

# A Review of Brooke Army Medical Center Chaplaincy Service During the SARS-COV2 Pandemic: Implications for Service Structure and Patient Needs

CPT Zaith Bauer, MC, USA\*; CPT Joseph Sherwin, CC, USA†; COL Stanley Smith, CC, USA‡; LTC Jason Radowsky, MC, USA‡

## ABSTRACT

### Introduction:

We aimed to evaluate the effect of the SARS-COV2 pandemic on chaplain utilization at Brooke Army Medical Center. Our hypothesis was that multiple pandemic-related factors led to a care environment with increased mental and spiritual stress for patients and their families, leading to an increased need for adjunct services such as chaplaincy.

### Materials and Methods:

This was a single-institution retrospective chart review study that evaluated the records of 10,698 patients admitted between July 1, 2019, and January 31, 2020, or between July 1, 2020, and January 31, 2021. Our primary study outcomes included the number of chaplain consultations, the number of visits per consultation, and the time of visits between the two study cohorts. Secondary outcomes included inpatient mortality and the number of end-of-life visits. We also isolated a subgroup of patients admitted with COVID-19 and compared their outcomes with the two larger cohorts. Statistical analysis included *t*-test or chi-squared test, based on the variable. This study was reviewed and approved by the Brooke Army Medical Center Institutional Review Board (IRB ID C.2021.010e).

### Results:

Fewer consults were performed during the study period affected by the SARS-COV2 pandemic (4814 vs. 5884, *P*-value <.01). There were fewer individual visits per consult during the study period affected by the SARS-COV2 pandemic (1.44 vs. 1.64, *P*-value <.01), which led to fewer overall time spent per consult (37.41 vs. 41.19 minutes, *P*-value <.01). The 2020 cohort (without COVID-19 cases) demonstrated a higher mortality rate than the 2019 cohort (2.8% vs. 1.9%, *P*-value <.01). The COVID-19 diagnosis cohort demonstrated a much higher mortality rate compared to other patients in the 2020 cohort (19.3% vs. 2.8%, *P*-value <.01). We demonstrated the relative need for EOL consults by presenting the ratio of EOL consults to inpatient deaths. This ratio was highest for the COVID-19 diagnosis cohort (0.76) compared to the 2020 cohort (0.50) and the 2019 cohort (0.60).

### Conclusions:

This study demonstrates that factors related to the SARS-COV2 pandemic resulted in fewer chaplaincy consults in our inpatient setting. We did not find other reports of a change in the rate of chaplaincy consultation, but available reports suggest that many centers have had difficulty balancing the spiritual needs of patients with local exposure guidelines. Although fewer individual chaplain consults occurred during the SARS-COV2 pandemic, our chaplain service innovated by utilizing various phone, video, and web-based platforms to deliver spiritual support to our community. Our study also suggests that the patients most greatly affected by the pandemic have an increased need for spiritual support, especially at the end of life. Future studies in this subject should examine the effect of various types of chaplain services as they relate to the health and well-being of hospitalized patients.

## INTRODUCTION

The role of a chaplain in a military hospital is blended from experience in wartime and peacetime operations. The historical role of chaplaincy in the military was described by Seddon et al.<sup>1</sup> as both formal and informal counselors, who, at times,

are the only suitable providers available to assess and treat the mental and spiritual needs of soldiers.

In the hospital environment, chaplains operate as part of the health care team and often interact with not only the patient but also the family members. Recent documentation studies demonstrate that the majority of chaplain interactions included listening, spiritual support, and prayer, as well as consulting in specific situations such as end-of-life care.<sup>2</sup> The impact of hospital chaplains is difficult to objectively establish; however, data suggest that patients who receive chaplain care have higher levels of satisfaction and meet spiritual needs. In certain populations, chaplain care may reduce the experience of depressive symptoms and anxiety.<sup>3</sup>

In both the deployed and hospital settings, it has been suggested that the mere “presence” of chaplaincy may offer benefits. In 1947, W. Edgar Gregory<sup>4</sup> proposed that during

\*Department of Pulmonary and Critical Care Medicine, Brooke Army Medical Center, Fort Sam Houston, TX, USA

†Department of Ministry and Pastoral Care, Brooke Army Medical Center, Fort Sam Houston, TX, USA

‡Department of Trauma Surgery, Brooke Army Medical Center, Fort Sam Houston, TX, USA

Data included in this manuscript was presented during BAMC Research day as an oral presentation on April 29, 2021.

doi:<https://doi.org/10.1093/milmed/usab353>

Published by Oxford University Press on behalf of the Association of Military Surgeons of the United States 2021. This work is written by (a) US Government employee(s) and is in the public domain in the US.

TABLE I. Baseline Characteristics

	2019 cohort	2020 cohort	<i>P</i> -value	COVID-19 diagnosis cohort	<i>P</i> -value
Age (mean ± SD)	58 ± 21.37	59 ± 21.06	.01	65 ± 17.29	<.001
Male gender (percentage)	57.9%	58.8%	.35	62.6%	.26
Medical admission (percentage)	56%	54%	.62	100%	<.001

Baseline characteristics of the two primary cohorts and the secondary cohort. The 4th column displays *P*-value when comparing 2019 cohort vs. 2020 cohort. The 6th column displays *P*-value when comparing COVID-19 diagnosis cohort as a sample of 2020 cohort.

World War II, chaplains provided an unconscious benefit to mental health and many soldiers felt protected by the presence of a man of God. Kevin Adams<sup>4</sup> describes presence contemporarily as “a process through which the chaplain creates an atmosphere of ease and trust so that the recipient of the chaplain’s care can share their own story in an environment that is nonjudgmental and compassionate.” It is noted that all health care providers can seek to provide a presence in this manner; however, chaplains may be uniquely suited to do so.

Hospitals significantly modified visitation policies during the spread of SARS-COV2 in the United States. During the height of visitation restrictions at our institution, no visitors were allowed at any time, with few exceptions, such as obstetric or pediatric admissions. Multiple experts have commented on the negative effects of social and physical isolation with regards to the mental and spiritual health of patients.<sup>5-7</sup> The availability of chaplaincy to care for isolated patients has been challenged by mandates concerning health care worker exposure. An international chaplain survey conducted by Snowden<sup>8</sup> demonstrated that, early in the pandemic, less than 20% of respondents were allowed in the rooms of patients.

Between June and September 2020, The BAMC chaplain service adopted an alternating telework/in-person schedule supporting a hospital mission to keep team members healthy and reduce the overall in-hospital footprint. The service mandated that two separate chaplain teams would rotate every 3 days to either in-hospital or telework posture, with teleworkers calling staff and patient families to perform a consultation. At the end of September 2020, the service returned to full in-hospital posture.

The purpose of this retrospective single-center study is to evaluate the effect of the SARS-COV2 pandemic on the use of chaplaincy services. The curtailments to family visitation allowances created a scenario in which normal avenues for anxiety relief and stress relief for patients were reduced. Given our observation of increased mental and spiritual distress in patients hospitalized during the COVID-19 pandemic, which has been supported in other reports,<sup>5-7</sup> we hypothesized that the rate of chaplaincy consultation would be increased during the study period affected by the pandemic (July 2020–January 2021). Data obtained may help inform leadership concerning chaplain staffing models in planning for the next pandemic.

## METHODS

This was a single-institution retrospective chart review study, including patients from Brooke Army Medical Center. We designed the review to include patients, age 18 years and older, who were admitted during the study period and received a chaplaincy consult during their stay. Patients were discovered from the electronic medical record via the query of a standardized chaplain assessment note. The studied time periods were June 1, 2019, through January 31, 2020, and June 1, 2020, through January 31, 2021, in order to compare the effect of SARS-COV2 restrictions against a similar cohort of patients prior to the emergence of the pandemic. Discovered patients were placed into two primary cohorts based on their date of admission. After sampling, individual patient data were populated into a database for statistical analysis. Patients admitted to the pediatric or obstetric services were excluded as their visitation policies were not altered to as great an extent. This study was reviewed and approved by the Brooke Army Medical Center Institutional Review Board (IRB ID C.2021.010e).

The primary outcome was the difference in monthly chaplain consultations between the two primary cohorts. Secondary outcomes examined the number of visits, time per visit, inpatient deaths, and end-of-life visits between the two primary cohorts and a sub-cohort of patients admitted with the diagnosis of COVID-19. Data analysis included unpaired or sample *t*-test for continuous variables and chi-square test for categorical variables.

## RESULTS

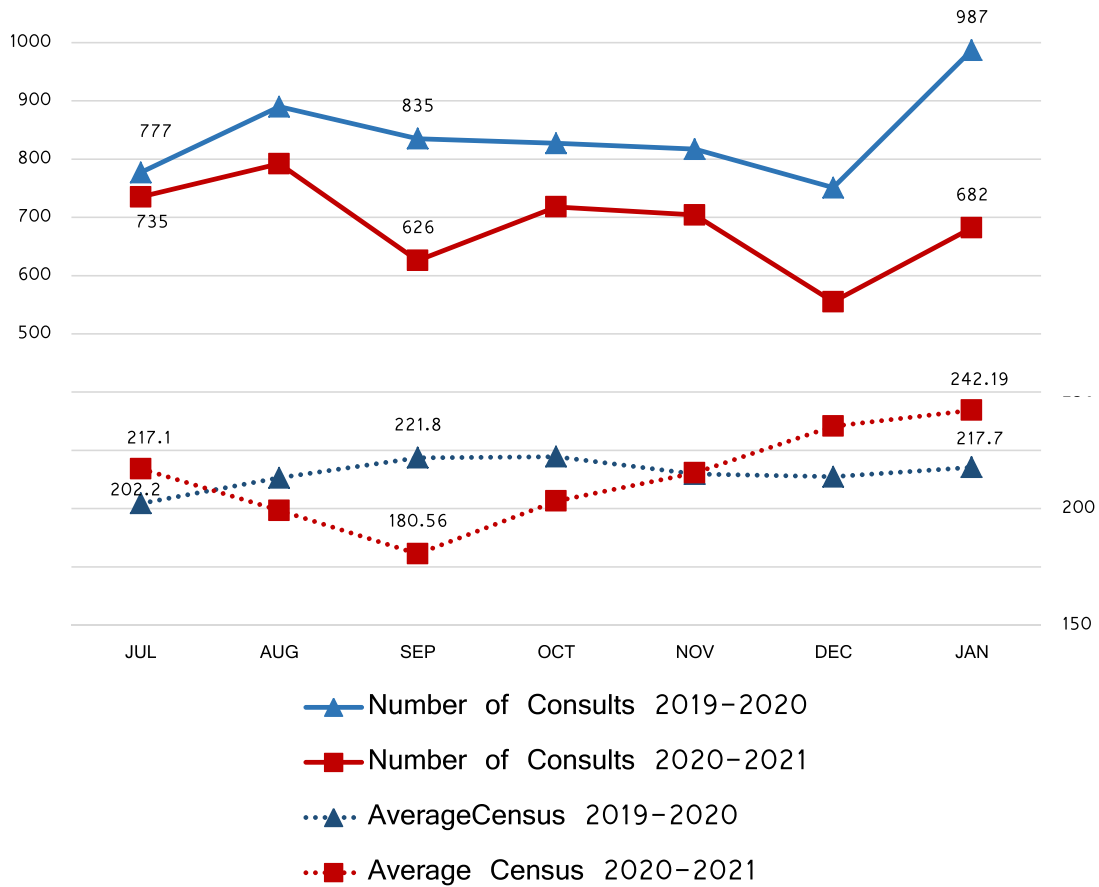
Table I describes the baseline characteristics of the 2019 cohort, 2020 cohort, and COVID-19 diagnosis cohort. The 2019 and 2020 cohorts display similar baseline characteristics, the mean age being statistically different but only an absolute difference of 1 year. The COVID-19 diagnosis cohort demonstrated significant differences in age and admission type, being older and entirely medical-type admission.

As seen in Table II, fewer consults were performed during the study period affected by the SARS-COV2 pandemic (4814 vs. 5884, *P*-value <0.01). Figure 1 expands this result by displaying the trend of consults over time. There were fewer consults during the 2020 Cohort during each month, and this difference increased over time. For example, the difference during July was 42 (777 vs. 735), the difference

**TABLE II.** Primary Outcomes Between 2019 and 2020 Cohort

	2019 cohort	2020 cohort	<i>P</i> -value	COVID-19 diagnosis cohort	<i>P</i> -value
Number of consultations	5884	4814	.003*	150	n/a
Number of visits per consult (mean ± SD)	1.64 ± 1.89	1.44 ± 1.18	<.0001	2.1 ± 3.24	.014
Time per visit in minutes (mean ± SD)	24.40 ± 11.31	25.32 ± 12.17	<.0001	25.38 ± 12.00	.977
Total time per consult (mean ± SD)	41.19 ± 58.74	37.41 ± 37.98	<.0001	53.63 ± 82.86	.018

\**P*-value based on results tabulated by monthly consultations. *P*-value remained significant after correcting for average patient census. Primary outcomes between two primary cohorts, and sample primary outcome from COVID-19 diagnosis cohort. The 4th column displays *P*-value when comparing 2019 cohort vs. 2020 cohort. The 6th column displays *P*-value when comparing COVID-19 diagnosis cohort as a sample of 2020 cohort.



**FIGURE 1.** Trend of chaplain consultations vs. average inpatient census.

during September was 209 (835 vs. 626), and the difference during January was 305 (987 vs. 682). We show that this difference did not correlate with the average inpatient census by displaying this variable alongside the primary results. The average inpatient census in the 2020 cohort initially decreased between July and September and then increased, ultimately surpassing the 2019 cohort values in December and January.

There were fewer individual visits per consult during the study period affected by the SARS-COV2 pandemic (1.44 vs. 1.64, *P*-value <.01), which led to fewer overall time spent per consult (37.41 vs. 41.19 minutes, *P*-value <.01). Although these results were statistically significant because of the high

sample size, the absolute difference between time spent per consult was only 3.78 minutes (95% CI 1.82-5.73).

Table III displays results pertaining to inpatient death and End of Life (EOL) consults. The 2020 cohort (without COVID-19 cases) demonstrated a higher mortality rate than the 2019 cohort (2.8% vs. 1.9%, *P*-value <.01). The COVID-19 diagnosis cohort demonstrated a much higher mortality rate compared to other patients in the 2020 cohort (19.3% vs. 2.8%, *P*-value <.01). We demonstrated the relative need for EOL consults by presenting the ratio of EOL consults to inpatient deaths. This ratio was highest for COVID-19 diagnosis cohort (0.76) compared to 2020 cohort (0.50) and 2019 cohort (0.60).

**TABLE III.** Results Pertaining to Inpatient Mortality and End of Life (EOL) Consults

	2019 cohort	2020 cohort (non-COVID-19)	<i>P</i> -value	COVID-19 diagnosis cohort	<i>P</i> -value
Number of consultations	5885	4664	n/a	150	n/a
Number of inpatient deaths recorded (% of total)	113 (1.9%)	132 (2.8%)	.004	29 (19.3%)	<.0001
Number of EOL visits recorded	56	79	<.0001**	22	<.0001**
Ratio of EOL visits to inpatient deaths	0.60	0.50	n/a	0.76	n/a

\*\**P*-value calculated by stratifying total visits against EOL visits.

Results pertaining to inpatient mortality and end of life between primary cohorts and COVID-19 diagnosis cohort. The 4th column displays *P*-value when comparing 2019 cohort vs. 2020 cohort (without COVID-19 cases). The 6th column displays *P*-value when comparing COVID-19 diagnosis cohort vs. 2020 cohort (without COVID-19 cases).

## DISCUSSION

Our chaplain service completed fewer consults during the time period that was affected by COVID-related working and visitation restrictions compared to the year prior. Between July and September, this change was concurrent with a decrease in the average inpatient census. The service followed a “half-telework” manning strategy during July 2020 and September 2020 and was able to conduct a similar number of consultations per average inpatient census. Between September 2020 and January 2021, chaplains returned to in-person consultation; however, the lower rate of chaplain consults persisted despite a steady increase in the average inpatient census in the 2020–2021 cohort.

It is possible that the “half-telework” manning strategy decreased the presence and visibility of the chaplain services in the hospital, resulting in fewer consultations from patient care teams in the subsequent months. Additionally, incapacitated patients had fewer visitors to request chaplain consultations on behalf of their loved ones. Although individual consult numbers decreased, we note that the chaplaincy spent time and resources developing content for hospital television networks and broadcasts.

For patients that did undergo chaplain consultation during the time period that was affected by COVID-related working and visitation restrictions, we show that the number of visits and total time spent per consult were both decreased. Decreases in the number of visits and total time spent per consult were small, and we do not believe that they indicate a degradation in the quality of consultation.

Regarding the 2020–2021 cohort, there were more inpatient deaths and a higher ratio of “End of Life” encounters-to-inpatient death. This was partially, but not completely, explained by the presence of patients admitted for the diagnosis of COVID-19.

Chaplain-involved patients admitted for the diagnosis of COVID-19 had a significantly higher rate of inpatient death, more visits and total time spent per consult, and a higher ratio of “End of Life” encounters-to-inpatient death than either primary cohort. This data suggest that patients admitted for COVID-19 had an increased need for spiritual care at the end of life.

## CONCLUSIONS

This study demonstrates that factors related to the SARS-COV2 pandemic resulted in fewer chaplaincy consults in our inpatient setting. We did not find other reports of a change in the rate of chaplaincy consultation, but available reports suggest that many centers have had difficulty balancing the spiritual needs of patients with local exposure guidelines. Our study also corroborates the suggestion that the patients most greatly affected by the pandemic have an increased need for spiritual support, especially at the end of life.

Our study has significant limitations. The single-center design and lack of similar literature to support the importance of our findings limit the strength and generalizability of our conclusions. Multiple years of control data would be useful because this type of data is not normally published, so year-to-year variation is unknown. Because the COVID-19 diagnosis cohort was significantly older than the primary cohorts and differed in admission type, significant differences in chaplain consultation cannot be solely assigned to COVID-19 status.

From a pastoral standpoint, the SARS-COV2 pandemic has presented many opportunities and challenges. We utilized technology to provide direct patient care, as well as to facilitate religious services and Bible study opportunities for our patients and staff. Contacting family members who are not allowed to be at the hospital has been undertaken by our institution and others.<sup>8</sup> We invested in digital materials that could be broadcast throughout the local closed-circuit television network on our specific channels, thereby providing religious content that assisted in meeting the various needs of our staff and patients. We also leveraged our technology to record and broadcast messages of encouragement and hope that would confront the hearer at strategic locations throughout the treatment facility.

The pandemic mandated the cessation of family member’s presence and direct involvement. With the advent of the mantra to social distance came the unintended consequence of disconnection from needed resources and assets that aid in the healing and recovery process. As chaplains, this further solidified the need for our ministry of presence with our patients and staff. Although physical distancing was warranted to

halt the spread of the dangerous contagion, social distancing was to be avoided. The chaplain's presence both in the room physically and, at times, through telecommunications and other formats provided much-needed levels of interaction, relationship, and community. In a manner, the chaplains acted as a surrogate family and support structure for the patient.

Chaplain staff were intentional in providing events that encouraged and edified the staff without taking away from their daily duties, thus avoiding adding more onto their plate. These events were opportunities for the staff to slow down, to receive physical, mental, emotional, and spiritual refreshment, and to encounter messages and acts of compassion and encouragement, as well as a much needed (although brief) restorative respite in the midst of their busy day. This also provided a much-needed opportunity to recognize and celebrate excellence in performance and attitude among the staff as a means of encouragement.

In our experience, patients with COVID-19 tend to display an increased level of mental and spiritual distress, especially when critically ill. We observed maladaptive coping strategies such as anger, denial, and hopelessness among this patient subgroup. COVID-19 can cause fatal disease in previously healthy individuals, and because of visitor restrictions, we commonly observed that families were not allowed to follow a usual grieving process. At the same time, care teams had an increased census of critically ill patients and had to navigate new methods of conducting family meetings through phone or video conferencing. The chaplaincy was called upon to support patients, families, and care teams in this difficult care setting.

As we prepare for the next pandemic, we show that chaplain services may need to be flexible in their mission to provide spiritual support for their hospital community. Options for continuing support include integrating video/phone communication, recorded video production, and

physically distanced gatherings. Patients with a pandemic-related illness may require an increased level of spiritual support. We recommend increasing chaplain availability to patients with COVID-19 and conducting briefings regarding how to support these difficult cases.

## **ACKNOWLEDGMENT**

None declared.

## **FUNDING**

None declared.

## **CONFLICT OF INTEREST STATEMENT**

None declared.

## **REFERENCES**

1. Seddon R, Jones E, Greenberg N: The role of chaplains in maintaining the psychological health of military personnel: an historical and contemporary perspective. *Milit Med* 2011; 176(12): 1357–60.
2. Fitchett G: Recent progress in chaplaincy-related research. *J Pastoral Care Counsel* 2017; 71(3): 163–75.
3. Pearce M, Coan A, Herndon J et al: Unmet spiritual care needs impact emotional and spiritual well-being in advanced cancer patients. *Support Care Cancer* 2012; 20(10): 2269–76.
4. Adams K: Defining and operationalizing chaplain presence: a review. *J Relig Health* 2019; 58(4): 1246–58.
5. Hall D: We can do better: why pastoral care visitation to hospitals is essential, especially in times of crisis. *J Relig Health* 2020; 30: 1–5.
6. Ferrell B, Handzo G, Picchi T et al: The urgency of spiritual care: COVID-19 and the critical need for whole-person palliation. *J Pain Symptom Manage* 2020; 60(3): e7–11.
7. Dutra C, Rocha S: Religious support as a contribution to face the effects of social isolation in mental health during the pandemic of COVID-19. *J Relig Health* 2021; 60(1): 99–111.
8. Snowden A: What did chaplains do during the Covid pandemic? An international survey. *J Pastoral Care Counsel* 2021; 75(1\_suppl): 6–16.