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Relationship Between Chaplain Visits and Patient Satisfaction

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This prospective study investigated the relationship between chaplain visits and patient satisfaction, as measured by Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) and Press Ganey surveys from 8,978 patients who had been discharged from a tertiary care hospital. Controlling for patients’ age, gender, race, ethnicity, language, education, faith, general health status, and medical conditions, chaplain visits increased the willingness of patients to recommend the hospital, as measured by both the HCAHPS survey (regression coefficient = 0.07, p < .05) and the Press Ganey survey (0.11, p < .01). On the Press Ganey survey, patients visited by chaplains were also more likely to endorse that staff met their spiritual needs (0.27, p < .001) and their emotional needs (0.10, p < .05). In terms of overall patient satisfaction, patients visited by a chaplain were...
more satisfied on both the Press Ganey survey (0.11, \( p < .01 \)) and on the HCAHPS survey (0.17, \( p < .05 \)). Chaplains’ integration into the healthcare team improves patients’ satisfaction with their hospital stay.

**KEYWORDS** chaplaincy, HCAHPS, patient satisfaction, Press Ganey, spiritual care

**INTRODUCTION**

The majority of hospitalized patients in different clinical settings express spiritual struggle or needs (Astrow, Wexler, Texeira, He, & Sulmasy, 2007; Davison & Jhangri, 2010; Fitchett, Burton, & Sivan, 1997; Pearce, Coan, Herndon, Koenig, & Abernethy, 2012). As these patients may not be able to get the support from their religious community, it is incumbent upon the healthcare teams to provide the appropriate interventions (T.A. Balboni, Vanderwerker, & Block, 2007). The Joint Commission requires a spiritual assessment for each patient, to determine any religious affiliation and spiritual practices or beliefs which may impact patient care (Joint Commission on Accreditation of Healthcare Organizations, 2005). Between 54% and 63% of hospitals employ chaplains to fulfill these requirements (Cadge, Freese, & Christakis, 2008). Board Certified Chaplains are clinically and theologically trained professionals who provide support for patients’ cultural, spiritual and religious needs, and minister independent of faith (VandeCreek & Lucas, 2001).

**Studies Assessing Patient Satisfaction**

While there is evidence to suggest that meeting spiritual needs is associated with greater patient satisfaction, there are limited data to demonstrate that chaplain visits are associated with meeting the spiritual needs of patients, as well as improving patient satisfaction scores, particularly on publically reported measures of patient satisfaction (VandeCreek & Lyon, 1997). For example, in a sample of over 1.7 million patients, meeting their spiritual and emotional needs was significantly associated with patient satisfaction (Clark, Drain, & Malone, 2003). A 14 site study demonstrated that satisfaction with chaplains was significantly correlated with overall satisfaction with the hospital stay (VandeCreek, 2004). In an investigation of 3,141 patients who had been discharged from a general internal medicine service, patients were more satisfied with care provided by doctors, teamwork, and overall care if they had discussions about their religious and spiritual concerns (Williams, Meltzer, Arora, Chung, & Curlin, 2011). A study of 35 chronic obstructive pulmonary disease patients demonstrated that patients who were visited daily by a chaplain had significantly greater satisfaction with their hospital stay (Iler, Obenshain, & Camac, 2001). A multicenter observational study, which evaluated 326 inpatients in four Midwestern hospitals, found that 94% of patients...
with spiritual/religious struggle found the visits of chaplains or clergy to be very helpful (Ellis, Thomlinson, Gemmill, & Harris, 2013).

Of these studies, only one used the Press Ganey survey to assess whether spiritual and emotional needs were met using a single question, and it did not present data as to whether or not patients were seen by chaplains (Clark et al., 2003). None of the studies have assessed patients’ perception of care using the HCAHPS survey, the performance on which accounted for 30% of incentive payments to hospitals by the Center for Medicare and Medicaid Services’ Value Based Purchasing Program in 2013 (Centers for Medicare & Medicaid Services, 2013a). We hypothesized that patients who were visited by chaplains would be more satisfied with their overall hospital experience and would endorse that their spiritual and emotional needs were met on the HCAHPS and Press Ganey surveys, respectively (Centers for Medicare & Medicaid Services, 2013c; Kaldenberg, Mylod, & Drain, 2003).

METHODS

Setting

The study was performed at Mount Sinai Hospital, a 1,171-bed tertiary-care teaching hospital in New York City. The study period was between December 14, 2011 and May 1, 2013. Chaplain visits were conducted by members of the Department of Spiritual Care and Education (DSCE), which included 2 chaplains, 2 half time priests, and 7 chaplaincy interns. Reasons for visiting patients originated from rounds, when chaplains queried hospitalized patients and their families regarding any interest in speaking with a member of the DSCE, as well as referrals from nurses, patients, clergy, social workers, and other sources including volunteers, family, physicians, and other hospital staff. The priests also proactively visited patients whose religion was documented as Catholic. All encounters were recorded in an electronic database system.

Measures

Overall patient satisfaction was measured with HCAHPS and Press Ganey (Centers for Medicare & Medicaid Services, 2013c; Kaldenberg et al., 2003) surveys. Questionnaires were mailed to all eligible patients. At the time of the study, the HCAHPS survey consisted of 27 questions that assessed patients’ perception of care. The two HCAHPS questions related to overall satisfaction were: 1) “What number would you use to rate this hospital during your stay”, ranging from 0 to 10, where 0 is “worst hospital possible” and 10 is “best hospital possible,” and 2) “Would you recommend the hospital to your friends and family,” with a range from 1 “definitely no” to 4 “definitely yes.” The two related Press Ganey questions were: 1) “Overall rating of care
given at hospital,” and 2) “Likelihood of your recommending this hospital to others.” The two Press Ganey questions about meeting patients’ spiritual and emotional needs were: 1) “Degree to which hospital staff addressed your spiritual needs,” and 2) “Degree to which hospital staff addressed your emotional needs.” All Press Ganey questions were rated on a 5 point scale ranging from 1 “very poor” to 5 “very good.”

Patients’ age, gender, race, ethnicity, as well as information about whether patients were visited by chaplains, were obtained from the hospital’s databases. Patients provided their race and ethnicity and these variables were included as they have been shown to affect HCAHPS scores (Centers for Medicare & Medicaid Services, 2013b; Goldstein, Elliott, Lehrman, Hambarsoomian, & Giordano, 2010). Language spoken at home and education were obtained from the HCAHPS survey.

Dependent and Independent Variables

The dependent variables were the continuous variables representing scores of patient responses to the six questions of the HCAHPS and Press Ganey surveys. The independent variable of chaplain visits was measured in binary modality (yes-no). The choice of other independent variables followed recommendations of O’Malley et al. (O’Malley, Zaslavsky, Elliott, Zaborski, & Cleary, 2005). These independent variables were patients’ faith (Christian, Jewish, Muslim, Other), age in 5-year intervals, gender, race (White, Black, Asian, Other), language spoken at home (English, Spanish, Other), education (8th Grade, Some High School, High School Graduate, Some College, College Graduate, More than 4 years College), self-reported health status (Poor, Fair, Good, Very Good, Excellent), emergency room admission (yes-no), response order quartile (1–4) and patients’ diagnoses and procedures grouped into 48 clinical categories (yes-no) developed by the Agency for Healthcare Research and Quality (AHRQ) (HCUP CCS, 2012).

Statistical Analyses

Chi-square and t-test statistics were used to compare patient characteristics in two groups; those visited and those not-visited by chaplains. We compared observed mean ± SE scores in the visited and not-visited groups. To adjust for confounders, we used OLS regression models. The final set of independent variables was selected using stepwise regression. Due to a variety of reasons, not all patients chose to participate in the surveys, and those who participated did not necessarily answer all questions. To reduce the nonresponse bias, we included the response order quartile in the list of independent variables of the models. This method has an advantage over nonresponse weighting through having less effect on precision (Elliott et al., 2009). When the models were fitted, estimated coefficients were used to calculate
predicted values of scores for each question. These values were used to
calculate the adjusted percent of positive responses for the groups of patients
visited and not-visited by chaplains. All statistical analyses were performed
using SAS 9.3 software package. This study was approved by Icahn School
of Medicine at Mount Sinai Institutional Review Board.

RESULTS

Within the study period, there were 67,952 hospitalizations, representing
48,734 adult patients. Patients had chaplain visits in 5,173 of these hospitali-
zations. Responses to the surveys were received from 8,978 patients who had

<table>
<thead>
<tr>
<th>Variable</th>
<th>Not-visited by Chaplain</th>
<th>Visited by Chaplain</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faith**</td>
<td>3,944 (46.5%)</td>
<td>379 (76.1%)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Christian</td>
<td>1,924 (22.7%)</td>
<td>46 (9.2%)</td>
<td></td>
</tr>
<tr>
<td>Jewish</td>
<td>157 (1.9%)</td>
<td>9 (1.8%)</td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>2,455 (29.0%)</td>
<td>64 (12.9%)</td>
<td></td>
</tr>
<tr>
<td>Age (SD)**</td>
<td>55.9 (18.5)</td>
<td>61.3 (15.9)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Male Gender</td>
<td>3,382 (39.9%)</td>
<td>192 (38.6%)</td>
<td>.56</td>
</tr>
<tr>
<td>Race*</td>
<td></td>
<td></td>
<td>.03</td>
</tr>
<tr>
<td>White</td>
<td>5,499 (64.8%)</td>
<td>299 (60.0%)</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>937 (11.0%)</td>
<td>76 (15.3%)</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>438 (5.2%)</td>
<td>17 (3.4%)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1,606 (18.9%)</td>
<td>106 (21.3%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic Ethnicity</td>
<td>2,175 (25.6%)</td>
<td>143 (28.7%)</td>
<td>.14</td>
</tr>
<tr>
<td>Education**</td>
<td></td>
<td></td>
<td>&lt;.001</td>
</tr>
<tr>
<td>8th Grade</td>
<td>356 (4.2%)</td>
<td>27 (5.4%)</td>
<td></td>
</tr>
<tr>
<td>Some High School</td>
<td>484 (5.7%)</td>
<td>44 (8.8%)</td>
<td></td>
</tr>
<tr>
<td>High School Graduate</td>
<td>1,455 (17.2%)</td>
<td>101 (20.3%)</td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>1,471 (17.3%)</td>
<td>105 (21.1%)</td>
<td></td>
</tr>
<tr>
<td>College Graduate</td>
<td>1,660 (19.6%)</td>
<td>90 (18.1%)</td>
<td></td>
</tr>
<tr>
<td>&gt;4 Years in College</td>
<td>2,670 (31.5%)</td>
<td>106 (21.3%)</td>
<td></td>
</tr>
<tr>
<td>Language*</td>
<td></td>
<td></td>
<td>.02</td>
</tr>
<tr>
<td>English Language</td>
<td>6,448 (76.0%)</td>
<td>395 (79.3%)</td>
<td></td>
</tr>
<tr>
<td>Spanish Language</td>
<td>531 (6.3%)</td>
<td>37 (7.4%)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>601 (7.1%)</td>
<td>20 (4.0%)</td>
<td></td>
</tr>
<tr>
<td>General Health Status**</td>
<td></td>
<td></td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Poor</td>
<td>255 (3.0%)</td>
<td>31 (6.2%)</td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td>1,079 (12.7%)</td>
<td>101 (20.3%)</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>2,129 (25.1%)</td>
<td>149 (29.9%)</td>
<td></td>
</tr>
<tr>
<td>Very Good</td>
<td>2,668 (31.5%)</td>
<td>133 (26.7%)</td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>2,077 (24.5%)</td>
<td>68 (13.7%)</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .001.
been hospitalized and responded to the survey only once. Among respondents, we identified 498 (5.6%) hospitalizations during which patients were visited by chaplains. During these 498 hospitalizations, chaplains conducted 738 visits, ranging from 1 to 10 visits per hospitalization, with a median of 1 visit per hospitalization (first quartile = 1, fourth quartile = 2). The number of referrals for chaplain visits varied from 1 to 5 per hospitalization, with a median of 1 (first quartile = 1, fourth quartile = 1). Most referrals originated from chaplain rounds (74.7%), while nurses were the next most frequent source of referrals (8.7%). Self-referrals from patients were more frequent (3.4%) than referrals from social workers (1.6%) and doctors (1.1%). The remaining referrals came from other staff, clergy, family, and other sources.

Characteristics of Patients Visited and Not-Visited by Chaplains

Several parameters differed significantly between survey participants visited and not visited by chaplains (Table 1). Patients visited by chaplains were more often of the Christian faith, older, black, had lower education levels, and more often spoke English and Spanish at home. The self-reported general health status was significantly worse in the group of visited patients.

Chaplain Visits and Patient Satisfaction

Before adjustment for patient characteristics, mean scores for four questions about patient satisfaction were significantly higher for patients visited by chaplains. These were the two questions about overall rating on both HCAHPS and Press Ganey surveys, the HCAHPS question about recommending the hospital to friends and family and the question about spiritual needs (Table 2). The mean scores in responses to the question about emotional needs and

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Observed Scores (Mean ± SE) for Patients Visited and Not Visited by Chaplains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>Not-visited by Chaplain</td>
</tr>
<tr>
<td>Overall rating of care given at hospital</td>
<td>4.63 ± 0.01</td>
</tr>
<tr>
<td>What number would you use to rate this hospital during your stay?</td>
<td>8.80 ± 0.02</td>
</tr>
<tr>
<td>Likelihood of your recommending this hospital to others</td>
<td>4.59 ± 0.01</td>
</tr>
<tr>
<td>Would you recommend this hospital to your friends and family?</td>
<td>3.70 ± 0.01</td>
</tr>
<tr>
<td>Degree to which hospital staff addressed your spiritual needs</td>
<td>4.23 ± 0.01</td>
</tr>
<tr>
<td>Degree to which hospital staff addressed your emotional needs</td>
<td>4.38 ± 0.01</td>
</tr>
</tbody>
</table>

*Press Ganey survey questions. 
HCAHPS survey questions. 
*p < .05. **p < .01.
the Press-Ganey question about recommending the hospital did not differ significantly between visited and not-visited by chaplains groups.

After adjustment for patient characteristics, the coefficient for the variable of Chaplain Visit was significant for all questions (Table 3).

**DISCUSSION**

To our knowledge, this is the first study demonstrating that patients who are seen by chaplains are more satisfied with their hospital stay, as measured by HCAHPS and Press Ganey surveys. These findings were obtained when controlling for several independent variables that could affect patients’ perception of care. These results are consistent with earlier findings that chaplain visits are associated with patient satisfaction (VandeCreek, 2004).

**Chaplains as Members of the Healthcare Team**

Consistent with other investigations, referrals to chaplains accounted for the minority of chaplain visits (Galek, Vanderwerker, & Flannelly, 2009; Vanderwerker, Flannelly, & Galek, 2008). As noted by others, nurses are more likely than other healthcare team members to request chaplain visits (Galek et al.; Koenig, Bearon, Hover, & Travis, 1991). This may be due to the fact that nurses view spiritual care as a necessary component of overall patient care and may be more likely to request a chaplaincy intervention (Narayanasamy & Owens, 2001). The overall low referral rate by the medical team may reflect inadequate training and discomfort in inquiring about patients’ spiritual or emotional needs (M. J. Balboni et al., 2013; Kuuppelomaki, 2001; Sellers & Haag, 1998) Due to the limited number of hospital chaplains and the medical teams’ potential discomfort with assessing spiritual or religious needs, it has been recommended that chaplains be

**TABLE 3  Association Between Chaplain Visits and Patient Satisfaction: Regression Coefficients for Chaplain Visits in the Models for Questions About Patient Satisfaction**

<table>
<thead>
<tr>
<th>Question</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall rating of care given at hospital&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.11**</td>
<td>0.04</td>
<td>0.001</td>
</tr>
<tr>
<td>What number would you use to rate this hospital during your stay&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.17*</td>
<td>0.08</td>
<td>0.036</td>
</tr>
<tr>
<td>Likelihood of your recommending this hospital to others&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.11**</td>
<td>0.04</td>
<td>0.005</td>
</tr>
<tr>
<td>Would you recommend this hospital to your friends and family&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.07*</td>
<td>0.03</td>
<td>0.018</td>
</tr>
<tr>
<td>Degree to which hospital staff addressed your spiritual needs&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.27***</td>
<td>0.05</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Degree to which hospital staff addressed your emotional needs&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.10*</td>
<td>0.04</td>
<td>0.020</td>
</tr>
</tbody>
</table>

<sup>a</sup>Press Ganey survey questions.

<sup>b</sup>HCAHPS survey questions.

* p < .05. ** p < .01. *** p < .001.
Chaplain Visits and Patient Satisfaction

The HCAHPS and Press Ganey surveys are currently the two most commonly used surveys to assess patient satisfaction. Our study provides further...
support that chaplains should be an integral part of the healthcare team. Patient visits by chaplains during the course of the hospital stay leads to increased scores on patient satisfaction surveys. Historically, chaplaincy is not viewed as revenue generating. Our findings suggest that meeting patients’ spiritual needs increases patient satisfaction and may also have positive fiscal consequences, given the advent of the Value Based Purchasing Program.

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