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RESEARCH LETTERS

Ethnic Differences in Hospice Enrollment Following Inpatient Palliative Care Consultation

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Studies have documented the persisting lower rates of hospice enrollment among ethnic minority groups.[1,2] Given the positive outcomes related to hospice enrollment,[3] investigating interventions that may reduce these disparities is critical.

Inpatient palliative care (IPC) programs were developed to improve pain and symptom management, provide patients with holistic and comprehensive prognosis and treatment options, and help patient and families clarify goals of care.[4] Although significant evidence of IPC program effectiveness in improving patient outcomes exists,[5] studies have not examined the ability of IPC programs to diminish ethnic disparities in access to hospice. We conducted a retrospective cohort study to determine if ethnic differences in hospice enrollment are experienced among patients following receipt of IPC consultation.

METHODS

A retrospective study was conducted in a nonprofit health maintenance organization medical center. The sample included seriously ill patients aged 65 years and over who received an IPC consultation and survived to hospital discharge. Data were collected from IPC databases, IPC consultation checklist (which included recording of code status discussion), and electronic medical records. The IPC team recorded discharge disposition including discharge to hospice care, home-based palliative care (a standard program similar to hospice but offered for patients with an estimated prognosis of 1 year or less and without the caveat of foregoing curative care),[6] home with home healthcare, nursing facility, and home with standard outpatient care. Ethnicity was collected via patient report.

χ^2 and t tests were conducted to compare those admitted to hospice with those who were not. We used logistic regression to determine the effects of ethnicity on enrollment in hospice, adjusting for demographics and clinical factors. We conducted analysis using IBM SPSS 19 (IBM, Armonk, NY).

FINDINGS

From 2007 to 2009, 408 patients received IPC consults and were subsequently discharged from the hospital. Forty-four had missing data on ethnicity or discharge disposition, leaving 364 in the analytic sample. The mean age was 80.1 years (standard deviation [SD] = 8.2), and 48.9% were female. The sample was diverse; 42.6% were white, 25.5% Latino, 23.1% black, and 8.8% of other ethnic background. Primary diagnosis included cancer (33.8%), congestive heart failure (CHF) (17.4%), coronary artery disease (12.6%), dementia (12.4%), chronic obstructive pulmonary disease (6%), cerebral vascular accident (CVA) (5.2%), and other conditions (13.6%). More than half (57.7%) were discharged to hospice, 15.4% to home-based palliative care,[6] 14.6% to a nursing facility, 8.2% to home with usual outpatient care, and 4.1% to home with home healthcare. Code status was discussed by the IPC team among 81% of the patients, with no difference between ethnic groups.

Those discharged to hospice were older (80.8, SD = 8.4 vs 79.1, SD = 7.8), more likely to have cancer (71.5%) or CVA (79.5%) and less likely to have end stage renal disease (28.6%) or CHF (39%), and more likely to have had a code discussion (85.8%). There were no differences between hospice users and nonusers in gender, marital status, ethnicity, and number of chronic conditions (Table 1).

Significant differences between hospice users and nonusers were controlled in a regression adjusting for age, gender, marital status, and number of chronic conditions. Compared to whites, no significant differences in hospice use were found for blacks (odds ratio [OR]: 0.67; 95% confidence interval [CI]: 0.37-1.21), Latinos (OR: 1.24; 95% CI: 0.68-2.25), or other ethnic groups (OR: 0.78; 95% CI: 0.34-1.56). Compared with other diagnoses, those with cancer (OR: 3.66; 95% CI: 1.77-7.59) and older patients (OR: 1.05; 95% CI: 1.01-1.08) were significantly more likely to receive hospice care following IPC consult. Those discussing code status were twice as likely to be discharged to hospice (OR: 2.14; 95% CI: 1.20-3.79).

DISCUSSION

This study found similar rates of hospice enrollment following IPC consult among Latinos, blacks, and

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TABLE 1. Bivariate Analysis of Demographic and Health Characteristics Between Hospice Users Versus Nonhospice Users

Variable	All, N = 364	Hospice Users, n = 210	Nonhospice Users, n = 154	*P* Value
Age, y, mean (SD)	80.1 (8.2)	80.8 (8.4)	79.1 (7.8)	0.049
Gender (female), %	48.9	56.2	43.8	0.568
Ethnicity, %				0.702
White	42.6	43.3	41.6	
Latino	25.5	27.1	23.4	
African American	23.1	21.4	25.3	
Other	8.8	8.1	9.7	
Marital status, %				0.809
Married	45.6	43.8	48.1	
Widowed	36.0	38.1	33.1	
Divorced	7.7	7.6	7.8	
Other	7.7	7.6	7.8	
Missing	3.0	2.9	3.2	
Diagnosis, %				<0.001
Cancer	33.8	42.1	22.9	
CHF	16.2	11.0	23.5	
CAD	12.6	12.4	13.1	
Dementia	12.4	12.4	12.4	
COPD	6.0	5.3	7.2	
CVA	5.2	7.2	2.6	
Other	13.6	9.6	18.3	
Number of chronic conditions, mean (SD)	1.0	1.7 (0.8)	1.7 (0.9)	0.949
Code status discussed, %	81.1	87.0	72.8	0.001

NOTE: Abbreviations: CAD, coronary artery disease; CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease; CVA, cerebral vascular accident; SD, standard deviation.

other ethnic groups as compared with whites. Others found comparable rates of advance directive completion between whites and African Americans following IPC consultation,[7]and that IPC intensity resulting in a plan of care was highly associated with receipt of hospice care.[8] Likewise, our study found that discussion of code status, another marker of intensity, was positively associated with hospice use.

Our findings among patients receiving IPC consultation contrast with previous studies examining ethnic variation in hospice use among general samples of decedents. A study of California dual eligibles found that blacks were 26% and Asians 34% less likely than whites to use hospice. Others have found similar results among patients with CHF and lung cancer.[9,10]

Misconceptions and lack of awareness, knowledge, and trust in healthcare providers serve as barriers to hospice care for minorities.[11,12] IPC consultations may overcome these barriers by discussing goals of care including discussing the condition, eliciting patient/family understanding of the condition, and presenting options for code status.

This study employed a single-cohort design without a comparison group. It was conducted within a health maintenance organization with strong hospice and palliative care programs and may not represent other settings. Nevertheless, this study provides promise for IPC consultation to increase equitable access to hospice care among minority groups. Further studies are needed to confirm the preliminary findings reported here.

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