Predicting the Importance of Hospital Chaplain Care in a Trauma Population

Gina M. Berg, Ph.D.[1,2], Robin E. Crowe, M.A.[2], Shannon Borchert, M.Div.[1],
Jane Siebert, R.Ph., M.A.C.M.[1], Felecia Lee, M.A.[2]
[1]Wesley Medical Center, Wichita, KS
[2]KU School of Medicine-Wichita, Department of Preventive Medicine and Public Health

Abstract

Background. The purpose of this exploratory study was to determine if the importance of chaplain care is associated with and could be predicted by patient or injury characteristics.
Methods. A telephone survey of recently discharged trauma patients was conducted. Logistic regression analyses were conducted to determine what factors are associated with the importance of chaplain care and satisfaction with chaplain care.
Results. Self-reported religious affiliation was associated with the importance of chaplain care and importance of chaplain care was associated with satisfaction with chaplain care.
Conclusions. The value of chaplain care cannot be measured by patient characteristics, therefore, chaplain care should be offered to all patients and families.
KJM 2012; 5(2):44-50.

Introduction

A positive relationship between spirituality and religiosity and favorable health outcome has been noted in the literature.[1-3] Patients of varying health statuses, but especially in end of life situations,[4] want their healthcare team to acknowledge and discuss their spirituality.[5] Patients want providers to have an awareness of their spirituality or religiosity and an acknowledgement of its importance at varying levels from inquiry about beliefs to praying with the patient.[6] Furthermore, healthcare providers also believe that discussing spirituality and religiosity is an important part of patient care.[6,7] In a review of a clinical pastoral care program adapted for clinicians, Todres, Catlin, and Thiel[8] found that program participants gained a new awareness of the importance of recognizing the spiritual or religious component of patient care.

Spirituality or religiosity is used as a coping strategy for patients and their families when facing illness, injury, or end-of-life issues.[9,10] In addition, spirituality was an important component in the healing process after a traumatic injury.[11] Trauma patients and their families may experience greater need for spiritual care, as the injuries and complications unique to this population may involve end-of-life issues. O'Gorman[12] stated that end-of-life care should involve strategies for maintaining information including a patient's spiritual care arrangements. Similarly, Gries, Curtis, Wall, and Engelberg[13] found that after making end-of-life decisions, family members' satisfaction was associated with a discussion of the families' spiritual needs.

Ehman et al.[5] researched whether patients want physicians to inquire about religious and spiritual beliefs if becoming very ill. Fifty-one percent of the patients in this study described themselves as religious and 90% believed that prayer may sometimes influence recovery. Nearly half reported that religious beliefs would influence their medical decisions if they become very ill. Ninety-four percent of individuals with such beliefs agreed or strongly agreed that physicians should ask them whether they have such beliefs if they

become very ill. Also, 44% percent of the respondents who denied having such beliefs also agreed that physicians should ask about them.

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requires that health care agencies provide adequate spiritual care.[14] Hospital chaplains often are called upon to contact family members, act as a liaison between trauma staff and the patient's family, provide emotional/spiritual support during the resuscitation and/or recovery period, and meet religious or culturally specific needs.[15]

In our level I trauma center, chaplains are members of the trauma team and called to all traumas. During initial resuscitation, the chaplain begins a spiritual assessment from the information being conveyed by emergency personnel. The chaplain gathers specific information regarding injury, the condition of the patient, and other information that will be pertinent to the spiritual care of the patient and/or their family. Following initial assessment, the greatest need is to support the trauma patient's family by easing stress, providing resources to assist families, and providing updates while families wait to visit with their loved one that is being cared for by the trauma team. The goal is to provide an atmosphere of compassion.

In a trauma resuscitation event, often no information other than demographics are available for the patient.[16] The relationship between demographics and desire for spiritual or religious services is scarce in the literature. Older adults believed that a higher power supports them, that prayer could heal them from both physical and mental illness, and that a higher power works through the mundane world. The findings suggested that religious beliefs significantly influence the psychological well-being of older adults.

The purpose of this research was to investigate the importance of chaplain care by patient and injury characteristics in a trauma population and to determine if those characteristics can be used to predict and triage chaplain care. Since the reported desire for spiritual and/or religious conversations increases at end of life and severe illness situations, it is expected that those patients with greater traumatic injury or higher stress will be correlated with a reported greater importance for chaplain care.

Methods

Participants. A prospective, cross-sectional study with telephone surveys of recently discharged level one (emergent) and level two (urgent) trauma patients admitted to a midwestern level I trauma center was designed. Patients were excluded if they were: unable to provide a phone number, non-English speaking, presented with severe mental illness, incarcerated, or the patient was deceased.

Materials. Survey questions included demographic items, self-reported stress level during trauma care, self-reported health before and after trauma care, satisfaction with trauma care, and satisfaction with hospital chaplain care. Importance of and satisfaction with hospital chaplain care initially were measured on a scale from 1 (strongly disagree) to 6 (strongly agree). Patient injury severity, as measured by the Injury Severity Score (ISS)[17] and Glasgow Coma Scale[18] were abstracted from patient medical record.

Procedures. Institutional Review Board approval was obtained. Patients or their representative gave informed consent for participation at the time of hospital discharge. Patients surveyed were age 18 or older. Family members were surveyed if the patient was age 17 or younger or unable to respond. Up to five calls were made and surveys were completed within four weeks of hospital discharge. Perceived inter-

personal care and perceived technical care were counterbalanced to reduce priming effects. Data collection last for one year, from October 2007 to October 2008. Injury severity[17] and Glasgow Coma Scale[18] scores were collected from the trauma registry post-consent.

Descriptive and modeling data analyses were conducted using PASW Version 18.[19] Binary logistic regression was completed to determine which independent variables were statistically associated with the dependent variables: 1) importance of chaplain care (important and not important) and 2) satisfaction with chaplain care (not satisfied and satisfied). Statistical significance was defined as $p < 0.05$.

Results

Four hundred, thirty-five individuals consented to study participation of 1,724 level 1 and 2 trauma patients during the study period time (25.2%). Of those consented, 278 completed the surveys for a response rate of 63.9%. There were 15 surveys excluded due to missing data, thus reported results reflect 263 participants. Demographic information is listed in Table 1; the sample proportionally represented the total trauma population during the study period. The majority of study respondents were white (91%) and male (56%), with a mean age of 44 years. The majority of respondents reported attending 'some' college or more (64%) and had a yearly household income of below forty thousand dollars (52%).

Most patients (90%) reported having a religious affiliation (e.g., Catholic, Christian non-Catholic, Jewish, Muslim, other) and over half rated chaplain care as important (61%). Correlation analyses (Table 2) revealed no significant association between importance of chaplain care and age, respondents' self-reported stress level, self-reported health before or after care,

Table 1. Demographic characteristics and importance of chaplain care in the study population.

	Total (n, %)	Important	Not Important	p (χ^2)
Total	263 (100)	161(61)	102(39)	
Sex				.39
Male	146 (56)	86	60	
Female	117 (44)	75	42	
Race				.34
White	216 (91)	135	81	
Non-white	22 (9)	16	6	
Education				.90
HS Graduate or less	93 (36)	57	36	
Some College or more	167 (64)	101	66	
Income				.33
Less than $40k	124 (52)	73	51	
$40k and over	117 (48)	76	41	
Pt Reported Religious Affiliation				0.022
Yes	223 (90)	143	80	
No	25 (10)	18	22	

N includes patients who directly responded to the survey (n=215, 81.7%) as well as respondents such as a spouse, parent, or other family member (n=48,18.3%).

Table 2. Clinical characteristics and importance of chaplain care (N = 263).

Respondent	**Mean (SD)**	***p***	***r***
Age	44 (16.5)	.43	0.05
Reported Stress Level[a]	4.7 (1.4)	.21	0.08
Reported Patient Health Before Care[b]	2.0 (1.5)	.40	0.05
Reported Patient Health After Care[b]	3.6 (1.6)	.97	0.00
Satisfaction with Trauma Care[c]	5.5 (1.0)	.002	0.14
Satisfaction with Chaplain Care[c]	5.3 (1.2)	< .001	0.37
Patient			
ISS[17]	10.0 (7.6)	.85	0.01
GCS[18]	14.4 (2.5)	.17	0.09

[a] Stress Level Scale: 1(Not stressful) to 6 (Very stressful)

[b] Health Before/After Scale: 1(No problems) to 6 (Chronic/continuing)

[c] Satisfaction Scale: 1 (Very dissatisfied) to 6 (Very satisfied)

perceived or actual Injury Severity Score or Glasgow Coma Scale score. Importance of chaplain care was correlated with satisfaction with overall trauma care ($r = .372$, $p < 0.001$). Importance of chaplain care was also correlated with satisfaction with chaplain care ($r = .136$, $p = 0.03$).

Factors Associated with Chaplain Care. A logistic regression analysis was conducted using age, income, Injury Severity Scores, and religious affiliation as predictor variables to examine the importance of Chaplain Care to patients. The only factor independently associated with the criterion was religious affiliation ($p < 0.01$). Individuals that identified as Catholic (AOR 13.43, 95% CI, 3.62 - 49.91, $p < .001$) and those that identified as Christian (AOR 3.773, 95% CI, 1.43 - 9.93, $p < .01$) were more likely to agree with the importance with Chaplain Care compared to individuals who identified as none. There was, however, no difference between those who identified as having no religious affiliation and those who identified other as their religious affiliation (Table 3).

Table 3. Logistic regression predicting importance of chaplain care.

Predictor	***B***	**Wald χ^2**	***p***	**Odds Ratio**	**CI**
Age	-0.173	0.307	0.58	0.841	0.46 - 1.55
Income	0.356	1.299	0.25	1.427	0.77 - 2.63
Injury Severity Score[*]		0.101	0.99		
9-15	0.074	0.044	0.84	1.077	0.54 - 2.17
16-24	-0.006	0	0.99	0.994	0.41 - 2.42
>=25	0.158	0.067	0.80	1.171	0.35 - 3.90
Religious Affiliation[**]		15.254	0.00		
Catholic	2.598	15.045	> .001	13.423	3.62 - 49.91
Christian	1.328	7.23	0.01	3.773	1.43 - 9.93
Other	0.994	1.236	0.27	2.702	0.47 - 15.59

[*]Reference group is ISS category 0-8. [**]Reference group are those that identify no religious affiliation.

A second logistic regression analysis was conducted using age, income, Injury Severity Scores, gender and the importance of Chaplain Care to the patient as predictor variables in order to examine whether patients were satisfied with their Chaplain Care. Only importance of chaplain care was independently associated with the criterion variable (AOR 5.64, 95% CI, 1.43 - 22.31, $p < 0.05$). The patients who disagreed that Chaplain Care was important were 5 times more likely to be dissatisfied with their Chaplain Care (Table 4).

Table 4. Logistic regression predicting satisfaction of chaplain care.

Predictor	***B***	**Wald χ^2**	***p***	**Odds Ratio**	**CI**
Age	0.763	1.023	0.31	2.144	0.49 - 9.40
Income	-0.612	0.719	0.40	0.543	0.13 - 2.23
Injury Severity Score*		0.125	0.99		
9-15	0.344	0.074	0.79	1.410	0.12 - 16.85
16-24	0.463	0.124	0.73	1.589	0.12 - 20.97
>=25	19.586	0.000	0.99	320	0.00
Gender	-1.889	2.830	0.93	0.151	1.43 - 22.31
Importance of Chaplain Care	-1.73	6.078	0.01	5.640	0.20 - 1.37

*Reference group is ISS category 0-8.

Discussion

This study sought to determine if demographic and injury characteristics, which is often the only information readily available to the trauma team, were associated with and could predict patients' value of importance on chaplain care. Regression results did not demonstrate a relationship between importance of chaplain care and patient or injury characteristics which are often the only known information about the patient.

Further, it was expected that higher reported stress levels (as might be expected in more severe injuries) would be related to greater value of chaplain care, however, this was not the case. Thus, the injury severity as measured by clinical (ISS) as well as psychological (self-reported stress) parameters were not good indicators of patients' value of chaplain care. Only reported religious affiliation was associated with importance of chaplain care in this study. Those that identified as being Catholic or Christian were more likely than those that identified as other or no religious affiliation to agree with the importance with chaplain care. However, since religious values may not be known during resuscitative efforts, this piece of information may not be useful when determining the need for chaplain care during immediate care.

In a situation in which chaplain care resources may be scarce, decision schematics for appropriate triage of chaplain services should be considered. At the time of trauma resuscitation, only demographic and injury severity information is known about the patient. Often religious information is not available at the time of need. If chaplain resources, in fact, are scarce, these results did not support the development of a triage decision scheme based on the patient's demographic or injury characteristics and further research is necessary to determine criteria for need within a trauma population or entire hospital population to best utilize

hospital chaplain care. Since spiritual care for the patient is a JCAHO requirement,[14] it is valuable to understand what patient characteristics were associated with chaplain care value to serve the unique needs of trauma patients and their families properly and promptly.

As expected the importance of chaplain care was related to satisfaction with chaplain care. Often chaplains, as in our institution, provide a variety of care beyond specific religious or spiritual services, such as communication with the family. When spiritual or religious care givers are valued by patients, it may be reassuring to have them be a source of communication and liaison assistance.

The ability to generalize this information is limited. It was completed in the Midwest and represents a narrow demographic sample as there was a high reporting of religious affiliation. The survey was conducted after discharge and may not reflect the patients' stress of the trauma resuscitation event accurately.

Conclusions

These findings reinforced the value of the hospital chaplain in the care of trauma patients and suggest chaplain care was most important to those with an already established faith foundation. The importance of chaplain care was not distinguished by demographic or injury characteristics, thus a triage decision schematic is not recommended using these parameters. Those who rated chaplain care as not important might still find value in simply being aware that these services are available to them and their families. An evaluation of what specific chaplain services patients and their families value might direct institutions toward a cost effective usage of the resources chaplains provide.

References

1 Musick MA, House JS, Williams DR. Attendance at religious services and mortality in a national sample. J Health Soc Behav 2004; 45(2):198-213. PMID: 15305760.

2 Davis B. Mediators of the relationship between hope and well-being in older adults. Clinical Nurs Res 2005; 14(3):253-272. PMID: 15995154.

3 Purnell JQ, Andersen BL, Wilmot JP. Religious practice and spirituality in the psychological adjustment of survivors of breast cancer. Couns Values 2009; 53(3):165. PMID: 20098664.

4 Balboni TA, Vanderwerker LC, Block SD, et al. Religiousness and spiritual support among advanced cancer patients and associations with end-of-life treatment preferences and quality of life. Clinic Oncol 2007; 25(5):555-560. PMID: 17290065.

5 Ehman JW, Ott BB, Short TH, Ciampa RC, Hansen-Flaschen J. Do patients want physicians to inquire about their spiritual or religious beliefs if they become gravely ill? Arch Intern Med 1999; 159(15):1803-1806. PMID: 10448785.

6 MacLean CD, Susi B, Phifer N, et al. Patient preference for physician discussion and practice of spirituality. J Gen Intern Med 2003; 18(1):38-43. PMID: 12534762.

7 Olson MM, Sandor MK, Sierpina VS, Vanderpool HY, Dayao P. Mind, body, and spirit: Family physicians' beliefs, attitudes, and practices regarding the integration of patient spirituality into medical care. J Relig Health 2006; 45(2):234-247.

8 Todres ID, Catlin EA, Thiel MM. The intensivist in a spiritual care training program adapted for clinicians. Crit Care Med 2005; 33(12):2733-2736. PMID: 16352952.

[9] Koenig HG, Larson DB, Larson SS. Religion and coping with serious medical illness. Annals Pharmacother 2001; 35(3):352-359. PMID: 11261534.
[10] Thompson R, Boyle D, Teel C, Wambach K, Cramer A. A qualitative analysis of family member needs and concerns in the population of patients with burns. J Burn Care Rehabil 1999; 20(6):487-496. PMID: 10613687.
[11] Brillhart B. A study of spirituality and life satisfaction among persons with spinal cord injury. Rehab Nurs 2005; 30(1):31-34. PMID: 15736617.
[12] O'Gorman ML. Spiritual care at the end of life. Crit Care Nurs Clin North Am 2002; 14(2):171-176. PMID: 12038503.
[13] Gries CJ, Curtis JR, Wall RJ, Engelberg RA. Family member satisfaction with end-of-life decision making in the ICU. Chest 2008; 133(3):704-712. PMID: 18198256.
[14] Hodge DR. A template for spiritual assessment: A review of the JCAHO requirements and guidelines for implementation. Soc Work 2006; 51(4):317-326. PMID: 17152630.
[15] Clark PA, Drain M, Malone MP. Addressing patients' emotional and spiritual needs. Jt Comm J Qual Saf 2003; 29(12):659-670. PMID: 14679869.
[16] Mckenzie ER, Rajagopal DE, Meilbohm M, Lavizzo-Mourey R. Spiritual support and psychological well-being: Older adults' perceptions of the religion and health connections. Altern Ther Health Med 2000; 6(6):37-45. PMID: 11076445.
[17] Baker SP, O'Neill B, Haddon W Jr, Long WB. The injury severity score: a method for describing patients with multiple injuries and evaluating emergency care. J Trauma 1974; 14(3):187-196. PMID: 4814394.
[18] Teasdale GM, Jennett B. Assessment of coma and impaired consciousness: A practical scale. Lancet 1974; 2:81-84. PMID: 4136544.
[19] PASW version 18.0. IBM SPSS. Somers, NY: IBM Corporation, 2009.

*Keywords***:** medicine and religion, trauma, patient care, spirituality