Patient Perspectives on Religiously Affiliated Care in Rural and Urban Colorado

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Abstract
Introduction: Religiously affiliated healthcare organizations play an important role in the delivery of care in the United States. There is a gap in the literature regarding patients’ attitudes toward receiving care at these institutions, especially in geographically diverse populations. Methods: In this two-site pilot study, we conducted a written survey of 141 adult primary care patients at non-religiously affiliated clinics in rural and urban Colorado. Demographic information, measures of religiosity and spirituality, and opinions regarding religiously affiliated care were collected. Results: 73.3% and 69.6% of patients in rural and urban counties, respectively, had no preference as to the religious affiliation of their care. However, patients in the urban county (24.1%) were more likely than those in the rural county (8.3%) to prefer care that was not affiliated with any religion. Conclusions: This study suggests that concerns such as proximity to care and patient/provider relationships may be more important to patients than the possible religious affiliation of a healthcare organization. This work is a first step in better understanding patients’ attitudes toward religiously affiliated care in urban versus rural settings.

Keywords
patient preference, religion, spirituality, rural, urban

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Introduction
It is estimated that nearly 20% of hospital beds in community settings in the US are provided by a religiously affiliated healthcare organization. In addition, there are 5 states (Alaska, Iowa, Washington, Wisconsin, and South Dakota) where more than 40% of acute care hospital beds are religiously owned or affiliated and another 5 states (Nebraska, Colorado, Missouri, Oregon, and Kentucky) where more than 30% of acute care hospital beds are religiously owned or affiliated. Between 2001 and 2016, the number of Catholic owned or affiliated acute care hospitals increased by 22%. This has led investigators to question whether this might limit preferences for patients in rural communities where there may be only one healthcare facility or system. This is especially relevant when considering that some religiously affiliated hospitals and clinics follow rules based on religious interpretations of proper medical care such as the Ethical and Religious Directives for Catholic Health Service. Previous investigations have noted the importance of proximity of healthcare facility, continuity of care, clinician reputation, and acceptance of insurance as key considerations for patients when considering their healthcare options. Notably, proximity and continuity of care have been described as some of the most important factors for patients in rural areas. Despite the important and expanding role that religiously affiliated healthcare plays in the delivery of acute care in the United States, there are limited data that describe patients’ attitudes toward receiving care at these types of institutions. One of the first studies aimed at characterizing patients’ views of religious institutional healthcare demonstrated that...
only 6.4% of respondents considered religious affiliation when selecting a healthcare facility and the majority of respondents (71.3%) reported that when selecting a healthcare facility they did not care whether it was religiously affiliated.9 While this study also found that individuals in the Midwest were more likely to agree that their personal choices supersede those of the healthcare facility, the study did not specifically identify patient views of religiously affiliated institutions based on community setting and population.9 In fact, no study to our knowledge has specifically sought to characterize differences in patient opinion of religiously affiliated healthcare institutions in rural versus urban settings. It is essential to understand patient opinion of religiously affiliated healthcare in both rural and urban settings as this has important implications for patient comfort, trust, and potential access to care. This is especially true in rural areas where there may be limited healthcare options and only religiously affiliated options available.2

This study, therefore, sought to understand attitudes toward receiving religiously affiliated care in a sample of adult patients in primary care clinics in rural and urban Colorado.

Methods

In this two-site pilot study we surveyed 141 patients >18 years old who receive medical care in non-religiously affiliated primary care offices in Lincoln County, Colorado (population 716,492) and Denver County, Colorado (population 5,610) from July to September 2019 and December 2019 to January 2020, respectively.12,13 Surveys were conducted across multiple months to better ensure sampling of populations representative of the clinics surveyed and also based on author availability for data collection. Notably, the survey was conducted prior to the COVID-19 pandemic. We chose to conduct this study at non-religiously affiliated healthcare facilities to avoid overestimating patient desire for religiously affiliated care by oversampling patients who may seek religiously affiliated healthcare. We sought to survey a minimum of 55 participants in each location as this has been shown to ensure that variance is properly accounted for when conducting pilot studies.14 Every third patient in the waiting rooms of the primary care offices were asked to participate in the survey after their medical visit. This sampling strategy was utilized to avoid potential biases associated with a convenience sampling strategy. Patients were consented verbally, provided an informed consent handout, and the confidential survey was completed by the individual patient in written format.

In evaluating patient preferences for religiously affiliated healthcare, patients were asked “If you had to choose, would you prefer to get your healthcare in a hospital/clinic/Doctor’s office . . .” with the answer choices “Affiliated with my religion,” “Affiliated with a religion other than my religion,” “Not affiliated with any religion,” or “No preference.” This question aimed to determine patient preference at the healthcare system or organization level and is consistent with previous literature.9 Patients were also asked a question regarding their preference for specific religious/spiritual beliefs of their care providers in order to differentiate between the religious affiliation of a healthcare system and the potential desire for religious concordance in patient/provider interactions. Non-religiously affiliated clinics were surveyed in both the rural and urban locations. The study was conducted at these secular settings to ensure that a particular religious affiliation was not overrepresented. Further, religiously affiliated care is not available in the rural location surveyed. Likert scale measures of religiosity and spirituality were asked, based on previous literature and national population polling.10,11 The survey also collected demographic information including age, gender, race/ethnicity, and educational attainment.

The preliminary survey draft was piloted by 10 non-medical individuals and revised based on their feedback to ensure questions asked were readable and not ambiguous. The survey and methodology were approved with exemption status by the Colorado Multiple Institutional Review Board (COMIRB 19-1704). The questions addressed in this study were chosen from a larger survey designed to understand patients’ experience with and views of both spiritual history-taking and religiously affiliated care.

RStudio 3.6.2 was used to conduct statistical analysis.15 Descriptive statistics are reported for numeric measures of age, gender, race/ethnicity, educational attainment, religious affiliation, and measures of religiosity/spirituality. The demographics for each location were compared using Fisher’s exact test with significance at $P \leq 0.05$. Fisher’s exact test was also utilized to determine if differences existed between the 2 geographic settings in patient preference for religious affiliation of healthcare or their provider’s religious affiliation with significance at $P \leq 0.05$. This analysis was completed for all patients as well as for the subset of Christian patients in each location as Christian patients comprised a large majority of patients sampled in this study and many of the top 25 largest hospital systems in the US are Catholic or Christian sponsored.2

Results

A total of 141 patients completed the survey. In Lincoln County, 60 patients completed the survey with a response rate of 70.6%. In Denver County, 81 patients completed the survey with a response rate of 78.6%. Participant characteristics according to location are given in Table 1. In Lincoln County, 68.3% of patients surveyed were female, 93.3% identified as White/Caucasian (Non-Hispanic), and the average year born was 1971 (±19.0 years). In Denver County, 69.1% of patients surveyed were female, 86.3%
identified as White/Caucasian (Non-Hispanic), and the average year born at the time of data analysis was 1963 (±17.8 years). Educational attainment was significantly different between locations \((P < .001)\) with 33.3\% of patients in Lincoln County having a high school diploma or GED and 6.7\% have attended or graduated from graduate school. In Denver County, 6.2\% of patients have a high school diploma or GED while 35.8\% have attended or graduate from graduate school. Age difference was also significantly different \((P = 0.02)\), with 30.0\% of patients in Denver County born in 1950 or before and 11.9\% of patients in Lincoln County born in 1950 or before.

In Lincoln County, 71.7\% of patients identified as at least somewhat religious with 67.2\% of patients identifying with a Christian denomination. In Denver County, 74.1\% of patients identify as religious with 57.5\% identifying with a Christian denomination. Measures of spirituality were not found to differ according to location. Between the 2 groups, measures of religiosity were different \((P = .03)\), with 78.2\% of patients in Lincoln County and 53.8\% of patients in

| Table 1. Patient Demographics. |
|--------------------------------|
|                             | Rural: Lincoln County no. (%) | Urban: Denver County no. (%) | Fisher’s exact test \(P\) value* |
| Gender                       |                             |                             |                               |
| Male                         | 19 (31.7)                   | 25 (30.9)                   | \(P = 1.0\)                   |
| Female                       | 41 (68.3)                   | 56 (69.1)                   |                               |
| Year born                    |                             |                             |                               |
| 1991-2002                    | 9 (15.3)                    | 7 (8.8)                     | \(P = .02\)                   |
| 1971-1990                    | 22 (37.3)                   | 17 (21.3)                   |                               |
| 1951-1970                    | 21 (35.6)                   | 32 (40.0)                   |                               |
| 1950 or Before               | 7 (11.9)                    | 24 (30.0)                   |                               |
| Race/Ethnicity               |                             |                             |                               |
| Hispanic                     | 1 (1.7)                     | 3 (3.8)                     | \(P = .42\)                   |
| White                        | 56 (93.3)                   | 69 (86.3)                   |                               |
| Asian                        | 0 (0)                       | 0 (0)                       |                               |
| Black                        | 0 (0)                       | 4 (5.0)                     |                               |
| American Indian              | 1 (1.7)                     | 2 (2.5)                     |                               |
| Pacific Islander             | 0 (0)                       | 0 (0)                       |                               |
| Other specified              | 0 (0)                       | 1 (1.3)                     |                               |
| Multiple                     | 2 (3.3)                     | 1 (1.3)                     |                               |
| Educational attainment       |                             |                             |                               |
| Some high school/GED         | 20 (33.3)                   | 5 (6.2)                     | \(P < .001\)                  |
| Some college/college         | 36 (60.0)                   | 47 (58.0)                   |                               |
| Some graduate/graduate       | 4 (6.7)                     | 29 (35.8)                   |                               |
| Identify as religious        |                             |                             |                               |
| Yes                          | 43 (71.7)                   | 60 (74.1)                   | \(P = .84\)                   |
| No                           | 17 (28.3)                   | 21 (25.9)                   |                               |
| Specified religion           |                             |                             |                               |
| Christian                    | 18 (31.0)                   | 17 (21.3)                   | \(P = .21\)                   |
| Protestant                   | 14 (24.1)                   | 14 (17.5)                   |                               |
| Catholic                     | 7 (12.1)                    | 15 (18.7)                   |                               |
| Other                        | 3 (5.2)                     | 12 (15.0)                   |                               |
| None                         | 16 (27.6)                   | 22 (27.5)                   |                               |
| Importance of religion       |                             |                             |                               |
| Not at all                   | 5 (9.1)                     | 14 (17.5)                   | \(P = .03\)                   |
| Not too important            | 7 (12.7)                    | 23 (28.8)                   |                               |
| Important                    | 22 (40.0)                   | 19 (23.8)                   |                               |
| Very Important               | 21 (38.2)                   | 24 (30.0)                   |                               |
| Spirituality rating          |                             |                             |                               |
| Not at all spiritual         | 4 (7.3)                     | 7 (8.6)                     | \(P = .64\)                   |
| Not too spiritual            | 8 (14.5)                    | 17 (21.0)                   |                               |
| Spiritual                    | 31 (56.4)                   | 37 (45.7)                   |                               |
| Very spiritual               | 12 (21.8)                   | 20 (24.7)                   |                               |

*Statistically Significant \(P\)-values in bold.
In Lincoln County, 73.3% of patients had no preference as to the religious affiliation of their healthcare, 8.3% preferred non-religiously affiliated care, and 15.0% preferred care affiliated with their religion. In Denver County, 69.6% had no preference if their care was religiously affiliated, 24.1% preferred non-religiously affiliated care, and 5.1% preferred care affiliated with their religion. There was a significant difference in preference for religiously affiliated care between the 2 settings (\(P = .02\)). Patients in the urban setting were more likely to prefer care not affiliated with any religion (24.1% in the urban setting compared to 8.3% in the rural location). However, most patients in both locations (73.3% in the rural location and 69.6% in the urban location) did not have a preference for the religious affiliation of their healthcare.

Christian patients were found to be the majority religious group surveyed, the preference of healthcare facility religious affiliation for Christian patients in each location is given in Table 2. In Lincoln County, 71.8% of Christian patients had no preference if their care was religiously affiliated and 77.1% said the same in Denver County. 20.5% of Christian patients in Lincoln County preferred care affiliated with their own religion while only 6.3% said the same in Denver County, which was not statistically significant. When asked the importance of a provider having the same religious/spiritual beliefs, 76.4% of patients in Lincoln County and 85.0% of patients in Denver County stated that it was not all important. This was not statistically significant, as can be seen in Table 2. When Christian patients were asked this question, 72.2% of patients in Lincoln County and 80.8% of patients in Denver County stated it was not at all important, which was not statistically significant.

### Discussion

This pilot study examined patient preference for religiously affiliated healthcare in primary care clinics in rural and urban Colorado. We found that in both the urban and rural settings most patients (73.3% and 69.6%) did not have a preference as to the religious affiliation of their healthcare. Patients were asked their preference for the religious affiliation of their healthcare in a hospital, clinic, or doctor’s office as descriptors of healthcare settings to broaden the patient perspective from solely considering their outpatient primary care clinic. This allowed for a more holistic view of patients’ perspectives of religiously affiliated care by considering multiple venues of care outside the familiarity of the setting in which they took the survey. The authors also chose to ask patients “If you had to choose” where to receive care to elicit patient perspective outside of the potential

### Table 2. Preference of Religious Affiliation of Healthcare and Importance of Provider Faith Concordance for all Patients and Christian Patients.

| All patients                                      | Rural no. (%) | Urban no. (%) | Fisher’s exact test P value* |
|---------------------------------------------------|---------------|---------------|------------------------------|
| Religious affiliation preference                   |               |               |                              |
| Affiliated with my religion                        | 9 (15.0)      | 4 (5.1)       | \(P = .02\)                  |
| Affiliated with a religion other than my own religion | 2 (3.3)       | 1 (1.3)       |                              |
| Not affiliated with any religion                   | 5 (8.3)       | 19 (24.1)     |                              |
| No preference                                     | 44 (73.3)     | 55 (69.6)     |                              |
| Importance of provider having same beliefs         |               |               |                              |
| Not at all important                               | 42 (76.4)     | 68 (85.0)     | \(P = .53\)                  |
| Somewhat important                                | 8 (14.5)      | 7 (8.8)       |                              |
| Important                                          | 4 (7.3)       | 4 (5.0)       |                              |
| Very important                                     | 1 (1.8)       | 1 (1.2)       |                              |
| Christian patients                                 |               |               |                              |
| Religious affiliation preference                   |               |               |                              |
| Affiliated with my own religion                    | 8 (20.5)      | 3 (6.3)       | \(P = .11\)                  |
| Affiliated with a religion other than my own       | 1 (2.6)       | 1 (2.1)       |                              |
| Not affiliated with any religion                   | 2 (5.1)       | 7 (14.6)      |                              |
| No preference                                     | 28 (71.8)     | 37 (77.1)     |                              |
| Importance of provider having same beliefs         |               |               |                              |
| Not at all important                               | 26 (72.2)     | 38 (80.8)     | \(P = .80\)                  |
| Somewhat important                                | 5 (13.9)      | 5 (10.6)      |                              |
| Important                                          | 4 (11.1)      | 3 (6.4)       |                              |
| Very important                                     | 1 (2.8)       | 1 (2.2)       |                              |

*Statistically Significant P-values in bold.
affiliation options they have in their communities. This was especially pertinent as the population surveyed in the rural location does not have a local religiously affiliated healthcare option.

Previous studies have considered how mergers and consolidation affect patient choice in affiliation of their healthcare when it comes to underserved locations with only a religiously affiliated option. To our knowledge this is the first study of a population that only had a local non-religiously affiliated care option available. Notably, although patients in the rural location were more likely to identify as religious (78.2% and 53.8% of patients in Lincoln County and Denver County, respectively, indicated that religion was important or very important) a majority of patients in both locations did not prefer religiously affiliated care, even care affiliated with their own religion. This is consistent with— and perhaps explained by— previous studies which noted that a very small percentage (6.4%) of participants surveyed considered religious affiliation when choosing their healthcare. Therefore, although some rural areas have only a religiously affiliated option available, the results of this study indicate that religious affiliation of healthcare may not be an important consideration for patients in rural settings.

Compared with patients in Lincoln County, patients in Denver County had a greater preference for non-religiously affiliated care. In addition to the lesser degree of importance of religion to patients in Denver County compared to those in Lincoln County, this difference could be due to the greater availability of healthcare facilities with differing religious affiliations in urban areas. Whereas patients in urban areas have a greater variety of healthcare facilities to choose from, patients in rural areas may place more importance on proximity of hospitals and clinics at the expense of desired religious affiliation. This has been demonstrated in previous studies showing a high degree of the importance of location and/or proximity to patients when choosing a healthcare facility, especially in rural areas.

Patients were also asked about the importance of their provider sharing the same religious/spiritual beliefs, known as religious concordance. This question sought to determine whether a providers’ religious/spiritual beliefs or perceived beliefs were important for patients in choosing their healthcare, and whether this differed from views of religiously affiliated healthcare organizations and clinics, which is discussed below. In both the rural and urban settings greater than 75% of patients stated that it was not at all important for their provider to have their same religious/spiritual beliefs. Previous studies have noted that patients’ desire for respect and appreciation of their beliefs is fundamental, regardless of the physicians’ personal beliefs.

Eighty-five percent (85%) of patients in the urban location stated that it was not at all important if their provider shared their religious/spiritual beliefs, and almost a quarter (24.1%) of patients in the same location state that they preferred care that was not affiliated with any religion. Therefore, some patients may prefer healthcare that is not affiliated with any religion, and they do not see religious concordance with their provider as important. This suggests that some patients do not wish for any religious involvement in their care. This follows an increasing view of medical care as scientifically driven, without needing to incorporate spiritual concern. On the other hand, this may reflect that patients are more likely to prefer care that is not religiously affiliated at the organizational level, but they are not concerned about how concordant or discordant religious/spiritual beliefs may impact their care by a specific provider. This raises the question if patients are concerned about healthcare organizations and their possible subsequent ethical and organizational requirements, while they are not concerned about providers’ personal religious/spiritual beliefs due to established professional boundaries.

Christian patients accounted for a majority of patients in both the rural and urban settings. Most patients in both locations had no preference for the religious affiliation of their care and did not find religious concordance with their provider as important. These opinions may be because patients in this study were surveyed at non-religiously affiliated care clinics. Notably, the rural location did not have a local religiously affiliated care option, Christian or otherwise. Alternatively, this may suggest that Christian patients, even without the option for religiously affiliated care, are not concerned about having religiously concordant care either at the level of a healthcare organization or directly from their care provider. Previous study has noted that factors such as proximity to care and continuity with providers are of utmost importance to patients in rural areas. Therefore, religious affiliation of care may not be of major concern if other important conditions of care are met. Future work should focus on elucidating which specific factors are most important to patients in selecting healthcare facility, including the relative importance of each factor compared to the others.

A limitation of the study is that the 2 clinics surveyed in this study were non-religiously affiliated. Although this was intentionally chosen to avoid oversampling patients who seek religiously affiliated care, it should be noted that the results may not reflect this specific population of patients or patients who only have a local option of religiously affiliated care. Overall, the patients sampled across both locations were more female and white than the respective populations in each county based on US Census Data. Further, only 10% of patients identified with a religion other than Christianity. Future work should focus on elucidating specific reasons for patient preference as to the religious affiliation of their healthcare facility in geographically diverse areas which may be best obtained through individual patient interviews. In addition to gathering additional
patient demographic information, these interviews could help to shed light on patients' previous experience and satisfaction with their providers, religiously affiliated care, and the perceived impact of religious affiliation on treatment plans.

**Conclusion**

In this two-site pilot study most patients did not have a preference as to the religious affiliation of their healthcare, which was not dependent on geographic area. However, 24.1% of patients in the urban location preferred care that was not affiliated with any religion, which was significantly greater than the rural population (8.3%). This study suggests that concerns such as proximity to care and the patient/provider relationship may be more important to patients than the possible religious affiliation of a healthcare organization. This work is a first step in better understanding patients' attitudes toward religiously affiliated care in urban versus rural settings.

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**Ethics Approval**

The survey and methodology were approved with exemption status by the Colorado Multiple Institutional Review Board (COMIRB 19-1704).

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