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Hospice Services for Complicated Grief and Depression: Results from a National Survey

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Abstract

OBJECTIVES—To describe the prevalence of screening for complicated grief (CG) and depression in hospice and access to bereavement therapy and to examine whether screening and access to therapy varied according to hospice organizational characteristics or staff training and involvement.

DESIGN—Cross-sectional national survey conducted from 2008 to 2009.

SETTING—United States.

PARTICIPANTS—Hospices (N = 591).

MEASUREMENTS—Whether hospices screened for depression or CG at the time of death or provided access to bereavement therapy (individual or group). Organizational characteristics included region, chain status, ownership, and patient volume. Staffing-related variables included training length and meeting attendance requirements.

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Author Contributions: EB, MJH, and MDA conducted the original study, overseeing survey design and acquisition of data. EB and MDA also assisted in manuscript preparation. AG and MLB oversaw the current study’s conceptualization and analysis and interpretation of data. DK assisted with manuscript preparation.

RESULTS—Fifty-five percent of hospices provided screening for CG and depression and access to bereavement therapy, 13% provided screening but not access to bereavement therapy, 24% provided access to bereavement therapy but not screening, and 8% neither screened nor provided access to bereavement therapy. Hospices with 100 patients per day or more were significantly more likely to provide screening and access to bereavement therapy.

CONCLUSION—Hospices appear to have high capacity to provide screening for CG and depression and to deliver group and individual therapy, but data are needed on whether screeners are evidence based and whether therapy addresses CG or depression specifically. Future work could build upon existing infrastructure to ensure use of well-validated screeners and evidence-based therapies.

Keywords

hospice; bereavement; family caregivers; complicated grief; depression

In 2011, 1.65 million individuals with terminal illnesses received hospice services, and 44.6% of all decedents in the United States had been under the care of a hospice.¹ Hospice users and their primary caregivers are typically older adults. In 2013, an estimated 84% of hospice users were aged 65 and older and 41% were aged 85 and older.² Primary caregivers, who help make decisions for terminally ill individuals, are most often their spouses or adult children who are aged 60 and older.³

Although most family members of individuals in hospice who die recover from initial reactions of acute grief and return to preloss functioning,⁴ an estimated 11% develop the mental health disorders of complicated grief (CG) and depression, with prevalence increasing slightly with increasing age.^{5–7} CG is characterized by symptoms of reactive distress to the death (e.g., disbelief or bitterness) and disruption in social relationships or identity.⁸ Criteria for major depressive disorder (depression) are well established,⁸ but diagnosis of depression after bereavement has recently undergone a significant change. The *Diagnostic and Statistical Manual of Mental Disorders (DSM), Fifth Edition*, allows diagnosis of depression within 2 weeks of bereavement, replacing the DSM, Fourth Edition, requirement that depression not be diagnosed until 2 months after bereavement.⁸ This change expands the population of individuals who might benefit from screening and treatment.

In older adults, depression and CG are associated with greater risk of morbidity for most of the common diseases of later life, including chronic functional impairment, hypertension, sleep impairment, and suicidal ideation.^{9–18} For example, the risk of hypertension is 10 times as high in older widowed adults who meet consensus criteria for CG as in those who do not.¹⁹ As the U.S. population continues to age, it is likely that the impairment associated with depression and CG will create an even greater societal burden.

Well-validated measures and effective individual and group psychotherapeutic treatments for CG and depression in older adults have been developed,^{20–22} yet older adults are less likely to seek bereavement support than younger adults,²³ in part because of a cohort-specific stigma about the acceptability of using mental health care.²⁴ Because hospices care

for people before and during death, they are uniquely positioned to offer screening and referral services for CG and bereavement-related depression in older family caregivers. Receiving bereavement support in a setting to which older adults are already connected may make it use more likely.²⁵ Moreover, Medicare, the primary payer for hospice care (providing coverage to 84% of people in hospice)¹ requires that hospices offer bereavement services to family members for at least a year after the person in hospice dies in order to receive reimbursement under the Medicare Hospice Benefit.¹ Although hospice provision of bereavement services has been described in detail,^{26–29} previous publications have not focused specifically on screening and referral practices for CG or depression.

Accordingly, the current study used data from the National Hospice Survey to estimate the extent to which hospices nationally provide screening and referral services that address the mental health needs of family members of individuals who die in hospice. The associations between organizational and staff factors and the likelihood of offering screening and referral for CG and depression were also examined.

Organizational theory posits that organizational structure can affect the type and quality of care provided.³⁰ In this analysis, organizational factors considered included hospice profit status, chain affiliation, size, and geographical region. In keeping with previous work, it was hypothesized that larger hospice size would be associated with higher likelihood of conducting screening and referral.²⁹ Because previous analyses did not find consistent associations between profit status, chain affiliation, region, and bereavement service intensity more generally,²⁹ it was not expected that any association would be found with these variables in the analyses.

It was also hypothesized that the extent to which hospices provide screening and referral or bereavement-related mental health conditions would be associated with provider-level factors, such as level of provider training, volunteer availability, and interdisciplinary team meeting involvement. Consistent with theories that participation of and interactions among providers of a variety of backgrounds can enhance care,^{31–33} research has demonstrated that social worker and volunteer involvement, and interdisciplinary collaboration more broadly, are associated with better quality of care for people in hospice.^{22,34,35} Training requirements have also been associated with quality of bereavement care provision specifically,³⁶ but these associations have not been adequately studied for hospice bereavement care. As previous findings and existing theory predicted, it was hypothesized that lengthier training requirements, interdisciplinary team attendance from a large range of providers, and a lower ratio of volunteer hours to number of individuals in hospice would be associated with higher likelihood of conducting CG and depression screening and referral.

Findings from this study can provide a more-complete picture of how hospices may be screening for important bereavement-related mental health problems and helping family caregivers connect to appropriate care after the death. This information can inform future work to identify strategies to improve mental health screening or therapy in hospices, as well as in other settings with a large bereaved population.

METHODS

Study Design and Sample

The National Hospice Survey, described elsewhere,^{29,37} was a cross-sectional survey of a random national sample of 775 hospices from the 2006 Centers for Medicare and Medicaid Services (CMS) Provider of Services file (N = 3,036 active hospices) conducted from September 2008 to November 2009. Medical directors were contacted through email, and the survey was administered online. Medical directors were asked to identify the hospice staff members best able to complete different sections of survey. Respondents were primarily members of the hospice leadership team, including hospice administrators and directors of services. Five hundred ninety-one respondents completed the survey, a response rate of 84%.

Measurement

Bereavement Service Provision—The survey assessed whether and when hospices screened family caregivers who might be at risk of major clinical depression or CG. Response options (multiple options could be chosen) were “at initial admission,” “routinely during the patient stay,” “at the time of death,” and “we do not screen for this.” Because this study was exploring bereavement support provided after the patient’s death, screening at the time of the death was focused on. The survey did not collect data on what screens were administered or who administered the screens. Hospices were also asked whether they provided group bereavement therapy and individual or personal therapy. The survey did not specify what “therapy” meant and did not include any items on what therapy type was provided, who provided the therapy, or how often the bereaved individual used services. Because care for CG and depression can be provided in individual and group modalities,^{20,21,38} these two items could be considered to measure the potential for providing care for bereavement-related mental health disorders. A hospice was considered to have provided access to bereavement therapy if the answer to providing group or individual therapy as part of its bereavement program was “yes.”

Based on responses to these two items, an outcome measure was created with four discrete categories: Did not provide screening at the time of death and did not provide access to bereavement therapy, provided screening at the time of death but did not provide access to bereavement therapy, did not provide screening at the time of death but provided access to bereavement therapy, and provided screening at the time of death and access to bereavement therapy.

Hospice Organizational Characteristics—Hospice organizational characteristics that might affect the scope of services provided, such as ownership (for profit, nonprofit, government), chain affiliation (whether a corporation that owned other hospices owned the hospice), hospice size (number of patients per day according to quartile), and geographic region of the United States as defined by the U.S. Census Bureau, were examined.³⁹

Staff Training and Involvement—The survey also measured how often the interdisciplinary team met to update the patient care plan (daily, every few days, weekly,

every 2 weeks, or other; dichotomized as updated weekly or more vs less than once a week); total hours of training required of nurses, social workers, and volunteers; and whether nurses, social workers, psychologists, administrators, art and music therapists, nutritionists and registered dietitians, pastoral counselors and chaplains, pharmacists, speech, occupational, and physical therapists, or volunteers were expected to attend interdisciplinary team meetings (with a separate variable for each staff type). To measure total interdisciplinary participation, a composite variable of “four or more staff types expected to attend team meetings” was also created (because four was the modal number expected to attend). The ratio between number of individuals in hospice and volunteers was also measured by dividing the total number of individuals seen per day by the total number of volunteer hours provided at the hospice over the past 12 months.

Data Analysis

Sample characteristics and prevalence of bereavement screening and services were described using standard descriptive statistics. To examine associations, chi-square tests and analysis of variance *F*-tests were first used to assess the unadjusted associations between each of the outcomes and staff training and involvement (frequency of care plan updates, hours of training required, attendance of staff at team meetings, ratio of volunteer hours to total number of individuals served) and between the outcomes and hospice characteristics (ownership type, chain affiliation, size, region). Multinomial logistic regression was then used to examine the adjusted associations between the four outcomes and staff training and involvement and hospice characteristics. In exploratory analyses, some significant associations between different covariates were also identified (e.g., there were regional variations in hospices being a member of a chain, being for profit, patient-volunteer ratio, hours of training required of nurses). All covariates that showed any statistically significant associations in unadjusted models were therefore included in the multivariate model. In regression analyses, all continuous variables were dichotomized on their median values to increase ease of interpretation of results. The hospices that provided neither screening nor access to bereavement therapy served as the reference group in the multinomial logistic regression. $P < .05$ was considered indicative of statistical significance.

RESULTS

Sample Characteristics

As presented previously²⁹ and shown in Table 1, the sample consisted of equal numbers of for-profit (48%) and nonprofit (48%) hospices (remaining: government or missing ownership data). Twenty-four percent were members of hospice chains. Twenty-five percent had fewer than 20 patients per day on average, 26% had 20 to 49, 26% had 50 to 100, and 21% had more than 100. Forty-four percent were located in the south, 27% in the midwest, 17% in the west, and 12% in the northeast.

Screening for CG and Major Clinical Depression and Access to Bereavement Therapy

Almost all hospices reported conducting screening for CG and depression at some point during the patient's enrollment; 69% screened for at least one of the conditions at the time of the individual's death (Table 2). Eleven surveys were missing data on the screening item;

hospices with missing data did not differ significantly from those with data on size, ownership type, chain affiliation, or region (all $P > .05$).

As previously reported,²⁹ 71% of hospices provided individual bereavement therapy, 51% provided group bereavement therapy, and 79% provided group or individual therapy. As noted above, the survey did not include items on whether therapy addressed CG or depression in particular.

Three hundred twenty-seven hospices (55.3%) provided screening and access to bereavement therapy (individual or group), 13.2% ($n = 78$) provided screening but not access to bereavement therapy, 23.9% ($n = 141$) provided access to bereavement therapy but not screening, and 7.6% ($n = 45$) provided neither.

Organizational Factors Associated with Services

In chi-square tests, hospices with more than 100 patients per day were more likely than smaller hospices to provide screening and access to bereavement therapy ($P < .001$), and chains were more likely than stand-alone hospices to provide screening and access to bereavement therapy. Ownership type and geographic region were not associated with provision of screening or access to bereavement therapy (Table 3).

Staff Training and Involvement Factors Associated with Services

Results (Table 4) also indicated that hospices that expected volunteer, nurse, social worker, or pastoral care attendance at team meetings and those that expected four or more provider types to attend meetings were more likely to provide screening and access to bereavement therapy (all $P < .05$). Meeting attendance by psychologists was not significantly associated with service provision, but this may have been due to small sample size; hospices requiring psychologist attendance showed a trend toward providing screening and access to therapy. Hospices where teams met weekly or more to update care plans also were most likely to provide screening and access to therapy ($P = .03$) (Table 4). Hours of training required of different staff types was not associated with hospice service provision (Table 4).

In the multivariable regression model (Table 5), hospice size remained significantly associated with services, with hospices with the largest patient volumes most likely to provide screening and access to bereavement therapy ($P = .04$). Requiring more than 80 hours of training from social workers was associated with greater likelihood of providing screening alone ($P = .04$), but training requirements did not differ significantly across other levels of service intensity. There were no other significant associations between organizational or staffing variables and service provision.

DISCUSSION

In a survey of 591 hospices, more than half reported that they screened and provided access to bereavement therapy, suggesting that the basic infrastructure for bereavement-related mental health disorder service provision appears to be in place. No previous studies have reported details on screening for CG and bereavement-related depression, but the current results regarding access to individual and group therapy are consistent with previous

national surveys.²⁸ With recent DSM changes that allow diagnoses of depression as early as 2 weeks after bereavement and include provisional CG criteria, the strong capacity for screening and referral for CG and depression at hospices is encouraging. Geriatricians and gerontologists can encourage people who lose a loved one in hospice to use existing services.

The only hospice organizational characteristic associated with service provision was hospice size, with larger hospices most likely to provide screening and access to bereavement therapy. Previous analyses of these data also found that hospice size was positively associated with greater scope of all bereavement services.²⁹ For example, hospices serving more than 100 people per day were most likely to provide comprehensive bereavement family services, which include individual and group therapy, discussing family preferences for care, offering pre-death planning, and home visits. Larger hospices seem to have better organizational capacity for providing more comprehensive bereavement services.²⁹ It is likely that resource limitations affect variability in service provision according to hospice size. Larger hospices may be the only ones with sufficient staff to provide screening for family members with bereavement-related mental health disorders and to provide therapy. Larger hospices may also be more likely to see a need for these services, because they come into contact with many more bereaved family members.

Strategies to improve screening and access to bereavement therapy for family members with bereavement-related depression or CG may vary based upon hospice size. At large hospices with clear, preestablished procedures, existing screens could be continued or enhanced with minor modifications. If CG or depression therapy is needed, existing providers might be trained in evidence-based therapies, such as behavioral activation, with relatively minimal effort.²² At smaller hospices, more attention might need to be paid to implementing evidence-based screens for bereavement-related mental health disorders. Previous research has indicated that only one staff person provided bereavement services at 62% of hospices.²⁸ Thus, additional staff may be required to address treatment needs. Alternately, trainings could be implemented to improve existing providers' ability to refer appropriately to community providers specializing in bereavement-related mental health disorders.

The data also suggest some gaps in the progression of screening to therapy, with approximately 13% of hospices surveyed providing screening at the time of the death of the person in hospice but not providing any group or individual bereavement therapy and approximately 25% providing therapy but no screening. The link between screening and therapy could also be addressed through intervention efforts. For example, providers at hospices that screen but do not offer any therapy could be trained to provide brief therapy or to link to appropriate community providers, and standardized screening could be implemented at hospices that provide therapy but do not screen; this approach may also help ensure that care is delivered to those that need it most.

The finding that interdisciplinary staff meeting participation was associated with more-intensive care provision is consistent with previous studies. The National Quality Forum and the National Hospice and Palliative Care Organization have recognized interdisciplinary team care as a critical component of quality hospice care.^{1,40} Interdisciplinary team care can

enhance communication between providers and improve client outcomes.^{32,41} Interdisciplinary hospice teams have also been found to increase identification and resolution of a range of problems (medical, psychosocial, spiritual) and to result in cost savings.⁴² Findings from the current study support the continued inclusion of a variety of staff members as part of the hospice care team.

Although it was not found that the number of volunteers or volunteer training hours were associated with screening and treatment provision, volunteers play an important role in hospice services and may have an important part to play in provision of bereavement care.⁴³ After training, volunteers could assist with informational mailings and follow-up telephone calls to bereaved individuals, give presentations on available hospice bereavement services to the larger community, provide general emotional support to bereaved family members (e.g., listening to stories about the deceased, talking about worries and hopes), helping with any logistical support needed after the death (e.g., providing rides to medical appointments or to buy food), and acting as an informational resource, helping link the family member to existing services. In all of this work, volunteers could supplement, and reduce the work-load of, paid hospice staff.

The study results should be interpreted in light of some limitations. First, hospices self-reported the data, allowing for the possibility that hospices may have misreported certain features of family care services. Moreover, data were not available on the mental health outcomes associated with screening and referral patterns because this was a study of organizational practices rather than patient experience. Future studies that include individual-level data are warranted. Previous studies have successfully gathered data longitudinally from medically ill older adults and their healthcare proxies about hospice service use,⁴⁴ and future studies could replicate this approach regarding bereavement services. Moreover, the survey did not collect details on what screeners were used and who administered them or on what type of therapy was provided and who delivered it. There could be considerable variability in the quality of screening and treatment.

In addition, although data were collected on whether hospices were part of a chain, data were not gathered on the specific chains to which they belonged. It is possible that hospices in the same chain membership provided similar screening and therapy services, but it was not possible to account for this in the analyses. Moreover, the data are from 2009. Although these were the most recent national data available on screening for CG and depression in hospice, it is possible that results might differ with a more-recent survey. Finally, because the survey was cross-sectional, the direction of the association between organizational characteristics, staff training and involvement factors, and provision of screening and access to bereavement therapy is open to interpretation.

Despite these limitations, the results indicate that the majority of hospices have established infrastructure for service delivery for family members with CG or bereavement-related depression. Such a finding is impressive, particularly because Medicare does not reimburse specifically for these elements of hospice care. Further research is needed on whether screening is evidence based, whether group or individual therapy addresses CG or depression in particular, whether any therapy provided for these conditions is evidence

based, and whether family members with bereavement-related mental health disorders use available hospice services. If screening is not evidence based, future studies could train hospice bereavement care providers in the use of well-validated CG and depression measures.^{45,46} If treatment is not evidence based or does not specifically address CG or depression, future interventions could train providers to deliver effective, evidence-based CG and depression therapies^{20–22,47} or to identify community resources to which family members could be referred. Possible partners include existing bereavement services outside of hospice (bereavement counselors in private practice, large national organizations such as the AARP and the Alzheimer's Association, and local case management agencies). Hospices could create specific local referral lists to address a range of family member needs.

Results may also inform policy recommendations. There have been many changes in healthcare funding since the survey data were collected in 2009, with the institution of the Affordable Care Act and expansion of Medicare. Although the CMS requires hospices to provide bereavement services under the Medicare Hospice Benefit, specific reimbursement for bereavement services is not provided.¹ Since the passing of the Affordable Care Act, CMS is required to apply a productivity adjustment to standard payment rates annually, which updates hospice payment rates to account for differences in wage rates across local markets and data collected on productivity in provision of specific services. The Affordable Care Act does not specify the data to be collected, but rather allows the Secretary of Health and Human Services to determine what would be appropriate in helping to reform the hospice payment system.⁴⁸ Provision of bereavement services could now be included in productivity adjustment calculations.

In addition to the new data-reporting requirements, the Affordable Care Act also requires CMS to publish hospice quality measures but does not establish a specific deadline by which public reporting of quality measures must be in place.⁴⁸ CMS has also expressed interest in developing a bereaved family member survey as part of these quality measures.⁴⁹ Including measures of use and satisfaction with bereavement services could help ensure high quality of bereavement services and might increase their use by individuals with CG and depression, ultimately decreasing the health and mental health burden associated with these conditions.

At the same time, use of hospice appears to have increased since the survey data were collected in 2009; in 2011, 45.2% of Medicare beneficiaries who died that year used hospice, up from 44.0% in 2010 and 22.9% in 2000. There has also been continued growth in the number of for-profit hospices, up 5% between 2011 and 2010.⁴⁹ It is possible that these changes have increased provision of screening and treatment services (with increased hospice funding for higher patient loads also leading to more funding for bereavement services) or decreased provision (if staffing or bereavement funding did not expand with increased caseloads). The current study could be replicated to identify any changes in identified trends.

Future research would also benefit from comparing the outcomes of individuals and their families cared for by hospices that provide these added services with hospices that do not offer these services. Evidence of significant patient-level benefits or of improved mental

health outcomes for caregivers might prompt consideration of reimbursement support for such efforts.

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Table 1

Characteristics of Hospices (N = 591)

Characteristic	n (%)
Ownership type	
For profit	285 (48.2)
Nonprofit	283 (47.9)
Government	20 (3.4)
Other or missing	3 (0.5)
Affiliation	
Not a chain	447 (75.6)
Member of a chain	144 (24.4)
Patients per day	
<20	147 (24.9)
20–49	154 (26.1)
50–100	152 (25.7)
>100	127 (21.5)
Missing	11 (1.9)
Region	
Northeast	68 (11.5)
South	259 (43.8)
Midwest	161 (27.2)
West	103 (17.4)

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Table 2

Screening Provision Variables (N = 591)

Variable	n (%)
Complicated grief screening	
Screens at time of death	396 (67.0)
Screens before death only	179 (30.3)
Does not screen	7 (1.2)
Missing data on screening	9 (1.5)
Depression screening	
Screens at time of death	328 (55.5)
Screens before death only	215 (36.4)
Does not screen	39 (6.6)
Missing data on screening	9 (1.5)
Any screening for depression or complicated grief at time of death	402 (69.3)

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Table 3 Comparison of Screening Provision and Access to Bereavement Therapy According to Hospice Organizational Factor (N = 591)

Factor	No Screening or Access to Therapy, n = 45	Screening but No Access to Therapy, n = 78	No Screening but Access to Therapy, n = 141	Screening and Access to Therapy, n = 327	Total, N = 591	Chi-Square	P-Value
	n (%)						
Ownership type							
For profit	22 (7.7)	37 (13.0)	60 (21.1)	166 (58.2)	285	13.91	.13
Nonprofit	20 (7.1)	34 (12.0)	75 (26.5)	154 (54.4)	283		
Government	2 (10.0)	6 (30.0)	5 (25.0)	7 (35.0)	20		
Other or missing	1 (33.3)	1 (33.3)	1 (33.3)	0 (0)	3		
Chain affiliation							
Not a chain	39 (8.7)	63 (14.1)	114 (25.5)	231 (51.7)	447	10.59	.01
Member of a chain	6 (4.2)	15 (10.4)	27 (18.8)	96 (66.7)	144		
Patients per day							
<20	13 (8.8)	38 (25.9)	35 (23.8)	61 (41.5)	147	65.38	<.001
20-49	9 (5.8)	20 (13.0)	45 (29.2)	80 (51.9)	154		
50-100	13 (8.6)	10 (6.6)	32 (21.1)	97 (63.8)	152		
>100	5 (3.9)	9 (7.1)	28 (22.0)	85 (66.9)	127		
Missing	5 (45.5)	1 (9.1)	1 (9.1)	4 (36.4)	11		
Region						14.08	.12
Northeast	11 (16.2)	8 (11.8)	20 (29.4)	29 (42.6)	68		
South	18 (6.9)	32 (12.4)	57 (22.0)	152 (58.7)	259		
Midwest	10 (6.2)	27 (16.8)	39 (24.2)	85 (52.8)	161		
West	6 (5.8)	11 (10.7)	25 (24.3)	61 (59.2)	103		

Percentages are row percentages.

Table 4 Comparison of Screening Provision and Access to Bereavement Therapy According to Staff Training and Involvement Factors (N = 591)

Factor	No Screening or Access to Therapy, n = 45	Screening but No Access to Therapy, n = 78	No Screening but Access to Therapy, n = 141	Screening and Access to Therapy, n = 327	Chi-Square or F-Test	P-Value
Hours of training required of, mean ± SD						
Nurses	129.8 ± 137.4	102.3 ± 135.4	136.3 ± 182.7	147.8 ± 206.4	137.8 ± 188.9	1.18 .31
Social workers	109.1 ± 121.4	71.4 ± 89.0	115.9 ± 176.2	125.1 ± 253.1	114.7 ± 213.4	1.26 .29
Volunteers	22.2 ± 18.8	17.3 ± 18.6	33.3 ± 91.4	25.4 ± 25.5	26.1 ± 49.7	1.89 .13
Ratio of volunteer hours to number of patients, mean ± SD	41.4 ± 38.7	38.2 ± 75.6	57.3 ± 131.6	40.0 ± 50.5	44.1 ± 80.8	1.58 .19
Care plan updates, n (%)						
Weekly	11 (6.5)	12 (7.1)	44 (26.2)	101 (60.1)	168	7.87 .049
<Weekly	31 (7.4)	65 (15.6)	97 (23.2)	225 (53.8)	225	
Team meeting attendance expected						
Nurses, n (%)	42 (7.2)	78 (13.3)	141 (24.0)	326 (55.5)	587	26.18 .001
Social workers	42 (7.2)	76 (13.0)	140 (24.0)	326 (55.8)	584	15.25 .002
Psychologists	1 (9.1)	0 (0)	2 (18.2)	8 (72.7)	11	2.28 .52
Administrators	31 (7.7)	51 (12.7)	92 (22.9)	228 (56.7)	402	1.20 .75
Art and music therapists	2 (4.1)	4 (8.2)	11 (22.4)	32 (65.3)	49	2.91 .41
Nutritionists and registered dieticians	10 (7.2)	15 (10.9)	28 (20.3)	85 (61.6)	138	3.01 .39
Pastoral counselors and chaplains	38 (6.7)	77 (13.6)	134 (23.7)	317 (56.0)	566	17.22 .001
Pharmacists	10 (6.0)	21 (12.5)	45 (26.8)	92 (54.8)	168	1.80 .62
Speech, occupational, physical therapists	9 (10.6)	13 (15.3)	14 (16.5)	49 (57.6)	85	3.85 .28
Volunteers	20 (8.2)	22 (9.0)	52 (21.3)	150 (61.5)	244	9.66 .02
4 different provider types	36 (6.9)	63 (12.2)	121 (23.4)	298 (57.5)	518	9.94 .02

Percentages are row percentages.

Table 5

Results of Multinomial Logistic Regression: Screening and Access to Bereavement Therapy According to Hospice Organizational and Staff Training and Involvement Factors (N = 591)

Variable	Screening but No Access to Therapy	No Screening but Access to Therapy	Screening and Access to Therapy
	Adjusted Odds Ratio (95% Confidence Interval)		
Nonprofit	0.80 (0.29–2.19)	0.80 (0.31–2.06)	1.10 (0.45–2.68)
Hospice is a chain	2.23 (0.59–8.38)	1.81 (0.52–6.28)	2.34 (0.72–7.62)
Patient volume 100 per day	1.26 (0.29–5.45)	2.23 (0.63–8.66)	3.52 (1.00–12.36) ^a
Southern region	1.26 (0.49–3.24)	1.47 (0.61–3.53)	1.779 (0.77–4.09)
Median (80) hours of training required of nurses	3.75 (0.55–25.56)	1.48 (0.22–9.94)	2.17 (0.34–13.81)
Median (80) hours of training required of social workers	0.13 (0.02–0.90) ^a	0.32 (0.05–2.08)	0.41 (0.07–2.55)
Median (18) hours of training required of volunteers	0.73 (0.29–1.83)	2.13 (0.92–4.91)	1.83 (0.83–4.04)
Median (22) ratio of volunteer hours to number of patients	0.93 (0.28–3.07)	1.02 (0.43–2.41)	1.14 (0.50–2.60)
Updates care plan weekly	0.55 (0.19–1.61)	0.96 (0.38–2.42)	0.98 (0.41–2.36)
4 different provider types expected to attend meetings	0.63 (0.18–2.17)	0.93 (0.28–3.07)	1.48 (0.46–4.76)

Reference category for the dependent variable was “no screening or access to bereavement therapy.”

Hospices missing data on screening variables were omitted.

^a*P* < .05 (two-tailed tests).