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The Relationship Between Team Engagement And Physician Engagement

Lynne Miles
Walden University

Walden University

College of Health Sciences and Public Policy

This is to certify that the doctoral dissertation by

Lynne Miles

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Review Committee
Dr. Donna Clews, Committee Chairperson, Health Services Faculty
Dr. Eboni Green, Committee Member, Health Services Faculty
Dr. David Segal, University Reviewer, Health Services Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
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Abstract

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by

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MHA, Walden University, 2014

BS, East Carolina University, 2012

Dissertation Submitted in Fulfillment

of the Requirements for the Degree of

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Abstract

While physician engagement has previously been shown to be related to both turnover and burnout, there are no studies that focus primarily on the relationship between the physician and team. The purpose of this quantitative study was to examine the relationship between team engagement and physician engagement. The theoretical framework used to guide this research study is the neoclassical organizational theory. The secondary data source was from an engagement survey taken by employed team members and physicians. The independent variable is team engagement. The dependent variable is physician engagement. The instrument for the study is valid and reliable and was developed by The Advisory Board, a consulting firm focused on health care organizations and educational institutions. The predictor variables were the four components of the team engagement, determining which one has the most weight on the overall composite score of physician engagement. The results of the binomial logistic regression analysis indicated there was no statistically significant difference between my organization inspires me to perform my best (p = .436), would recommend the organization as a great place to work (p = .094), and likely to be working for this organization 3 years from now (p = .872). However, the independent predictor variable: the team member's willingness to put in a great deal of effort in order to help the organization to succeed, was found to be significant (p = .013). Quality of care, patient experience, and health system performance can all be improved with increased physician engagement, creating a positive social change within our healthcare systems.

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Dedication

This work is dedicated to my children as an example to never stop learning and growing, to my husband who is my rock, and to my mother and father who will always believe in me. I love you all with my whole heart.

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I would like to acknowledge and give my sincere thanks to my chair, Dr. Donna Clews. Her guidance, counsel, and positive approach carried me through all stages of this work. I would also like to thank my committee members, Dr. Ebony Green and Dr. David Segal for your direction and feedback. Finally, I would like to thank Dr. Zin Htway for his help with my methodology and willingness to answer all my questions.

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Chapter 1: Introduction

Engagement is "an energetic state of involvement with personally fulfilling activities that enhance one's sense of professional efficacy" (Maslach & Leiter, 2008, p. 498). Specific to healthcare, engagement is a mutual relationship in which the organization values the clinician and the clinician respects the organization (MacLeod & Clarke, 2009; Milliken, 2014; Rowling, 2012). MacKinney (2016) shared that it is not organizational behaviors that define physician engagement, it is organizational structures. Organizational culture is recognized as a contributing factor of health care outcomes. Physician engagement is proactive, physician involvement and meaningful physician influence that move a healthcare organization toward a shared vision and a successful future (MacKinney, 2016). A team approach for quality incentives result in positive physician engagement as well as positive patient outcomes (McGonigal et al., 2019).

Approximately 75% of physicians work for hospitals, large practice groups, health care systems, or academic medical centers (Merritt Hawkins, 2012). Healthcare leaders must identify ways to increase engagement for all team members, to include physicians, while continuing to advance quality metrics and decrease cost. It is important for healthcare leaders to ensure that physicians remain engaged in leading the system in a positive manner. Reducing physician turnover could greatly improve quality and reduce cost (Waldman et al., 2010). Job burnout and employee engagement had a high correlation in a meta-analytic review completed on 37 studies (Cole et al., 2011). Cole et al. (2011) also found that burnout and engagement exhibited similar patterns. Healthcare systems are facing reported provider burnout at higher rates than ever before and must

find a way to address this concern (Lyndon, 2016). Creating an environment that fosters a positive experience for the physician could be key to increased physician engagement.

Healthcare leaders must partner with physicians to engage them in a shared vision of success to remain effective (MacKinney, 2016). Primary care services are the catalyst of shared saving programs through accountable care organizations. The Medicare shared savings program focuses completely on the outpatient measures delivered by primary care physicians and their clinical teams (Centers for Medicare and Medicaid Services, 2015).

The results of a Kaiser Permanente study found that a physician's sense of control over their practice environment was the most powerful predictor of engagement and commitment to the organization (Freeborn, 1998). These opportunities included participation in decision making, flexibility, and calendar management opportunities (Freeborn, 1998).

The need for camaraderie is defined as recognition from and connectedness to colleagues (Baumeister & Leary, 1995; Harlow & Suomi, 1970). Spending time with physician colleagues alleviates symptoms of burnout (Sinsky et al., 2013; West et al., 2011). The need for companionship may be subsidized by building strong, trusting relationships with other team members. Creating an environment of teamwork, collaboration, and respect leads to a supportive workplace that empowers colleagues to co-design meaningful improvement work (Leape et al., 2012).

Chapter 1 includes a discussion of the background of the study, including a brief review of the literature as well as the knowledge gap related to the study. This chapter

also includes the problem statement and the current gap in the literature. I present the independent and dependent variables along with the research questions and the purpose of the study. I also discuss the theoretical frameworks for the study and the rationale for the nature and methodology for the study. In this chapter, I provide the definitions for terms used, a discussion of the assumptions, the scope, delimitations, and limitations. The chapter concludes with a discussion of the significance and potential social change implications for the study.

Background

Evidence has shown strong correlations between patient experiences and employee engagement scores (Harmon & Behson, 2007; Heskett et al., 2008). Leaders can develop improved patient care experiences by improving employee engagement (Collins et al., 2008; Michie & West, 2004; Rondeau & Wagar, 2006; Sikorska-Simmons, 2006). Data have shown that physicians' engagement with their healthcare organization improves patient safety (Perreira & Perrier, 2018). England National Health Services has completed research that concluded hospitals with higher levels of staff engagement provide higher-quality services and have better financial performance (West et al., 2011).

The high prevalence of burnout among physicians results in loss of engagement and commitment (Swensen et al., 2016). Additional research is needed on multiple types of physician engagement relationships from the perspectives of physicians. Such research should attend to possible differences in perspectives and their implications, among different specialties, current and prior practice characteristics, as well as hospital-employed physicians and independent physicians with varying degree of engagement or

integration with the hospital. Healthcare systems must have engaged physicians to create a productive, high quality system; to include physicians both in the hospital and in the ambulatory setting. Erosion of physician engagement could have significant implications for the future in terms of quality of care and the quality of the healthcare workforce (Landon et al., 2002). Efforts are needed to develop new strategies for improving, supporting and energizing physicians rather than alienate them (Landon et al., 2002).

While there has been significant research on the impacts of both physician and team member engagement there is an opportunity to compare how the two impact each other. This study was necessary to connect the physician engagement to team member engagement.

Problem Statement

Healthcare systems must have engaged physicians to create a productive, high-quality systems, including physicians in the hospital and in the ambulatory setting. There has been little research done on assessing multidisciplinary healthcare job satisfaction, including the support members and ambulatory practices (Powell et al., 2015). Health care teams are hierarchical in structure forming complex organizations. The relationships between team members and the units where they work need to be defined in order to attain optimal performance (Rabkin, 2021). Most often job satisfaction instruments revolve around general hospital specific roles (Spector, 1985). These mechanisms may be too specialized to sufficiently demonstrate job satisfaction within a multidisciplinary team (Chang et al., 2017). Efforts are needed to develop new strategies for improving, supporting and energizing physicians rather than alienate them (Landon et al., 2002).

Employed physicians can feel disconnected from the larger formal organization; however, they are able to create an informal culture within their own work unit which could lead to an engaged team. Additional research is needed on multiple types of physician engagement relationships from the perspectives of physician (Powell et al., 2015). The relationship between physician engagement scores relative to the team members that support them has not yet been assessed. In this study, I measured how physician's engagement could be affected by the team's level of engagement they work with.

Purpose

The purpose of this quantitative study was to examine the relationship between team engagement and physician engagement. The independent variable was the team member engagement. The dependent variable was physician engagement. The predictor variables that I used to measure the team member engagement were: (a) recommend friend to organization, (b) inspirations, (c) intent to stay, and (d) effort.

Research Question

In this study, I examined if a relationship existed between physician engagement and team engagement. The research question and hypotheses for the study were:

Research Question (RQ): What is the relationship between team member engagement and physician engagement?

Null Hypothesis (H_0): There is no statistically significant relationship between team engagement and physician engagement.

Alternative Hypothesis (H_1): There is a statistically significant relationship between team engagement and physician engagement.

Framework

The theorical framework that I used to guide this research study was the neoclassical organizational theory first described by Roethlisberger and Dickson in 1943. The neoclassical theory is based on the Hawthorne experiments where social or human relationships were evaluated (Roethlisberger & Dickson, 1943). This theory distinguishes the significance of group behavior and emphasizes human relationships (Roethlisberger & Dickson, 1943). Because my goal was to analyze and evaluate employee and physician engagement scores, I used organizational theory to assess social unit structures and the organizational need to achieve a collective goal.

Nature of the Study

I evaluated data collected through a quantitative survey to assess the engagement scores of employed physicians relative to the team member engagement scores for the same time. I also evaluated if there was a direct relationship between the physicians' engagement and team member's engagement. I collected the data through a healthcare system employee engagement survey specific to employed physicians and team members.

The Advisory Board survey was administered July of 2017. The Advisory Board calculated an engagement score based on a 6-point Likert scale where 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree*, and 6= *strongly agree*.

The physicians' engagement scores were measured based on the below four questions:

1. This organization inspires me to perform best.
2. I am willing to put in a great deal of effort in order to help this organization succeed.
3. I would recommend this organization to other clinicians as a great place to practice.
4. I am likely to be practicing at this organization three years from now.

The employees' engagement scores were measured based on the below four questions:

1. This organization inspires me to perform best.
2. I am willing to put in a great deal of effort in order to help this organization succeed.
3. I would recommend this organization to my friends as a great place to work.
4. I am likely to be working for this organization three years from now.

Definitions

I used the following terms in this study. The definition list also includes the independent and dependent variable definitions. Further details about the variables are noted in Chapter 3.

Employee Engagement: Employee engagement is the extent to which employees feel passionate about their jobs, are committed to the organization, and put discretionary effort into their work.

Engagement: Engagement is "an energetic state of involvement with personally fulfilling activities that enhance one's sense of professional efficacy" (Maslach &Leiter, 2008, p. 498).

Engagement Survey: The Advisory Board's engagement survey allows leadership to view national data on the four identified questions that measure the attributes of an engagement employee, along with 42 proven drivers of engagement. The most recent comparison data was collected between 2015 and 2016 (Advisory Board, 2018).

Healthcare System: A healthcare system is an organization of people, institutions, and resources that deliver health care services to meet the needs of a target population or community.

Physician Engagement: Physician engagement is proactive physician involvement and meaningful physician influence that move a healthcare organization toward a shared vision and a successful future (MacKinney, 2016).

Team Members/Employees: Team member multidisciplinary teams include staff from different levels of the treatment pyramid to include registration, medical assistants, licensed practical nurses, registered nurses, and others.

The Advisory Board: The Advisory Board Company is a best practices firm that uses a combination of research, technology, and consulting to improve the performance of healthcare organizations.

Assumptions

I made a number of assumptions in this study. I assumed that all participants were free from bias. I assumed that the survey tool was valid and that the participants answered the survey truthfully. My final assumption was that the study would promote positive social change by showing how an engaged healthcare team can have a positive impact on physicians' engagement.

Scope and Delimitations

The sample population for the study was system employed physicians and correlating staff who practice in rural Eastern North Carolina. The secondary data set was collected and blinded by the Advisory Board. The healthcare system's flagship medical center is located in a rural area yet it is a large facility with over 1,000 beds, third largest Level I Trauma Center in the nation, and is connected with a medical school. This is also where the system's corporate headquarters are located. At the time of the survey there where 9 community hospitals that serve the 29 surrounding counties. The healthcare system medical group is made up of over 500 providers and 100 practice locations.

Within the specific population there were also external threats to the validity of the study. The local structure of the senior leadership team differs from each region. The engagement survey is comprised of different questions for physicians and team members by which engagement is measured. Use of an electronic survey limits the ability of the participants to ask questions and receive clarification and could potentially affect the results of the study.

Limitations

I used data collected through a healthcare system employee engagement survey. The data were confidential and deidentified. All data remained confidential and protected. The study population was not considered vulnerable. Potential engagement study limitations included that there was not 100% participation because the survey was not mandatory, team member concerns about anonymity, the generalizability between types of employees surveyed, and turnover.

Significance

By examining the relationship between physicians' engagement scores and their partnering teams, healthcare leaders can leverage that relationship to improve physician engagement. Leaders could use this research to understand the underlying culture of those interwoven having the potential to advance social change. The patients and healthcare system could then benefit from all the downstream effects increased physician engagement brings to the culture of the organization. This research was necessary to better understand the significance of physicians and team member engagement. With a better understanding of the subculture created through the physician and team member engagement, leadership can focus on hiring in the right people to participate in a positive culture of engagement resulting in a work environment that the physician will recommend to others.

Summary

In this quantitative study, I determined if there was a relationship between the employees' engagement scores (independent variable) and the physicians' engagement

scores (dependent variable). The primary research question was: What is the relationship between team engagement and physician engagement? I answered this question using an ordinal regression analysis. I used the components of team engagement as the predictor variables for the regression analysis. The theoretical framework that I used to guide this research study was Roethlisberger and Dickson's neoclassical organizational theory. The neoclassical theory is based on the Hawthorne experiments where social or human relationships were evaluated (Roethlisberger & Dickson, 1943). The secondary data set was collected by the Advisory Board. I focused on physicians and correlating staff.

Chapter 2 includes a review of the relevant literature for the study as well as the gap that currently exists. In Chapter 3, the methodology will be described for the study. I will explore the design through the supporting rationale as well as justifications for population, sampling, and variables. In Chapter 4, I will describe the results of the survey and the findings of the study. In Chapter 5, I will interpret the findings and limitations and examine the study further.

Chapter 2: Literature Review

Introduction

Specific to healthcare, engagement is a mutual relationship in which the organization values the clinician and the clinician respects the organization (MacLeod & Clarke; Milliken, 2014; Rowling, 2012). Mackinney shared that it is not organizational behaviors that define physician engagement, it is organizational structures (2016). Physician engagement is proactive physician involvement and meaningful physician influence that move a healthcare organization toward a shared vision and a successful future (Mackinney, 2016).

Evidence suggests that organizations with high staff morale outperform those with low morale (Griffith, 2004; Griffeth et al., 2000; Leveck & Jones, 1996; Ostroff, 1992; Ryan et al., 1996). Engaged physicians tend to receive higher patient satisfaction ratings (Bezrukova et al., 2012; Dixon-Woods et al., 2013; Ham, 2014; Plsek, 2013). Research supports a relationship between satisfaction and engagement and turnover and organizational effectiveness (Griffeth et al., 2000; Koys, 2001; Posdakoff & MacKenzie, 1994).

Busse and Warner identified that team and leadership roles, sets of relationships and processes, has personal, interpersonal, intra-organisational dimensional effects in healthcare (2017). Healthcare dyads and small groups that form relationships within organisation has proven successful on multiple levels (Busse & Warner, 2017). Zallman et al. (2020) reviewed the relationship between team engagement and perceptions of patient safety and discovered a weak correlation was also shown between team

engagement and provider engagement. Previous researchers continue to highlight improved outcomes based on successful relationships. The purpose of this quantitative study was to examine the relationship between team engagement and physician engagement.

In this chapter, I review the literature search strategy and theoretical foundation of the study. I have presented the topic of engagement in multiple ways, including how it relates to the research, social problems, and future implications. I have reviewed the literature regarding engagement to include team member, physician, and healthcare system in this chapter.

Literature Search Strategy

I completed a literature review that was systematically compiled through the use of several library databases and search engines. I reviewed articles that were peer-reviewed and published between 2016 and 2020 from SAGE Journals, Thoreau, ProQuest Health and Medical, and ScienceDirect. I also reviewed seminal works from Roethlisberger and Dickson (1943) are also included in the literature review. Key search terms for the electronic databases included: *Hawthorne Experience* and *neoclassical theory*, *Advisory Board engagement survey*, *physician engagement* and *outcomes*, *team member engagement* and *outcomes*, *patient satisfaction* and *engagement*, *physician engagement* and *job satisfaction*, *senior leadership* and *patient satisfaction*, *patient satisfaction in hospitals*, *leadership* and *patient satisfaction*, *Hawthorne experiments*, and *neoclassical theory*.

Theoretical Foundation

Organizational theory is the study of relationships within organizations to include organizational design and structure. As the focus to analyze and evaluate the patient, employee, and physician satisfaction scores, organizational theory can be used to assess social unit structures and the organizational need to achieve a collective goal.

The theoretical framework that I used to guide the research study was the neoclassical organizational theory first described by Roethlisberger and Dickson in 1943. The neoclassical theory is based on the Hawthorne experiments where social or human relationships were evaluated (Roethlisberger & Dickson, 1943). This theory distinguishes the significance of group behavior and emphasized human relationships (Roethlisberger & Dickson, 1943). The groups surveyed in this study are both physicians and other team members. The analysis of human relationships are addressed in the outcome of the survey results.

In previous studies researchers relayed the neoclassical organizational theory that periodic top-down communications promoting tacit knowledge exchanges across professional subgroups may be effective for enabling learning and change in health care organizations (Rangachari et al., 2015). This prospective study was conducted in two intensive care units within an academic health center. In one study the researcher focused on two intensive care units who experienced substantially improved, statistically significant, and sustained quality improvements. The results found that the factor most influencing success was the ability to enable champions specific to each unit to emerge fostering change implementation. Both units also showed statistically significant increase

in proactive communications between physicians and nurses over time (Rangachari et al., 2015). This research study highlights how the inter-relational health care team communication at a unit level can improve quality outcomes.

Team Member Engagement

David Ulrich (1997) focused on the company's role in engaging not just the body but the mind and soul of each team member as well. Collini et al. (2015) shared that workplace respect and connection to the mission affect turnover by decreasing engagement. The researcher focused on 5,443 employees who worked within 185 different departments throughout a large U.S. healthcare organization's ten hospitals. The team members' survey responses were aggregated by department and linked to company recorded turnover rates by relative department. The six questions consisted of four that focused on respected in the workplace, one on mission fulfilment, and one on reasons for considering leaving the organization. All were measured on a 5-point Likert scale. The findings of the research confirmed that to increase engagement and improve turnover rates it would be beneficial for organizations to focus on improving interpersonal relationships. This research highlights how connectedness and relationships support improved engagement in nursing. Future researchers would benefit from further evaluating employees feedback around respect and mission fulfillment as these two variables are often subjective. Additional focus in this area could produce insights to culture climate factors.

De Carlo et al. (2020) showed the importance of employees' relationships with leadership to build engagement. The researcher focused on a total of 330 completed

questionnaires that were collected five different Italian companies. The companies consisted of different enterprises including 32.1% oil and gas; 26.7% metalworking; 23.9% banking; 15.5% chemical, industrial, and pharmaceutical; 1.8% large-scale retailing. The questionnaire consisted of three standardized scales administered to measure positive supervisor behaviors, workplace spirituality, and work engagement. Positive supervisor behaviors were assessed through the first scale of the Stress Management Competency Indicator Tool. The research team examined the relationships between positive supervisor behaviors, workplace spirituality, work engagement, and employee performance. Results show a direct positive effect of positive supervisor behaviors on employee performance. Interestingly the research team found that positive supervisor behaviors have a positive effect on work engagement, and on employee performance. The results showed that supervisory integrity, positivity, and responsible behaviors positively affect team member engagement. This signifies the importance of the employees' relationship with leadership to build engagement.

Wagner et al. (2017) completed a study evaluating motivating factors that drove primary care teams to participate in a voluntary audit and feedback initiative was explored. The researcher's qualitative study focused on interviews that were completed with 18 healthcare teams representing rural and urban areas, differences in hospital discharge data as well as teaching status. The researchers then analyzed the interview transcripts for themes that would focus on three categories: intervention characteristic, outer setting, and inner setting. A range of motivating factors, beyond quality improvement, contributed to participation in the audit and feedback program. Findings

from this study highlight that efforts to understand how and when the intervention works best cannot be limited to factors within developers' control. Clinical teams may more readily engage with initiatives with the potential to address their own long-term system goals. Aligning motivations for participation with the goals of the audit and feedback initiative may facilitate both engagement and impact. Because this researcher focused on a very specific healthcare delivery method additional research should be done to evaluate similar motivating factors across different healthcare team programs.

Healthcare systems are often focused on building a culture of patient safety that optimizes teamwork and ongoing engagement of the healthcare team (Thomas & Galla, 2013). These interrelationships impact the effectiveness of care, patient safety and clinical outcomes. Team training has been identified as a strategy for enhancing teamwork, reducing medical errors and building a culture of safety in healthcare. Engaged employees perform their work because they enjoy it and are pulled towards it – they are intrinsically motivated (Schaufeli & Bakker, 2010).

Both teams and organizations benefit from a work environment when work engagement and job satisfaction are a priority. The researchers analyzed of data from an employee survey of 250 health-care employees in Sweden was reviewed. The employees completed a questionnaire at two time points, 6 to 8 months apart. Analyses of separate cross-lagged panel designs were conducted using structural regression modeling with manifest variables. The researchers identified that there are significant benefits for healthcare teams when engagement is a focus of the organization (Jutengren et al., 2020).

The study showed that an organization is likely to gain in efficiency and lower turnover rates when organizations promote social capital within groups.

Physician Engagement

Researchers have focused on how engaged providers improve patient outcomes (Perreira et al. 2019). However, there is not a significant amount of research that explains the factors that lead providers to become and remained engaged. Kreindlers et al. (2019) completed research specific tointo engaging primary care physicians. The research team found that the physician-system relationship was distant resulting in disengaged physicians.

Keller et al. (2019) completed a qualitative mixed methods analysis which efficiently identified professional cultural barriers within an academic hospital to serve as an institution-specific guide to improving physician engagement. The researchers sought to efficiently characterize the professional cultural dynamics between physicians and administrators at an academic hospital and how those dynamics affect physician engagement. The qualitative mixed methods analysis was completed over 6 weeks. The survey included semistructured interviews and observations with 20 physicians across specialties and 20 healthcare administrators across management levels. The participants were an equal representation of men and women and had varied years of experience, from 1 to 35, with the organization. The investigation indicated a professional cultural disconnect was undermining efforts to improve physician engagement. Physicians and administrators felt these results accurately reflected their realities and used this information as a common language to plan targeted interventions to improve physician

engagement. Limitations of the study included its cross-sectional nature with a modest sample size at a single institution. This analysis revealed that cultural differences were affecting physician engagement and were potentially the primary driver of low physician engagement scores obtained in previous internal surveys. These cultural differences were primarily affected by organizational changes, conflicting perceptions of these changes related to differences in professional culture, and conflicting meanings behind seemingly shared solutions. Added studies should be considered to verify if these outcomes would be similar outside of the single institution surveyed and with a larger sample size.

An additional study was completed by Challenge & Support Research Network (Solms et al. 2019) to evaluate how physician engagement is affected by their tenure or specialty. A questionnaire survey of 124 resident and 69 specialist practicing across five academic and general hospitals in the Netherlands. Participants worked in the fields of pediatrics, internal medicine and neurology. The researchers focused on job demands, job resources, personal resources, work engagement and burnout symptoms. The researchers analyzed the results using multivariate generalized linear model. The findings demonstrated that personal resources assigned to physicians, both residents and specialists, help improve work engagement and reduce burnout. Furthermore, residents benefit from psychological flexibility while specialist benefit from colleague support. An additional review of how team member resource alignments align with physicians would be of interest.

Physicians are exposed to high job demands, both during attendance and residency, which could harm their well-being. Dyrbye et al. (2019) suggested that job

demands other than workload (e.g., job insecurity, work-family conflict) and a lack of resources (e.g., self-compassion, psychological capital, and psychological flexibility) play a prominent role in the onset of burnout. The researchers focused on responses of 193 physicians who took part in a 15-minute survey. Of those, 75 physicians had signed up for a personal coaching program. The study participants included 151 women and 42 men with a mean age of 36.5 years. The breakdown of residents was 124 with the additional 69 being medical specialist. Furthermore the medical specialist breakdown had a majority of pediatricians at 142, 37 internal medicine, and 14 neurology. The researchers found that residents that participated in the study had less workload than the specialist yet reported similar symptoms of burnout. Overall, the researchers found that interventions to reduce burnout and increase engagement should be tailored to the specialty group. This data suggests that particularly personal resources safeguard the work engagement and lessen the risk of burnout of residents and specialists. This study shows the importance of reducing burnout, no matter the amount of time the physician has been working. Additional sub-specialty inclusion would be notable for future studies. To explore the effect of individualized coaching on the well-being of physicians. Professional coaching may be an effective way to reduce emotional exhaustion and overall burnout as well as improve quality of life and resilience for some physicians.

Babenko et al. (2019) examined the relationship between self-compassion and professional wellbeing (work engagement, exhaustion, and professional life satisfaction) of physicians, who frequently face uncertainties and challenges in their clinical practice. Fifty-seven practicing physicians in Canada participated in the study. Overall, 65% of the

participants were female; 47% were in the early-career stage; 49% were family medicine (FM) physicians, with the rest being non-FM specialists. It was hypothesized that (a) self-compassionate physicians would experience greater work engagement and less exhaustion from work than physicians reporting lower self-compassion and (b) self-compassionate physicians would experience greater professional life satisfaction through their greater work engagement and less exhaustion than physicians reporting lower self-compassion. Sequential regression analyses were performed. The results confirmed the hypothesized associations, indicating that self-compassionate physicians experienced more positive work engagement, felt less emotionally, physically, and cognitively exhausted due to work demands, and were more satisfied with their professional life than physicians who exhibited less compassion toward themselves in uncertain and challenging times. Future studies are needed to determine optimal ways to support practicing physicians and medical trainees in becoming more self-compassionate for their enhanced wellbeing and, ultimately, for the provision of effective patient care.

Healthcare System Engagement

Healthcare policymakers and managers struggle to engage private physicians, who tend to view themselves as independent of the system, in new models of primary care. Kreindler et al. (2019) completed a qualitative study focused on primary care in Manitoba. A group of 60 physicians and 35 decision makers participated in an interviews, focus groups, and observation. The semistructured interview process focused on the interviewees understanding of primary care opportunities and involvement in initiatives for change. The researchers then reviewed and analyzed the data focusing on core themes

and ideas. The study revealed that even a relatively subtle misalignment between a particular social identity management strategy and its intergroup context can have highly problematic ramifications. Ultimately underlying relationships between physicians and management likely have a large impact on physician engagement. The researcher suggests that practice change should start within individual clinics. Additional research should be completed to evaluate the underlying theme identified by the researchers regarding the cultural impact of skepticism noted around the organizations' policies and initiatives.

Skillman et al. (2017) researched how best to engage physicians in care coordination. Through a qualitative approach 672 participants from 21 programs across 15 states participated in interviews and observations. The data was then reviewed and themes were identified. The research team found that the most successful approach to improving engagement way by tailoring team working styles to meet the physician's preferences (Skillman et al., 2017). Additional research should be considered that will focus on how to modify the team work to meet the physician's needs while keeping in mind the needs and vision of the organization as well.

Implications

Value-based purchasing is pressuring systems "to improve clinical processes and ensure high quality patient experience – an outcome highly dependent on the commitment, dedication and skills of hospital's employees who have an enormous impact on the overall patient experience" (Sherwood, 2013, paragraph one). Sherwood also

asserted that hospitals need to create an engaged and high-performing workforce to improve patient satisfaction and quality care outcomes.

Similar claims were made by Polish researchers Rosiek et al. (2016). Rosiek et al.'s findings were that individual and collective employee recognition were important to increasing their engagement and productivity, as well as to patient satisfaction. Thus, this problem is of global interest and adding to existing knowledge in how employee engagement can be maximized is meaningful. With providers being the driving force in the healthcare delivery system it is important for healthcare administrators to ensure that they remain engaged in leading the healthcare delivery system. Reducing physician turnover could greatly improve quality and reduce cost (Waldman et al., 2010). Healthcare systems are facing reported provider burnout at higher rates than ever before and engaged physicians are less likely to become burned out (Lyndon, 2016).

Summary and Conclusions

The term physician engagement is related frequently to improving patient outcomes. A concept analyses published in the Journal of Healthcare Leadership (2019) defined the term physician engagement as regular participation of physicians in deciding how their work is done, making suggestions for improvement, goal setting, planning, and monitoring of their performance in activities targeted at the patient and organization levels (Perreira et al., 2019). The outline of physician engagement includes accountability, communication, incentives, interpersonal relations, and opportunity. The results include improved outcomes such as data quality, efficiency, innovation, job satisfaction, patient satisfaction, and performance.

Several studies have focused on the importance of physician engagement and how it relates to the physician's well-being, connection with the organization's beliefs, tenure, and its relationship between quality of care (Milliken et al., 2014; Rabkin et al., 2019; Keller et al., 2019; Solms et al., 2019; Dyrbye et al., 2019; Babenko et al., 2019). Other studies focused on the importance of physician engagement and its relationship to their alignment with organizational initiatives (Kreindler et al., 2019; Skillman, et al., 2017). However, there has been little research done on assessing multidisciplinary healthcare job satisfaction to include the support members (Powell et al., 2015). This study seeks to address a gap in the literature by examining the direct relationship between the physicians' engagement and their team members' engagement scores.

In Chapter 3, the methodology will be described for the study. The design through the supporting rationale will be explored as well as justifications for population, sampling, and variables. The survey instrument and detailed plan of analysis will be presented along with the threats to the validity of the study.

Chapter 3: Research Method

Introduction

Additional research is needed on multiple types of physician engagement relationships from the perspectives of physician (Powell et al., 2015). The relationship between physician engagement scores relative to the team members that support them has not yet been assessed. Through this research process I measured how physician's engagement could be affected by the team's level of engagement. The focus was to analyze and evaluate employee and physician engagement scores using organizational theory to assess social unit structures and the organizational need to achieve a collective goal. The purpose of this study was to examine the relationship between team engagement and physician engagement.

In this chapter, I have detailed the research design and rationale along with the methodology of the study. Descriptions of the survey instrument and data analysis are provided along with threats to validity and ethical considerations.

Research Design and Rationale

An ordinal regression analysis study was appropriate to examine the relationship between the employee engagement score (independent variable) and the physician engagement (dependent variable). Ordinal regression studies are used to determine if a relationship exists between variables. Through the ordinal regression analysis this study closed the current gap in literature.

I completed this quantitative study using a secondary dataset collected with a healthcare system employee engagement survey specific to physician engagement. I used a nonexperimental design in this study, with no time or resource constraints.

Methodology

Study Population and Sample

The secondary data set was collected by The Advisory Board in 2017 (Advisory Board, 2017). The focus of this study was on physicians and staff who work in a multi-site healthcare system located in rural Eastern North Carolina. While the medical center is still located in a rural area, it is a large facility with over 1,000 beds, third largest Level I Trauma Center in the nation and is connected with a medical school. This is also where the system's corporate headquarters are located. There are nine community hospitals that serve 29 counties. The healthcare system medical group is made up of over 500 providers and 100 practice locations.

Roughly 1,000 physicians across the healthcare system received the survey link, with approximately 550 responses. Roughly 10,000 employees received the survey link, with approximately 7,700 responses. Specific to this study, team members included nurses, clinical support, and administrative support totaled 2,537 responses and 441 responses from physicians. In order to determine the sample size for the study I performed a G* Power version 3.1 with a P power of 0.05. The recommended minimum sample size is 82 physician surveys responses (95% confidence interval; 15% response distribution). I selected an alpha of .05 to balance and limit both Type I and Type II errors.

Archived Data

I collected data for the study through secondary data maintained by The Advisory Board for both the dependent and independent variables. The healthcare system employed the Advisory Board to conduct the survey. The Advisory Board survey was administered July of 2017. The survey was open to all employees via an electronic link that was emailed and posted on the system's intranet website. Organizational leaders encouraged participation in the survey but did not make it a mandatory requirement. The survey link was open for 2 weeks.

The Advisory Board administered two surveys to assess employee engagement; one for team members and one for physicians. There were four specific questions that rate physician engagement and four questions that rate employee engagement. The Advisory Board supplied the individual data for each question back to the healthcare system in a blinded fashion. The Advisory Board also completed overall data calculations for system leadership review. For this study I used the individual raw data.

I completed a data use agreement with the healthcare system for use of the engagement survey data. The healthcare system is composed of one flagship, academic hospital, seven community hospitals, and multiple primary and specialty care ambulatory practices. Each employee's engagement data was stored within the electronic database.

Instrument

Engagement Survey

The Advisory Board engagement survey tool did not focus on how happy employees are in their jobs, but how dedicated they are to the mission of the healthcare

system. Each question is measured on a 6-point Likert Scale: 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree,* and 6= *strongly agree*. The Advisory Board identified four questions that factored into team member engagement and four that related to physician engagement. Each of the team member and physician engagement questions can be singularly reviewed. There is also an overall engagement composite score that is the average of each set of questions specific to the team member or physician. The instrument was developed by the Advisory Board in 2014 (Advisory Board, 2018). Reliability was determined by Pearson correlations and reported reliability rates were .9. Content validity was determined by a panel of experts.

Engagement categories are defined as engaged, content, ambivalent, and disengaged. An engaged physician and employee have a range of 5.5–6 and is defined as going above and beyond to see the organization succeed, tying personal success directly to that of organization, highly loyal and emotionally committed to the organization. Content has a range of 4.5–5.49 and is defined as solid contributors, satisfied with their jobs and the organization, lacking emotional commitment to the organization. Ambivalent has a range of 3.5–4.49 and defined at would leave if presented with a better offer, sees job as paycheck more than anything else. Disengaged has a range of less than 3.5 and is defined as least satisfied with their job and organization, tend to be most vocal, actively detracting from quality of workplace peers. Both scores for the individual units and hospitals are supplied in the data and follow the same definitions. They are the average of the individual scores assigned to that particular location.

The Advisory Board engagement tool develops workforce strategies, captures employee viewpoints, targets data-driven opportunities, and coverts insights into improvements. The engagement tool was promoted as a solution to help to cultivate effective leadership through a focused, maintainable approach to continuous listening if used to foster improved workplace relationships (Advisory Board, 2018).

Operationalization

The operationalization of the survey instrument with the independent variables and dependent variable is summarized below in Table 1.

Table 1

Dependent Variable: Physician Engagement Questions

Variable Category	Variable	Level of Measurement	Description	Code
Independent	Employee Engagement	Interval	Example of Likert Scale: (1) strongly disagree, (2) disagree, (3) tend to disagree, (4) tend to agree, (5) agree and (6) for strongly agree	Employee
Dependent	Physician Engagement	Interval	Example of Likert Scale: (1) strongly disagree, (2) disagree, (3) tend to disagree, (4) tend to agree, (5) agree and (6) for strongly agree	Physician

Independent Variable

The employee engagement score was obtained through The Advisory Board's electronic database system. There were four questions in the assessment that The Advisory Board has linked to employee engagement. These four questions were averaged by the Advisory Board to produce an overall employee engagement assessment score. Each of the four individual team member engagement questions were be used as the

independent variables. I did not manipulate the overall assessment score in any way. The four questions are of the overall assessment score are detailed in Table 2.

Table 2

Independent Variable: Employee Engagement Questions

Survey Question	Description
I would recommend this organization to my friends as a great place to work.	Scored on a scale of 1 to 6: 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree*, and 6= *strongly agree*.
This organization inspires me to perform my best.	Scored on a scale of 1 to 6: 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree*, and 6= *strongly agree*.
I am likely to be working for this organization three years from now.	Scored on a scale of 1 to 6: 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree*, and 6= *strongly agree*.
I am willing to put in a great deal of effort in order to help this organization succeed.	Scored on a scale of 1 to 6: 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree*, and 6= *strongly agree*.

Dependent Variable

The physician engagement composite score were obtained through The Advisory Board's electronic database system. There are four questions in the assessment that the Advisory Board has linked to physician engagement. These four questions were considered separately and were also averaged by the Advisory Board to produce an overall engagement assessment score. I did not manipulate the overall assessment score

in any way. The four questions are of the overall assessment score are detailed in Table 3. I used the overall physician engagement composite score was be used as the dependent variable.

Table 3

Dependent Variable: Overall Assessment Physician Engagement Questions

Survey Question	Description
This organization inspires me to perform best.	Scored on a scale of 1 to 6: 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree*, and 6= *strongly agree*.
I am willing to put in a great deal of effort in order to help this organization succeed.	Scored on a scale of 1 to 6: 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree*, and 6= *strongly agree*.
I would recommend this organization to other clinicians as a great place to practice.	Scored on a scale of 1 to 6: 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree*, and 6= *strongly agree*.
I am likely to be practicing at this organization three years from now.	Scored on a scale of 1 to 6: 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree*, and 6= *strongly agree*.

Data Analysis Plan

I compiled the data through Microsoft Excel and performed the statistical analyses using SPSS version 25. The Advisory Board survey was administered July of 2017. The survey was open to all employees via an electronic link that was emailed and

posted on the system's intranet website. Organizational leaders encouraged participation in the survey but did not make it a mandatory requirement. The survey link was open for 2 weeks. All data will remain confidential and blinded for reporting purposes.

I competed the data analysis to determine if a relationship exists between the variables and addressed the following research question were addressed in the study. The corresponding null and alternative hypotheses are presented for the research question.

RQ1- What is the relationship between team member engagement and physician engagement?

H_{01}- There is no statistically significant relationship between team engagement and physician engagement.

H_1- There is a statistically significant relationship between team engagement and physician engagement.

This question will be answered by an ordinal regression analysis. The independent variable is team engagement. The dependent variable is physician engagement. The predictor variables for the regression analysis will be the four components of team engagement.

Table 4 summarizes the statistical analyses for the research question and null hypothesis.

Table 4

Statistical Analyses Conducted per Research Question and Corresponding Null Hypothesis

Research Question	Null Hypothesis	Statistical Procedure
What is the relationship between physician engagement and team engagement?	There is no statistically significant relationship between physician engagement and team engagement.	Ordinal Regression

Threats to Validity

Internal Validity

Threats to internal validity and potential engagement study limitations to consider include that there is not 100% participation since the survey is not mandatory, team member concerns about anonymity, the generalizability between types of employees surveyed, and turnover.

External Validity

Threats to the external validity are within the specific population of the study. The structure of the system is not the same as other settings in healthcare systems, in particular the rural setting. With the electronic survey, there is no involvement from the researcher with the participants. If participants have questions about the survey questions, there will not be an opportunity for clarification. This could potentially affect the answers and results of the study.

Ethical Procedures

The healthcare system completed annual engagement surveys. The survey was accessible to all employees and physicians. Both system level and local leadership encouraged participation to the survey during the survey timeframe. Employees were made aware that the survey is facilitated by a third party, The Advisory Board, to ensure that it remained voluntary and no personal information was shared. No compensation was be provided to the participants. Employee anonymity was ensured by the survey results being blinded by the Advisory Board. If there were less than 5 employees within one subset group they were rolled up to their larger group with the same reporting structure to ensure anonymity remains.

I completed a data use agreement in order to access the engagement scores electronic database. No patient information was collected as part of the survey. The study was submitted to the Walden University Institutional Review Board. I kept data in a password protected electronic spreadsheet. Once the appropriate time has lapsed, all data will be safely destroyed.

Summary

This chapter provides an in-depth view of the research design and methodology to determine if a relationship physician's engagement and employee's engagement. The methodology was described including the sample population of physicians and employees in a healthcare system within the United States and how the system leaders assisted in the recruitment of the population. The survey instrument along with validity and reliability estimates was described. Also discussed in the chapter was how the

independent and dependent variables of physician and employee engagement will be operationalized to test the study's hypotheses. Ethical considerations were also presented for how the researcher proposes to limit coercion or bias.

This study seeks to address a gap in the literature by examining the relationship between team engagement and physician engagement. In Chapter 4, I will describe the results of the survey as well as the study's findings.

Chapter 4: Results

Introduction

The purpose of this study was to examine the relationship between team engagement and physician engagement. The research question and hypotheses for the study were:

Research Question (RQ): What is the relationship between team member engagement and physician engagement?

Null Hypothesis (H_0): There is no statistically significant relationship between team engagement and physician engagement.

Alternative Hypothesis (H_1): There is a statistically significant relationship between team engagement and physician engagement.

Data Collection

The data for the study was collected through secondary data maintained by the Advisory Board for both the dependent and independent variables. The healthcare system employed the Advisory Board to conduct the survey. The Advisory Board survey was administered July of 2017. The survey was open to all employees via an electronic link that was emailed and posted on the system's intranet website. Organizational leaders encouraged participation in the survey but did not make it a mandatory requirement. The survey link was open for 2 weeks.

A total of 441 physician surveys (44% response rate) and 2,537 team member surveys were used, resulting in 2,978 total responses. Of the physicians; 76 were located in the regional/community hospitals and 365 were based in the large academic medical

center. Of the team members 197 were located in the regional/community hospitals and 2,340 were based in the large academic medical center. Out of the 441 physicians that responded to the survey (a 44% response rate) their specialty breakdown was 265 medicine (to include family, gastroenterology, infectious disease, pathology, pulmonology, rheumatology), 62 pediatric, 33 emergency department, 30 surgery, 19 cardiology, 14 behavioral health, 14 OB/GYN, 4 oncology/hematology. Of all the responses used in this research study 15% were physicians and 85% team members.

Preliminary Analysis

In order to run a regression analysis I had to create an ordinal dependent variable from the physician engagement survey results. In order to accomplish this I had to create a statistic variable physician engagement quartile was created. While I expected that four quartiles would result from the analysis the outcome was only two engagement Quartile Levels: 2 and 3. There were no variables in Quartiles 1 and 4, therefore a binary logistic regression analysis was used as the analysis for this study. There are six assumptions that need to be met when using a binary regression analysis.

Assumptions

This study met the assumptions for using binomial logistic regression. According to the Laerd Statistics website (2021), the following six assumptions need to be met for binomial logistic regression:

Assumption 1: There is a dichotomous dependent variable; there are two or more independent variables, which can be either continuous variables (i.e., an interval or ratio variable) or nominal variables. The dichotomous dependent variable was physician

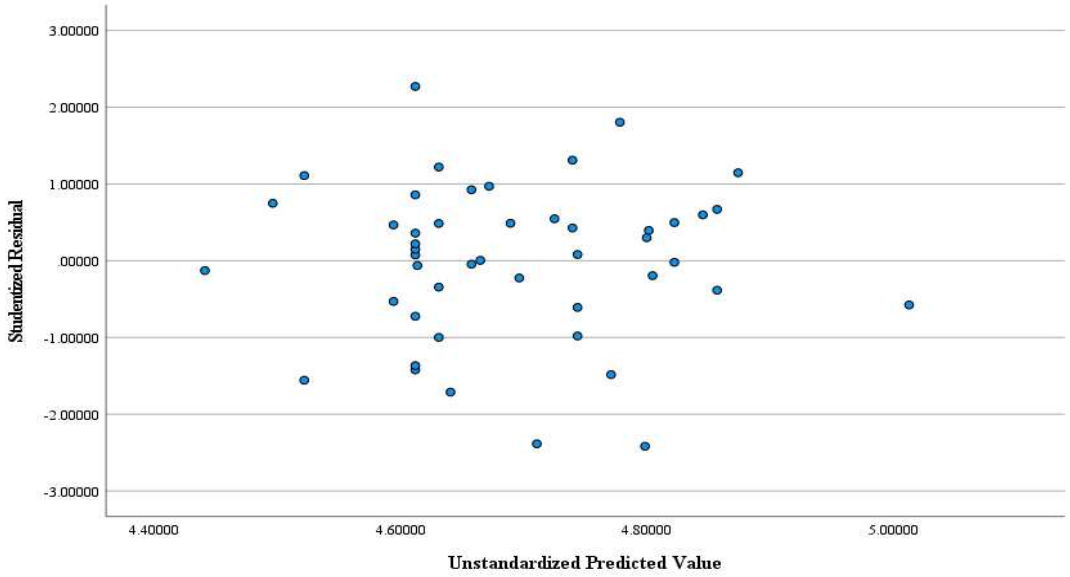
engagement score and the four independent variables were continuous variables. The dependent variable was dichotomous since there were only two possible values, Quartiles 2 and 3.

Assumption 2: There are one or more independent variables, which can be either continuous (i.e., an interval or ratio variable) or categorical (i.e., an ordinal or nominal variable). This study used a 6-point Likert scale, ordinal variables, ranking 1= *strongly disagree*, 2= *disagree*, 3= *tend to disagree*, 4= *tend to agree*, 5= *agree,* and 6= *strongly agree* making it categorical.

Assumption 3: There should be independence of observations. There is no relationship between the observations. This assumption was checked and confirmed by examining a scatterplot of "residuals versus fits"; the correlation should be approximately 0, as seen below in Figure 1. The imaginary line in this graph is approximately at zero on the y-axis and the mean on the x-axis. This indicates a roughly equal number of points above and below the zero y-axis and to the left and right of mean on the x-axis. This indicates that the level of homoscedasticity is low.

Figure 1

Scatterplot of the Studentized Residuals (independent variable) Against the Unstandardized Predicted Values (dependent variable)



Assumption 4: No multicollinearity was met by inspection of the VIF statistics in the regression model, see table below. Multicollinearity is when there are two or more independent variables that are highly correlated with each other. I tested for this by inspecting the correlation coefficients and Tolerance/VIF values. This shows that the independent variables are not highly correlated with each other since the variance inflation factor is less than 10, see Table 5 below.

Table 5

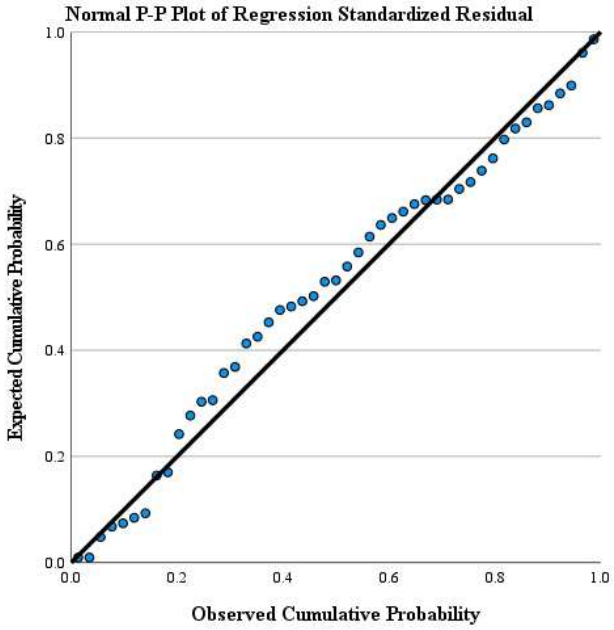
Correlation Coefficients and Tolerance/VIF Values

Coefficients			
		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	Inspires to do best	.315	3.174
	Effort for org success	.556	1.798
	recommend org	.313	3.196
	3 years practice commitment	.600	1.667

Assumption 5: A linear relationship was met based on inspection of the scatterplot. A linear relationship exists between the independent variable, x, and the dependent variable, y, as seen in Figure 2.

Figure 2

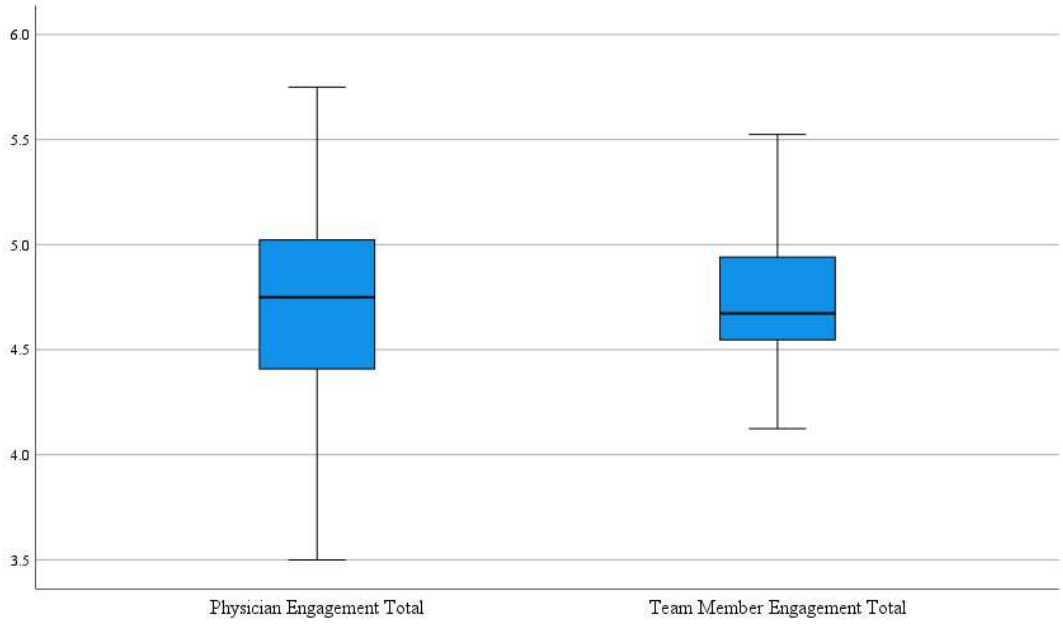
Linear Relationship for Physician and Team Engagement Scores



Assumption 6: There should be no significant outliers, high leverage points or highly influential points. SPSS Statistics can detect possible outliers, high leverage points and highly influential points when running the binomial logistic regression on the data. Boxplots found no univariate outliers nor nonnormal distributions (see Figure 3).

Figure 3

Boxplots for Physician and Team Engagement Scores



According to the Laerd Statistics website (2021), six assumptions need to be met for binomial logistic regression. Taken together, as outlined above, all six assumptions for binomial logistic regression were met.

Results

I examined if a relationship exists between physician engagement and team engagement based on the four team member engagement survey questions; the organization inspires them to perform their best, willingness to put in a great deal of effort in order to help the organization succeed, recommending the organization as a great place to work, and likely hood to be working for the organization 3 years from the time of the survey.

In order to run the data analysis, I imported the physician results into SPSS Version 25 and a new variable, physician engagement score, was created by taking the average of the four physician responses (if the organization inspires them to perform their best, recommending the organization as a great place to work, and willingness to put in a great deal of effort in order to help the organization succeed). To define the quartiles, a new ordinal variable, I created the physician engagement quartile by taking all the physician composite scores and creating a distribution of quartiles in SPSS under description statistics. This resulted in two Quartile Levels: 2 and 3. The data were divided into four quartiles: 25%, 50%, 75%, and 100%. Because there were no results in Quartiles 1 and 4 there were only two remaining quartiles for the analysis with Quartiles 2 and 3.

I imported the clinical team member data into SPSS along with the physician engagement quartile data for both Quartiles 2 and 3. I then ran a binary logistic regression analysis using physician engagement quartiles within the dataset.

I conducted a binary logistic regression analysis to investigate whether team member engagement factors influence physician engagement. The possible predictor variables were (a) my organization inspires me to perform my best, (b) team member's willingness to put in a great deal of effort in order to help the organizational success, (c) would recommend the organization as a great place to work, and (d) likely to be working for this organization 3 years from now.

Table 6

SPSS Output

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Organization Inspires Me To Perform My Best	.166	.213	.606	1	.436	1.180	.778	1.791
Willing To Put In a Great Deal of Effort In Order To Help Organization Succeed	.452	.182	6.151	1	.013	1.571	1.099	2.245
Would Recommend Organization As A Great Place To Work	-.363	.217	2.799	1	.094	.695	.454	1.064
Likely To Be Working For Organization 3yrs From Now	-.137	.146	.877	1	.349	.872	.655	1.161
Constant	3.169	.667	22.576	1	.000	23.780		

As noted in Table 6 above, the Hosmer-Lemeshow goodness-of-fit was not statistically significant ($p > .05$) for three of the four predictor variables: my organization inspires me to perform my best ($p = .436$), would recommend the organization as a great place to work ($p = .094$), and likely to be working for this organization 3 years from now ($p = .872$). However, the independent predictor variable, the team member's willingness to put in a great deal of effort in order to help the organization to succeed, was found to be significant (= .013). The unstandardized B = [.452]. This question accounts for 45% of the variation in physician engagement score. The estimated odds ratio [Exp (B) = [1.571] favored a [positive] relationship of approximately [57%] increase. The CI= 95% (1.099,

2.245), SE = [.182], Wald = [6.151], $p < .05$. For every additional number higher on the team engagement Likert score, specific to a team member's willingness to put effort in order to help the organization succeed there is an increase of approximately 1.6 in the physician engagement score. Since there is a zero contained in the CI levels of questions 1, 3, and 4 (my organization inspires me to perform my best, would recommend the organization as a great place to work, and likely to be working for this organization 3 years from now) the null hypothesis for these 3 variables cannot be rejected.

Summary

The purpose of this study was to examine the relationship between physician engagement and team engagement. In Chapter 4, I analyzed the secondary data from the Advisory Board for year 2017 using an ordinal regression analysis which tested the relationship between team member engagement and physician engagement to determine if there is a statistical significance. The results of the binomial logistic regression analysis indicated there was no statistically significant difference between my organization inspires me to perform my best ($p = .436$), would recommend the organization as a great place to work ($p = .094$), and likely to be working for this organization 3 years from now ($p = .872$). However, the independent predictor variable: the team member's willingness to put in a great deal of effort in order to help the organization to succeed, was found to be significant ($p = .013$).

In Chapter 5, I will interpret the findings and limitations of the study. The theoretical framework used to guide this research study was Roethlisberger and Dickson's neoclassical organizational theory based on the Hawthorne experiments where

social or human relationships were evaluated (Roethlisberger & Dickson, 1943). I will address the relationship between team member and physician engagement. I will also discuss the recommendations for future research and the implication of professional practice and social change as specified by the purpose of this study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

Through this quantitative retrospective study I set out to determine if there is a relationship between the employees' engagement scores (independent variable) and the physicians' engagement scores (dependent variable). I formulated the research question to focus on the relationship between team engagement and physician engagement. I used the Roethlisberger and Dickson's neoclassical organizational theory based on the Hawthorne experiments where social or human relationships were evaluated framework to guide this research study. The secondary data set was collected by the Advisory Board The results of the binomial logistic regression analysis indicated there was not a statistically significant difference between my organization inspires me to perform my best, would recommend the organization as a great place to work, and likely to be working for this organization 3 years from now. However, the independent predictor variable: the team member's willingness to put in a great deal of effort in order to help the organization to succeed, was found to be significant. Chapter 5 includes an interpretation of the findings, discussion of limitations of the study, recommendations for further research, and consideration of the study's implications for social change.

Interpretation of the Findings

RQ1: What is the relationship between team member engagement and physician engagement?

I conducted a binary regression analysis to determine if there is a statistical significance between team member engagement and physician engagement.

The results of the binomial logistic regression analysis indicated there was not a statistically significant difference between my organization inspires me to perform my best (p = .436), would recommend the organization as a great place to work (p = .094), and likely to be working for this organization 3 years from now (p = .872). However, the independent predictor variable, the team member's willingness to put in a great deal of effort to help the organization to succeed, was found to be significant (p= .013).

I determined that the results aligned with previous work were creating an environment of teamwork, collaboration, and respect leads to a supportive workplace empowers colleagues to co-design meaningful improvement work. A shared vision for organizational success fosters increased physician engagement. This was evident when it was identified that for every additional number higher on the team engagement Likert score, specific to a team member's willingness to put effort in order to help the organization succeed, there is an increase of approximately 1.6 points in the physician engagement score. As outlined by the theorical framework of the neoclassical organizational theory, these results reinforce how social structures and the organizational need to achieve a collective goal can impact physician engagement levels. The ability to examine the underlying culture of interwoven departmental relationships has the potential to advance social change.

Limitations of the Study

Potential engagement study limitations to consider include that there is not 100% participation since the survey is not mandatory, team member concerns about anonymity, the generalizability between types of employees surveyed, and turnover. Because the

survey was not mandatory, the results may not have fully represented the team members and physicians perceptions. It is recommended that future studies evaluate the responses from all team members and physicians to ensure that there is adequate representation of all employees. Team members and physicians may have concerns that their response could be seen by their leadership preventing them not being fully forthcoming. As with any workforce turnover happens and the results are only accurate for the day and time the survey was taken. Additionally, work environments can change, as they did during the COVID-19 pandemic, affecting how working healthcare relationships functions.

Recommendations

I conducted the binary regression analysis to test the relationship between team member engagement and physician engagement. Further research is needed to evaluate how team members' engagement could impact physician engagement. Future research could focus on specific departments with directly connected working relationships. Considering how those working relationships were affected by the COVID pandemic would additionally be of interest. Additional research could also include a qualitative assessment of the relationships between team members and physicians. The suggestion would be to focus specifically on the relationship between the team member's willingness to put in a great deal of effort in order to help the organization succeed and physician engagement, since this relationship proved to hold statistical significance in the quantitative research study. This approach could focus on work culture and possibly even how physician engagement levels impact their physician peers.

Implications

The results of this binomial logistic regression analysis indicated there was no statistically significant difference between my organization inspires me to perform my best (p = .436), would recommend the organization as a great place to work (p = .094), and likely to be working for this organization 3 years from now (p = .872). However, the independent predictor variable: the team member's willingness to put in a great deal of effort in order to help the organization to succeed, was found to be significant (p= .013). Understanding that there is a direct relationship between the team members' willingness to help the organization succeed and the physicians' engagement level give direction on how best to impact social change. Healthcare leaders can use this research to continue to evaluate how best to engage physicians. Based on the knowledge that there is a relationship between team members' dedication to organizational success and physician's engagement focus can be put on identifying how best to create enhanced working relationships, increased resilience, and create healthier work environments, so that organizational success is woven into the daily culture. Additional research is needed on multiple types of physician engagement relationships from the perspectives of physicians. Such research should attend to possible differences in perspectives and their implications, among different specialties, current and prior practice characteristics, as well as hospital-employed physicians and independent physicians with varying degree of engagement or integration with the hospital. Healthcare systems must have engaged physicians to create a productive, high-quality system; to include physicians both in the hospital and in the ambulatory setting. Erosion of physician engagement could have significant implications

for the future in terms of quality of care and the quality of the healthcare workforce (Landon et al., 2002). Quality of care, patient experience, and health system performance can all be improved with increased physician engagement, creating a positive social change within our healthcare systems.

Conclusion

I conducted a binary regression analysis to examine the relationship between team member engagement and physician engagement. I addressed the gap in literature regarding the relationship between team member and physician engagement. The results of the binomial logistic regression analysis indicated there was a statistically significant relationship between the team member's willingness to put in a great deal of effort in order to help the organization succeed and physician engagement.

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