

The Impact of Daily Visits from Chaplains on Patients with Chronic Obstructive Pulmonary Disease (COPD): A Pilot Study

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Over the past twenty years, numerous studies have explored connections between faith, or religious practice, and its effect on physical and mental well-being. Harold Koenig has cited dozens of such studies in *Is Religion Good for Your Health? The Effects of Religion on Physical and Mental Health*.¹ Although faith and religion are terms which are defined differently in the various research studies, the results of the majority of the studies do reveal many positive connections between faith, or religious practice, and good physical and mental health.

In most health care institutions, pastoral care departments are labeled “non-revenue producing” and are seen as a fiscal liability, even though the majority of hospital administrators believe that spiritual care is a fundamental right of all patients and their families, in line with Joint Commission for Accreditation of Health Care Organizations (JCAHO) guidelines. Rarely are objective benefits of pastoral care departments observed as it is difficult to measure much of what the chaplain does. Perhaps chaplains do save hospitals money through shorter length of stay and better overall satisfaction with stay, hence serving the dual purpose of improving a patient’s desire to continue to use the

This study presents empirical data obtained from COPD patients showing the relationship between daily visits from the chaplain and several measured variables: anxiety level at time of discharge, length of stay, overall satisfaction with stay, and willingness to recommend the hospital to others. These data are contrasted to data obtained from patients who did not receive daily visits from the chaplain as well as those who refused to participate in the study.

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health care institution as well as providing fiscal benefits to the institution. An important consideration in research of this type is not only to justify chaplaincy services with objective data, but also to use information gathered relative to outcomes to enhance patient care.²

The purpose of this research was to examine the effect of daily visits from the chaplain upon patients with Chronic Obstructive Pulmonary Disease (COPD), a diagnosis which includes chronic emphysema, asthma, or bronchitis. This particular diagnostic group was selected for the following reasons:

1. They were patients not visited on a regular basis at this institution.
2. They were clearly identified by staff as having a diversity of issues and concerns during their stays.
3. They comprise a diagnostic group for which no pastoral care research has been conducted.

Prior to beginning the study, the chaplain visited twenty COPD patients to become familiar with common issues, or concerns. Patients were given a self-evaluation form, consisting of twenty questions. This assessment asked questions pertaining to the significance of spirituality, participation in a faith community, family conflict, openness to chaplain visits, and belief that they would receive pastoral visits from clergy of their faith communities. They also were asked to rate their feelings of anxiety, depression, guilt, fear, sadness, shame, anger, in-

security, and other (patients could write in).

All of the questions were presented on a five point scale: 1 = almost never, 5 = almost always. With the "feeling" questions, patients' responses were highest on anxiety, depression, fear, and anger (close to the mid-point). These patients identified themselves as being highly spiritual, were open to visits from the chaplain, and most did not expect visits from clergy representing a particular faith community. The majority of these patients admitted to having mild or moderate conflicts within their families over the past two years. Several studies confirm that COPD patients deal with anxiety and depression to a great extent and benefit when interventions, such as psychotherapy or exercise, are introduced.

A 1999 study reported that 29.2 percent of COPD inpatients had significant levels of anxiety; 15 percent had significant levels of depression.³ Another study reported that patients with severe COPD showed benefits in exercise tolerance with 90-minute psychotherapy sessions over six weeks.⁴

A further study indicated that if one wants to improve functional status in patients with COPD, interventions should focus upon exercise, relieving dyspnea (shortness of breath), and potential treatment for depression and anxiety.⁵ Although daily pastoral visits from the chaplain are not the same as weekly psychotherapy, it would stand to reason that daily support of patients through visits and prayer, might reduce anxiety, improve support, and thus make breathing easier for them.

In this institution, pastoral care operates under the structure of a one-person department, utilizing the services of volunteer chaplains, in a medical center which averages between 200 and 250 patients each day. Chaplains are present during medical emergencies, visit patients in the intensive care units and oncology unit, conduct worship services and spirituality groups, offer supportive visits with medical/surgical patients as time permits, and act as bioethics consultants.

Methodology

Data were collected from fifty patients, who were admitted to a medical/surgical unit of the hospital between May 1999 and August 2000. Twenty-five patients were admitted into the visited (experimental) group; the other twenty-five patients were admitted into the control nonvisited (control) group. It was predetermined that every odd-numbered patient admitted into the study would be in the visited group, and every even-numbered patient would be admitted into the nonvisited group. Patients were to be approached about participation in the study within approximately the first thirty-six hours of admission.

Patients were excluded from the study for the following reasons:

1. They could not be asked preliminary questions during this time framework.
2. The full-time chaplain would not be present during part or most of their admission.

3. They indicated, without prompting, that they would be discharged during the next one or two days.
4. They decided they did not want to be a part of the study.
5. They had multiple diagnoses, e. g., COPD with pneumonia, COPD with congestive heart failure (CHF), COPD with an orthopedic condition.

Patients determined eligible for the study were asked by the chaplain or by the COPD case manager if they desired to participate in a study, conducted by the chaplain of the medical center, which would collect data relative to the patient's stay in the hospital. The consent form was read to each patient, with consenting patients being assigned to the visited group or nonvisited control group based upon their order of admission. The group included twenty-nine females and twenty-one males. The average age of the patients in this study was seventy-one years, with a range of fifty-two to ninety-one.

Fifteen patients refused to participate in the study, for a variety of reasons. This comprised 23 percent of all of the patients asked about participation. The only variable monitored for this group was the length of stay in the hospital. Demographically, the patients who refused were similar in age to the group which participated; the percentages of males and females were also similar across groups. (Approximately 40 percent were males and 60 percent females.)

The chaplain or case manager of the unit administered the Beck

Anxiety Inventory⁶ to all participating patients, both at time of admission and time of discharge from the hospital. In addition, at time of discharge all patients were asked questions about their satisfaction with their stay in the hospital and their recommendation of this facility to others. The Beck Anxiety Inventory is a screening tool which allows people to rate their response to twenty-one affective descriptors or physical symptoms on a scale of 0 – 3: 0 = none, 3 = severe. The scoring is such that a total score of 0 – 7 is indicative of minimal anxiety; 8 – 15 is indicative of mild anxiety; 16 – 25 is indicative of moderate anxiety; and 26 – 63 is indicative of severe levels of anxiety.

Discharge survey questions rating the overall quality of care, as a patient, were scored on a scale of 1 – 5: 1 = excellent, 2 = very good, 3 = good, 4 = fair, 5 = poor. Discharge survey questions rating the recommendation of this facility to others, were also measured on a scale of 1 – 5: 1 = always true, 2 = mostly true, 3 = unsure, 4 = mostly false, 5 = always false. Length of stay data were reported as the number of days the patient was in the hospital with a range of 2 – 13. Patients in the visited group received, on average, 4.2 visits during their stays. The average visit was approximately twenty minutes in duration. All of the visits were made in the patients' rooms with approximately 80 percent of these visits occurring in private rooms. All of the visits took place between the hours of 8 A. M. and 5 P. M., and over 75 percent were with the patient only.

All of the patients were open to prayer, either as something for us to engage in during the visits, or something for the chaplain to do on their behalf at some point during the day. Approximately two-thirds of the patients utilized the chaplain to vent painful or stressful emotions, share grief over their illness or other losses, or to help with conflict management within the family.

The nonvisited controls received only brief visits at admission and discharge for the purpose of collecting information.

Results

The results do not include data from one person in the nonvisited group, who died in the hospital after a seven-day stay. Consequently, results reflect visited group, N = 25, and nonvisited control group, N = 24.

Anxiety at admission

Anxiety scores on the Beck Anxiety Inventory averaged 20.86 (*SD* = 10.78) across patients, ranging from 4 to 43. Upon admission, the difference in anxiety scores between the visited and nonvisited patients was not statistically significant. The visited group averaged 19.68 (*SD* = 8.96) on the Beck Anxiety Inventory, while the nonvisited controls averaged 22.08 (*SD* = 12.48).

Because these data were deemed more likely to meet parametric assumptions, with the exception of the equal-variance assumption, the t-test was used for samples with unequal variances. The difference between visited and nonvisited groups was not significant, *t* (46.8) = -.777, ns.

Anxiety at discharge

If pastoral visits reduce anxiety, then one might expect that the visited group would have lower anxiety scores at discharge. The means appear to support this: visited groups ($M = 6.56$, $SD = 8.46$), nonvisited controls ($M = 11.58$, $SD = 7.86$). This difference was significant, $t(47) = -2.151$, $p = .037$.

Because these scores may not be independent of admission anxiety scores, however, one needs to control for the initial scores. Although admitting anxiety was not significantly different between groups, it did vary among individuals. To the extent that individual differences in anxiety level (which are independent of the effects of pastoral visits) can influence discharge anxiety scores, the group effect will be obscured. One way to do this is to use an analysis of covariance to evaluate the effect of pastoral visits on discharge anxiety while separating the influence of admitting anxiety.

The results of a univariate analysis of variance with group as the independent variable, discharge anxiety as the dependent variable, and admitting anxiety as the covariate showed that the visited group had a significant relationship to discharge anxiety, over and above the effects of initial anxiety: $F(1, 46) = 3.9$, $p = .05$. As expected, admitting anxiety was also significantly related to discharge anxiety, $F(1, 46) = 4.807$, $p = .033$. In conclusion, the visited group did show evidence of lower anxiety at discharge than the nonvisited controls.

Length of stay

The results show that the visited group ($M = 5.72$, $SD = 3.77$)

stayed fewer days than the nonvisited controls ($M = 9.0$, $SD = 3.39$). These data were distributed symmetrically and had equal variances, meeting the assumptions of the t-test. An independent t-test comparing these means showed that the difference was statistically significant, $t(47) = -3.199$, $p = .002$. Patients who received pastoral visits stayed 3.28 fewer days, on average, than patients who did not receive pastoral visits. This represents a 36.5 percent reduction in average length of stay.

In order to see whether there was a difference in length of stay between patients who agreed to participate in the study and those who refused, the mean length of stay of the nonparticipants also was calculated ($M = 12.64$, $SD = 6.28$). A one-way analysis of variance comparing the means of the nonparticipants, visited patients, and nonvisited controls showed the difference to be significant, $F(2, 60) = 11.79$, $p < .001$. Posthoc comparisons of the three means (Scheffe and Least Significant Difference tests) showed that all were significantly different from one another at the .05 level or below. Visited patients had the shortest length of stay while nonparticipants had the longest.

Satisfaction with stay

In general, patients were highly satisfied with the quality of care during their stays ($M = 1.65$, $SD = .93$) where 1 = excellent. However, the patients who received pastoral visits ($M = 1.36$, $SD = .57$) appeared to feel more positive about their care than the controls ($M = 1.96$, $SD = 1.12$). These data were on an ordinal scale, had a small range of val-

ues, were negatively skewed, and the two groups had unequal variances (Levene's test for equality showed $F = 7.131$, $p = .01$).

Because the data violated several parametric assumptions, the groups were compared using the Mann-Whitney U test. The visited patients had significantly greater satisfaction with their stays, $z = -1.99$, $p = .046$, two-tailed.

Recommend to others

Most patients also indicated that they would recommend Lewis-Gale to others. Fully 98 percent said that it was always true (1) or mostly true (2) that they would feel comfortable recommending the facility to other people ($M = 1.4$, $SD = .54$). Even with high agreement, visited patients appeared somewhat more likely to recommend the hospital to others ($M = 1.4$, $SD = .46$) than nonvisited controls ($M = 1.58$, $SD = .58$).

As with the Satisfaction with Stay data, violation of parametric assumptions led to the use of the Mann-Whitney U Test. The comparison just missed significance: $z = -1.91$, $p = .056$, two-tailed.

Discussion

As part of the initial pastoral contact with those in the visited (experimental) group, participants were asked informally, "Do you regularly participate in a faith community?" Fifteen (60 percent) identified that they had not been an active part of a faith community in quite some time, usually over a year; ten (40 percent) of the patients identified a faith community in which they were active, attending between weekly and monthly. It was not always asked of patients whether or not they

received visits from clergy of their faith group; however a rough estimate would put this at about 20 – 25 percent, which is consistent with information gathered from a separate pastoral care study (22 percent), assessing clergy visitation for a group of medical patients.⁷ Many of the patients who were not involved in a faith community felt the need to justify why they were not. All of the patients who felt the need to justify why they were not involved in a faith community, identified one of the following reasons:

1. oxygen dependence, i. e., patients often find it difficult, stressful, or embarrassing to bring oxygen tanks to church;
2. heavy smells of perfume or cologne in church, which make it difficult to breathe;
3. anxiety issues related or unrelated to COPD, which make it difficult to be in crowds of people;
4. unresolved conflicts with the church, or church leadership, which make it difficult to return;
5. do not see the need to practice faith within the parameters of an organized religious structure.

The trend of becoming less involved in faith communities has been documented by George Barna, religious pollster. In a 1991 study of over 1,000 randomly selected people, 49 percent indicated that they had attended a religious service in the past week; by 2001 this was reduced to 42 percent.⁸ If fewer people are active

members of a faith community, it would stand to reason that they are less likely to receive visits from clergy during times of illness, even though many might desire this.

COPD patients tend to model very closely the current statistics relative to both active participation in a faith community and likelihood of receiving visits from the faith community during a time of illness. Also, these patients seem to be open to spiritual care from the chaplain and rely on the chaplain for many of these needs to be met while in the hospital.

Though fewer than 25 percent of the patients have clergy visiting them while at Lewis-Gale, all of the patients in the visited group appeared to be receptive to ongoing pastoral visits. The patients also seemed to appreciate the consistency of visits. For many of them, it appeared that this was the most attention directed toward spiritual and emotional concerns they had been given in such a short period of time.

What factors contributed to better satisfaction with stay, the willingness to recommend the facility to others, shorter length of stay, and reduction in discharge anxiety? First of all, many patients came to see the chaplain as a vital part of the health care team. Consistency of daily visitation, for some, became as much of an expectation as visits from physicians, nursing staff, and respiratory therapists. This was especially true of the patients who stayed longer than one week.

Second, information given by patients to the chaplain could often be shared with the other caregivers: nurses, physicians, case managers, respiratory therapists. This illustrates the importance of

the chaplain as part of the multidisciplinary team, capable of assessing patients' overall wellness. The chaplain, in this sense, has the potential to serve as a liaison between patients and their medical caregivers, assisting in communication of pertinent details. During the course of the study, several patients shared specific things with the chaplain, e. g., readiness for discharge, feelings of uneasiness. These were then communicated to the staff. Perhaps some patients felt more comfortable sharing particular things with the chaplain and letting the chaplain communicate them to the medical staff. In this sense the chaplain serves as a valuable tool of communication.

Finally, based upon comments from the COPD case manager and personal observation, COPD patients sometimes become very comfortable with their inpatient stays, preferring the comfort, security, and care they receive in the hospital over the care they may receive at home. This makes sense, in so far as many COPD patients are oxygen-dependent and receive respiratory therapy while hospitalized. With respect to this study, it is estimated that about half of the patients live alone and are responsible for their own care with the assistance of nearby family or friends.

While the chaplain could potentially "play into" a COPD mindset of a controlled, secure environment in which care is readily available, there is also the potential to remind patients that, ultimately, their comfort, security, and care can be found in God. This was communicated to patients in a variety of ways: personal theological or spiritual re-

lection, prayer, Scripture reading, the sacraments, and, when permitted, communication with the patients' faith communities.

One important fact of this study, is that research can be completed within the structure of a one-person pastoral care department, operating within a medium-sized community hospital. This was not easy as it had to be balanced between patient visitation, worship services, psychiatric spirituality groups, supervision of a twenty-member volunteer chaplain program, consultations with staff, and the administrative work of the chaplain. The amount of time from conception to completion of this project was approximately two and one-half years.

Some university medical centers, or other institutions with larger patient loads, have chaplains whose job descriptions may include research and development. However, these institutions are few and far between, and chaplains in any size hospital should consider research of this type. In a market culture that often looks at the bottom line, the future of chaplaincy, as with many other professions, depends upon research.

Limitations

This study is not without its limitations. First of all, this research was conducted with one particular group of patients being treated for respiratory illness and with one chaplain who made the visits. It may not necessarily be generalized to other patient populations and hospital settings.

A second limitation of this study is that it was done with a group of patients which the Lewis-Gale Pastoral Care Department does

not visit on a routine basis. A 1991 study indicates that "extended stay and repeat admission patients and their families place a high value on pastoral services."⁹ With any research of this kind, there may always be the risk that patients would expect the same type of care upon follow up admissions. A 1992 study revealed that patients visited by the chaplain had a much higher anticipation that a chaplain would comfort them than those who were not visited by the chaplain.¹⁰ For this reason, it is crucial that the chaplain emphasize at the beginning that this is research and receive the necessary consent.

A third limitation would be the number of patients admitted into the study even though the tests show statistical significance. Although fifty patients were initially admitted into the study, contributing information is based upon forty-nine, as one patient expired during the course of the research. Time limitations did not allow for a larger mix of people. Even with such a small number of patients, the differences between visited and nonvisited groups was statistically significant.

Conclusion

Taken together, these findings support the effectiveness of pastoral visits for improving the emotional and physical well being of COPD patients. Assuming that factors such as severity of illness, general adjustment, willingness to follow medical advice, feelings about clergy, and willingness to talk to others were, on average, equivalent between the visited (experimental) and nonvisited (control) groups, one can be fairly con-

fidant that the pastoral visits allowed the patients in the visited group to be more satisfied with their care, more willing to recommend this health care institution to others, to be less anxious at discharge, and to stay fewer days than the nonvisited controls.

It appears likely that the role of the chaplain will increase in its significance, as the majority of patients in the hospital seem to be open to visits from the chaplain, even though they would not necessarily request a visit. Fewer patients are considering themselves an active part of a faith community, which means less contact with clergy and fewer visits from them during a hospitalization. For a growing number of hospital patients, the only pastoral contact will be with health care chaplains.

In many medical institutions, case management departments are becoming larger and more involved with the ongoing care of hospitalized patients and especially with discharge planning. Perhaps, pastoral care departments should be seen by hospital administrators as similar to case management departments in two ways:

1. Both add to the overall satisfaction of patients by offering a valuable service.
2. Although both would be classified as "nonrevenue producing," they have the potential to save the hospital money by decreasing the average length of stay.

One difference, however, is that while case management departments in many health care institutions have grown considerably over the past decade, pastoral care departments have not. In fact, in

many hospitals, pastoral care budgets have decreased. The future of health care chaplaincy will continue to be dependent upon research which assesses not only the fiscal benefits of pastoral services, but also the outcomes in the emotional and spiritual health of the patients and family members who are served.

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