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FACTORS AFFECTING HOSPICE SOCIAL WORK UTILIZATION AMONG HOSPICE
PATIENTS: FOCUSING ON PLACE OF CARE AND ECONOMIC STATUS

BY

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BS, University of New Hampshire, 2017

THESIS

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RUNNING HEAD: Factors affecting hospice social work utilization

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ABSTRACT

FACTORS AFFECTING HOSPICE SOCIAL WORK UTILIZATION AMONG HOSPICE
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University of New Hampshire, September, 2017

Objective. Hospice social workers empower their patients and families as they journey through end of life. However, even when social work services are available, some hospice families choose not to use or fully utilize this service. Guided by the Anderson behavioral model, this study examined factors affecting utilization of hospice social work services with particular focus on two enabling factors - place of care and economic status.

Method. Data came from the 2007 National Home and Hospice Care Survey. The sample was restricted to Medicare Hospice Benefit enrollees 65 years of age and older. Hospice social work utilization was categorized into six visit intervals (0= none, 5= more than two visits in a week). Bivariate and ordinal logistic regressions were used to examine associations between hospice social work utilization and 1) place of care (home vs. institution) and 2) economic status (low vs. not low).

Results. The frequencies of hospice social work utilization were found to be significantly different between place of care ($\chi^2(1)=92.86$, $p<.001$) and economic status ($\chi^2(5)=11.28$, $p<.05$). Even after controlling for predisposing and need factors in ordinal logistic regressions, hospice

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patients receiving care at home (Coef.=-.58, $p<.001$) and of low economic status (Coef.=-0.35, $p<.001$) were found to use social work services less frequently than their counterparts.

Discussion. This study adds to the limited body of literature on enabling factors associated with hospice social work utilization. Possible implications and suggestions aimed at addressing these disparities are discussed.

Key words: Hospice social work, end of life, enabling factors, place of care, economic status

Introduction

“Please forgive me,” “I forgive you,” “Thank you,” and “I love you.” These four simple phrases are thought to be the most important words one can say before one dies (Byock, 2004). Still, even when faced with terminal illness, many struggle to say these words. Hospice care, with its focus on comfort and quality of life for hospice families facing terminal illness, follows a holistic approach to care addressing not only the physical, but the psychological, emotional, and spiritual needs that arise at end-of-life (National Hospice and Palliative Care Organization [NHPCO], 2011; NHPCO 2016; Oliver, 2003). Among the many hospice social work treatment goals, one very important one is to support and guide difficult conversations as patients and families navigate the final phase of life. However, even when social work services are available, some hospice families choose not to use or fully utilize this service

As of 2014, 1.6 to 1.7 million Americans received hospice services under the Medicare Hospice Benefit (MHB), which is now the primary source of payment for hospice in the U.S. (Centers for Medicare & Medicaid Services [CMS], 2015). Services provided and required under MHB are highly standardized and regulated under MHB, although the intensity and nature of services are individualized based on the need of the patient and family and on the stage of illness (CMS, 2015).

The multidisciplinary team is the foundation of hospice care. Under MHB, hospice providers are required to provide three core services – physician oversight, nursing, and social work services. As a part the hospice team, social workers use their unique set of skills to provide valuable insight into the hospice families’ psychosocial needs (NASW Center for Workforce Studies and Social Work Practice [NASW CWSSWP], 2014). Hospice social workers can find and connect hospice families with the resources needed to maintain quality of life – including

financial resources, community supports, or eligible services. Pulling from a strengths-based perspective, which emphasizes individual self-determination and strength (Weick et al, 1989), social workers help patients make difficult healthcare decisions based on their personal goals and values. Hospice social workers can also develop and implement skill-building interventions that promote patient independence and caregiver empowerment. And unlike the traditional medical model that views the patient as the unit of care, hospice views the patient *and* family as the unit of care. Thus, social workers are able to dedicate more time preparing families for impending loss, as well as support them as they say their final good-byes.

Social work involvement at end-of-life has been associated with improved quality of life, better pain management, increased patient and family satisfaction, and evidence of cost savings for patients, their family, and society in general (Bentur et al, 2014; Reese, Raymer, & Richardson, 2000; Oliver, 2003). However, unlike physician and nursing care, which patients are required to accept in order to continue receiving hospice services under MHB, social work services are optional (CMS, 2015). Despite the great number of many hospice families may continue to limit or decline the need for social work services.

Previous research has focused primarily on the barriers of access to hospice care, whereas little attention has been on the influence of patient factors on the use of different hospice services. Indeed, there is even less known about which patient factors may impact hospice social work use. To address this gap in knowledge, this study aimed to identify whether individual determinants influence social work utilization among hospice patients.

Conceptual Framework and Hypotheses

The behavioral model of health services utilization (Anderson & Newman, 1973; Aday & Anderson, 1974; Anderson, 1995) provides a theoretical framework that provides a sequence of

conditions that affects service utilization (Andersen & Newman, 1973). Although the model is more commonly used to examine health care service use, existing research on community-based services have applied and adapted the core set of service use predictors with good result (Calsyn & Winter, 1999). The model indicates that utilization of services can be explained by (a) predisposing factors that exist before the onset of symptoms or illness, such as age, gender, marital status, (b) need factors such as existing health issues (e.g., functional and cognitive impairment), and (c) enabling factors, such as place of care and economic status (Figure 1). Among the different factors discussed in the behavioral model of health service utilization, this study focused on enabling factors, particularly place of care and economic status. By identifying whether enabling factors influence social work utilization, this study may help hospice providers and policymakers recognize real opportunities for change – specifically related to service gaps among disadvantaged and vulnerable patients.

While there is little information about which factors impact hospice social work utilization, some inferences can be drawn from existing research related to community social service utilization and hospice in general. The use of social care services such as Meals-on-Wheels, in-home help, community alarm, regular informal visits becomes increasingly important for aging adults in order to maintain independent living and quality of life (Themessl-Huber, Hubbard, & Munro, 2007). Many times, even in presence of great need, social services may not be sought out or utilized. Previous research has also shown that although many older adults express appreciation for available or received services, trust plays a key role in deciding who they would call when faced with a crisis or decline in functioning (Themessl-Huber, Hubbard, & Munro, 2007). The lack of trust and fear of being perceived as frail, results in many older adults

stating a preference for their informal connections (e.g., friends, neighbors, family) over social service professionals (Jeon et al, 2017; Themessl-Huber, Hubbard, & Munro, 2007).

Misconceptions surrounding the hospice philosophy and the lack of awareness are real barriers to hospice care utilization. According to the NHPCO (2015), 75% of Americans are unaware that hospice care can be provided in the home and 90% do not realize that hospice care may be fully covered through Medicare. In general, there is an overwhelming lack of awareness surrounding hospice care, its eligibility requirements, and the services it provides - consequently significantly impacting hospice care accessibility and utilization (NHPCO, 2015; Social Work Policy Institute, 2010).

For this study, the focus on place of care and economic status as enabling factors were included because both appear to be closely related to the barriers for community social service and hospice service utilization. First, more than just a location, home is a place that represents comfort, memories, and the presence of loved ones. Therefore, it comes as no surprise that the majority of Americans prefer to receive end-of-life care at home (Higginson et al, 2013; Glass, 2016; Toot et al, 2017). Yet, since the middle of the 20th century, the majority of such care and deaths in America have occurred in institutions (Higginson et al, 2013). Individuals who prefer to stay home during the final phase of their lives can face significant challenges.

Previous studies have shown that despite the financial, emotional, and physical strain of end-of-life caregiving, many caregivers endorse personal rewards related to their helping role (Wolff, Dy, & Frick, 2007). However, there is also overwhelming evidence that end-of-life family caregivers are at significantly higher risk of experiencing increased levels of stress, depression, anxiety, as well as lowered physical health (Empeno et al, 2013; Stajduhar, 2013). Services provided by the hospice social workers such as short-term therapy, case management,

or skill-building can help to buffer some of the potentially negative consequences of caregiving (Campbell et al, 2014).

Although dying at home continues to be the preference, receiving end-of-life care in an institution has its benefits. For one, almost all institutions have medical care services available twenty-four hours a day. For individuals with severe functional or cognitive impairments (i.e., end-stage dementia) or medically-complex needs, these services are oftentimes critical for daily living. Furthermore, families with loved ones in institutions may be less likely to experience the negative impacts related to caregiving (Kehl et al, 2009). For many families, stepping out of the caregiver role allows them to focus on being a family again.

Taking into consideration that older adults at home may prefer their informal support systems over professional help (Themessl-Huber, Hubbard, & Munro, 2007) and the advantage of having built-in social services at institutions, it was hypothesized that patients at home would use hospice social work less than those in institutions.

For hospice patients of low economic status, dying only adds to stress of financial instability. Existing research on end-of-life service use among individuals of varying economic statuses are limited. Yet there is growing evidence that suggests that elderly individuals of low economic status are one of the most disadvantaged groups of patients (Jeon et al, 2017). Specifically, patients of low economic status face challenges such as unstable care arrangements and significant financial burden (Wolff, Dy, & Frick, 2007; Emanuel et al, 2000). Consequently, patients of low economic status are more likely to be institutionalized for their final place of care against their preference of dying at home (Lewis et al., 2010; Miller & Weissert, 2000; Mustard et al., 1999; Chen & Thompson, 2010; Higginson, 2013). Caregivers of these patients are also

more likely to have depressive symptoms and feel that caregiving interferes with their life ((Emanuel et al, 2000).

Further, patients and families of low economic status may face other barriers to service, such as unfamiliarity of available services; which can sometimes be related to health literacy issues (Lewis et al, 2004; Lyckholm et al, 2010). Health literacy is the “capability to obtain, access, or understand basic health information and use that information to access services and make appropriate health decisions” (Institute of Medicine, 2004). Health literacy issues can create problems in communicating end-of-life needs, which can adversely impact decision-making. Additionally, health literacy issues can heighten levels of distrust or fear of healthcare providers especially as it relates to hospice care, a service that is already associated with many widely-held misconceptions (Lewis et al, 2010; (Lyckholm et al, 2010). Based on the close associations between low economic status, poor health literacy, and low service use, it was hypothesized that hospice patients in low economic status would use social work less than those of higher economic status.

Method

Data and Sample

This study used data from the 2007 National Home and Hospice Care Survey (NHHCS). The NHHCS series is an annual nationwide sample survey of home health and hospice care agencies and their current and discharged patients, which was last fielded in 2007 (National Center for Health Statistics, 2007). The NHHCS was designed to provide descriptive information on the staff, services, and patients of home health and hospice agencies. All agencies that participated were either certified by Medicare and/or Medicaid or were licensed by a state to provide services. The data were collected using a 2-stage sampling design. In the first stage,

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agencies were randomly selected proportionate to size, agency type, and region. Next, up to six patients per site were randomly selected from each of the 1,036 agencies. A NHHCS interviewer conducted in-person interviews with agency directors and designated staff – no interviews were conducted directly with patients or their families.

The sample of this study was restricted to hospice patients aged 65 years and older who were receiving hospice care under MHB (N= 2579). Since hospice services not provided under MHB are not required to follow the same service requirements, restricting the sample to MHB patients provides some assurance that social work utilization is due to patient choice and not the provider's decision to not offer the service.

Measures

Dependent variable. *Social work utilization*, was measured by dividing the actual number of social work visits ($M=5.63$ $STD=8.68$) by the actual length of hospice service in days ($M=92.14$ $STD=160.59$). The average number of social work visits for each patient was a more accurate representation of utilization than the actual number of visits due to the significant variations in hospice length of service. For example, a patient who received 10 social work visits in 15 days would not be a fair comparison to a patient who received 10 social work visits in 90 days. The adjusted *social work utilization* had a highly-skewed distribution due to a small number of heavy social work service users and the large number of hospice patients having only one to two visits while receiving hospice care. Therefore, in order to address skewness, visit frequencies were recoded as an ordinal variable. The categories were determined by calculating the quartiles for the adjusted normal distribution of *social work utilization* coded as, 0 for no visits; 1 for less than one visit a month; 2 for between 1-2 visits a month; more than two visits a month, but less than once a week; 4 for 1-2 visits a week; and 5 for more than two visits a week.

Independent Variables Two enabling factors affecting social work utilization among hospice patients were included: place of care and low economic status. *Place of care* was determined by where the hospice patient received their care and was coded as a dichotomous variable (coded 1 for home, 0 for institutions). *Home* was defined as private home or apartment. *Institutions* were any agency inpatient/residential facilities, residential care places, nursing home/skilled nursing facilities, hospitals, or other. *Low-Economic Status* was measured by whether the hospice patient received Medicaid, a joint federal and state health coverage program for low-income individuals and families. Although Medicaid is not a perfect measure, economic measures were not available in the 2007 NHHC dataset. The financial eligibility standards for low-income seniors to receive Medicaid vary widely by state; but income is almost always used as a measure for eligibility. In all states, any individual receiving Supplemental Security Income (SSI) is eligible for Medicaid (Medicaid, 2016). Generally, SSI eligibility is based on assets tests (\$2,000 for individuals, \$3,000 for couples) (Medicaid, 2016).

Covariates. According to the behavioral model of health services utilization, three main sets of factors can be used to determine health service utilization (Anderson & Newman, 1973; Aday & Anderson, 1974; Anderson, 1995). The *predisposing factors* can include socio-demographic attributes such as, age, gender, and race. For this study, age was measured as a continuous variable. Gender was measured as male or female. Race was determined as either white or non-white. Respondents were recognized as non-white if they identified as American-Indian, Asian, Black or African-American, Native Hawaiian or other Pacific Islander, or other.

The presence of functional and/or cognitive limitations and the presence of a primary caregiver were included as *need-related factors*. *Functional limitations* were determined by whether assistance was needed with activities of daily living (ADLs). ADLs include eating,

dressing, bathing, getting in or out of bed, and walking across a room. Functional limitation was assessed as 0 (no assistance with ADLs needed) or 1 (assistance needed with at least one ADL). *Cognitive impairment* was scored as 0 (no cognitive impairment) and 1 (some cognitive impairment). Presence of a *primary caregiver* was assessed as a dichotomous variable – 0 (no primary caregiver) and 1 (primary caregiver present). Primary caregiver was defined as an individual from outside of the hospice agency, who provided care for the hospice patient, including spouses, partners, children, other family members, and non-family members. The presence of a primary caregiver was included as a need factor due to their unique challenges and potential risks of “increased stress, health problems, and decreased quality of life (Empeño et al, 2013; Glass, 2016).

Analytic Strategies

First, descriptive analyses were conducted on the total sample to show the characteristics of the sample. Bivariate analyses were completed using chi-square and one-way ANOVA tests to determine differences in sample characteristics between place of care (home vs. institution) and between different economic statuses. Second, because the dependent variable of this study was measured as an ordinal variable with sequentially meaningful categories, ordinal logistic regressions were used to examine how the enabling factors 1) place of care (home vs. institution) and 2) economic status were associated to hospice social work service utilization.

Model 1 included all covariates without enabling factors – place of care and economic status. Model 2 included all covariates with enabling factors. A Likelihood-ratio (LR) test was conducted to compare the log likelihoods, or model fit, of each model and to determine whether the difference were statistically significant. A statistical significant finding would indicate that

the less restrictive model, Model 2, fit the data significantly better than the more restrictive model, Model 1. The LR test statistic was calculated in the following way:

$$LR = -2 \ln(L(\text{Model 1})/L(\text{Model 2})) = 2(\ln(\text{Model 2})-\ln(\text{Model 1}))$$

$L(m^*)$ denotes the likelihood of the respective model, while $\ln(m^*)$ represents the natural log of the models' likelihood. This statistic is distributed as a chi-square with degrees of freedom equal to the difference in the number of degrees of freedom between the two models (i.e., the number of variables added to the model). Analyses were conducted using SPSS version 23.

Results

Sample Characteristics

Table 1 presents the descriptive characteristics of the total sample, place of care, and economic status. Within the total sample ($n=2,579$), the average age of the participants was 82.33 ($SD = 8.27$; range=65-100). More than half of patients were women (56.6%). Less than one in ten hospice patients were racial minorities (7.4%). Most of the hospice patients in the sample had at least one primary caregiver (92.7%). In addition, the majority of patients had some cognitive impairment (70.5%) and/or functional limitation (92.2%).

More than half of the patients identified home as their place of care (61%), while a fifth of the patients were identified as being of low economic status (20.7%). Although the majority of the hospice patients did use some hospice social work services compared to none (3.2%), most patients used social work services less than once a week. When comparing differences between places of care, the findings showed that patients receiving care at home were, on average, younger ($M=80.90$, $SD= 8.12$) than their peers at institutions ($M=84.56$, $SD= 8.01$). A greater

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proportion of the patients receiving care at institutions compared to those at home were women (63.5% vs. 52.2%), while patients at home were more likely to be racial minorities (8.6% vs. 5.5%). Patients receiving care at institutions were significantly more likely to have some cognitive (84%) and functional impairment (98.2%) than those at home (61.8% and 88.4%, respectively). Regarding primary caregivers, those at home were most likely to have one (96.8%) compared to their peers (86.7%). Additionally, patients receiving care at institutions (32.2%) were more likely to be of low economic status than those patients at home (13.4%).

Between economic levels, patients of low economic status were more likely to be women (68.6%) and racial minorities (15.7%) than patients of higher economic status (53.5% and 5.2%, respectively). Also, most hospice patients of low economic status were more likely to have least one functional (95.9%) and cognitive (80.7%) impairment. The low economic status group showed significantly less social work service use, specifically in the category with the highest frequency of visits (i.e., more than twice a week).

Ordinal Logistic Regression

In order to demonstrate the impact of the key independent variables, place of care and economic status, two models were examined. Model 1 included all the covariates without enabling factors. In Model 2, the two enabling factors were included. The results of the analyses indicated the statistical significance of place of care and economic status on social work service use in two ways. First, Model 2 showed that patients receiving care at home (odds ratio = -0.58, $p < 0.001$) were significantly less likely to use social work services. Additionally, patients of low economic status (odds ratio = -0.35, $p < 0.001$) had a lower probability of using frequent social work services than that of their peers of higher economic status. Second, an LR test was used to compare fit between Model 1 and Model 2. The results showed that Model 2, which included the

enabling factors, predicted social work utilization over and above Model 1, the intercept-only model ($\chi^2(2) = 1555.49, p < .001$).

Although enabling factors were the primary focus of this study, the findings also showed some predisposing and need factors to be significant predictors of social work utilization. Specifically, being older (odds ratio of 0.98, $p < .000$) and being male (odds ratio of 1.29, $p < .005$) had a higher probability of increased social work utilization. Racial minorities had lower odds of using less social work services than their white counterparts (odds ratio of -0.26, $p < .10$). Need factors, such as functional impairment, were also found to be strong predictors of social work utilization (odds ratio of -0.56, $p < .001$).

Discussion

Guided by the Andersen's behavioral model of health services utilization theory (Anderson & Newman, 1973; Aday & Anderson, 1974; Anderson, 1995), this study examined whether enabling factors, such as place of care and economic status, were associated with hospice social work utilization. The findings showed that hospice patients who received care at their home tended to use less social work services, and those in low economic status were less likely to use hospice social work services. This study adds to the limited body of literature on the impact of individual determinants on hospice social work utilization.

Informed by the individual end-of-life needs and goals of hospice patients and their families, the hospice team develops a plan of care that includes treatment, resources, and supports in order to achieve the best possible quality life across all settings and demographics. Hospice service utilization has nearly doubled in recent decades (Gozalo et al., 2015) and many studies have examined different aspects of hospice care such as access, utilization, misconceptions, better delivery (Meier, 2011). However, little attention has been given to the

individual services offered, specifically hospice social work, which has been shown to help ease the transition through end-of-life.

The present study found that most hospice patients used social work services. Only 3.2% of hospice patients in the sample did not use social work services. One explanation of why the majority of patients had at least one visit may be related to the MHB requirement that a comprehensive psychosocial assessment is completed within five days of hospice admission (CMS, 2014).

Additionally, only one third of hospice patients used social work services at least once a week. Still, since the intensity and frequency of hospice services should be individualized based on each patient's needs, it is difficult to establish a standard for frequency of visits. Indeed, it would be expected that patients and families in crisis or with higher need would have more frequent visits.

Regarding the associations between place of care and hospice social work service use, the descriptive analysis showed that, when compared to patients at institution, hospice patients at home were less likely to use social work services at least once a week. This result did not change after controlling for other covariates, and was consistent with the study hypothesis. One explanation for the higher frequency of use at institutions may be due to the highly regulated nature of some institutions like nursing homes. Federal law requires all skilled nursing homes to provide "medically-related social services to attain or maintain the highest practicable resident physical, mental and psychosocial well-being" (Office of Inspector General, 2003). The Center for Medicare Services implemented several measures and indicators to evaluate whether the required psychosocial services are being provided (Office of Inspector General, 2003). Moreover, when compared to family caregivers, nursing home social workers are typically more aware of a

hospice social worker's role and may therefore be more inclined to request additional psychosocial support for hospice patients in institutions. Furthermore, it is not uncommon for several patients at one institution to receive hospice care from the same hospice provider. Shared place of care lends itself to better accessibility when compared to home patients whose social workers travel to individual homes. Hospice patients at institutions may feel less inhibited to request additional support when they are aware that their hospice social worker is already in the same institution.

The lack of dedicated family caregivers or the financial means to pay for formal caregivers is a common barrier for patients who wish to spend their final days at home (Higginson, 2013; Empeno et al, 2013). Practiced in multi-modal interventions and highly trained in the systems-based approach, social workers can empower caregivers, so they can focus on the rewards of caring for their loved ones (CMS, 2015). Yet even with services available, families may still refuse to accept help due to the hesitancy and resistance of inviting more strangers into their homes. By limiting hospice services to a minimum, families are able to control the number of visitors and interruptions in their lives (Vig et al, 2010). Further, for some family caregivers, accepting help to care for their loved ones may summon feelings of inadequacy or loss of control.

Second, patients of low economic status used social work significantly less frequently than their peers. Prior research findings related to economic status and service utilization have been conflicted. Nonetheless, MHB reimburses hospice providers at a per diem rate per patient regardless of the volume of services used; therefore, underutilization of social work services is unlikely to be due to unaffordability. One explanation for low utilization among hospice patients of low economic status may be due to patients the receipt of social services from agencies outside

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of the hospice providers, such as community case management. Another reason why patients of low economic status may feel less inclined to accept social work services may be related to low health literacy and the mistrust of healthcare providers further compounded with the unfamiliarity of the hospice social worker's role,

The ordinal regression presented other interesting findings as well. For one, social work use did not differ significantly between patients with and without cognitive impairment. However, and maybe not surprisingly, patients with functional limitations and patients who were older used social work more frequently than those who had no limitations. As individuals get older, they become more likely to have to depend on others to assist with daily life activities. Thus, for older individuals to maintain their quality of life and independence, they are more likely to reach out for support.

Other findings from this study had less consistency with previous research. First, this study showed that women used hospice social work services more than men. Studies focused on gender and help-seeking behavior have been somewhat conflicted. Some found men to exhibit more help-seeking behaviors than women (Moller-Leimkuhler, 2002; Briscoe, 1987). However some found this to be true if another person, typically a wife or an adult child, was involved in the help-seeking process (Auslander, Soskolne, & Ben-Shahar, 2005). Second, the findings of this study showed racial minorities were more likely to use hospice social work more than white patients. Yet a growing body of evidence suggests that, when compared to white Americans, most racial minorities (e.g., African American, Hispanic, Asian and Pacific Islanders) significantly underutilize hospice care in the U.S. Factors impeding utilization include language barriers, a general lack of awareness of hospice, and cultural and historical mistrust of the health care system; which is further compounded by the lack of diversity among hospice staff (Born et

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al, 2004; Cort, 2004; Smith, Earle, & McCarthy, 2008; Tschirhart, Qingling, & Kelley, 2014).

These findings indicate a strong need for further investigation into these differences in service utilization as well as the factors contributing to underutilization.

Two study limitations warrant discussion. First, in the absence of income data, Medicaid eligibility was used as a proxy measure for low economic status. Although not a perfect measure, the eligibility for Medicaid is generally associated with Social Security Income (SSI) and other income/asset limit requirements. However with regard to real income data, patient geographic location would certainly need to be taken into consideration when measuring for low economic status due to the differences in cost of living, income, etc. Therefore, as Medicaid eligibility parameters are set by each state's definition of low-income, Medicaid eligibility appears to be a fair substitute for income data. Second, as stated earlier, hospice services are determined by the individual needs of each patient and family. This can add to the difficulty of determining a standard for social work service utilization. Therefore, without identifying individual need, it is difficult to determine whether patient and family needs are being met.

The findings of this study provide a first step in identifying potential differences in the use of hospice social work services based on individual factors. Patients receiving care at home and patients of low economic status used social work services less than their peers. Previous research suggests that, with the special challenges that they face, these groups may certainly benefit from more social work involvement. Given the demonstrated differences in social work utilization for these patients, it is imperative that policymakers and hospice providers address the specific needs and preferences for patients at home and of low economic status, which would likely contribute to higher utilization rates, higher satisfaction, and a better quality of life - particularly with the aging population. These data provide grounds for further research to focus

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on the identification of barriers to access and utilization for all hospice services for patients of vulnerable populations, including patients at home and of low economic status. Special challenges arise when individuals and families are faced with a terminal illness. When invited to provide care, hospice social workers can empower patients and their loved ones to work through these challenges so they can journey through final phase of life with comfort and peace and the best possible quality of life.

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Table 2. The associations between enabling factors and social work service use among hospice patients 46.

Variables	Place of care			Statistics	Economic status		Statistics
	Total N = 2579 (100%)	Home N = 1573 (61.0%)	Institution N = 1006 (39.0%)		Low N = 535 (20.7%)	Not low N = 2044 (79.3%)	
Predisposing factors							
Age	82.33	80.90	84.56		82.48	82.29	
(65-100)	(8.27)	(8.12)	(8.01)	F(1, 8220.99) = 125.95***	(8.67)	(8.17)	F(1, 15.30) = .22
Women	56.6%	52.2%	63.5%	Chi2(1) = 32.04***	68.6%	53.5%	Chi2(1) = 39.49***
Non-white	7.4%	8.6%	5.5%	Chi2(1) = 9.04 **	15.7%	5.2%	Chi2(1)67.73***
Need							
Primary caregiver	92.7%	96.8%	86.7%	Chi2(1) = 95.47***	90.8%	93.4%	Chi2(1) = 4.20*
Cognitive impairment	70.5%	61.8%	84.0%	Chi2(1) = 145.31***	80.7%	67.8%	Chi2(1) = 34.36***
Functional limitation	92.2%	88.4%	98.2%	Chi2(1) = 82.06***	95.9%	91.3%	Chi2(1) = 12.52***
Enabling Factors							
Place of care - Home	61.0%	na	na		39.4%	66.6%	Chi2(1) = 131.81***
Low economic status	20.7%	13.4%	32.2%	Chi2(1) = 131.81***	na	na	
Social work visits							
None	3.2%	3.4%	3.0%	Chi2(1) = 90.60***	2.4%	3.4%	Chi2(1) = 11.28*
Less than 1x month	11.8%	13.3%	9.5%		13.3%	11.4%	
1-2x a month	22.3%	22.7%	21.8%		25.0%	21.6%	
More than 2x month	30.0%	33.2%	25.0%		30.7%	29.8%	
but less than 1x week							
1-2x week	16.3%	16.5%	16.1%		16.3%	16.3%	
More than 2x week	16.3%	11.0%	24.6%		12.3%	17.3%	

‡p<.10; * p<0.05; **p<.01; ***p<.001

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Table 2. The associations between enabling factors and social work service use among hospice patients

	Model 1		Model 2	
Predisposing factors				
Age at discharge	-0.01	**	-0.01	**
Women	-0.19	**	-0.20	**
Non-white	-0.40	**	-0.26	†
Need				
Primary caregiver present	-0.37	**	-0.21	
Functional limitation	0.64	***	0.56	***
Cognitive impairment	0.06		-0.03	
Enabling Factors				
Place of care - home			-0.58	***
Low economic status			-0.35	***
Constant				
-2 Log likelihood	3225.33		4780.82	
N	2579		2579	
		$\Delta\chi^2(df)$	1555.49(2)	***

†p<.10; * p<0.05; **p<.01; ***p<.001