

# **PATIENT CENTERED CARE AND TURNOVER IN HOSPICE CARE ORGANIZATIONS**

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## **ABSTRACT**

Hospice care has significantly changed over the past 40 years. The industry has seen a growth in utilization rates, an increase in insurance coverage, and changing governmental funding. To reduce the significant risk of employee turnover, hospice care organizations have responded to these pressures. This study examines whether nursing turnover is affected as organizations respond to environmental pressures for increased patient-centered care (PCC). Does the use of patient-centered approaches to meeting client needs reduce turnover in the nursing staff? Using hierarchical regression to analyze organizational, market, and personnel data from 695 hospices across the United States, this study finds innovative PCC practices are significantly related to reduced nursing turnover.

*Keywords:* hospice, patient-centered care, nurse turnover, institutional theory

## INTRODUCTION

Patient centered care (PCC) is at the heart of this study. At its core, PCC is an attempt to develop a model of care that emphasizes patient desires while restructuring organizations to enhance employee satisfaction and reduce the high costs associated with turnover (Shaller, 2007). It is based on the premise of involving patients in their care delivery. PCC creates a shifting mindset from institutional efficiency and physician-focused care towards a model better geared towards patient needs and preferences (Avgar et al., 2011). In hospice, patients and their families determine the appropriate level of care and care-givers use their expertise to carry out the families' wishes to the best extent possible.

Hospices are in a sector of the health care industry that provides end-of-life care to dying patients. The emphasis is on palliative care rather than curative treatment, with the goal to provide the best quality of life to the patient and their families. This care is often provided in a patient's home, hospital, nursing home, or specialized care unit. This study examines the effects of hospice actions on employee turnover as they respond to changing market forces.

Over 5,500 hospice programs have opened since 1974 (NHPCO, 2015). In 1975, hospices in the U.S. admitted about 1,000 patients. The first modern hospice to operate in the United States was The New Haven Hospice, which began in 1974. The federal government began providing hospice benefits over the next several years. Medicare began covering hospice care in 1983, and military hospitals and patients under the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) began receiving hospice benefits in 1991. This was also the same year it was recommended for the Veteran's Administration (Bennahum, 2003). By 2014, the

number of patients admitted to hospice had climbed to over 1,600,000 by 2014 (NHPCO, 2015). As hospice has developed, there has been an increase in utilization rates, improvements in insurance coverage, and increasingly innovative approaches to providing care.

Health care delivery currently accounts for 17.8% of the United States' gross domestic product (GDP) and is expected to reach 20.1% by 2025 (CMS, 2016). As the population grows older, palliative care provision has become increasingly profitable. As of 2015, Medicare expenditures accounted for 20 percent of the total national health expenditures in the United States (CMS, 2016), with direct hospice costs accounting for two percent of Medicare expenditures (NHPCO, 2015). In response to the rapid growth of the marketplace, the industry is experiencing a significant increase in the number of for-profit providers and an increase in the size of providers through acquisitions and mergers. Currently, for-profit hospices account for approximately two-thirds of the marketplace (NHPCO, 2015)

The way in which hospice care organizations are run has also changed significantly over the past 40 years. These changes have primarily focused on improving the hospice organization's efficiency in order to be more cost effective and competitive, while also becoming more patient care focused in the delivery of care as a means of better responding to the needs of patients and their families (Pietroburgo & Wernet, 2004). Hospices have also come to realize that improving the turnover among their care givers must also be a significant focus to achieve organizational goals (Hodgson & Lehning, 2008).

### **AN OVERVIEW OF THE LITERATURE**

All organizations take risks. Risk arises from changing competitive forces within an industry. Risk

management involves identifying, assessing, and prioritizing potential risks. From a financial perspective, these can include factors such as, financial markets, legal liabilities, credit risks, accidents, and disasters. The goal of risk management is to mitigate the impact of risk in as cost-effective a manner as possible, thus reducing its probability of occurrence and associated loss.

Within a healthcare setting, risk management is often broadly conceptualized to include activities to identify, evaluate, and correct actions that might adversely impact the patients or staff (Mosby's Medical Dictionary, 2012). This impact could lead to physical or mental harm, increase costs, or harm the organizations reputation. Within the increasingly competitive hospice care industry, effective risk management includes adopting strategies that respond to social forces for simultaneously improving quality of care of patients and their families while also reducing organizational costs (Kirby, Keefe, & Nicols, 2007). Success in the health care industry is impacted by several factors, but one of the most significant risks is turnover among the caregivers (Waldman et al., 2004).

### ***Impact of Employee Turnover***

Turnover among nursing staff can be very costly to an organization. There is a reduction in expertise and intellectual capital, productivity loss, and a weakening of organizational culture, just to name a few of the more significant impacts. These indirect costs can be quite high, accounting for approximately 60% of turnover costs (Caudill & Patrick, 1991; O'Brien-Pallas et al., 2006). Additionally, money must be allocated to recruit, hire, and train replacements. In a recent review of nursing turnover costs, Li and Jones (2013) found that turnover costs can reach as high as \$88,000 per nurse turnover, with total costs per organization as high as \$8.5 million annually. A recent study estimated the cost of turnover among only newly

licensed RNs at \$856 million industry-wide and over \$2 billion to society (Brewer et al., 2011). Another study examining the turnover costs of less skilled certified nursing assistants estimated the industry turnover costs at an additional \$2.5 billion (Paraprofessional Healthcare Institute, 2001).

Turnover also has a significant impact on quality of care in long-term care facilities. High staff turnover is associated with an increased risk of mental and physical abuse as well as patient maltreatment (Natan & Lowenstein, 2010). Although hospice workers have lower turnover than other healthcare sectors (Stone et al., 2013), high nursing turnover in the palliative care sector is associated with poor “quality of dying,” which is a subjective experience comprising physical, psychological, and spiritual factors (Tilden et al., 2012). In the hospice care sector, nursing turnover is associated with poor quality of care, increased workloads and stress for remaining staff, higher overtime costs, the expense of using agency nurses to temporarily fill vacancies, along with the costs associated with recruiting and hiring qualified nurses (TCNWS, 2016). A 2013 survey of hospice and home health nurses revealed that the consequences of nursing turnover include delayed or declined referrals, using administrative staff to cover nursing workload, and the inability to expand services (TCNWS, 2013).

### ***Patient-Centered Care***

In large part, patient-centered care (PCC) is based on the theoretical model of institutional theory in which care providers are expected to be financially responsible and while also complying with prevailing social norms. Social institutions use a variety of mechanisms to pressure organizations in an industry to adopt similar strategies and tactics (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). In essence, organizations face pressures from two

unique classes of environments (Meyer & Scott, 1983). The technical class of the environment pressures organizations to produce their goods or services in as efficient a manner as possible. That is, organizations are rewarded with superior performance through efficient control of their processes. The institutional class of the external environment, on the other hand, pressures organizations to follow prevailing norms, values, rules, and requirements to receive enhanced legitimacy. In other words, organizations that do a better job conforming to social expectations for the manner in which work is conducted will enjoy superior performance. In most industries, one class of environment is generally stronger than the other (Meyer & Scott, 1983). However, health care operates in an environment in which both forces are equally strong (Scott et al., 1990).

In the hospice sector, patients and their families are increasingly demanding that health care providers meet their expectations for the manner in which care is provided. Prior research in the hospice care industry has shown a significant positive relationship between conformity to social forces and organizational performance (Kirby et al., 2007). A key way hospices are responding to institutional pressures is through the adoption of PCC practices.

The patient centered care literature has identified five factors as being the key to meeting patient desires: (1) access to care, (2) patient engagement, (3) patient education, (4) coordination of care, and (5) patient emotional support (Avgar et al., 2011). Access to care is about providing patients and their families more services as they receive care. The goal of engagement and education is to allow patients to be more involved and make better decisions with the care they receive. Coordination of care is an organizational function involving improved communication flows and organizational efficiencies to remove bureaucratic barriers impeding care delivery.

Finally, emotional support is about helping patients and their families cope with trying circumstances.

To attract more patients, providers are pursuing the aforementioned PCC efforts. For example, hospices have enacted PCC factors of education, access, engagement, and support by adding services such as special bereavement programs for children, physician education programs, and alternative treatments such as acupuncture and aromatherapy (Herbst & Cetti, 2001). Recently, hospices have been adding PCC programs such as ‘always events,’ which are designed to guarantee certain events always occur during patient interactions (IHI, 2016), ensuring patients express their wishes, and forming ‘patient experience collaboratives’ to promote PCC discussions across provider organizations (Zambeaux, 2016). Simultaneously they are attempting to reduce costs and improve coordination of care through actions such as administrative consolidation, forming strategic alliances with other care providers, and developing sophisticated integrated information technology systems (Gleckman, 2015; Weaver & Teenier, 2014).

Drawing upon institutional theory, the question this study seeks to address is whether hospice organizations experience reduced turnover by conforming to institutional forces for increasingly pursuing patient-centered care given the changing environmental pressures and market conditions. Specifically, it is expected that hospice care organizations that employ more patient-centered care practices will experience reduced employee turnover, controlling for the effects of organizational, market and labor factors.

## MEASURES AND METHODS

This study utilizes publicly available secondary data from the 2007 National Home and Hospice Care Survey (NHHCS) collected by the U.S. Centers for Disease Control using a stratified two-stage probability sample design. The data provides measures of agency characteristic and staffing. In 2007, there were 14,500 home health and hospice care organizations in the United States. This study includes only the 3,700 facilities that offer hospice care (either as hospice care only or a mix of both home and hospice care). Of the population of 3,700 hospice care-providing organizations, 695 reported data for this study. This yields a sampling rate of 18.8%.

### *Performance Measure*

The criterion measure of performance in this study is employee turnover. As previously discussed, prior research has consistently found a positive relationship between employee turnover and financial and clinical performance in health care settings (Mohr, Burgess, & Young, 2008; Waldman et al, 2004). Employee turnover was measured as the total number of registered nurses (RNs) and licensed practical or vocational nurses (LPNs) who left in the three months prior to the data being gathered.

### *Patient-Centered Care Measures*

To assess the level of PCC practices by hospice organizations, six distinct measures are used. These assess the PCC factors of access, engagement, education, coordination of care, and support. The first is the number of complimentary and alternative therapies (CAT) offered by the hospice. Although not part of standard care, the use of CAT is associated with improved patient responses, and generally provided by volunteers and donations rather than

by health insurance companies (Bercovitz et al., 2011). Examples of CAT include art, music, and aroma therapies. CAT is computed as the total number of complementary and alternative therapies offered by the hospice.

The second measure is traditional therapy services, such as pharmacy services, occupational therapy, physical therapy, and speech therapy. All of these services are widely accepted practices and generally covered by governmental and private insurance programs. Therapy services is calculated as the total number of traditional services offered by the hospice.

The third measure is nursing services. These are types of care offered by skilled nursing practitioners, such as wound care, podiatry services, and enterostomal therapy. Nursing services are measured as the total number of nursing services offered by the hospice.

The fourth measure is emotional support. Does the hospice offer grief and bereavement counseling services?

The final PCC measures assess organizational linkages as a way to facilitate the PCC goal of coordination of care (Avgar et al., 2011). They are operationalized as chain membership (0 = no and 1 = yes) and the total number of formal alliances the hospice has with other types of health care organization.

### ***Organizational Characteristic Control Measures***

Seven measures of the hospice organization's characteristics are analyzed as controls and include assessments of profit status, accreditation, size, age, location of care, and market size. For-profit status has been shown to be negatively related to quality of care in hospices (Gandhi, 2012) and is measured as 0 = nonprofit and 1 = for-profit. Joint Commission on Accreditation of Health Care Organizations (JCAHO) accreditation can indicate a hospice's commitment to providing high quality care (O'Meara et al., 2005) and is positively associated with

quality of care in hospices (Kirby et al., 2007). Size has been shown to be negatively related to quality of care in health care setting (Castle et al., 2006) and will likely have a positive relationship to turnover. Additionally, size is included to control for the likelihood of larger organizations have a higher number of turnovers. It is operationalized using the number of current patients at the time of the survey. Age is measured as the number of years the hospice has been in existence. Location of care is an important variable in analyzing hospice strategies (Wacherman, et al., 2011) and is measured as the percentage of patients receiving palliative care in their homes. Since this study assesses nursing turnover, the size of the prospective labor market is an important control (Mohr et al., 2008), and is operationalized as whether or not the hospice is located in a metropolitan area (1 = yes and 0 = no), defined as having an urbanized area of 50,000 or more people in the county.

### ***Staffing Control Measures***

Several staffing specific factors are likely to impact nursing turnover, such as workload and wages (TCNWS, 2013). These are controlled using five measures: numbers of both full- and part-time RNs, numbers of both full- and part-time LPNs, and the average entry-level hourly wages for RNs. The number of full- and part-time nursing staff is included in the analysis to also control for the positive relationship between the size of the staff and the number of turnovers (Mohr et al., 2008).

### ***Methods***

To analyze the research question, hierarchical regression analysis is employed. This method is used to assess effects of PCC practices over-and-above the effect of the organizational and staffing control variables. Because of the two-stage probability sample design, the underlying

assumptions of parametric statistical procedures could be violated if the sampling procedures are not taken into account (Hahs-Vaughn, 2005). Survey weights are appropriate tools for accommodating such a complex sampling design (Hahs-Vaughn, 2005). Therefore, the normalized weights computed for the dataset are applied to the analysis using weighted least squares regression in SPSS v23 to include sample weights for agency estimates as suggested by Hahs-Vaughn (2005).

### **SUMMARY OF FINDINGS**

#### ***Descriptives***

Table 1 shows the means, standard deviations, and data ranges for each variable. Table 2 provides the correlation coefficients for the measures of turnover, PCC practices, as well as the organizational and staffing control measures. Although multiple indicators of different facets of the same phenomenon are necessary for improved construct validity, they are frequently intercorrelated with one another (Pedhazur & Schmelkin, 1991). An examination of the correlation matrix shows that all of the correlation coefficients are below 0.8 in absolute value, which is a benchmark commonly used for the detection of multicollinearity (Kennedy, 2008).

**Table 1**  
***Descriptive Statistics***

<i>Variable</i>	<i>Mean</i>	<i>s.d.</i>	<i>Min.</i>	<i>Max.</i>
1. Nursing Turnover	2.64	5.89	0	93
2. Profit Status	.22	.41	0	1
3. JCAHO Accreditation	.32	.47	0	1
4. Size	53.56	57.89	5	200
5. Age	15.18	8.26	0	28
6. Home Care %	83.62	25.63	0	100
7. Metro Area	.35	.48	0	1
8. RN Wage	22.24	3.89	12.95	35.00
9. Full-Time RN	16.60	27.07	0	247
10. Part-Time RN	7.50	14.35	0	134
11. Full-Time LPN	5.49	12.47	0	141
12. Part-Time LPN	2.41	5.62	0	60
13. Alliances	2.59	1.41	0	6
14. Chain Membership	.18	.39	0	1
15. Therapy Service	4.76	1.50	0	7
16. Alternative Services	2.23	3.03	0	10
17. Nursing Service	5.73	1.51	0	8
18. Grief Counseling	.96	.20	0	1

**Table 2**  
**Correlation Coefficients**

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Nursing Turnover	.06																
2. Profit Status	-.00	.22**															
3. JCAHO Accreditation	.34**	.02	.09*														
4. Size	.14**	-.17**	.34**														
5. Age	.42**	.01	-.01	-.04	.07												
6. Home Care %	.32**	.08*	.14	.55**	.18**	-.02											
7. Metro Area	.04	.14**	.09*	.26**	-.02	.01	.43**										
8. RN Wage	.56**	-.06	.12	.61**	.32**	.02	.48**	.10*									
9. Full-Time RN	.42**	-.09*	.07	.39**	.27**	.04	.40**	.21**	.63**								
10. Part-Time RN	.43**	.11*	-.02	.56**	.23**	.01	.34**	.14**	.64**	.48**							
11. Full-Time LPN	.51**	.10	-.03	.30**	.18**	.06	.25**	.06	.52**	.67**	.64**						
12. Part-Time LPN	.10**	.06	-.04	.35**	.16**	.04	.25**	.06	.19**	.14**	.17**	.09					
13. Alliances	.10**	.45**	-.11**	.05	-.23**	.03	.10**	.14**	-.03	-.05	.14**	.11**	.00				
14. Chain Membership	.02	.00	-.02	.24**	.07	.04	.09*	-.02	.08	.05	.12**	.08	.27**	-.00			
15. Therapy Service	.07	-.11**	.05	.32**	.21**	-.00	.18**	.12	.31**	.22**	.21**	.16**	.28**	-.09*	.28**		
16. Alternative Services	.09*	-.05	.00	.27**	.12**	.01	.11**	.03	.21**	.16**	.22**	.14**	.28**	-.01	.45**	.55**	
17. Nursing Service	-.13**	-.08*	.03	.03	.05	-.02	-.04	.01	-.05	-.03	-.06	-.15**	.11**	-.07	.15**	.10*	.15**
18. Grief Counseling						.02											

\* significant at p < .05; \*\* significant at p < .01

***Regression Analysis***

Two hierarchical regression models including sample weights are calculated. The base model includes the organizational variables of profit status, accreditation, size, age, location of care, and market size, as well as the staffing controls. PCC variables are then added in the subsequent model to assess whether they impact turnover over-and-above the effects of the control variables.

Table 3 shows the results of the hierarchical regression analysis. The base model is statistically significant. When the innovative PCC practices are introduced, they are collectively significant, and the predictability of the model improves. This indicates that innovative PCC practices have a significant positive effect on reducing turnover, thereby supporting the hypothesis.

**Table 3**  
**Results of Hierarchical Regression Analysis**

Variable	Nursing Turnover					
	Step 1 (controls)			Step 2 (patient-centered)		
	B	s.e.	$\beta$	B	s.e.	$\beta$
Constant	1.150	2.361		2.613	3.087	
Profit Status	.418	.857	.026	-.348	.918	-.022
JCAHO	-1.264	.783	-.077	-1.175	.787	-.072
Size	-.001	.008	-.012	.001	.008	.008
Age	-.033	.049	-.037	-.026	.049	-.031
Home Care	.012	.013	.044	.011	.013	.041
Metro Area	1.645	.866	.112	1.597	.868	.109
RN Wage	-.080	.096	-.045	-.047	.096	-.026
Full-Time RN	.157	.022	.550**	.160	.022	.562**
Part-Time RN	-.118	.036	-.227**	-.107	.035	-.206**
Full-Time LPN	-.136	.056	-.164*	-.138	.055	-.166**
Part-Time LPN	.745	.095	.480**	.713	.095	.460**
Alliances				-.046	.257	-.009
Chain Membership				.984	.909	.055
Therapy Service				-.007	.253	-.001
Alternative Service				-.364	.143	-.145*
Nursing Service				.316	.290	.062
Grief Counseling				-3.509	1.588	-.101*
F-score		27.13**			19.07**	
$\Delta$ F-score		27.13**			4.71*	
R <sup>2</sup>		.466			.505	
$\Delta$ R <sup>2</sup>		.466			.039	
Adjusted R <sup>2</sup>		.447			.479	
Semi-partial <i>r</i>		.68			.20	

\* $p < .05$ ; \*\* $p < .01$

***Practical Significance***

An important issue in hierarchical regression analysis is that of practical significance. Does the measure improve decision making and task prediction? Practical significance can be assessed through the calculation of incremental validity; “the extent to which a measure adds to the prediction of a criterion beyond what can be predicted with other data” (Hunsley & Meyer, 2003, p. 443). Incremental validity can be assessed by calculating a measure’s semi-partial  $r$  when employing hierarchical regression analysis (Cohen, 1992). It is computed as the square root of the  $R^2 \Delta$  value reported for the regression equation, with most relations fall within  $r = .10$  to  $.30$  (Hunsley & Meyer, 2003). Because variables are frequently interrelated, as variables are added to an equation,  $R$  increments generally decrease (Nunnally & Bernstein, 1994). Hunsley and Meyer (2003) propose that by the time a third (or more) variable is added into a regression equation, a semi-partial  $r$  of  $.15$  or greater indicates a reasonable contribution to the equation.

As is shown at the bottom of Table 2, the organizational and staffing control variables exhibit practical significance. The semi-partial  $r$  value of  $.63$  far exceeds the threshold for practical significance. Patient-centered practice measures also have practical significance, with a semi-partial  $r$  of  $.17$ . All of this indicates that, collectively, the organizational, staffing and PCP variables are meaningful and useful measures for understanding hospice turnover.

**DISCUSSION**

The results of this study indicate that patient centered care practices are positively related to reduced turnover. Given the well-established relationship between turnover and patient care (cf., Waldman et al., 2004),

hospices that engage in more PCC practices designed to improve patient involvement in their care are likely to enjoy higher quality of patient care. This finding supports other related studies. For example Pietroburgo (2004) found expansion of services to be one of the benefits derived from integration in the hospice industry. In another case analysis, Herbst and Cetti conclude that “successful management of hospice and palliative care programs requires the courage to develop innovative strategies” (2001, p. 333). Kirby et al., (2007) found a positive relationship between hospice innovation and quality of care. Meier (2011) concluded that enhancing the palliative care workforce promotes PCC. In a recent meta-analysis of studies employing patient-centered outcome measures in palliative care, PCC was found to improve awareness in care givers and benefit patient emotional and psychological quality of life (Etkind et al., 2015).

One of the major ways that PCC can indirectly impact organizational performance is through employee work conditions. Through PCC efforts, organizations are allowing care providers to focus more attention on patient care. Avgar et al. (2011) studied British hospitals and found a negative relationship between PCC and employee turnover intentions. They also found a positive relationship between PCC and organizational performance.

The results of this study suggest that reductions in employee turnover are positively related to patient-centered practices. Given the significant risk associated with employee turnover, practices that promote workforce stability are prudent investments. Job satisfaction among care givers is higher when they are able to learn new skills (Stone et al., 2013). Hospices that offer more alternative, nursing and therapeutic services have lower nursing turnover, which prior research has shown to be positively associated with financial and clinical performance (Waldman et al., 2004). The goal of palliative care is to

provide the best possible quality of life for patients whose ailment no longer responds to curative treatment. Assuming hospice administrators strive to improve the quality of patient care, the best advice that can be drawn from this study is to focus on providing more innovative PCC practices. PCC is positively related to decreased employee turnover, which in turn has been shown to be related to improved clinical outcomes (Mohr et al., 2008; Waldman et al., 2004). The industry is also experiencing a trend towards improved coordination across multiple related services and economies of scale, driven in part through mergers and alliances (Gleckman, 2015). These are resulting in better services, such as coordination with home health agencies, liasoning with specialized care facilities, and smoother transitions if the patient needs to move to a different care location.

### ***Limitations***

A limitation of this study is its use of a secondary dataset and its attendant predetermined measures. However, this particular dataset was utilized because it allowed for the assessment of the research question, and has been used in other recent studies examining organizational and staffing factors within the long-term care sector (cf., Decker & Decker, 2012; Stone et al., 2013). Future studies could address this limitation using aggregated primary survey data.

## **CONCLUSION**

This study has examined the effects industry changes are having on organizational outcomes in the hospice industry. As the industry is facing increasing risk and pressures due to consolidation, mergers, and alliances, it is reacting by providing more PCC services. The basic finding of this study is that these practices are positively

and practically related to reduced employee turnover. Hopefully the insights gleaned from this study can be helpful for further academic study, the practice of hospice administration, and the continued development of patient-centered care. In short, in terms of decreasing risk and increasing organizational outcomes, offering more patient-centered services to patients and their families appears to be a strong option.

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