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Major Article

Impact of an inclusive COVID-19 visitation policy on patient satisfaction and visitor safety

Chau Nguyen MS, CIC, FAPIC^{a,*}, Russell Lampen DO^b, Austen Grooms^b, James Polega MD^b, Joshua Donkin MD^b, Mudita Bhugra MD^b^a Spectrum Health System, Department of Infection Control and Prevention, Grand Rapids, MI^b Spectrum Health System, Department of Infectious Diseases, Grand Rapids, MI

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A B S T R A C T

Background: The COVID-19 pandemic presented unique and unprecedented challenges due to limited knowledge regarding the virus's transmissibility. With guidance from the Center for Disease Control (CDC), healthcare systems instituted widespread visitor restrictions. Hospitalization is a stressful time for patients. Visitor support can help minimize this during and after discharge.

Methods: A telephone interview was conducted among hospitalized COVID-19 positive patients discharged between March 1st and August 31st, 2021 to explore the patients and visitors' experiences and the impact of the visitor policy during their hospitalization.

Results: A total of 238 patients were interviewed. For patients with visitors, 98% felt that the presence of visitors improved their overall wellbeing and satisfaction. Additionally, 86% reported that visitors were involved in helping with their care upon discharge. For patients with no visitors, 59% felt that having a visitor would have improved their hospital stay. Nearly 50% reported that the absence of visitors made it difficult for family members to remain updated and informed of their hospital care.

Conclusion: This study demonstrates that visitation for COVID-19 patients can be done safely and that there is a positive impact on patient wellbeing with increased visitor access. As we move towards COVID-19 endemicity, implementing evidence-based visitation policies that maximize patient wellbeing will be essential.

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INTRODUCTION

Hospitalization can be a stressful and emotionally taxing event for patients. Support provided to patients by visitors is recognized as an integral component in addressing the complex needs of hospitalized patients. Patient and family centered care has been associated with improved outcomes and satisfaction for both patients and their families.¹ Liberal visitation policies have resulted in decreases in rates of delirium and even shorter intensive care unit (ICU) stays in critically ill patients.^{2–4} A key aspect of patient and family centered care is the

ability of the patient to have visitors be present during their hospitalization to actively participate in their care.^{5,6}

While visitation restrictions have been employed by healthcare systems in the past during outbreaks of viral respiratory illnesses as a measure to minimize the spread of infectious agents to protect patients, visitors and staff, the COVID-19 pandemic presented an unprecedented challenge to healthcare organizations. COVID-19 has proven to be particularly challenging especially early in the pandemic due to a lack of information related to disease transmission, the limitation of available resources to treat hospitalized patients, and duration of the pandemic which has far exceeded any seasonal respiratory illness timeframe. Healthcare systems across the country, in response to the Centers for Disease Control (CDC) guidance, instituted policies restricting visitor access to most COVID-19 patients and in many cases eliminated visitation entirely. These policies were inconsistent between various healthcare agencies and were continually changing during the pandemic resulting in confusion on the part of

* Address correspondence to Chau Nguyen, MS, CIC, FAPIC, Department of Infection Control and Prevention, Spectrum Health System, 100 Michigan St NE, MC 175, Grand Rapids, MI 49503.

E-mail address: chau.nguyen@spectrumhealth.org (C. Nguyen).

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patients and their families. Several small studies have looked at the impact of these restrictive visitation policies across differing patient populations with results ranging from minimal impact in adult oncology patients to feelings of higher stress in women experiencing labor and childbirth and even worsened clinical outcomes as evidenced by poor nutritional intake in individuals residing in long term care facilities.⁷ These studies have had small sample sizes and narrowly defined patient populations.^{8–11}

As the pandemic unfolded, it has become increasingly apparent that in-hospital transmission rates of COVID-19 are lower than initially feared. Data collected in England during the first half of 2020 suggests that approximately 1% of total infections in the population are hospital associated. Our organization initially adopted a policy consistent with the CDC guidance of only allowing visitors during a patient's hospitalization for: end of life decisions, labor and delivering persons, and visitors essential for helping to provide patient care and/or caring for pediatric patients.¹² After more than a year of allowing visitors to selective COVID-19 patients without any apparent transmission events and recognizing the importance of visitors in patient wellbeing, the health system transitioned to a more inclusive visitor policy in August of 2021. This approach balanced the potential risk of COVID-19 exposures for patients, staff, and visitors against the potential benefit to patients. Following the changes in visitation policy, COVID-19 patients were allowed a single visitor per day. The visitor was instructed on proper donning and doffing of PPE and was provided with PPE during the visit.

We present the results from a telephone survey of discharged COVID-19 patients and their visitors, aiming to help capture their reported experiences toward visitor restrictions, establish the role that visitors played in the patients' healthcare during and post hospitalization, and compare the differences in patient satisfaction and readmissions among those reported having visitors to those without.

METHODS

This project was deemed as a Quality Improvement project and was exempt from the health system's Institution Review Board (IRB). Spectrum Health is a not-for-profit system serving patients across the state of Michigan. The Spectrum Health West Michigan division is comprised of seven acute care hospitals combined to have over 1300 beds. A line listing of hospitalized COVID-19 positive patients discharged from Spectrum Health West Michigan between March 1st, 2021 and August 31st, 2021, this duration of time included both the initial restrictive and the more inclusive visitation policies. Patient demographic and hospitalization elements were obtained, password protected and made accessible only to study investigators. Patient exclusions were individuals under 18 years of age and patients with discharged dispositions not equal to home or self-care.

A telephone interview was used to explore our hospitalized patients and their visitors' experiences and the impact of the visitor policy at the time of the patient's hospitalization. A prepared standardized questionnaire with closed-ended questions was developed for data collection. Telephone calls were made to discharged patients from the line list. Consent for information was obtained from patients verbally prior to proceeding with the interviews. Individuals with verbal consent for participation were asked if they had a visitor during their hospitalization. This was then followed by questions related to the patient's experience with the presence or absence of visitors, the impact and involvement of such, their overall hospitalization satisfaction and readmission for COVID-19 treatment. For patients who reported having visitors, we also asked if their visitor contracted COVID-19 during their visit in the hospital. Additionally, we seek for permission from the patient to contact their visitor(s) and made calls to those whose info was provided. For visitors with successful interviews, questions related to their relationship with the patient, the

number of visits, the availability of personal protective equipment (PPE), team member's assistance in PPE use and COVID-19 status post visit was obtained. Data analyses were performed using IBM SPSS Statistics Data and Microsoft Excel for descriptive statistics and for comparing the responses of patients with visitors and those without respectively. Patient satisfaction was rated on a scale of 1–5 and the duration of hospitalization in comparison to patient's satisfaction score was assessed.

RESULTS

Between March 1st, 2021 and August 31st, 2021, a total of 2,456 COVID-19 patients were discharged from the health system. Excluding patients less than 18 years of age and those who were not discharged to home or self-care, 2,004 patients remained for study inclusion of which 1069 patients were telephoned, and 238 patients were successfully interviewed. Among those interviewed, 61 (26%) reported having a visitor during their course of hospitalization (see Fig 1). After their initial hospitalization, 95% of patients interviewed were not readmitted for additional COVID-19 treatment. For patients who reported having visitors, 8% were readmitted for additional COVID-19 treatment compared to 7% for patients without. The average age of study participants was 59 years (range: 21–91). Patients with visitors were on average 3 years younger than those without visitors (56 vs 59). Among interviewed patients, 83% were white or Caucasian (83%).

Interviewed patients with visitors

Among interviewed patients who reported having visitors during their course of hospitalization, 1–2 visits were the most common (49%). A quarter of patients had visitors with seven or more visits. A higher percentage of females reported having visitors than males (59% vs 41%). When asked if having a visitor improved their overall wellbeing and satisfaction during their hospital stay, 98% said yes. Additionally, 87% of the patients' visitors were involved in helping with their care upon discharge as reported in Table 1. Ninety-seven percent of patients reported that their visitors did not contract COVID-19 during their visit in the hospital with the patient.

Interviewed patients without visitors

Among interviewed patients who reported not having visitors during their course of hospitalization, 40% stated that not having a visitor during their hospital stay decreased their overall wellbeing and satisfaction and 59% felt that having a visitor would have improved their hospital stay. Close to 50% of patients felt that the absence of visitors made it harder for their family members or caregivers to remain updated and informed of their hospital care (see Table 2).

Patient satisfaction

The presence of visitors during one's course of hospitalization is advantageous for the patient. Those with visitors reported an average hospital stay satisfaction score of 4.6 (very satisfied) compared to 4.3 (satisfied) for those with no visitors. Moreover, 72% of patients with visitors reported being very satisfied with their hospital stay in comparison to 59% for patients with no visitors (see Table 3). Despite their absence of visitors, 83% of patients were satisfied/very satisfied with their hospital stay.

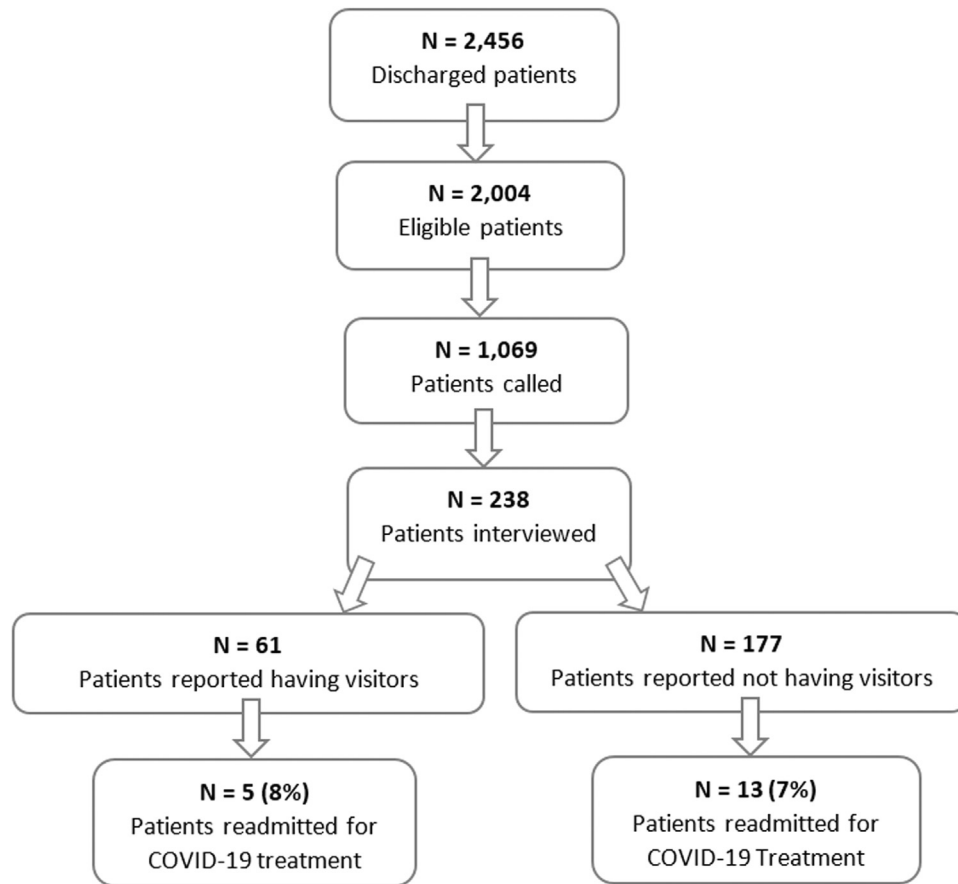


Fig 1. Study population.

Length of stay and hospitalization satisfaction

The average length of stay (LOS) was 4.6 days (range: 1-28.7 days; see Fig 2). Patients with visitors had an average of 1 day longer in duration of hospitalization compared to patients without visitors (5.4 vs 4.4 days; see Fig 3). In assessing the length of hospitalization and patient’s reported average satisfaction during their hospital stay, the overall average satisfaction score reported was 4.4 (satisfied). For patients with length of hospitalizations between 4 and 9 days, they reported being very satisfied with their hospital stay. However, this score dropped to 4 (satisfied) for patients with 10 days of hospitalization or greater (see Fig 4). Patients with visitors reported on average being very satisfied with their hospital care whereas this average score is slightly lower for patients without visitors. The largest differences in satisfaction scores are observed among those with 10 days of hospitalization or greater.

Table 1
Questions and answers for patients with visitors (N = 61) during their course of hospitalization

Question	Yes (n, %)	No (n, %)	No difference (n, %)
Did you feel that having a visitor improved your overall wellbeing and satisfaction during your hospital stay?	60 (98%)	0 (0%)	1 (2%)
Was your visitor involved in helping with your care once you left the hospital?	53 (87%)	8 (16%)	
Did your visitor contract COVID-19 during their visit in the hospital?	2 (3%)	59 (97%)	

Visitor interviews

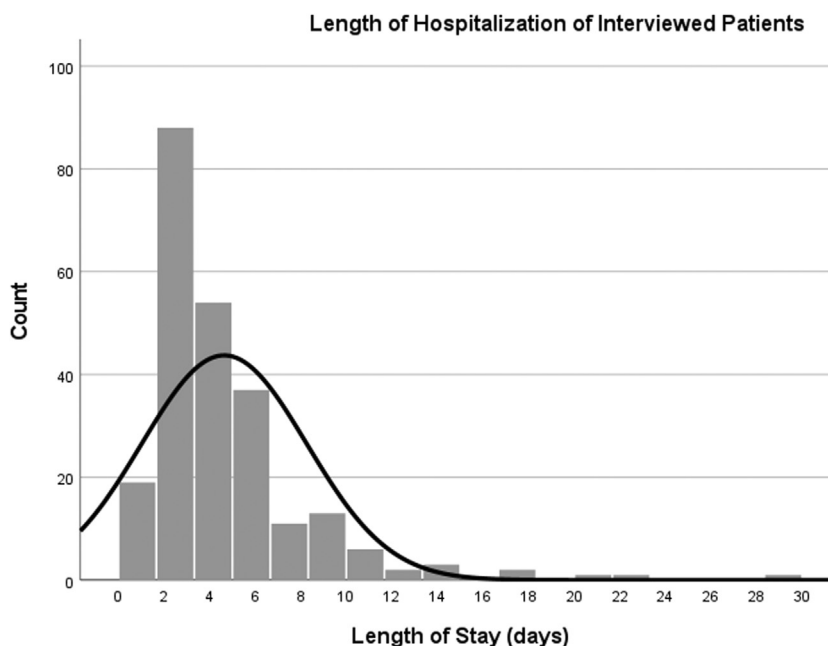
Thirteen visitors were successfully contacted and interviewed with majority (62%) reported as being spouses or significant others of the patient. Their number of visits ranged between 1 and 2 (46%) to greater than 7 (31%). Not only did these individuals play the role of visitors, 85% were involved in the care of the patient after their discharge. Despite their visits to COVID-19 hospitalized patients, all visitors (100%) reported that they did not develop any symptoms of COVID-19 in the 2 weeks post visits. Regarding questions related to PPE, 69% reported that PPE were readily available during their visits, however, only 38% reported receiving instructions for PPE use. When asked about the availability of team members and the assistance they provided with PPE usage during their visit, 77% reported team members were available for questions when needed, but only 30% reported team members aided with PPE usage.

Table 2
Questions and answers for patients with no visitors (N = 177) during their course of hospitalization

Question	Yes (n, %)	No (n, %)	No difference (n, %)
Did you feel that not having a visitor decreased your overall wellbeing and satisfaction during your hospital stay?	70 (40%)	94 (53%)	13 (7%)
Would your hospital stay have been improved if visitors were allowed?	104 (59%)	58 (33%)	
Do you feel that not having visitors made it harder for your family members/caregivers to remain informed regarding your hospital care?	83 (50%)	88 (47%)	

Table 3
Patient satisfaction

Question	1 = Very Unsatisfied (n, %)	2 = Unsatisfied (n, %)	3 = Neutral (n, %)	4 = Satisfied (n, %)	5 = Very Satisfied (n, %)
Overall, how satisfied were you with your hospital stay on a scale of 1-5?	8 (3%)	7 (3%)	20 (8%)	54 (23%)	149 (63%)
Patients reported having visitors (N = 61)	0 (0%)	1 (2%)	4 (7%)	12 (20%)	44 (72%)
Patient reported having no visitors (N = 177)	8 (5%)	6 (3%)	16 (9%)	42 (24%)	105 (59%)

**Fig 2.** Length of hospitalization of COVID-19 discharged patients who were interviewed.

DISCUSSION

Visitor restrictions seek to balance the risks and benefits of select patient experiences where visitors are suspected to have the greatest impact on a patient's care. Initially during the early phases of the COVID-19 such restrictions were reasonable due to limited understanding of disease transmission, inadequate PPE supplies, lack of effective treatment and no available vaccines. Guidance for health-care facilities from the CDC has evolved since the early phases of the pandemic, but they remain restrictive.¹³ Overly restrictive visitor policies can contribute to feelings of isolation among patients, anxiety of family members, and moral distress among health care workers.¹⁴

This study demonstrates that not only can visitation for COVID-19 patients be done safely throughout the hospital, but that there is a positive impact on patient wellbeing with increased visitor access. Of those who were able to have visitors during their hospitalization, 98% felt they improved their wellbeing. Even more impactful is that 87% of visitors were involved in the patient's care after discharge. While visitors played a role in post-discharge care, there was not a difference in length of stay or readmission rates between the two groups. Despite best efforts to update families by healthcare workers and to assist in phone and video visits during times of visitor restrictions, there was a clear benefit in patient satisfaction between those who were allowed visitors and those who could not have in person visitation (72% vs 59% very satisfied). The physical presence of a valued visitor is difficult to emulate with virtual visits. Understandably, the gap in patient satisfaction grew wider as the hospital length of stay increased (see Fig 4).

Although the study found that visitors had a positive impact on patient wellbeing during their course of hospitalization, however, the

positive impact of permissive visitation policies may not universally apply to hospital staff. While the negative impact of patient isolation can cause moral distress among healthcare workers, according to a 2011 survey, even though nurses believe that visitors are beneficial to patients, they also report that flexible visitation policies increase their workloads and hinders their ability to practice.¹⁵ Visitors can overcrowd the hospital rooms, which limits staff member's ability to perform procedures. Furthermore, under the watchful gaze of family members, greater accountability is expected from health care providers, which may cause them to feel more burdened and stressed.¹⁵ While these concerns are legitimate, allowing visitors access should be balanced with patient safety and wellbeing as family members play a crucial role throughout the patient's course of hospitalization.

While not a measured outcome, anecdotally during phone interviews, patients expressed reluctance to seek care during times of more strict visitor policies as when compared to a more inclusive visitor policy. Raphael et al.¹⁶ in their analysis of unintended consequences of visitation restrictions for pediatric hospitalized patients also express concern that parents will elect to delay care due to COVID visitor restrictions. Reports related to delay or avoidance of care found that 41% of Americans delayed seeking healthcare during the first year of the COVID pandemic.¹⁷ These delays in seeking care potentially influenced by the impact of restrictive visitor policies could result in poor patient outcomes.

The other goal of this quality improvement project was to assure that allowing visitors to see COVID-19 patients could be done safely. None of the visitors interviewed reported contracting COVID-19 in the two weeks post their hospital visits. Only two patients (3% of those with visitors) were reported to have had visitors who developed COVID-19. Since patients were able to have more than one

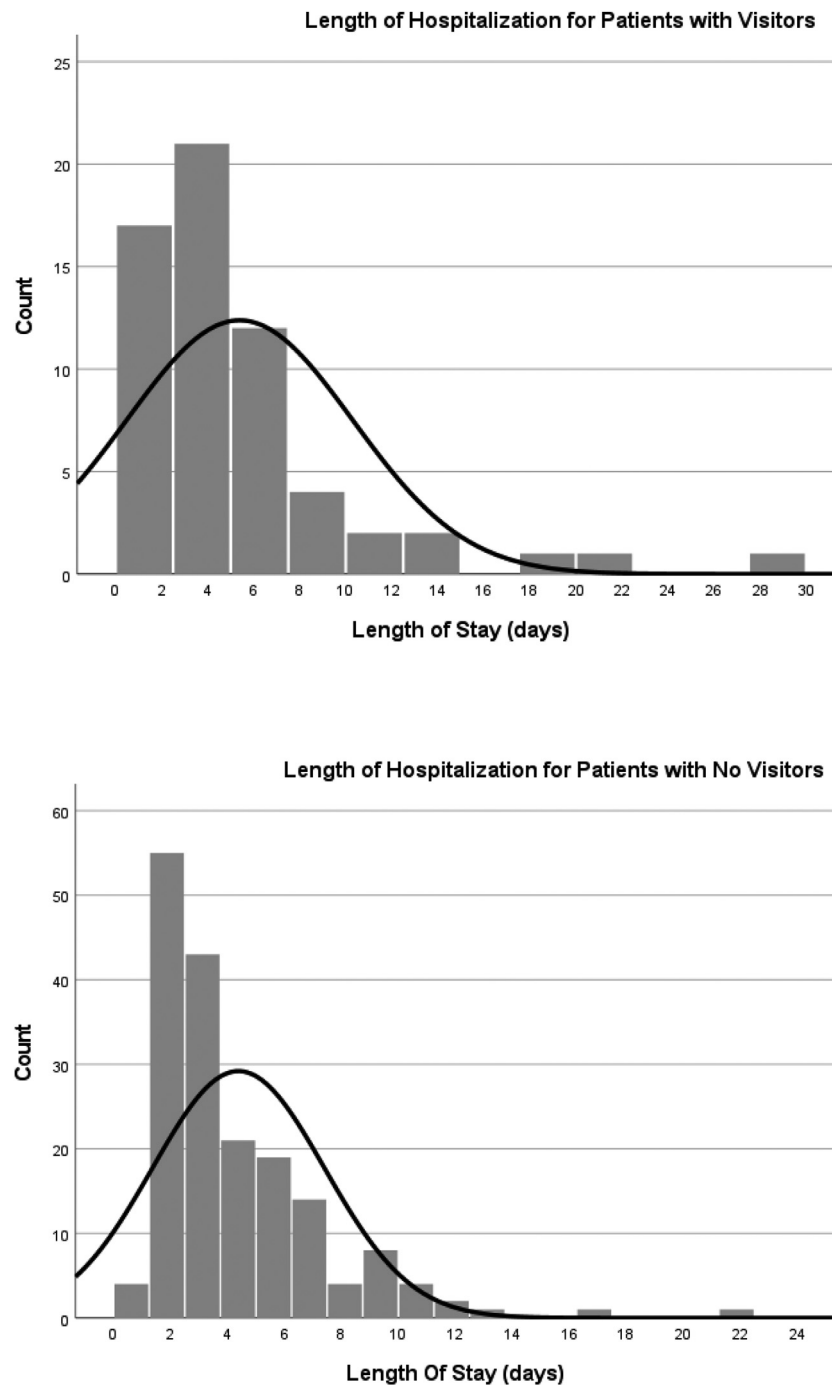


Fig 3. Length of hospitalization of COVID-19 discharged patients who were interviewed and reported having visitors or no visitors.

unique visitor during their hospitalization, the overall percentage of visitors who developed COVID-19 may be lower than 3%. These self-reported cases of visitor associated COVID are certainly limited by patient recall but recognizing that these visitors often had close contact with the admitted COVID-19 patient prior to admission, the rates of transmission to visitors are substantially lower than published reports on rates of household transmission.^{18,19} Visitor acquisition of COVID-19 outside of the healthcare setting is certainly possible due to the lack of masking and removal of capacity limits on businesses in the community. Based upon household transmission studies, patients with COVID-19 are the most contagious during pre-symptomatic and early phases of their illness with up to 75% of household transmission occurring by day 5.¹⁸ Studies have shown that the median delay in

seeking care for individuals aged 20-80 years is nearly 4 days.²⁰ By the time most patients have sought care at a hospital, it is likely their viral load is already declining. The CDC on Aug 1, 2022, updated isolation guidance for individuals in the community and allowed for ending isolation on day 5 of illness if the individual will wear a mask and has improvement in their symptoms.²¹ These changes recognized the ongoing understanding of when individuals infected with SARS-CoV2 are the most contagious. This evolving understanding of COVID, has not been reflected in the CDC guidance surrounding in hospital visitation as currently the CDC continues to recommend limiting visitors for COVID-19 positive inpatients.

Weaknesses of this study include the potential for retrospective recall bias on the part of patients and visitors. Not surprisingly, the

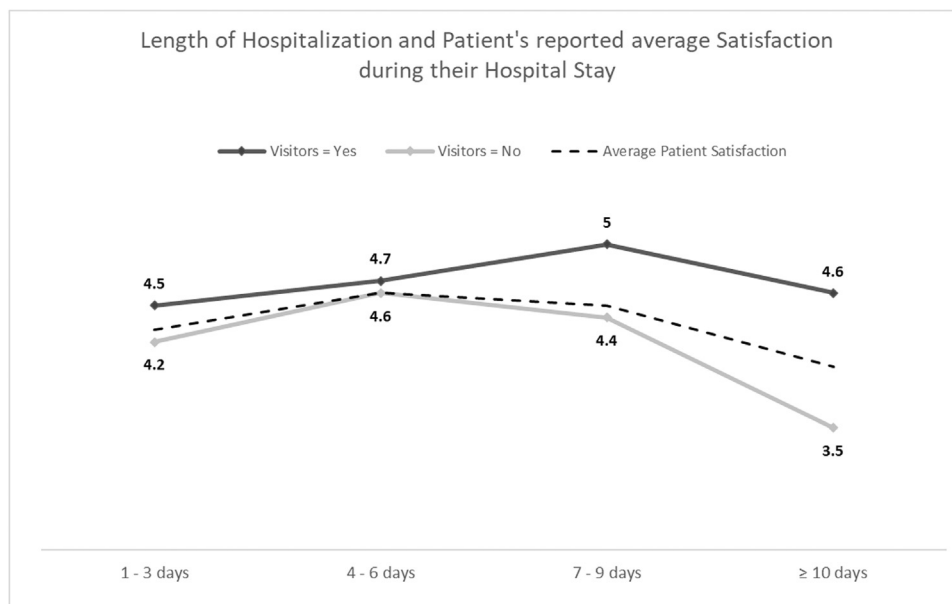


Fig 4. Length of hospitalization and patient's reported average satisfaction during their hospital stay.

vast majority (98%) of patients who were able to have visitors felt the impact improved their wellbeing and satisfaction, however, only 40% of those without visitors felt the lack of visitation had a negative impact. Patients who recover successfully and return home without complications, may retrospectively minimize the impact that visitors may have had during their hospitalization. Despite the potential inflation or minimization of the impact of visitors on patient wellbeing, there was a difference in patient satisfaction scores for their hospitalization which is likely attributed to the presence of visitors. Despite a large patient population eligible to participate in this survey, a limited sample responded to requests for interview. Interviews were primarily conducted directly with patients; we were able to interview only a small number of in-person visitors to patients in our study. Additionally, limiting interviews to only patients who were discharged to home failed to capture the benefits of family visitation for those who required ongoing assistance after their illness at a nursing facility as well as those who may have passed away due to COVID-19.

CONCLUSION

Without proven benefits of decreasing COVID-19 transmission, visitor restrictions have the unintended consequence of negatively impacting our patients, creating anxiety and hopelessness among families. This study not only furthers the growing body of literature showing the negative impact on visitor restrictions during the COVID-19 pandemic, it also demonstrates that permissive visitation for COVID-19 patients can be done safely without significant risk to visitors. While restrictive visitation policies may have been valuable during the early phases of this pandemic, as we move towards COVID-19 endemicity, implementing evidence-based visitation policies that maximize patient wellbeing will be essential.

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None.

IRB APPROVAL

This project was deemed as a Quality Improvement project and was exempt from the health system's Institution Review Board (IRB).

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