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An Examination of Florida Hospices: Does For-Profit or Nonprofit Status Impact the Quality of Patient Care?

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Abstract- When the Medicare Hospice Benefit program was initially introduced, the market was dominated by non-profit hospices. Today, however, this is no longer the case. Although nonprofits are often associated with a higher quality of care, the financial incentives created by the Medicare Hospice Benefit program have resulted with a for-profit dominated market. The specific problem examined was the impact of organizational constructs on the quality of patient care in the state of Florida. The purpose of this study was to determine whether any significant differences were present in the quality of hospice patient care resulting from differing ownership types utilizing a Contingency Theory approach. A quantitative comparative analysis was conducted utilizing descriptive statistics and ANOVA analyses. The participants for the study included all licensed Florida hospices that submitted the State of Florida Department of Elder Affairs Hospice Demographic and Outcome Measures Report between 2010 and 2015. The findings indicated an underrepresentation of for-profit hospices in the state of Florida, with no statistically significant differences between the quality of care in for-profit and nonprofit hospices. Both of these findings are inconsistent with previous research.

I. The Impact of For-Profit Status on the Quality of Patient Care

The Medicare Hospice Benefit program arose out of necessity in 1982; the cost of end-of-life care was steadily rising to a point which compromised the financial stability of the US healthcare industry (Centers for Medicare & Medicaid Services [CMS], 2015; Hughes & Smith, 2014; Medicare Payment Advisory Commission [MEDPAC], 2015). As a result, the government, via Medicare, introduced the Hospice Benefit program, which diverted the patients from expensive, curative treatments to those centered on pain management and quality of life (MEDPAC, 2015; Taylor, 2013). Since the inception of the Medicare Hospice Benefit program, the US hospice industry has seen significant changes. Over the last several decades, there has been a shift in the organizational status (Thompson, Carlson, & Bradley, 2012), a substantial growth in both cost and demand (MEDPAC, 2016), and an overall examination of the quality of hospice care (Gandhi, 2012; MEDPAC, 2016). As a result, each of these areas have become a field of academic interest and research (Canavan, Carlson, Sipsma, & Bradley 2013; Noe & Forgione, 2014; Thompson et al., 2012).

When the hospice program was first introduced, the market was comprised mainly of nonprofits (MEDPAC, 2015; Noe & Forgione, 2014; Thompson et al., 2012). The tax advantages of the non-profit organizational status (Internal Revenue Service, 2015), combined with Medicare reimbursements for qualified hospices (MEDPAC, 2015), created an industry that originally consisted mainly of non-profit hospices (Noe & Forgione, 2014). However, since the turn of the century, for-profit hospices have grown to represent nearly 61% of the total market share (MEDPAC, 2015; Thompson et al., 2012). Much of this growth is attributed to the profit-driven nature of for-profit hospices, as they seek to maximize the financial incentives of the Medicare Hospice Benefit (Gandhi, 2012; Noe & Forgione, 2014; Wachterman et al., 2011). Yet, as for-profits entered the marketplace and sought patients who allowed for maximum reimbursements from Medicare (Gandhi, 2012; Noe & Forgione, 2014), questions concerning the resulting impact of this shift on the quality of hospice patient care arose (Gandhi, 2012; Noe & Forgione, 2014; Wachterman et al., 2011).

Overall, hospice organizations, both for-profit and nonprofit, seek to provide terminally ill patients the opportunity for medical treatment centered on pain management, as opposed to conventional treatment methods (MEDPAC, 2016). The economic benefits of this program are evident (Kelley et al., 2013; Meier, 2011), and despite operational differences in for-profit and nonprofit hospices, the emphasis placed on providing high quality end-of-life care remains in the forefront of the industry (Cabin et al., 2014; Dy et al., 2016; Perry & Stone, 2011). As for-profit hospices seek to maximize the financial incentives created by the Medicare Hospice benefit program, thus, solidifying profit sustainability (Noe & Forgione, 2014), nonprofit hospices may be left with a disproportionate amount of the most-costly patients. Those who register for hospice late in the course of their illness are often associated with shorter stays and fewer Medicare reimbursements (Aldridge et al., 2014), consequently increasing the likelihood of financial obstacles that potentially hinder these hospices from providing appropriate care (Wachterman et al., 2011). Possible reasons for the

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decline in the quality of for-profit healthcare services may be due to the disproportionate number of for-profit hospices (Noe & Forgione, 2014), due to the financial incentives created by the Medicare Hospice benefit program (Gandhi, 2012, p. 123). According to the contingency theory, differences in organizational constructs, result with varying levels of organizational output (Luthans & Stewart, 1977), in this case, the quality of hospice patient care. Future research is needed to examine the impact of these constructs on the quality of hospice patient care, in order to ensure patient needs are adequately met (Dy et al., 2015; Noe & Forgione, 2014; Thompson et al., 2012). The absence of academic research in this area may result in a for-profit dominated industry, which fails to support the intent of the Medicare Hospice Benefit program (Thompson et al., 2012); to minimize costs while maintaining quality end-of-life care (Cabin et al., 2014; MEDPAC, 2015).

II. Theoretical Framework

The theoretical framework for the study was based on the Contingency theory, a traditional, situation-dependent theory of management. The Contingency theory holds that organizational performance is a function of the interactions between a firm's internal and external constructs (Luthans & Stewart, 1977). Luthans and Stewart (1977) categorize these constructs as environmental, resource, and management practices. A mathematical illustration of the Contingency Theory is reported as such; $P = f$ (ERM) (Longnecker & Pringle, 1978).

One noted construct utilized in the Contingency theory is the impact of management constructs, such as personnel who have authority to make decisions related to organizational performance (Longnecker & Pringle, 1978). For example, those with the ability to alter processes, schedules, or objectives are considered management constructs (Longnecker & Pringle, 1978). The differences in organizational operations of for-profit and nonprofit hospices, make ownership type an appropriate management construct. The ability to include specific, research-based constructs, demonstrates the versatility of the theory. Given that performance is a function of individual constructs, the researcher has the ability to manipulate certain elements, in an effort to explore the potential differences in organizational performance.

III. Research Questions

The different operating environments of for-profit and nonprofit organizations provided the basis for this examination. Below is the stated research question, with accompanying hypotheses. No prior assumptions were made regarding the directionality of potential differences in the quality of hospice patient care between for-profit and nonprofits.

Q1. What is the difference, if any, between the quality of hospice patient care in for-profit hospices and nonprofit hospices in the state of Florida?

$H1_0$. There is no statistically significant difference between the quality of hospice patient care in for-profit hospices and nonprofit hospices in the state of Florida.

$H1_a$. There is a statistically significant difference between the quality of hospice patient care in for-profit hospices and nonprofit hospices in the state of Florida.

IV. Research Methods and Data

Quantitative studies are used to test the objective theories, by examining the potential relationships between identified variables (Black, 1999). The theory that was tested in this study was the Contingency theory, which states that organizational performance is a function of the interactions between a firm's internal and external constructs (Luthans & Stewart, 1977). The independent variables that were used to test this theory were ownership status (either for-profit or nonprofit). The dependent variable was the quality of hospice patient care. The quality of care was derived from a state-developed and validated survey instrument, the State of Florida Department of Elder Affairs Hospice Demographic, and Outcome Measure Report, the results of which are published annually (http://elderaffairs.state.fl.us/doea/reports_eval_hr.php). The percentage of each of the three hospice quality of patient care outcome measures served as the dependent variables, each of which was examined separately. The survey was developed by the Agency for Healthcare Administration (AHCA), the chief health policy, and planning entity for the state (AHCA, 2016). The agency also worked closely with the Department of Elder Affairs, Florida's official State Unit on Aging (DOEA, 2016), to develop and publish the survey results. The use of a survey in a research study allows a sample to be examined, utilizing a validated instrument, so that inferences can be made regarding specific characteristics or behaviors of the population (Vogt, 2007). The Affordable Care Act now requires all hospices to submit annual reports, which illustrate the quality of patient care, to the Centers for Medicare and Medicaid Services, or risk financial penalties. The report contains seven outcome measures to track the quality of patient care. However, this data is not separated by hospice, only by state. While a comparison of quality measures across states may be useful in other studies, the focus of this study is the hospice population of Florida, given the potential for Florida residents to seek hospice care in the foreseeable future. The number of people that choose to retire in Florida is steadily increasing, and is projected to continue as the Baby

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Boomer generation nears and enters into retirement age, as determined by the Social Security Act (Ricketts, 2011; Sharma, 2015). The data solicited in the AHCA survey included hospice name, ownership type, patient demographic data, and the three quality of hospice patient care outcome measures, making its use in the study appropriate.

a) Population

The target population for this study consisted of Medicare-certified hospices located in the state of Florida. The state of Florida requires all licensed hospices to submit annual demographic and quality data, as outlined in Florida Statute section 400.60501 (AHCA, 2016; DOEA, 2016). The required demographic data includes the hospice name, ownership type, hospice and patient demographic data, and each of the three, quality of hospice patient care outcome measures for the reporting period. This is information is outlined in the Hospice and Demographic annual report; DOEA form H-002. In order to ensure a robust sample, information from the last six reports was used to determine the population; 2010 through 2015. The total number of hospices ranged from 41 to 44 for each report. The number of for-profit hospices ranged from 7 to 13, and nonprofits from 30 to 34, for each report.

b) Sample

Random sampling techniques can improve the validity of the study results, thus decreasing the likelihood of a Type I or a Type II error. In order to achieve the minimum sample size requirement of 54 hospices, a random sample of all hospices, which submitted data to the survey, for years 2011, 2012, 2013, 2014, and 2015 report was used for the study. The total number of hospices that completed and submitted the state-mandated survey to the Department of Elder Affairs for all reports used in the study was 214 (41 in 2011, 42 in 2012, 43 in 2013, 43 in 2014, and 44 in 2015). Out of this population, 59 were identified as for-profit and 155 as nonprofit.

c) Data Processing

ANOVA analyses were conducted using the Hospice and Demographic Outcome Measures reports (Appendix A). In order to ensure the validity of the statistical analyses and verify that critical assumptions of the data groups were not violated, hospice demographics were documented using descriptive statistics. The mean, standard deviation, variance, and range were illustrated for each variable to determine whether or not the distributions are normally distributed, as assumed with ANOVA testing (Field, 2009). A visual description of the sampled data illustrated that the data was normally distributed and had a common variance. Any outliers were identified prior to hypothesis testing. The below table depicts the descriptive statistics related to the research question. The mean, standard deviation, and ranges of all for-profit and nonprofit hospices in the sample were included in the description.

Table 1: For-profit and Nonprofit Descriptive Statistics

		N	Mean	Std. Deviation	Minimum	Maximum
OM1*	FP	54	.8546	.13564	.33	1.00
	NP	54	.8291	.11412	.32	1.00
OM2*	FP	54	.9344	.06294	.64	1.00
	NP	54	.9593	.01882	.93	1.00
OM3*	FP	54	.9548	.04971	.77	1.00
	NP	54	.9759	.02514	.87	1.00

*OM1 (Outcome Measure 1); OM2 (Outcome Measure 2); OM3 (Outcome Measure 3)

In addition to descriptive statistics, visual descriptions of the data were used to validate the assumption of normally distributed data. In order to ensure that the data was normally distributed for each of the thee quality of hospice patient care outcome measures, for both for-profit and nonprofit hospices, a total of six graphs were needed. While there were no outliers identified in the sampled data, it was noted that some hospices had missing or incomplete quality information, and were therefore excluded from the population. After examining the data visually, the assumption was validated.

After verifying that the data was normally distributed, ANOVA analyses were conducted, including Welch's and the Brown-Forsythe equality of means test, in the event that Levene's test was significant. After running the analysis, Levene's test was found to be significant for the dependent variables, OM2 and OM3, validating the need for Welch's and Brown-Forsythe's equality of means test. In order to reduce the likelihood of a Type I statistical error, an α level of .05 was used. To reject each null hypothesis with an accuracy of 95%, a minimum sample size of 324 was utilized and a priori effect size of .25, that is, a medium effect size for

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F-based ANOVA models. These measures minimized the potential for statistical errors. A separate ANOVA analysis was conducted for each of the three quality outcome measures, which compared the mean quality data for all independent groups in the study (for-profit and nonprofit). The below tables are the result of the ANOVA and equality of means analyses.

Table 2: ANOVA Results

		Sum of Squares	df	Mean Square	F	Sig.
OM1	Between Groups	.232	5	.046	3.464	.005
	Within Groups	4.267	318	.013		
	Total	4.499	323			
OM2	Between Groups	.081	5	.016	4.545	.001
	Within Groups	1.132	318	.004		
	Total	1.213	323			
OM3	Between Groups	.017	5	.003	1.681	.139
	Within Groups	.636	318	.002		
	Total	.653	323			

Table 3: Equality of Means Results for OM1

		Statistic	df1	df2	Sig.
OM1	Welch	3.932	5	147.688	.002
	Brown-Forsythe	3.464	5	290.667	.005
OM2	Welch	4.313	5	143.093	.001
	Brown-Forsythe	4.545	5	169.475	.001
OM3	Welch	3.120	5	145.990	.010
	Brown-Forsythe	1.681	5	261.952	.139

d) Limitations

This study employed a cross-sectional, correlational, quantitative research design. While an experimental study may have been more statistically powerful, it was not within the ethical boundaries of the study to alter the quality of care for the hospice patients. While associations among the constructs were present, causation, however, between the variables was not concluded.

V. Conclusions and Implications

Regarding the stated research question, no statistically significant differences were found between the quality of hospice patient care in for-profit and nonprofit hospices in the state of Florida. The mean quality of hospice patient care was examined in both for-profit and nonprofit Florida hospices. No specific hypotheses were identified regarding which ownership type would result in a higher quality of hospice care, only that the Contingency Theory should result with varying output, given the organizational differences across ownership type. In terms of the conceptual framework for the study, these findings are inconsistent with both previous literature and the expectations set forth by the Contingency Theory regarding the potential for differences in the quality of hospice patient care across ownership type. Gandhi (2012) noted that in certain conditions, for-profit hospices were associated with lower levels of hospice patient quality, when compared to nonprofit hospices. In this study, there were no statistically significant differences in the quality of hospice patient care across ownership type, for each quality outcome measure. If the holdings of the Contingency Theory held true, given the differences in the operating environments of for-profit and nonprofit hospices, it should have resulted with varying levels of organizational output, in this case, the quality of hospice patient care. This may be due to the nature of the quality outcome measures or the unique environment of the Florida hospice industry. These findings provide revelatory insight to the hospice industry as it illustrates a segment of the industry which may not be hindered by organizational constraints, specifically, ownership type.

The implications of these findings are two-fold. The first element to consider is the representation of both hospice ownership types in the US hospice industry as a whole. In the 2015 report, MEDPAC (2016) stated that for-profit hospices represented 63% of the total US hospice industry. In the state of Florida, the most recent DOEA report indicated that for-profit hospices represented 30% of the total hospice market, up from 17% in 2009 (DEOA, 2015). This indicates that the results found in the MEDPAC report are inconsistent with the findings in this research study, suggesting that the state of Florida is either underrepresented in the for-profit market, or overrepresented in the nonprofit market. The concerns with a for-profit dominated hospice industry lie in previous research by Gandhi (2012) and

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Noe and Forgione (2014), which found that in some circumstances, nonprofit hospices were associated with a higher quality of hospice patient care, compared to for-profits. However, the findings in this study indicated no significant differences in the overall quality of hospice patient care, which is the second element to consider regarding the stated research question. Therefore, in the state of Florida, differing organizational constructs, specifically hospice ownership type, is not associated with varying levels of service output, in this case, the quality of hospice patient care across three, different quality of care outcome measures. This is significant due to the fact that these findings are inconsistent with previous research on the representation of for-profit hospices in the US hospice industry, and any differences in the quality of hospice patient care related to hospice ownership type. This study contributes to current literature through the identification of a sample of the US hospice industry, which is not representative of the population, according to recent research by MEDPAC (2016). It also indicates that although the for-profit industry has grown in the state of Florida, it has not impacted the quality of hospice patient care, when compared to nonprofits, according to the three quality of care outcome measures identified by the State of Florida.

Overall, the implications of the study include, most importantly, the underrepresentation of for-profit hospices in the state of Florida. While MEDPAC (2015) reported a for-profit market-dominated industry, this could not be validated in the state of Florida. Given that for-profit hospices have been associated with a lower quality of patient care, when compared to nonprofits, this growth was a cause for concern. This study, however, noted no significant differences between the quality of hospice patient care for both for-profit and nonprofit hospices. The state of Florida, therefore, presents a unique segment of this industry.

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