler C; TOVID Study Group. Communication technology preferences of hospitalized and institutionalized frail older adults during COVID-19 confinement: cross-sectional survey study. JMIR Mhealth Uhealth [Internet]. 2020 [citado em 22 set 2023]; 8(9):e21845. Disponível em: https://www.ncbi.nlm.nih.gov/pmc/articles/P MC7518882/?report=reader 20. Duarte AC, Silva JF, de Sousa Abreu V. Grau de satisfação dos pacientes em relação às refeições oferecidas por um hospital público na cidade de Goiânia-GO. Revista Desafios [Internet]. 2019 [citado em 22 set 2023]; 6(4):32-9. Disponível em: https://sistemas.uft.edu.br/periodicos/index.p hp/desafios/article/view/6559/16026

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