European Review for Medical and Pharmacological Sciences 2023; 27: 11192-11199

From intensive care to rehabilitation: survey on the satisfaction with care received during prolonged hospitalization for COVID-19 at a northern Italian university hospital

S. STRAUDI[1,2], N. LAMBERTI[1], L. BALUARDO[1], S. SPADARO[3], C.A. VOLTA[3], M. CONTOLI[3], A. PAPI[3], A. PASSARO[3], M. LIBANORE[4], M. GALLERANI[5], S. VOLPATO[6], R. MANFREDINI[6], A. BERGONZONI[2], S. LAVEZZI[2], U. WIENAND[7], E. VAGNONI[8], F. MANFREDINI[1,2]

[1]Department of Neuroscience and Rehabilitation, University of Ferrara, Ferrara, Italy
[2]Rehabilitation Medicine Unit, Ferrara University Hospital, Ferrara, Italy
[3]Department of Translational Medicine, University of Ferrara, Ferrara, Italy
[4]Infectious Diseases Unit, Ferrara University Hospital, Ferrara, Italy
[5]Department of Medicine, Ferrara University Hospital, Ferrara, Italy
[6]Department of Medical Sciences, University of Ferrara, Ferrara, Italy
[7]Clinical Audit, Healthcare Organisations Accreditation at Free Lance, Ferrara, Italy
[8]Department of Economics and Management, University of Ferrara, Ferrara, Italy

Abstract. – OBJECTIVE: Investigating the experiences perceived by COVID-19 inpatients is a fundamental research area that is starting to be explored. For this reason, our objective was to provide the first Italian survey on COVID-19 inpatients' satisfaction, obtained through a self-completed questionnaire previously used in a reference study in a UK cohort of COVID-19 patients.

***SUBJECTS AND METHODS:* Hospitalized COVID-19 patients (>20 days) admitted to Ferrara University Hospital who underwent rehabilitation during their hospital stay were invited to complete an anonymous questionnaire. The survey's questions explored the patients' satisfaction with the health services received, and their completion took place approximately one year after hospitalization. Information on sex, number of wards, ICU stays, and hospital discharge dates was collected.**

***RESULTS:* Sixty-two completed questionnaires were analyzed. The average overall satisfaction score obtained from the answers indicated by the participants in the tenth question was 4.7 out of 5.0. Very positive responses were observed for information about discharge plans, privacy, management of pain, sleep quality, and feeling of safety. The possibility of being consulted about medications and side effects received a very low satisfaction score. Considering overall satisfaction, no significant differences were noted for sex or ICU stay. The obtained results were almost superimposable to those reported in the cohort of COVID-19 patients of the reference study.**

***CONCLUSIONS:* This survey suggested that COVID-19 patients' healthcare satisfaction was high. Nevertheless, some areas must be improved, such as the communication and involvement of the patients in the decision-making of care and the discussion about medications or possible side effects.**

Key Words:
COVID-19, Patient satisfaction, Hospitalization, Survey, Health services, Rehabilitation, Sex.

Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus that was first identified in Wuhan (China) in December 2019[1]. The virus rapidly spread worldwide, which led the World Health Organization (WHO) to declare COVID-19 a public health emergency of international concern on 30 January 2020 and the outbreak of the pandemic on 11 March 2020[2]. Although most people infected with the virus experience mild to moderate symptoms and recover without requiring spe-

Corresponding Author: Roberto Manfredini, MD, Ph.D; e-mail: roberto.manfredini@unife.it

cial treatment, some people become critically ill and need medical attention[1]. As affirmed by the WHO, the COVID-19 virus infects people of all ages[3]. Evidence suggests that older people (>60 years old) and those with underlying medical conditions have a higher risk of developing severe COVID-19[3]. From 30 January 2020 to 31 May 2023, the rapid spread of COVID-19 from China to other countries led to about 767.36 million cases worldwide[4]. In particular, the cumulative number of confirmed cases in Italy from 31 January 2020 to 31 May 2023 is about 25.86 million[5], while the cumulative number of deaths in Italy from 23 February 2020 to 31 May 2023 is 190,392[6]. The global health emergency due to COVID-19 stressed the hospital system, saturated the available health services, and produced a need to improve the identification of risks and outcomes in different care settings[7-10]. Therefore, the COVID-19 pandemic forced a reduction in hospital stays and healthcare services dedicated to non-COVID-19 patients affected by acute or chronic diseases. A study[11] reporting the results of twelve studies from nine European countries during the pandemic, in addition to positive reports from the United Kingdom (UK), revealed a general decrease in the quality of healthcare services provided[11]. Furthermore, the necessity to understand the pandemic's social, economic and public health consequences gave rise to an enormous number of surveys across disciplines and countries[12]. Investigating the experiences perceived by COVID-19 inpatients is an additional fundamental research area that is starting to be explored[13-16]. Patient satisfaction is a complex, multidimensional judgment resulting from an individual's appraisal of experiences and a comparison of experiences with expectations[17]. The level of patient satisfaction is an essential indicator of the quality of the service delivery system[18]. Its measurement has an impact on the quality improvement process of healthcare organizations[18]. For these reasons, several studies were conducted during the pandemic to analyze patient satisfaction levels with healthcare services during hospitalization[7,13-16,17-23]. However, in some cases, the impact of the emergency on patients hospitalized for diseases other than COVID-19 was studied[7,19,20]. In one study[21], it was not possible to determine which respondents were hospitalized due to COVID-19. On the other hand, other studies included both COVID-19 and non-COVID-19 patients[22,23]. Some studies include only COVID-19 patient[13-16]. Moreover, the available data from questionnaires regarding the perception of the healthcare services received by inpatients are hardly comparable due to methodological issues or different study populations.

Studies on COVID-19 inpatient satisfaction with the healthcare services received have not been published in Italy. Furthermore, to our knowledge, no studies have analyzed the satisfaction level of patients who have experienced prolonged hospitalization with access to rehabilitation. However, a recent study[24] analyzed the experiences of patients discharged from the COVID-19 rehabilitation unit and those of their family caregivers and healthcare providers working in COVID-19 units. In this study, data were collected through one-on-one semistructured interviews, but patient satisfaction was not investigated[24]. Therefore, the objective of the present study was to provide the first Italian survey on COVID-19 inpatient satisfaction, obtained through a self-completed questionnaire previously used in a UK cohort of COVID-19 patients[17].

Subjects and Methods

This study was conducted at the University Hospital of Ferrara between March and June 2022. It included patients enrolled in an observational study to analyze recovery profiles in patients with SARS-CoV-2 undergoing rehabilitation (registration number: NCT04615390). The CE-AVEC Ethics Committee authorized this study (approval number 539/20), and participants signed written informed consent forms to participate.

The inclusion criteria were as follows: COVID-19 infection that required prolonged hospitalization (>20 days) from January to June 2021, stay in at least two hospital wards (intensive care unit and subintensive pneumology, medicine, or rehabilitation unit), referral to a rehabilitation service (early rehabilitation in the acute wards or inpatient rehabilitation), and age > 18 years old, both males and females were included. Patients with a severe cognitive deficit that could affect their ability to understand the survey were excluded.

Structure of the Satisfaction Survey

We employed the questionnaire developed by Wu et al[16]. We translated the survey from English to Italian using a back-translation approach. Qualified translators with familiarity with health and

disability performed the first translation. Then, the Italian version provided was discussed with the rehabilitation team, and, if necessary, a new translation was requested by independent blinded experts. The final version of the questionnaire in Italian, mirroring the original English version, was composed of 9 questions with a "yes" or "no" response and a tenth question to rate the quality of the health care received on a scale from 1 (lowest level) to 5 (highest level). Moreover, as in the original version, three open-ended questions on any excellent experience, any room for improvement, and any other comments were also translated. In addition to the original version, we added a general part on patients' sex (male, female or prefer not to say), the number of wards they stayed in, intensive care unit (ICU) stay and date of last hospital discharge. The final version of the survey is reported in Table I.

Data Collection

Patients who met the inclusion criteria were invited to complete the anonymous questionnaire after the last planned check-up visit at the rehabilitation center (approximately one year later after hospitalization) as part of their post-COVID-19 follow-up at Ferrara University Hospital.

A researcher gave the patients a copy of the survey and a pen. The patients could self-complete the questionnaire or with the help of a relative, if present or necessary. A specific opaque box was positioned nearby the rehabilitation clinics to collect all the completed surveys.

Statistical Analysis

Descriptive statistics were employed to analyze the respondent population. Data are presented as the means ± standard deviations for continuous variables and numbers and percentages for categorical variables. Overall satisfaction between subgroups (sex and ICU stay) was compared with the Kruskal-Wallis test. The comparison between the proportions of positive responses in our study and those in the reference study by Wu et al[16] was performed with a chi-squared test for each question, with a significance level set at $p<0.05$. Statistical analyses were conducted with MedCalc® Statistical Software version 20.110 (MedCalc Software Ltd, Ostend, Belgium).

Results

Of the 71 questionnaires administrated, 62 completed questionnaires were collected from the box, resulting in a response rate of 87%. Considering a population size of n=71 (hospitalized during the selected timeframe) and a response rate set at 80%, the minimum recommended sample size for study validity was n=56. The population of responders was mainly males (n=41, 66%) and people hospitalized in the intensive care unit (n=54, 87%). During their hospital stay, 23 (37%) patients were admitted to two different wards, 28 (45%) patients to three, 9 (15%) people to four and 2 (3%) people reported having been in five or more different wards. The time from discharge to the survey was 11±2 months.

Table I. Final version of the questionnaire with the possible answers for each question.

Question	Possible answers
Sex	Male/Female/Prefer not to say
Date of last hospital discharge	Open-ended response
Number of wards you stayed in	Open-ended response
Intensive care stay	Yes/No
Q1: Did you find someone to talk about your worries and fears with?	Yes/No
Q2: Did you feel safe in the ward?	Yes/No
Q3: Were you given enough privacy when discussing your condition or treatment?	Yes/No
Q4: Were you involved as much as you wanted to be in decisions about your care?	Yes/No
Q5: Were your medications and possible side effects discussed with you?	Yes/No
Q6: Was your pain managed effectively?	Yes/No
Q7: Was the environment calm and quiet enough for you to be able to sleep?	Yes/No
Q8: Were you kept informed of your discharge plans?	Yes/No
Q9: Are you likely to recommend our hospital to friends and family if they need similar care or treatment?	Yes/No
Q10: On a scale of 1 (lowest) to 5 (highest), how would you rate the quality of the care you received?	1/2/3/4/5
Was there anything particularly good about your hospital care?	Open-ended response
Was there anything that could be improved?	Open-ended response
Any other comments?	Open-ended response

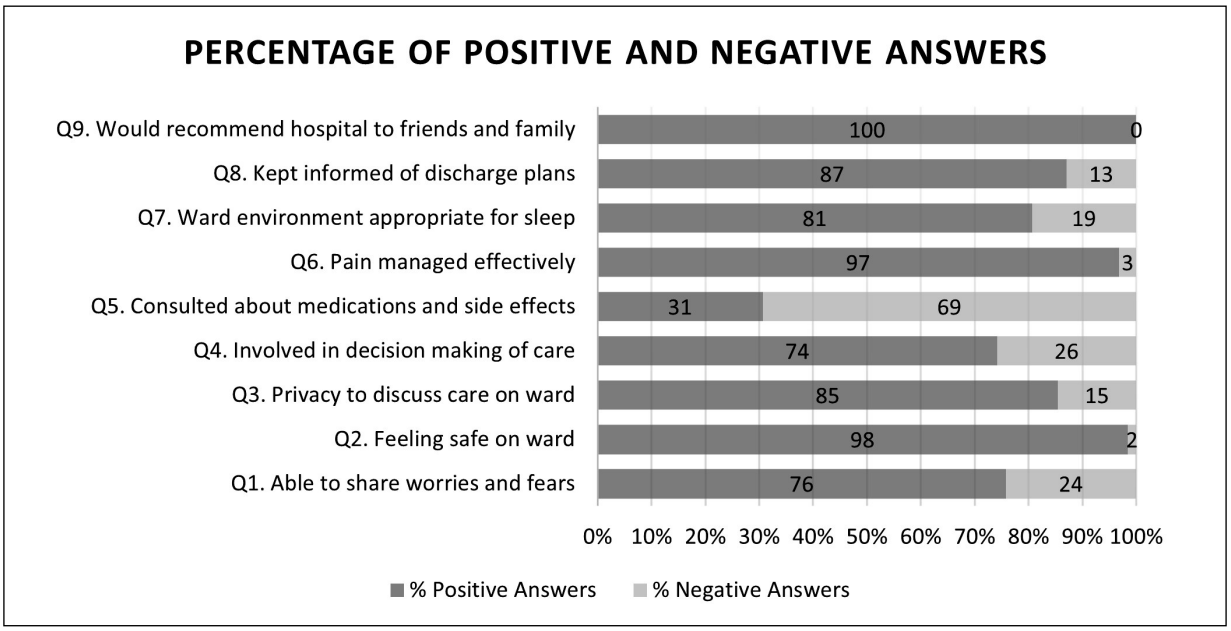

Figure 1. Percentage of positive and negative answers.

Survey Results

The average overall satisfaction score obtained from the answers indicated by the participants in the tenth question was 4.7 out of 5.0. Considering the nine dichotomous questions, all responders would recommend the hospital to their friends or family (Figure 1). Very positive answers with a response rate greater than 80% were observed for information about discharge plans, privacy, management of pain, sleep quality and feeling of safety. The possibility of being consulted about medications and side effects received a very low satisfaction score (31% of positive responses). The distribution of the score for each question is reported in Figure 1.

A total of 49 open-ended responses were collected, divided into 29 positive comments and 20 suggestions for improvement. Notably, the most frequently reported positive answer was related to the expertise and kindness of the health care professionals, including doctors, nurses and physical therapists. Positive feedback was also given about the possibility of having video call contacts with relatives and for the attention given to the patients. Regarding the areas for improvement, patients reported too quick or concise communication from health care professionals, and several complaints were collected due to the room's noise, the roommate, and the lack of silence. The food quality was finally reported as an area for improvement. Considering overall satisfaction, no significant differences were noted for sex (F 4.6±0.5 *vs.* M 4.7±0.7; p=0.88) or ICU stay (yes: 4.7±0.7; no 4.9±0.4; p=0.36). The graphical distribution of the positive scores for the nine questions is reported in Figure 2.

Discussion

This study is the first Italian survey to evaluate the satisfaction level of COVID-19 inpatients with the translated version of a questionnaire previously used in a survey conducted in Liver-

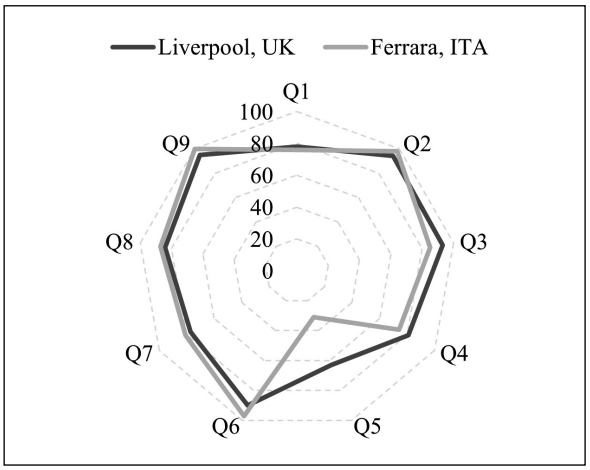

Figure 2. Comparison of the satisfaction with care between Italy and the UK.

pool[16]. The results showed that the average level of overall satisfaction was high, as observed in the results published in the Wu et al[16] survey. Our survey provides original data owing to the characteristics of the cohort of participants compared to those present in other surveys published in the literature. In fact, to our knowledge, no other published studies have analyzed the satisfaction level of the health care received among severe COVID-19 in-patients who have experienced prolonged hospitalization with access to rehabilitation. According to the inclusion criteria, only patients who stayed in at least two hospital wards were studied to obtain a broader evaluation of the health care facility's response rather than a limited single experience. This also enabled people to perceive the feelings of individuals with different experiences associated with progressive health statuses. Furthermore, the translation of a pre-existent questionnaire used in a cohort of COVID-19 patients in the Wu et al[16] survey allowed a comparison of the results reported in a different country during the same emergency. Analyzing the results obtained, a similar (almost superimposable) response was observed. In our study, the questions that registered a lower level of satisfaction were communication-related questions, which are Q1, Q4 and Q5. The possibility for the patients to find someone with whom they could share their worries and fear (Q1) was perceived as satisfactory by just 76% of the participants, and just 74% of the participants reported being involved as much as they wanted in the decision making of care (Q4). The lowest percentage of satisfaction (31%) was registered for the fifth question (Q5), which was about discussions with the patient about medications and possible side effects.

The results obtained were analogous to those published in the study by Wu et al[16], in which the question that had the lowest percentage was Q5, with 63% satisfaction. Indeed, the use of personal protective equipment (PPE) that healthcare professionals had to adhere to in COVID-19 wards might have prevented effective communication during the hospital stay. According to a study published in 2013[25], wearing face masks by doctors significantly and negatively affected patients' perceptions of the doctor's empathy. Nevertheless, no significant association was found between face mask-wearing and patient satisfaction[25]. Empathy is also fundamental in developing the therapeutic relationship[26] and improving patient satisfaction[27]. The overall satisfaction level that we obtained is 4.7/5, which was precisely the satisfaction level identified by Wu et al[16]. Despite the similar percentages for the close-ended questions, the questionnaire section dedicated to the open-ended question also revealed the presence of negative comments, as was also observed in the English population[16]. To this end, it must be considered that our patient cohort experienced more severe COVID-19 with prolonged hospitalization, where they experienced a higher complexity of the health care services delivered and the diversity of wards frequented. A prolonged hospital stay increases the chances of negative experiences. After all, the negative comments were related on the one hand to coincidental episodes (e.g., a noisy roommate), and on the other hand to improvable aspects to be carefully considered (food, communication, etc.). However, this fact emphasizes how aspects unrelated to the therapeutic process, apparently of little value from an external perspective, represent a considerable part of the care perceived by the patient. Conversely, the positive comments reflected gratitude and general satisfaction with health care professionals, possibly related to the whole therapeutic course from intensive care to (extensive) rehabilitation. This appreciation might be associated with sequential and continuous care, considering that in a report of the NHS Patient Survey Programme[22] on inpatient experiences during the COVID-19 pandemic, patients with a COVID-19 diagnosis reported consistently poorer experiences mainly due to the uncertainty of their care after leaving the hospital.

Limitations

This study has several limitations. The main issue is represented by the time frame between the retrospective completion of the satisfaction questionnaire and the patient's last discharge date. In our survey, the questionnaire was administered on average 11 months after hospital discharge. For this reason, the answers reported in the questionnaire were subject to recall bias, which is a type of bias that occurs when patients are not able to recall their former state accurately during the completion of a retrospective questionnaire, and this could lead them to remember it in an underestimated or overestimated way[28]. However, if none of the recall periods were short enough to eliminate all bias[26], the extended hospital stays, the associated extraordinary event, the

use of simple questions and nonspecific themes, and the dichotomous answer choice may have reduced the possibility of this memory bias. In addition, for an aggregated measure of hospitalization, longer recall periods may be preferred[29]. Second, the small sample size reduced the possibility of making inferences based on the results and generalizing the obtained data to the rest of the population with the same characteristics as the participants. Finally, the anonymous nature of this survey prevented us from analyzing the influence of potentially relevant factors both regarding the hospitalization period (e.g., eventual need for sedation and sedation period lasting in ICU patients) and the patient perception of quality of care (i.e., age, socioeconomic status or disease characteristics).

Conclusions

The survey demonstrated that the satisfaction of COVID-19 inpatients with the quality of the health care services received was high. Nevertheless, our survey highlighted some areas that must be improved, such as the communication and involvement of patients in the decision-making of care and in the discussion about medications and possible side effects. Improving these areas in clinical practice is fundamental to improving the level of patient satisfaction and the quality of the health care delivered. In fact, patient satisfaction in the emergency department is positively associated with patient compliance and is considered an indicator of the quality of care[30]. Accordingly, the policy implication of the present survey is that greater attention must be paid to the allocation of resources to create a quiet environment in hospital wards, provide higher-quality food and train health care professionals on adequate communication strategies. There is also a need to conduct future studies in other international hospitals to analyze the perception of the quality of care in different geographic areas to understand if there are territorial differences that may impact patient perception.

Conflict of Interest
The authors declare that they have no conflict of interests.

Acknowledgements
We would like to thank Donatella Cacciatore, Barbara Romanini, Simona Ascanelli, and Matteo Tebaldi for their contribution during data interpretation. We would also to acknowledge the professional editing services of American Journal Experts (AJE).

Informed Consent
All patients provided written informed consent.

Funding
This work has been supported, in part, by research from the Department of Medical Sciences, University of Ferrara (Fondo Incentivazione Ricerca Dipartimentale – FIRD – 2022, prof. Roberto Manfredini).

Ethical Approval
This observational study was approved by Comitato Etico Area Vasta Emilia Centro (CE-AVEC) on 20 May 2020 (approval No. 539/20).

Data Availability
The data underlying this article will be shared on responsible request to the corresponding author.

Authors' Contribution
Conceptualization, SSo, MF, LM, EM, LB; Methodology, SSo, WU, VE; Analysis, LM, LB, SSa; Literary search, BL, LN; Resources, VCA, CM, PA, LM, VS, MR, PA, GM, BA, LS, MF; Writing – original draft preparation, SSo, MF, LN, BL, SSa; Writing – review and editing SSo, LN, SSa, CM, PA, LM, VS, MR, PA, GM, BA, LS, VE, MF; Supervision, VCA, CM, PA, LM, VS, MR, PA, GM, BA, LS, VE; Project administration,VA, WU; Funding acquisition, MR. All authors have read and agreed to the published version of the manuscript.

ORCID ID
Straudi Sofia 0000-0002-2061-9922; Lamberti Nicola 0000-0001-5763-3069; Spadaro Savino 0000-0001-5027-5318; Volta Carlo Alberto 0000-0003-3533-6121; Contoli Marco 0000-0002-2731-5809; Papi Alberto 0000-0002-6924-4500; Volpato Stefano 0000-0003-4335-6034; Manfredini Roberto 0000-0002-8364-2601; Passaro Angelina 0000-0001-8462-7000; Gallerani Massimo 0000-0002-5841-1641; Wienand Ulrich 0000-0001-7478-298X; Vagnoni Emidia 0000-0002-5745-1414; Manfredini Fabio 0000-0001-9476-6434.

References

1) Coronavirus [Internet]. World Health Organization. [cited 2022 Aug 26]. Available from: https://www.who.int/health-topics/coronavirus.
2) Coronavirus disease (COVID-19) pandemic [Internet]. World Health Organization. [cited 2022

Aug 29]. Available from: https://www.who.int/europe/emergencies/situations/covid-19.

3) Coronavirus disease 2019 (COVID-19) Situation Report-51 [Internet]. World Health Organization. [cited 2022 Aug 29]. Available from: https://www.who.int/Docs/Default-Source/Coronaviruse/Situation-Reports/20200311-Sitrep-51-Covid-19.Pdf?Sfvrsn=1ba62e57_10.
4) Cumulative confirmed COVID-19 cases by world region [Internet]. Our World in Data. [cited 2023 Jun 3]. Available from: https://ourworldindata.org/grapher/cumulative-covid-cases-region.
5) Mathieu E, Ritchie H, Rodés-Guirao L, Appel C, Giattino C, Hasell J, Macdonald B, Dattani S, Beltekian D, Ortiz-Ospina E, Roser M. Coronavirus Pandemic (COVID-19). Our World Data [Internet]. 2020 [cited 2023 Jun 3]; Available from: https://ourworldindata.org/covid-cases.
6) COVID-19 Data Explorer [Internet]. Our World in Data. [cited 2023 Jun 3]. Available from: https://ourworldindata.org/explorers/coronavirus-data-explorer.
7) De Giorgi A, Fabbian F, Greco S, Di Simone E, De Giorgio R, Passaro A, Zuliani G, Manfredini R; OUTcome and COMorbidity Evaluation of INTernal MEDicine COVID19 (OUTCOME-INTMED-COV19) Study Collaborators. Prediction of in-hospital mortality of patients with SARS-CoV-2 infection by comorbidity indexes: an Italian internal medicine single center study. Eur Rev Med Pharmacol Sci 2020; 24: 10258-10266.
8) Cakir Guney B, Ceneli D, Karagoz A, Serindag Z, Dogantekin B, Cinar T, Atis O, Tukel N, Asal S, Sinlik E, Kaplan M. Prognostic role of intermountain risk score (IMRS) in intensive care unit patients with a diagnosis of COVID-19. Eur Rev Med Pharmacol Sci 2023; 27: 6437-6444.
9) Miele L, Dajko M, Savino MC, Capocchiano ND, Calvez V, Liguori A, Masciocchi C, Vetrone L, Mignini I, Schepis T, Marrone G, Biolato M, Cesario A, Patarnello S, Damiani A, Grieco A, Valentini V, Gasbarrini A; Gemelli against COVID Group. Fib-4 score is able to predict intra-hospital mortality in 4 different SARS-COV2 waves. Intern Emerg Med 2023; 18: 1415-1427.
10) Hippisley-Cox J, Khunti K, Sheikh A, Nguyen-Van-Tam JS, Coupland CAC. Risk prediction of covid-19 related death or hospital admission in adults testing positive for SARS-CoV-2 infection during the omicron wave in England (QCOVID4): cohort study. BMJ 2023; 381: e072976.
11) Tuczyńska M, Staszewski R, Matthews-Kozanecka M, Żok A, Baum E. Quality of the Healthcare Services During COVID-19 Pandemic in Selected European Countries. Front Public Health 2022; 10: 870314.
12) Hipp L, Bünning M, Munnes S, Sauermann A. Problems and pitfalls of retrospective survey questions in COVID-19 studies. Surv Res Methods. Konstanz: European Survey Research Association 2020; 14: 109-1145.
13) Alhowaymel F, Abaoud A, Alhuwaimel A, Alenezi A, Alsayed N. COVID-19 Patients' satisfaction levels with nursing care: A cross-sectional study. SAGE Open Nurs 2022; 8: 23779608221078164.
14) Ahmad MS, Hicks SR, Watson R, Ahmed RA, Jones L, Vaselli M, Wu MS, Hayat F, Ratcliffe L, McKenna M, Hine P, Defres S, Wingfield T. A patient satisfaction survey and educational package to improve the care of people hospitalised with COVID-19: a quality improvement project, Liverpool, UK. Wellcome Open Res 2021; 6: 222.
15) Parizad N, Goli R, Mirzaee R, Baghaie R, Habibzadeh H. Satisfaction with nursing care and its related factors in patients with COVID-19: A descriptive correlational study. J Educ Health Promot 2021; 10: 437
16) Wu MS, Watson R, Hayat F, Ratcliffe L, Beadsworth MB, McKenna M, Corney D, Plum C, Macfarlane JL, Matareed M, Butt S, Gupta S, Hine P, Defres S, Wingfield T. What do people hospitalised with COVID-19 think about their care? Results of a satisfaction survey during the first wave of COVID-19 in Liverpool. Future Healthc J 2021; 8: e70-e75.
17) Brennan PF. Patient satisfaction and normative decision theory. J Am Med Inform Assoc 1995; 2: 250-259.
18) Al-Abri R, Al-Balushi A. Patient satisfaction survey as a tool towards quality improvement. Oman Med J 2014; 29: 3-7.
19) Grissom MO, Farra M, Cruzen ES, Barlow E, Gupta S. What can COVID-19 teach us about patient satisfaction in the emergency department? A mixed-methods approach. J Am Coll Emerg Physicians Open 2021; 2: e12436.
20) Deriba BS, Geleta TA, Beyane RS, Mohammed A, Tesema M, Jemal K. Patient satisfaction and associated factors during COVID-19 pandemic in North Shoa health care facilities. Patient Prefer Adherence 2020; 14: 1923-1934.
21) Kemp KA, Fairie P, Steele BJ, Santana MJ. Adult experiences with hospitalization in Alberta, Canada during the COVID-19 pandemic: A comparative cross-sectional study. J Patient Exp 2022; 9: 23743735221077520.
22) Inpatient experience during the coronavirus (COVID-19) pandemic [Internet]. Care Quality Commission. [cited 2022 Dec 22]. Available from: https://www.cqc.org.uk/publications/themed-work/inpatient-experience-during-coronavirus-covid-19-pandemic.
23) Drapeaux A, Jenson JA, Fustino N. The impact of COVID-19 on patient experience within a Midwest hospital system: A Case Study. J Patient Exp 2021; 8: 23743735211065296.
24) Simpson R, Szigeti Z, Sheppard CL, Minezes J, Hitzig SL, Mayo AL, Robinson L, Lung M, Wasilewski MB. The experiences of patients, family caregivers, healthcare providers, and

health service leaders with compassionate care following hospitalization with COVID-19: a qualitative study. Disabil Rehabil 2022; 1-10.

25) Wong CKM, Yip BHK, Mercer S, Griffiths S, Kung K, Wong MCS, Chor J, Wong SY. Effect of facemasks on empathy and relational continuity: a randomised controlled trial in primary care. BMC Fam Pract 2013; 14: 200.

26) Mercer SW, Reynolds WJ. Empathy and quality of care. Br J Gen Pract 2002; 52 (suppl): S9-12.

27) Roter DL, Stewart M, Putnam SM, Lipkin M, Stiles W, Inui TS. Communication patterns of primary care physicians. JAMA 1997; 277: 350-356.

28) Blome C, Augustin M. Measuring change in quality of life: bias in prospective and retrospective evaluation. Value Health 2015; 18: 110-115.

29) Kjellsson G, Clarke P, Gerdtham UG. Forgetting to remember or remembering to forget: a study of the recall period length in health care survey questions. J Health Econ 2014; 35: 34-46.

30) Farley H, Enguidanos ER, Coletti CM, Honigman L, Mazzeo A, Pinson TB, Reed K, Wiler JL. Patient satisfaction surveys and quality of care: an information paper. Ann Emerg Med 2014; 64: 351-357.