CONFIDENCE OR CONTROL: USING THEORY OF PLANNED BEHAVIOR TO

EXPLORE MEDICAL RESIDENTS' INTENTIONS TO ADDRESS RELIGION

AND SPIRITUALITY IN PATIENT CARE

By

Vanessa I. Saylor

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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Abstract

The purpose of this study was to explore whether subjective norms moderate the relationship between perceived control and behavioral intention and between self-efficacy and behavioral intention to address religion and spirituality (r/s) in patient care among first- through fifth-year medical residents. The study used a non-experimental design and included a sample of medical residents working in a hospital system in southeastern Pennsylvania during the summer of the 2021 were gathered to respond to the survey questionnaire measuring subjective norms, perceived control and behavioral control and behavioral intention, and self-efficacy variables. The instrument used for this study, *Assessing Residents' Intentions to Address Religion/Spirituality in Patient Care*, was adapted from an instrument used to measure medical residents' intentions to adopt a comprehensive scope of practice after exposure to Canada's Triple C curriculum. The results showed that perceived control, self-efficacy, and subjective norms are not significant predictors of intent to address r/s in patient care, and further, that subjective norm does not moderate the relationships between perceived control, self-efficacy, and intention. Recommendations for further research include examining variables across specific demographics, identifying attitudes as a possible moderating variable, and exploring the impact of the hidden medical curriculum on resident behaviors, attitudes, and values related to r/s in patient care. Finally, a future study that examines the physician-chaplain relationship may lead to increased assessment of and engagement in r/s issues.

Keywords: spiritual care, health care, physicians, religion, spirituality, physician intentions, medical resident intentions, theory of reasoned action, theory of planned behavior

Dedication

This work is dedicated to my family – husband, Scott; Zach and Sydney Webb, Kelly and Kalyna Saylor, and my beautiful grandchildren – Zachary, Alyza, Avalys, and Jack who bring me tremendous joy.

And, to Mom, Rena, the example of a love that does not keep a record of wrongs (1 Corinthians 13:5).

Now to the King eternal, immortal, invisible, the only God, be honor and glory forever and ever. Amen (1 Timothy 1:17, NASB).

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I would like to acknowledge those who have poured into, supported, and endured me.

Fred Volk, PhD

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List of Abbreviations

r/s   Religion and spirituality

SC   Spiritual care

TPB   Theory of planned behavior

TRA   Theory of reasoned action

PBC   Perceived behavior control

SN   Subjective norm

SE   Self-efficacy

CHAPTER ONE: INTRODUCTION

Overview

There is evidence in the literature and consensus among researchers that religion and spirituality (r/s) in whole-person medical care is important and valuable (Dobratz, 2013; Wachholtz et al., 2007; Olson, 2015). Patients are usually not asked about their r/s values and feel that physicians should ask about their beliefs (Banin et al., 2014). This study will apply the *Theory of Planned Behavior*, a theoretical modification (volitional control) of *Theory of Reasoned Action*, to explore the relationship between subjective norms, perceived behavioral control, and confidence (efficacy) and medical residents' intention to address r/s in patient care.

Background

Role of the Physician in Providing Spiritual Care (SC)

While there is agreement about the value of integrating religion and spirituality (r/s) into the delivery of patient care, there is not as much consensus about the role of the physician in this area. Research shows that many physicians believe that they should be aware of patient beliefs, but do not believe that it is their role to discuss r/s within the context of the patient-doctor relationship (Saguil et al., 2011a). An exception is that 74% of physicians believed they should inquire about r/s with the dying patient while in the office setting (Monroe et al., 2003, p. 2755).

Luckhaupt et al. (2005) explored primary care residents' beliefs regarding the role of r/s in the patient-doctor relationship. They found that of the 227 residents surveyed, nearly half felt that they should play a role in their patients' spiritual or religious lives, but agreement on specific spiritual and religious activities depended on both the patient's condition and the residents' characteristics (Luckhaupt et al., 2005). A survey that included demographic items, questions regarding willingness to discuss spiritual issues, and responses to the Spiritual Well-Being Scale

was distributed to second- and third-year family medicine residents. The findings demonstrated that most residents (96.4%) would agree to discuss spirituality upon request. The strength of this agreement is positively associated with a faith background, self-rated spirituality, and residency instruction on addressing the topic (Saguil et al., 2011b). Therefore, physician training should include clarification of the role of spirituality in patient care. This clarification does not involve proselytizing or violating patient autonomy (Best et al., 2016).

Spiritual care (SC) of patients at the end of life (EOL) has been identified as a fundamental area of patient care by the World Health Organization (WHO), the National Consensus Project on Quality Palliative Care (NCPQPC), and the Joint Commission on Accreditation of Health care Organizations (JCAHO). The Religion and Spirituality in Cancer Care study was designed to measure perceptions of SC barriers from nurses and physicians caring for terminally ill patients. The study found that most nurses and physicians sometimes desire to provide SC when caring for patients with a terminal illness; however, there was a significant difference between the desire to provide SC and its reported provision among nurses and physicians (Balboni et al., 2014). Their study found that practitioners believed that the provision of SC was not an appropriate role for medical providers and that the power gradient between doctor and patient may make discussions about r/s inappropriate. The difference between desire and provision was attributed to lack of time and inadequate training; lack of private space; personal and professional characteristics of medical professionals; decreased desire to receive SC training; and for most physicians, the idea that SC is best provided by others (p. 407).

While there appears to be agreement about physician engagement of patients' r/s beliefs, Pujol et al. (2016) found that participants in their study of 20 advanced cancer patients reported

that they are open to a recognition of the importance of r/s but prefer that physicians abstain from engaging with them about r/s beliefs. These authors investigated the "care" versus "recognition" dynamic and found that SC is best provided through an "ethic of recognition" and not as a new dimension of care ((Pujol et al., 2016, p. 737). Anandarajah (2014) explored the relationship between compassion and spirituality in medical practice and determined that compassion is essential for the physician regardless of spirituality.

As opposed to a provider, the physician's role as facilitator is reflected in Brown et al. (2006) concerning assessing and treating spiritual distress at the end-of-life (EOL). The authors point out that patients at end-of-life experience physical, emotional, interpersonal, and spiritual challenges and that the physician has a responsibility to relieve the distress. According to the authors, physicians should be prepared to have a key role in reducing this type of existential suffering and helping patients achieve a sense of peace at the end of life (Brown et al., 2006). According to Olson (2015), while physicians are interested in providing whole-person health care by attending to the mind, body, and spirit of the patient in the clinical setting, there is no desire to become or to act like theologians and chaplains.

Problem Statement

Saguil et al. (2011a) explored the gap between willingness (intent) to address r/s and the failure to do so. These authors concluded that most residents, to varying degrees, were agreeable to discussing spirituality upon request. The degree to which residents were willing is positively associated with a faith background, self-rated spirituality, and residency training in addressing r/s. However, despite willingness, the literature reflects a failure by family physicians to address the impact of patient spiritual beliefs and practices on health during the medical encounter (p. 283).

The problem is that the frequency of discussions about r/s remains low, even given patient desire to have discussions and the availability of research that supports addressing r/s in patient care (Best et al., 2016). This study addresses a gap in the literature by targeting first-through fifth-year medical residents by applying the theory of reasoned action (TRA) and the theory of planned behavior (TPB) to explore whether subjective norms moderate the relationship between perceived control and behavioral intention, and between self-efficacy and behavioral intention to address r/s in patient care.

Purpose Statement

The purpose of this study is to explore whether subjective norms moderate the relationship between perceived control and behavioral intention and between self-efficacy and behavioral intention among first- through fifth-year medical residents.

Significance of the Study

Fishbein's theory of reasoned action (TRA) and Fishbein and Ajzen's theory of planned behavior (TPB) provide frameworks for understanding behavioral intent or willingness (Eccles et al., 2006) and has been used to examine different meaningful issues across the areas of social, sport, consumer, community, and health psychology (Notani, 1998). Millstein (1996) noted that TRA and TPB have focused primarily on predicting patients' behavioral intentions and behaviors; however, these models also have relevance for studying healthcare providers' behavior (p. 401).

TRA and TPB have been used in studies to explain physician attitudes, intentions, and behaviors across different health care behaviors and settings. For example, Godin et al. (2008) performed a systematic review of 78 studies where TRA or its extension, TPB, explores the gap between clinical research evidence and healthcare professionals' routine clinical practice (Godin

et al., 2008). Other studies using TRA or TPB include Rashidian and Russell (2012) to understand the prescribing intentions of general practitioners (GPs), and Eccles et al. (2012), who identified TPB as one framework across five studies to explain variance in intention, behavioral simulation, and behavior of health care professionals.

In a review conducted by Melnikov et al. (2021), the researchers cited the following studies where TRA or TPB was used to explain health care providers' intent to perform a particular behavior. Natan et al. (2009) found TRA applicable for understanding the nursing staff's intentions to provide high-quality care to hospitalized patients addicted to drugs. Fleming et al. (2017) demonstrated that TRA is a predictive model of physicians' intention to prescribe opioids and hydrocodone combination products. Kortteisto et al. (2010) who found that all theory-based variables--attitude toward the behavior, subjective norms, and perceived behavior control--were important factors associated with the professionals' intention to use clinical practice guidelines for their area of specialization.

Perkins et al. (2007) performed a systematic review of 19 articles describing 20 studies from MEDLINE and PsycINFO databases that detail the use of TRA or TPB and their effect on clinicians' behavior. The review's goal was to find article titles that describe theory-driven approaches to understanding and modifying health professionals' behavior. In addition, the review of the articles sought to determine the extent to which these models have been applied to health care providers, including physicians (8 articles), nurses (4 articles), pharmacists (3 articles), other health care workers (2 articles), and mental health clinicians (2 articles). The mental health articles included a study by Meissen et al. (1991), who sampled 168 clinical psychology or social work graduate students using TRA to assess the intentions to refer clients to self-help groups. A dissertation used TPB to examine how social workers use DSM-IV (Klaybor,

1998). Although TPB has been applied in medicine, mental health, and social, sport, consumer, community, and health psychology, no studies were found that pointed to TRA or TPB being used to explain physician intention to address r/s in patient care.

Research Question(s)

RQ1: How do medical residents' subjective norms moderate the relationship between perceived behavioral control and behavioral intention to address r/s in patient care?

RQ2: How do medical residents' subjective norms moderate the relationship between resident self-efficacy and behavioral intention to address r/s in patient care?

Definition of Terms

Attitude: an antecedent of intention referring to the individual's overall positive or negative evaluation of performing a behavior (Armitage & Conner, 2001).

Intention: the degree to which a person resolves to act in a certain way (Morwitz & Munz, 2020).

Perceived behavioral control: individual's perception of the degree to which they are capable of, or have control over, performing a given behavior (Fishbein, 2009, p. 64).

Religion: Derived from Latin words referring to that which "binds together; imply institutional, social, doctrinal, and denominational characteristics of experience described as an organized system of beliefs, practices, and symbols designed to facilitate closeness to the transcendent or the Divine and foster an understanding of one's relationship and responsibilities with others living in a community (Steinhauser et al., 2017).

Resident: A resident is a physician in training enrolled in a graduate medical education (GME) program who has received a medical degree and practices medicine under the supervision of fully licensed physicians in an accredited graduate medical education hospital or

clinic. Medical trainees are referred to by their training year, PGY-1 being a first-year resident (also known as postgraduate year one or an intern), PGY-2 a second-year resident, and through PGY-6 (Ulmer et al., 2009).

Self-efficacy: The expectation that personal mastery affects both initiation and persistence of coping behavior assessed by the magnitude, generality, and strength of efficacy expectations in proportion to the precision with which behavioral processes are measured (Bandura, 1977).

Spirituality: a dynamic and intrinsic aspect of humanity through which persons seek ultimate meaning, purpose, and transcendence, and experience relationship to self, family, others, community, society, nature, and the significant or sacred; expressed through beliefs, values, traditions, and practices and does not require any sort of religious belief (Puchalski et al., 2014, p. 646).

Subjective norm: An antecedent of intention referring to the individual's perception of general social pressure to perform or not to perform a behavior (Armitage & Conner, 2001).

Volitional control: actual behavior (Armitage & Conner, 2001).

Summary

The purpose of this study is to explore whether the theory of reasoned action (TRA) and the theory of planned behavior (TPB) can be used to explain whether medical residents' subjective norms moderate the relationship between perceived control and behavioral intention and between self-efficacy and behavioral intention to address r/s in patient care. This chapter outlines the significance of the study and identifies existing research related to the topic and the research gap, poses the research questions, and provides the common definitions associated with the study.

CHAPTER TWO: LITERATURE REVIEW

Overview

This literature review describes the theories of planned behavior and reasoned action frameworks and offers research related to using these theories in predicting the behavior of health care providers, particularly physicians. Additionally, the review provides an overview of research on the importance of addressing religion and spirituality in patient care.

Theoretical Frameworks

The theory of planned behavior, an extension of the theory of reasoned action, provides a framework for understanding the relationship between the attitudes about behavior, the degree of control that an individual perceives over the behavior (perceived control), and the degree of confidence in performing the behavior (efficacy) and their effect on behavioral intention. Fishbein's theory of reasoned action (TRA) and Ajzen's theory of planned behavior (TPB) are theoretical frameworks that can be used to explore medical residents' intentions to address r/s in patient care and may explain the gap between intention to address r/s and the failure to do so. These theories have been used as a framework in several studies to explain physician intent and behavior across several behaviors and in several settings.

Theory of Reasoned Action

In discussing Fishbein's Theory of Reasoned Action, Burnkrant and Page (1988) described the sets of variables that contribute to predicting behavior as behaviors under the individual's direct control (volitional control); intentions to perform the behavior; attitudes toward performing the behavior; and subjective norms or beliefs that people important to the individual think the individual should perform (p. 66). Further, the authors describe the antecedents of attitudes about behavior as a belief-evaluation composite, also known as

expectancy-value. For example, the belief that performing the behavior will lead to consequence or outcome, and the consequence or outcome is evaluated. A similar normative composite, also referred to as the normative-belief motivation to comply (NBMC) variable, is the belief that the referent thinks the individual should or should not perform the behavior and the motivation to comply with the referent.

Ajzen (2002) identified a potential problem with TRA. In TRA, Fishbein assumed that intent is formed by the degree to which people have volitional control over behavior. However, Ajzen (2002) added the construct of perceived behavioral control (PBC) to address situations in which people may lack complete volitional control over the behavior of interest. After adding the construct of perceived behavioral control, Ajzen developed the theory of planned behavior as an extension to the theory of reasoned action.

Theory of Planned Behavior

Ajzen (2002) explained that according to TPB, people act consistently with their intentions and perceptions of control over behavior and that intentions are influenced by attitudes toward the behavior, subjective norms, and perceptions of behavioral control (p. 43). Ajzen (2002) suggested that three ideas guide human behavior: beliefs about likely outcomes or behavioral beliefs; beliefs about the normative expectations of other people or normative beliefs; and beliefs about the existence of factors that may facilitate or hinder the performance of the behavior, or control beliefs. Behavioral beliefs result in favorable or unfavorable attitudes toward behavior; normative beliefs result in perceived social pressure or subjective norm; control beliefs give rise to perceived behavioral control or the perceived ease or difficulty of performing the behavior. Together, attitude toward the behavior, subjective norm, and perception of behavioral control develop behavioral intention.

Hagger et al. (2005) described TPB as a model that explains a person's stated intention to act as the best predictor of behavioral intention. That intention is believed to mediate the influence of personal, social, and control-related judgments on specific behavior. First, a person's attitude toward the behavior reflects their evaluative reactions, whether favorable or unfavorable, towards executing the behavior. Second, subjective norms define a person's perceived expectation that important people either want them to engage in or avoid the behavior. Finally, perceived control may act as an imitation of actual control and may predict the behavior directly (Hagger et al., 2005).

TRA and TPB Constructs

Subjective Norms

Manning (2009) cited several studies that point to evidence that demonstrates that people conform to the judgments and behaviors of others. In the context of TPB, Manning describes Ajzen's ideas about how perceived norms, as opposed to actual norms, influence behavior indirectly via behavioral intentions (p. 650). Manning investigated the relationship between social or subjective norms (SN) and behaviors within the TPB. Among other measures, the researcher sought to measure whether SN directly affected behavior regardless of intent. A key finding in the study related to norms and behavior was that the total effects of the SN were positive, which indicates that perceived social pressure positively influences behavior (p. 683).

In a study about collective norms and their influence on harassment behavior in school, Paluck and Shepherd (2012) discussed how social influence, organizational, and cultural psychology literature provide examples of collective social norms and their influence on important patterns of behavior and cognition across time. While this study was specific to adolescents and school behavior, the principle applies to how individuals develop ideas about

social norms that apply to a larger collection of situations in which a broader community of people interact repeatedly; and although there is significant evidence that demonstrates collective normative influence over individual and group behavior and cognition, research is limited regarding how individuals identify these social norms.

Paluck and Shepherd (2012) suggested that collective norms are shaped by two types of social referents: (1) widely known individuals who are tied to individuals within the social network; and (2) the leader of a subgroup or inner circle within the community. A key finding in the study was that inner circle leaders significantly influenced perceptions of close friends' norms to a much greater degree than widely known intervention referents. To this point, a study on leader behavioral integrity (BI) may be relevant. In their study, Kannan-Narasimhan and Lawrence (2012) focused on how BI forms outcomes by looking at the role of leader BI referents and concluded, as expected, that leader BI influences trust in a leader.

Morris et al. (2015) differentiated between peer groups and aspirational groups as two types of referent groups that provide norms and suggest that these referent groups perform different functions. They refer to Merton (1957) and his discussion about how peer norms provide self-identity and solidarity, and aspirational group norms prepare individuals for transitions to new social roles (Merton & Merton, 1968). Peer norms serve a collective function where the imitation of peer responses facilitates the distinct characteristics of the group, increases in-group agreement, provides stronger group identification, and establishes clear behavioral in-group boundaries. By complying with the norms of aspirational groups in professional contexts, people find meaning in living up to standards set by the elite group, which brings tangible rewards (Morris et al., 2015).

Attitudes Toward Behavior

Ajzen (2002) said that there is widespread agreement that attitude represents a summary assessment of a psychological object measured on dimensions of good-bad, harmful-beneficial, pleasant-unpleasant, and likable-dislikable. Wilson et al. (2000) explained that it has been implied that attitudes as an assessment of psychological objects are fixed. Nevertheless, current work determines that this is too basic of an idea, suggesting that a new attitude can override an old attitude when attitudes change. The old attitude is not replaced, but instead, it is overruled by the new one resulting in dual attitudes (Wilson et al., 2000).

Research findings support the idea that the attitude-behavior relation is not as strong as they appear. Glasman and Albarrcin (2006) cited studies that reflect the idea that ambivalent attitudes have often influenced the attitude-behavior relation negatively. Other studies that show that attitudes based on direct experience may predict behavior, Armitage and Christian (2017) concurred with Glasman and Albarracín (2006) that while the early literature assumed that attitudes predicted behavior, contradictory evidence to this assumption has emerged over the years. These authors suggest that attitudes only serve to predict behavior to the extent that they influence intentions.

Physicians' own religious and spiritual (r/s) attitudes and practices influence patients' interactions and care. Schwill et al. (2020) studied end-of-life care (EoLC) competencies for general practitioners (GPS) in Germany. The purposes of the study were to evaluate self-assessed competencies of GP trainees in treating symptoms, reflecting on and changing attitudes towards palliative care, and evaluating changes in self-assessed competencies after an educational intervention measured self-competencies in symptom control, organization of patient care, and attitudes towards EoLC. The intervention group was asked about reflections on their attitude

towards dying, death, and grief and whether the course affected a change in attitude. Study findings showed that the intervention fostered personal competencies, understanding, and self-confidence in EoLC among GP trainees. 66% of the trainees reported reflection on their attitude, but only 18.3% had changed their attitude because of the intervention (Schwill et al., 2020, p. 9).

Confidence (Efficacy)

Bandura (1977), in studies about self-efficacy, described the efficacy expectation as the belief that one can successfully perform the behavior required to produce the outcomes. Bandura suggested that the strength of people's convictions in their own efficacy is likely to affect whether they will even try to cope with given situations. At this level, perceived self-efficacy influences the choice of behavioral settings. Later, defined self-efficacy as the belief in one's capabilities to organize and execute the courses of action required to produce given attainments. According to Bandura, self-efficacy influences behavior by determining what goals and challenges individuals set for themselves, how much effort they choose to spend in seeking to achieve their goals and overcoming challenges, and to what extent they persist in confronting difficulties and obstacles (Pfitzner-Eden, 2016).

Ajzen (2002) suggested that self-efficacy and perceived difficulty are the same construct and concluded that perceived difficulty of performing a behavior, or self-efficacy, may be a more important antecedent of intentions and actions. Rodgers et al. (2008) suggested that perceived control (PC), perceived difficulty (PD) and perceived confidence, or self-efficacy (SE) are distinct variables and that perceived confidence, or self-efficacy appears to be the strongest predictor of health-relevant intentions and behaviors.

As an example of self-efficacy among residents, Dubov et al. (2016) examined the impact of new resident-hours regulations and different aspects of medical education on ownership of

treatment decisions and quality of care. Dubov et al. (2016) noted that medical residents are expected to assume progressive ownership of patient care as they advance through their training. This ownership affects motivation, attitudes, and behavior, promotes feelings of responsibility, increases willingness to take on risks or makes personal sacrifices, and enhances self-image. In addition, perceived decision ownership is related to the individual need for efficacy as a health care provider. It is influenced by efficacy beliefs, familiarity with the medical history of a patient, and self-investment into the given decision.

Controllability (Perceived Control)

Ajzen (2002) suggested that perceived behavioral control is the overarching, higher-order construct comprised of two subcomponents: self-efficacy and controllability. Given this view, the theory of planned behavior assumes that measures of perceived behavioral control should contain items that assess self-efficacy and controllability. In an earlier article published by Ajzen (2002), it was suggested that perceived difficulty of performing the behavior (self-efficacy), perceived difficulty, and not perceived controllability added significantly to predicting intentions and behavior.

Perceived behavioral control (PBC) research has considered the possibility that PBC is a multidimensional construct (Kraft et al., 2005). For their study, Trafimow et al. (2002) conducted four studies to test whether Ajzen's concept of perceived behavioral control is a combination of two variables: perceived control and perceived difficulty, where perceived control is defined as the extent to which people consider the performance of behavior to be under their voluntary control, and perceived difficulty to refers to the degree of difficulty in performing the behavior.

Yzer (2012) suggests that PBC standards of measurement and meaning are open to interpretation and that perceived control includes confidence items and control items. Initially,

perceived behavioral control was defined as the "subjective degree of control over the performance of the behavior itself," which was interpreted to be the same as the degree of easiness or difficulty and considered compatible with perceived self-efficacy. However, according to Yzer, this lack of clarity must be resolved before perceived control can be regarded as a viable construct in a theory.

Explaining Health Provider Behavior Using TPB and TRA

TPB and Implementation Research

There is growing interest in the use of theory when designing implementation research studies focused on behavioral change. In 2003, Eccles and colleagues conducted five studies to show a scientific basis for interventions that translate research findings into clinical practice by examining the performance of different behavioral theories and models (Eccles et al., 2012). Studies were conducted among dental and primary care settings across five sets of clinical behaviors. Measures were developed from Theory of Planned Behavior (TPB), Social Cognitive Theory (SCT), and Illness Representations specified by the Common-Sense Self-Regulation Model (CSSRM), Learning Theory (LT), Implementation Intentions (II), and the Precaution Adoption Process (PAP). Multiple regression analyses were used to examine the predictive value of each of the theoretical models, where the results examined the predictive value of theories in explaining variance in intention, behavioral simulation, and behavior. Of these theories, TPB was one of three models across the five behaviors that performed well in predicting intention, confirming its effectiveness in predicting behavioral intention in TPB.

Hung et al. (2012) applied a decomposed TPB model to explore how evidence-based medicine (EBM) supports physicians in their improvement of clinical quality and enhances hospitals' improvement of patient safety. Evidence-based medicine (EBM) is the conscientious,

explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of EBM means integrating individual clinical expertise with the best available external clinical evidence from systematic research (Sackett et al., 1996). Hung's study focused on the MEDLINE medical information system (IS); however, there are other online systems such as Evidence-Based Medicine Reviews (EBMR), which comprises several online databases, including ACP Journal Club, Evidence-Based Medicine, the Cochrane Database of Systematic Reviews, the Abstracts of Reviews of Effectiveness Database, and the Cochrane Central Register of Controlled Trials.

Survey data were collected from 224 physicians in Taiwan with experience in using the MEDLINE system. The decomposed TPB framework was used to investigate physicians' behavioral intention toward using the MEDLINE system (usage intention) to understand IS usage behavior. Study findings indicated that the decomposed TPB provides a strong explanation of physicians' intentions toward using IS. In addition, the results showed that subjective norms affect usage intention and that perceived behavioral control was found to have a significant influence on usage intention (Hung et al., 2012).

Grimshaw et al. (2002) explained that while it is common for physicians to behave as if the transmission of research findings from peer-reviewed journals will close the gap between best clinical practice knowledge and clinical behavior, physician ability to gain this information is hindered by a limited amount of time to review articles; lack of training to evaluate published research; organization, peer group, and individual barriers; information overload; and patient expectations. In this article, the researchers suggest that the application of effective change strategies requires a better understanding of the causes of physician behavior change and the identification of the barriers to change and facilitators of change. They suggest that since clinical

practice is a form of human behavior, proven theories of human behavior may be useful as a basis for developing a scientific rationale for selecting interventions.

Based on their ideas about behavioral change, the researchers explored the applicability of behavioral theories to professional behavior and have used the theory of planned behavior to describe differences in the U.K. family physicians' prescribing intentions. Using TPB, hypotheses were tested about the relationships between family physicians' perceptions and the strength of their intention to prescribe antibiotics to identify whether family physicians intended to prescribe antibiotics or not, estimate the overall impact of individual beliefs and perceptions on the strength of their motivation to prescribe and identify which beliefs had the biggest impact on motivation. The researchers found that, in using TPB as a theoretical basis, they could predict factors that were likely to increase motivation toward prescribing behavior (Grimshaw et al., 2002).

TPB and Intent to Use Clinical Guidelines

Limbert and Lamb (2002) reviewed three studies about clinical guideline use by hospital doctors. The first study examined what factors were believed to influence the use of clinical guidelines. The second study, expanding the first study, used a questionnaire based on TPB to explain and predict the intentions of junior doctors to use a guideline for the management of acute asthma in accident and emergency departments in England and Wales. The third study extended the second study by using a sample of more senior doctors and a guideline for the use of antibiotics. The instruments in these studies were constructed using 6- or 7-point Likert scales. Regression analyses were performed to determine how much of the variance in intention scores could be explained by the TPB. The results indicated that subjective norm was the strongest predictor of intention to use the asthma guideline; attitude was the strongest predictor of

intention to use the antibiotic guideline. Thus, TPB is cited as a successful model to explain and predict behavior. The writers of this paper cite several studies that have applied TPB to the behavior of health professionals and have found TPB to be an appropriate model to explain doctors' use of guidelines in the studies reported in this paper.

Kortteisto et al. (2010) evaluated which factors affect professionals' intention to use clinical guidelines in their decision-making on patient care. The purpose of the study was to obtain baseline information for developers and implementers by using the TPB. The study sample included physicians, nurses, and other professionals from three hospital districts in Finland. Multiple linear regression analyses were conducted to assess behavioral, normative, and control belief items, which were rated on a seven-point scale from the degree of negativity to the degree of positivity toward the targeted behavior, which was defined as the use of clinical practice guidelines (Kortteisto et al., 2010). Study results showed that all theory-based variables-- attitude toward the behavior, subjective norm, and perceived behavior control--were important factors related to the professionals' intention to use clinical practice guidelines (p. 1). The researchers found that the strongest factor for predicting physician intent was perceived behavior control, while the primary factor for nurses and other professionals was the subjective norm (p. 4). They concluded that the results confirmed TPB as a suitable theoretical basis for implementing clinical guidelines in healthcare practices.

In addition to learning and following clinical guidelines as a strategy for increasing knowledge and skills, physicians participate in continuing medical education to increase knowledge and enhance skills. Légare et al. (2014) studied the impact of continuing professional development (CPD), including continuing medical education (CME), on clinical practice. CME is the primary method used by physicians to improve knowledge and skills. Development of a

theory-based instrument to measure the impact of CPD activities on health professionals' clinical behavioral intentions. A systematic review of 76 studies that used social-cognitive theories for explaining health professionals' clinical behavior showed that the TPB was the most appropriate one for predicting health professionals' behaviors (p. 2). Using TPB as the theoretical basis for explaining clinical behavior, the researchers established the reliability and validity of a 12-item theory-based instrument for measuring the impact of CPD activities on health professionals' clinical behavioral intentions (p. 6). In the last phase of the study, the researchers showed that the TPB-based instrument could be adapted to different clinical areas of medicine, including emergency medicine, family medicine, palliative care, perinatology, and internal medicine (p. 8).

TPB and Prescribing Behaviors

Rashidian and Russell (2011) conducted a study using TPB to explain physicians' implementation of clinical guidelines' prescribing recommendations. The study sample included 155 general practitioners (GPs) in England. For this study, the behavior was defined as 'following clinical guidelines prescribing recommendation in the practice over the following 3 months' (p. 750). TPB items were measured on 7-point bipolar or unipolar Likert scales. Attitude, subjective norm, and perceived control variables were measured both directly and indirectly. Linear regression analyses were used to explain the variation in prescribing intentions (intention models) and prescribing indicators (prescribing models). TPB belief-based items, attitude, subjective norm, perceived control, and intention, were included in the prescribing models. Regarding prescribing intentions and beliefs, respondents reported positive intentions to pursue guidelines' prescribing recommendations. Separate regression models demonstrated that attitude and perceived controls, measured directly or indirectly, significantly contributed to explaining GPs intentions to prescribe statins while subjective norm did not (p. 751).

In some instances, attitude or perceived behavioral control were the strongest predictors of intention, and in others, the subjective norm was the strongest predictor. In their study, Swarna et al. (2018) utilized the TPB to specifically measure intention and other salient predictors related to sickness certification prescribing behavior amongst primary care physicians. The sample included primary care physicians from practices throughout two states in Malaysia. The questionnaires were specifically developed based on the TPB with attitudes and subjective norms identified as important predictors of physician intention to provide sick leave to patients. This study indicates that the TPB variables, namely, attitude towards the behavior and subjective norm, are important factors associated with the primary care physician's intention to provide sick leave for patients. On the other hand, perceived behavioral control poorly predicted behavioral intentions (p. 8). The researchers suggest that an integrated behavioral model utilizing the TPB could help fully explain the complex act of providing sickness leave to patients and that the study assist relevant agencies to develop policies that may help regulate the provision of sick leave and alleviate the work burden of sickness leave tasks faced by physicians in Malaysia.

TPB/TRA and Patient-Centered Care Approaches

Kam et al. (2012) studied community support referral patterns of oncologists using multiple surveys distributed to 72 oncology professionals, including nurses (73.6%), medical practitioners (19.4%), and allied health professionals (6.9%) from health institutions in South Australia. The surveys measured responses using a 7-point Likert scale to assess attitudes, subjective norms, and perceived control (p. 319). Hierarchical multiple regression analyses were used to predict intentions to refer to allied professionals, Cancer Helpline, and complementary therapies across five variables - awareness, past referral patterns, attitudes, subjective norms, and perceived control. The researchers found that when using TPB, results showed that attitudes

toward referral to these services and subjective norms were the most important predictors of intentions to refer to Cancer Helpline services and complementary therapy support services. In contrast, the only significant predictor of referral to allied health professionals was the subjective norm (p. 321).

TPB was applied as a secondary analysis in the Seehusen et al. (2018) study designed to assess physicians' self-reported care provision to patients with prediabetes (preDM). The researchers suggest that physician attitudes and subjective norms may predict adherence to guidelines, while physician attitudes and well-being affect self-reported prescribing behavior. While physician well-being, attitude, and subjective norms may influence adherence to clinical guidelines and prescribing behavior, the authors also describe how potential overmedicalization, overdiagnosis, and overtreatment related to preDM as well other barriers to T2DM and preDM care including organizational, patient, financial, and communication factors influence adherence to clinical guidelines and prescribing behavior. Measures for the study included the Attitudes towards Prediabetes Index (API), an 8-item scale that measures physicians' overall perception of the value and importance of preDM as clinical diagnosis, and a 5-point Likert scale that measured subjective norms. Regression analysis showed that both API and subjective norm predicted following guidelines for T2DM prevention, while a hierarchical linear regression analysis to evaluate the likelihood of prescribing metformin to patients with preDM showed that subjective norm was not predictive of metformin prescribing practices (p. 896).

Thompson-Leduc et al. (2015) produced a systematic review of studies that used TPB to assess shared decision-making (SDM) behaviors in health professionals. They explored how theory is being used to explain influences on SDM intentions and behaviors and which construct is identified as most influential (Thompson-Leduc et al., 2015). The review included 20 eligible

studies published in English between 1996 and 2012 conducted in Canada, the USA, the Netherlands, the United Kingdom, and Australia. Across these studies, the authors found that the factor most frequently and significantly associated with intention was subjective norms (n = 15/21 analyses; Thompson-Leduc et al., 2015).

SDM reflects a process where a patient's predicaments, preferences, and rights are important parts of a clinician's expertise. With patients increasingly reporting the desire to play a more active role in their health decisions, SDM offers a framework for integrating clinical expertise with patient participation (Thompson-Leduc et al., 2015). SDM is a combination of behaviors that make shared decision-making possible and measurable. The purpose of the review was to systematically evaluate studies that used the TPB to assess SDM behaviors. The researchers calculated simple descriptive statistics of the country of origin, type of study, clinical context, and types of professionals in the population at hand, the number of times that the theories were used (TPB, TRA, or mix), and the SDM-specific behaviors to which the clinical behaviors could be traced (Thompson-Leduc et al., 2015, p. 757). In addition, 15 of the 20 studies reviewed used regression analyses to test hypotheses (p. 763). There were three main conclusions drawn about the research on SDM using the TPB: (1) the theory-based construct most frequently associated with intention was subjective norms; (2) 'sharing knowledge and making recommendations' is the SDM behavior most often studied using the TPB or the TRA (p. 769); and (3) there is significant variation in the way that the theory is applied to the assessment of behavioral intentions or actual behaviors (Thompson-Leduc et al., 2015, p. 770).

Related to variety in applying the theory, TPB was used to predict medical professionals' intention to allow family presence during resuscitation. Lai et al. (2017) applied TPB to explain physician intention to allow the rare practice of family presence during resuscitation efforts. The

study sample included physicians and nurses in a single medical center in Taiwan. The instrument was developed to measure the constructs of attitudes, subjective norms, perceived behavioral control, behavioral intentions, and the awareness of family presence during resuscitation and demographics. Survey responses were scored using a 5-point Likert scale measuring strongly disagree to strongly agree. The researchers analyzed the data using regression analysis, indicating that the positive attitudes and subjective norms of medical staff and their clinical tenure were the strongest predictors of intention to allow family presence during resuscitation (p. 11).

TPB and Nursing Practice

The application of TPB to explain provider behavior has not been limited to physician behavior. In a study about obstetric nurses and the provision of supportive care during childbirth, Sauls (2007) examined the use of TPB to explain supportive nursing care during childbirth. The focus of this study explored the contribution of attitudinal, normative, and control influences on intrapartum nurses' intentions to provide professional labor support (PLS) to expectant mothers and to assess if behavioral intent could predict the outcome of length of labor (Sauls, 2007, p. 118). A survey was distributed to 39 registered nurses and 419 nurse-patient dyads and was designed to measure the relationship between predictor variables, behavioral intention, and health outcomes (Sauls, 2007, p. 119). TPB explained 70% of the variance in intrapartum nurses' intentions to provide PLS to their patients. Attitude and social pressures were found to have a significant impact on the intention to perform PLS (p. 120). Nurses' attitudes had the greatest influence on their intent to provide PLS, followed by subjective norms and perceived behavioral control, respectively (Sauls, 2007, p. 121).

Another study about nursing practice is found in Renfroe et al. (1990), where the researchers developed and tested an exploratory model explaining the documentation behavior of nurses. For this study, TRA was used to relate nurses' attitudes and subjective norms to the way they intended to behave concerning documentation. Survey responses were gathered from 108 staff nurses to define the behavior described as documentation behavior based on what should be recorded in any hospitalized patient's chart during a shift. The analyses showed that attitude toward documentation did not relate significantly to intention to document, but subjective norm significantly affected behavioral intent. The researchers concluded that subjective norm, or the influence of others, is the strongest predictor of nurses' intention to document, predicting future documentation behavior (Renfroe et al., 1990).

Medical Education and Training

Hidden Curriculum

The hidden curriculum (HC) in medical education acts as a secondary socialization in which trainees internalize, through habit and learned behaviors, the institutional practices, knowledge, and viewpoints that make physicians spontaneously perform with little reflection. The authors refer to the HC as the process of formation, which is primarily accomplished by apprenticeship and imprints upon students the behaviors, attitudes, and values among trainees that may conflict with professional ideals via increased physician cynicism and lack of humanitarianism (Balboni et al., 2014).

Mahood's (2011) commentary cautioning developing physicians about the hidden curriculum suggests that these norms and values often sabotage the formal messages of the official curriculum. Further, the author laments that, as students progress from undergraduate to postgraduate study, they transition from being open-minded to being closed-minded; from being

intellectually curious to narrowly focusing on facts; from empathy to emotional detachment; from idealism to cynicism; and from civility and caring to arrogance and irritability (Mahood, 2011). In addition, little is known about religious and spiritual (r/s) influence on the adjustment of medical trainees. Further, Mahood (2011) suggested that the messages of the hidden curriculum should be part of open discussions and that the medical community should strive to model different messages, particularly related to, among other messages, bias in patient care because of personal beliefs.

Franzen (2015) says that religious physicians are more likely to discuss religious topics than non-religious physicians. Additionally, in a study conducted with physician assistants who identified as more religious/spiritual felt more competent in an active role than those who were less religious/spiritual (Berg et al., 2013). For both physicians and physician assistants, the influence of personal r/s beliefs affects interactions with patients. Al Achkar (2020) explained that residency programs have a complex role in healthcare providers' training. However, there is little information about what residents and attendings consider the standards of practice or the tensions among different values residents are expected to endorse (Al Achkar, 2020).

Self-determination Theory (SDT) in Medical Training

According to self-determination theory (SDT), students have three basic psychological needs: autonomy, competence, and relatedness (Orsini et al., 2016). Orsini et al. suggested that the clinical learning environment promotes these basic psychological needs and fosters intrinsic motivation through an autonomy-supportive teaching style that supports feelings of autonomy, competence, and support by teachers and peers. Nine undergraduate clinical dental teachers participated in a qualitative study that focused on describing and understanding how clinical teachers encourage intrinsic motivation in undergraduate dental students by evaluating how the

clinical teaching environment supports the students' needs for autonomy, competence, and relatedness (p. 103).

Several themes emerged on how clinical dental teachers contribute to achieving each of the three basic psychological needs. The authors suggest that the influence of the clinical teaching environment is critical to meeting these needs, especially related to promoting or diminishing students' intrinsic motivation. First, to encourage student autonomy, teachers reported that students had to be active participants in the learning process and encouraged to think, conduct research, decide and act. Second, teachers should model skills and knowledge and provide structured guidance to facilitate students' clinical work to encourage competence. Third, teachers should guide students to implement treatments at an appropriate level for their competencies, neither too easy nor too difficult. Finally, teachers should help students feel connected to the clinical environment and fellow students and teachers (p. 105) to encourage relatedness.

The researchers concluded that there is evidence of how dental teachers may assist students in internalizing behavior towards academic activities based on the SDT principles of autonomy, competence, and relatedness. Further, the authors suggest that as described by the social cognitive theory of learning, teachers who demonstrate desired skills increase learners' self-efficacy beliefs, while health professions' faculty unfamiliar with the SDT principles may inadvertently teach through controlling, pressuring, and coercive style (p. 109). Therefore, the clinical environment should support students' needs of autonomy, competence, and relatedness, which may lead students to become more intrinsically motivated and value academic activities (p. 110).

A guide developed by ten Cate et al. (2011) provided practical applications of SDT in different components of medical education. They suggest that SDT is a current major motivational theory in psychology, with SDT research conducted in many areas, including education and health care. However, its applications in medical education are limited (ten cate et al., 2011). If education aims to foster self-determination and intrinsically regulated behavior, there should be ways to support learners' sense of competence, autonomy, and relatedness. Teachers should accept the idea that nurturing intrinsic motivation (IM) and autonomous self-regulation calls for a more autonomy-supportive approach (ten Cate et al., 2011).

Specifically related to medical education, most medical students have invested substantial energy to enter medical school to become physicians and are typically highly motivated from the beginning of their study of medicine. Medical educators should recognize this intrinsic motivation and create learning environments to support learners' natural desire to care for patients, master new material, and help patients and each other, which will have profound implications for medical education (ten cate et al., 2011). Although most medical education pedagogy and curricular structures applied in medical schools are developed with a focus on practicality and grounded in tradition, SDT focuses on the importance of creating feelings of competence, autonomy, and relatedness in medical students (p. 971).

Integration of TPB and SDT

Chatzisarantis et al. (2007) suggested that the subjective norms construct in TPB may not predict intentions due to the pressuring form of social influence inherent in the definition of subjective norms and that SDT. However, in a subsequent study, Hagger and Chatzisarantis (2009) conducted a meta-analysis of studies integrating the theory of planned behavior (TPB) and self-determination theory (SDT) in health contexts. The analysis aimed to provide

cumulative empirical support for a motivational order in which self-determined motivation from SDT predicts the proximal predictors of intentions and behavior from TPB. The analysis included 36 integrated studies with 45 tests of effects between TPB and SDT variables. Correlations among the perceived autonomy support and self-determined motivation constructs from SDT and the attitude, subjective norms, perceived behavioral control, intention, and health-related constructs from TPB were statistically significant. Results of the study referenced the supplemental aspects of the TPB and SDT and the need for integrated experimental or intervention studies on a broader range of health behaviors (p. 275).

The review attempted to integrate two prominent social psychological theories to present a unified motivational model to explain intentions and health-related behavior. The investigators found, as hypothesized, that perceived autonomy support was a significant predictor of self-determined motivation and that self-determined motivation significantly predicted intentions to engage in health-related behavior mediated by attitudes and perceived behavioral control. Contrary to expectations, subjective norms were also positively related to self-determined motivation, which led to a significant but small mediated path of self-determined motivation on intention. Intention mediated the effect of attitudes, subjective norms, and PBC on behavior (p. 295).

Spirituality Discussions With Physicians: Facilitators and Barriers

Lack of training and preparedness is a recurring theme in defining the role of and degree of willingness in physicians to broach the topic of r/s in patient care. Edwards et al. (2010) conducted a systematic review of the literature about palliative care and spiritual care at the end of life (EOL) and found themes related to spirituality, spiritual needs, spiritual distress, spiritual care, and facilitators of and barriers to providing spiritual care (SC). Barriers to providing SC

were identified as lack of time, lack of adequate education and training, and personal, cultural, and institutional issues (Edwards et al., 2010).

While there is a wealth of spirituality and health research from U.S. and Canadian medical schools, global research on the address of SC in medical education is incomplete. The globalization of industry, including the health care industry, dictates that S&H research be expanded outside of the United States. The medical missions field is an example of this type of globalization of health care and the model for addressing r/s in patient care (Lucchetti et al., 2012). Studies conducted by the Spirituality in Brazilian Medical Residents (SBRAMER) Multicenter using the Research Spirituality and Health (NERSH) scale and the self-report Duke Religion Index found that Brazilian physicians determined that addressing r/s in patient care was important and appropriate. However, the lack of training in this area is a barrier to addressing r/s in clinical practice (Vasconcelos et al., 2020). Most medical schools have spirituality and health (S&H) content embedded in their curriculum, whether as part of other content or, as required, dedicated coursework. However, while coursework is made available, considering S&H as a competency and evaluating it remains unimportant and a low priority of medical school deans (Koenig, 2012).

Saguil et al. (2011) conducted a national survey of 467 physicians from six teaching hospitals to determine both the willingness of new family physicians to discuss spiritual beliefs and practices with their patients and the influencing factors that made them more or less willing to do so. Of these, 84.5% of physicians in the survey agreed that there should be aware of a patient's spiritual orientation, but only 31% believed that they should inquire about such beliefs in the office setting. The gap between willingness to discuss r/s and failure to do so may be

explained by patient reluctance to engage in discussions. The key to increasing the likelihood of these conversations is residency training (Saguil et al., 2011).

Banin et al. (2014) identified factors that influence whether patients are inclined to discuss the topic with their provider. These factors include the degree to which patients are comfortable and have confidence in doctors prepared for such conversations and the strength or depth of the patient-doctor relationship (PDR). This finding is consistent with Gonçalves et al. (2016), who suggest that lack of training, lack of time, discomfort with the topic, and fear of imposing religious points of view are barriers to addressing spirituality with patients.

In articles about patient-doctor conversations about r/s, the Best et al. (2015) systematic literature review consisting of 54 studies and over 12,000 patients investigated the patient perspective regarding the doctor's role in discussing spirituality. Best found that over half the sample thought it was appropriate for the doctor to inquire about spiritual needs in at least some circumstances (range 2.1–100%, median 70.5%). It was difficult to determine what the discussion entailed and whether it occurred during the medical consultation. Review findings reflected that most patients welcomed discussions about r/s and that physicians should strive to identify which patients would welcome such conversations (p. 1326). However, in 2016, Best suggested that although the known benefits of spiritual care and patient interest in discussing spirituality are increasing, discussions with patients about r/s continue to be low. The authors suggest that this is because there is confusion about the definitions of and differences between religion and spirituality, suspicion about the faith-health relationship, and historical opposition to addressing this dimension of patient care. Further, they suggested that physicians create a safe space where patients can discuss such intimate topics. In their research, these authors found six themes that emerged: (1) the importance of understanding the development of self and being

secure in one's spirituality and mortality; (2) development of attitudes and beliefs that promote awareness of and respect for patient spirituality; (3) learning to identify and take advantage of opportunities presented by the patient that they are ready for the discussion; (4) ease of conversations when there is an identification of common spiritual and cultural beliefs and patients' comfortability and willingness; (5) difficulty of conversations when there is lack of time and when physicians identify too closely with the patient; and (6) improvement in care and more effective coping with r/s interventions (p. 519). A national survey of family medicine residents reported that when asked, participants were more likely to initiate discussions of spirituality with patients, provided they are given evidence that spirituality was associated with improved outcomes. Most residents agreed that they would be more willing to initiate spirituality discussions, given good evidence of improved outcomes (Saguil et al., 2011b).

A comprehensive strategy for patient care uses a team approach. This program integrates spirituality into patient care by implementing spiritual care teams (SCTs) to address whole-person health care. Spiritual Care Teams (SCTs) were piloted by a large university partnering with the country's largest Protestant health system. The physician is the key member responsible for ensuring the assessment of r/s needs, creating an atmosphere where needs can be identified and met, collaborating with other team members, and developing spiritual care plans to address patients' needs (Koenig, 2014).

The research makes the case that addressing r/s in patient care is important and emphasizes the clinical implications for the integration. Koenig (2004) offered recommendations for the meaningful integration of spirituality in health care, including the recommendation that physicians be aware of the research and understand its clinical implications; conduct a brief spiritual history; and collaborate with chaplains to meet spiritual needs (Koenig, 2004).

Regardless of the perceived role of physicians, patients report higher levels of satisfaction when these discussions take place with health care providers. Williams et al. (2011) found that health care professionals, including physicians, nurses, and chaplains, can meet an unmet need while also improving patient satisfaction in the inpatient setting. Handzo and Koenig (2004) suggest a collaboration between physicians and chaplains to assess and engage on r/s issues. These authors recommend that the physician facilitate the meeting of spiritual care needs by understanding how patients' beliefs and values influence medical decision-making and then collaborate with spiritual care professionals, particularly chaplains, in treating spiritual distress. The authors recognize that physicians are not qualified to treat spiritual distress; however, the treatment of spiritual/religious concerns should be included in all patient treatment plans.

Spirituality and End-of-Life Issues

The physician's role as facilitator, as opposed to provider, is reflected in an article by Brown et al. (2006) related to the role of the physician in the assessment and treatment of spiritual distress at the end-of-life (EOL). The authors point out that patients at end-of-life experience physical, emotional, interpersonal, and spiritual challenges and that the physician has a responsibility to relieve the distress. According to the authors, physicians should be prepared to have a key role in relieving this type of existential suffering and helping patients achieve a sense of peace at the end-of-life (Brown et al., 2006). There is an acknowledgment that spiritual care provided by physicians may have the unintended consequence of devaluing the true value of religion by relegating it to a clinical rather than a theological approach to the spiritual dimension of the patient. The author suggests that a spiritual history, positive response to patients' request for prayer, and collaboration with the hospital chaplain are appropriate activities. However, that r/s should be separate from the patient's clinical treatment (Pembroke, 2008).

The Australian and New Zealand Palliative Medicine Society (ANZSPM) survey found that trained palliative care physicians were significantly more likely to believe that it was their role to address spirituality and felt more confident in doing so than physicians who were not trained in the palliative care model (Best et al., 2016). Palliative care physicians use a holistic approach to medicine. It is important to understand different components of suffering at end-of-life and determine what approaches provide comfort (Chochinov & Cann, 2005).

Two critical issues at end-of-life that are affected by a person's r/s beliefs and values are coping with and managing pain and complex medical decision-making. A comprehensive palliative care model addresses pain and symptom management, focusing on the quality of life. Patients who experience and live with chronic pain use various therapies and strategies to relieve pain, including r/s coping strategies such as prayer. According to Wachholtz et al. (2007), r/s coping strategies are associated with a more positive mood. A more positive mood is associated with better pain management and the ability to manage negative circumstances. Wachholtz et al. concluded that r/s coping is associated with spiritual connection, peace, calmness, and decreased anxiety and improves mood, which is associated with better pain management and managing negative circumstances.

The second area of concern at end-of-life is how r/s impacts complex decision-making and the development of advance directives. Karches et al. (2012) examine the relationship between r/s and end-of-life planning. The survey results found that people who were high in r/s were more likely to name a surrogate decision-maker than those who were not but were no more likely to have a living will or DNR order. One explanation offered was that people who are high in r/s are relational and have people they can trust to make important decisions on their behalf. In

this context, physicians may concede to the role of r/s in decision-making but may struggle when those decisions conflict with medical recommendations (Karches et al., 2012).

Palliative medicine training programs generally agree on the content of spiritual care education; however, programs lack comprehensive education, training, and processes that ensure the preparedness of medical students to embed spiritual care into their practice. Fellowship directors responded to a survey that indicated that there was variety in how and what was taught as part of the medical education curriculum. The common areas for skill building include completing the spiritual assessment, knowing limitations in providing SC, working with those who are more skilled, having the ability to self-reflect and understand one's spiritual dimension, learning how to evaluate the literature, and being familiar with the skills of the chaplain and other spiritual support professionals (Marr et al., 2007).

It is important to understand different components of suffering at end-of-life and to determine what approaches provide comfort. Holistic physicians should be knowledgeable of these issues, and researchers should be intentional in systematic exploration within spiritual and existential inquiry (Chochinov & Cann, 2005). Also, palliative care professionals should approach spirituality from a diverse set of beliefs, including non-religious beliefs, help dying persons make meaning, connect, and assist them in connecting with faith communities and important people (Dobratz, 2013).

Assessment and Clinical Implications

Koenig (2004) offered recommendations for the meaningful integration of spirituality in health care and recommended that physicians be aware of the research and understand its clinical implications; conduct a brief spiritual history, and collaborate with chaplains to meet spiritual needs. Because chaplaincy is not a billable service, many hospitals cut these programs and find

alternative ways to provide spiritual support. Chaplaincy programs would be well-served to include research in health care chaplaincy curriculum. Research in chaplaincy work would add credibility and provide evidence for its meaningful inclusion in healthcare provision (Koenig, 2012).

While the research supports the need for SC integration in patient care and makes a case for its clinical implications, there remains a lack of systematic implementation. Borneman et al. (2010) conducted a pilot study to test the feasibility of the Faith, Importance and Influence, Community, and Address (FICA) Spiritual History tool. Findings from the study suggest that the FICA is a useful tool for clinical assessment of spirituality and may open the door to discussing spiritual matters related to mean-making and medical decision-making. A second instrument used to measure one dimension of spirituality is the Spirituality Index of Well-Being (SIWB) which is linked to subjective well-being and is best used in studies of aging, chronic illness, and end-of-life care.

Spirituality and Health Outcomes

Curlin et al. (2005) found that religion may positively impact coping but not so much on medical decision-making or health outcomes. The perceptions of these physicians were that religion and spirituality were beneficial as a coping mechanism but not so helpful when religious/spiritual beliefs and values conflict with medical recommendations. For these physicians, evidence for the faith-health connection would have had little to no influence on their understanding of or approach to religion within the patient-physician relationship (Curlin et al., 2005).

In a comprehensive review of research on r/s and mental health and physical health, Koenig (2012) found that r/s likely affects medical outcomes; r/s influences the quality and

quantity of support at home; and failure to address spiritual needs may increase health care costs, particularly in end-of-life decision-making. Koenig's findings were affirmed in a 2015 study that showed faith, defined by religiosity and spirituality, directly affects health outcomes or how patients make health care decisions but not necessarily medical outcomes.

A qualitative study of medical residents' perceptions of the mind-body-spirit connection showed that people with high spiritual well-being experience improved physical well-being. Also, having balance among patients' physical, mental/emotional, and spiritual dimensions leads to improved physical health outcomes (Olson, 2015).

Summary

This current study will explore the factors that influence the intentions of medical residents to address r/s and will seek to determine their willingness to do so. The literature review describes the theoretical framework for TRA and TPB and offers examples in the literature of studies that used these frameworks to explain physician attitudes, intentions, and behaviors. In addition to the discussion about TRA and TPB variables, the literature review reflects the relationship between TPB and other constructs, self-determination theory and emotional intelligence, in medical education and training.

Other related literature uncovers some main themes regarding physicians' attitudes and behaviors related to addressing spirituality in patient care: comfortability, confidence, and willingness. The literature review shows the abundance of research that points to the importance of addressing r/s in patient care and the reluctance of physicians to address r/s in patient care. Existing research has found that physicians who can demonstrate competency in providing or facilitating spiritual care as evidenced by adequate training and experiential opportunities are more likely to engage in r/s discussions with patients. Unfortunately, it seems from the literature

that SC training in medical education is inconsistent and may not be a priority for medical schools.

Assuming that physicians are confident and have a sense of control, the question of their willingness remains. The literature demonstrates that physicians are not trained chaplains or pastoral staff but that patients are receptive to a primary care provider who take an active interest in this dimension of their care. In general, the integration of spirituality and health care contributes to positive health outcomes for the patient. Specifically, the integration of spirituality and health becomes most pressing when facing end-of-life issues regarding how r/s affects medical decision-making and quality of life.

Given that the research validates the importance of r/s and supports the integration of r/s and health, medical schools would be well-served to develop future physician skills in this area by building SC as a core competency and evaluating their ability to address SC in patient care. Once new physicians are trained to address SC in whole-person medical care, health care would truly be holistic and comprehensive. While a patient may not always be cured, a patient can always be healed, if healing is defined as the achievement of peace, acceptance, and reconciliation.

CHAPTER THREE: METHODOLOGY

Overview

This chapter will outline the research methodology for this study. The description of the methodology will include the research design, question, and hypotheses. It will also include the identification of the population and sample, instrumentation, procedures, and data analysis. Finally, the chapter will be summarized by highlighting the key points of the section.

Design

This study was conducted using a nonexperimental between-S research design. In a nonexperimental design, the measured variables may be adequately related and can be measured at a single point in time or at different points in time (Warner, 2013). This design is appropriate for this study because this study will take place in a field setting and will not involve interventions but instead will observe naturally occurring behaviors. It does not attempt to draw causal inferences. The study will observe whether variables are correlated (p. 19). In addition to the quantitative independent and dependent variables, categorical variables will be composed of between-S groups, where each participant is a member of only one group (p. 20).

Reio (2016) conducted a review of research concerning the strength of research designs, focusing on the strengths and weaknesses of nonexperimental research. According to the author, nonexperimental research designs are commonly used in social science research and are either quantitative, qualitative, or mixed-method. This design does not require control by the researcher, rather focuses on finding linkages or associations between variables (p. 680). Nonexperimental research has been criticized for not being true research because it does not have a foundation for cause-and-effect relations. The author suggests that nonexperimental findings should be used cautiously with the clear understanding that identified practice recommendations

are preliminary, unambiguous, and precise, without using causal language, and should be balanced with recommendations for further research that might give stronger support for any practice recommendation (p. 686).

Reio concluded that causal language cannot be used in nonexperimental social science research; yet researchers cannot dismiss vast collection of social science research simply because it is not experimental. Finally, the author reminds researchers that all research designs have limitations, but when used appropriately, cautiously, and correctly, research generated by the nonexperimental design could be useful for building theory, guiding research and informing practice (p. 687).

Research Question(s)

RQ1: How do medical residents' subjective norms moderate the relationship between perceived behavioral control and behavioral intention to address r/s in patient care?

RQ2: How do medical residents' subjective norms moderate the relationship between resident self-efficacy and behavioral intention to address r/s in patient care?

Hypotheses

H_{o1}: Medical residents' subjective norms do not moderate the relationship between perceived behavioral control and behavioral intention to address r/s in patient care.

H_{a1}: Medical residents' subjective norms moderate the relationship between perceived behavioral control and behavioral intention to address r/s in patient care.

H_{o2}: Medical residents' subjective norms do not moderate the relationship between resident self-efficacy and behavioral intention to address r/s in patient care.

H_2: Medical residents' subjective norms moderate the relationship between resident self-efficacy and behavioral intention to address r/s in patient care.

Participants and Setting

The participants for the study will be drawn from a convenience sample of medical residents working in a hospital system in southeastern Pennsylvania during the summer of the 2021. The sample population will be first- through fifth-year physician trainees. A senior physician leader representing the hospital system will introduce the study to the trainees via email listserv and presentations at Graduate Medical Education (GME) in-services. Warner defines small sample sizes as $N < 30$ (p. 210).

Using the variance inflation factor (VIF) method, Rashidian et al. (2006) found that given a correlation of .25 between intention and behavior, and of .4 between intention and perceived behavioral control, the proposed sample size was 148. The researchers report that, to their knowledge, this was the first attempt to calculate sample size for a survey based on TPB (Rashidian et al., 2006).

Some useful, but not exact principles in determining the minimum number of subjects required to conduct multiple regression analyses have been suggested in the literature. These principles are evaluated by comparing their results against those based on power analyses for tests of hypotheses of multiple and partial correlations. The results did not support the use of methods that just specify some constant, for example, $N=100$ as the minimum number of subjects or a minimum ratio of number of subjects (N) to number of predictors (m). Some support was given for a principle that $N \geq 50 + 8\,m$ for the multiple correlation and $N \geq 104 + m$ for the partial correlation (Green, 1991).

For this study, the target sample size will be $N=50$ based on the availability of the population. Participants will be recruited from a hospital and family practice in southeastern Pennsylvania. Medical residents will be first- through fifth-year physician trainees, medical

doctors (M.D.) or doctors of osteopathic medicine (D.O.), and practicing in either procedural or non-procedural specializations.

Instrumentation

The instrument used for this study, *Assessing Residents' Intentions to Address Religion/Spirituality in Patient Care* was adapted from an instrument used to measure medical residents' intentions to adopt a comprehensive scope of practice after exposure to Canada's Triple C curriculum (Grierson et al., 2015). In their study, TPB was used as the guiding theoretical framework to develop the survey that assessed intention-based variables that would predict residents' intention to implement a comprehensive scope of practice by including questions related to intentions, attitudes, subjective norms, and perceived behavioral control. The McMaster instrument was developed using Ajzen's procedures for constructing a TPB questionnaire (Ajzen, 2006) which were used in other studies including Hardeman et al. (2013) and Vincent et al. (2015). Permission to use the instrument was granted by Lawrence E.M. Grierson, MSc, PhD, lead researcher at McMaster University.

For this current study related to residents' intention to address r/s in patient care, the researcher will adapt the survey to include efficacy items as distinct from the control items as indicated in the Ajzen (2002) where Ajzen suggested that perceived behavioral control is comprised of two subcomponents: self-efficacy and controllability. The survey for this study will be a 20-item questionnaire including categorical variables to assess participant demographics and 7-point Likert scales to measure control, efficacy, subjective norm, and intention variables.

Procedures

The researcher on this study obtained organizational support from the research site by reaching out to the interim chief medical officer. At least two meetings with this senior leader

were conducted to prepare for access to the site. A request to the health system's institutional review board (IRB) was submitted via iMedRis, an electronic IRB management system and a letter of IRB approval was issued for the study.

Participants for the study were recruited by e-mail and in-person presentation using a cover letter from senior leaders who will introduce the study and assist with participant recruitment. Study consent forms were provided. Electronic data collection was conducted using SurveyMonkey™ online survey development, data collection, and reporting tool. Procedural materials including the survey instrument, e-mail statement of permission to use the instrument, IRB approval letter, and consent forms are included in Appendices A through D.

Data Analysis

According to Warner (2013), a regression analysis that includes more than one predictor variable gives answers to different types of questions. This study will use a standard multiple regression, also referred to as a simultaneous or direct regression, where all predictor values are included in the analysis in a single step (Warner, 2013). Compared to the other models for multiple regression analysis, the simultaneous approach is preferred because it is easier to understand, and all predictor variables are treated equally (Warner, 2013).

The instrument being used for quantitative measurement of participants' responses to TPB variables of confidence, control, subjective norm, and intention are based on a 7-point Likert scale. Data from Likert scales falls short of the strict requirements for equal interval levels of measurement; however, this shortcoming is widely accepted and is not viewed as problematic (Warner, 2013). Parametric statistics such as Pearson's r, analysis of variance (ANOVA), and t-tests will be used to analyze the quantitative data. Parametric statistics require dependent

variables that are at least approximately interval or ratio levels of measurements (p. 22), such as those from Likert scales.

This is also an appropriate analysis given the study's sample size (N=50). According to Warner (2013), parametric statistics can be used when the minimum N is between 20 and 30 (p. 23). Warner (2007) reported that in planning for sample size, the researcher should consider alpha level, desired statistical power, number of predictors in the regression equation, and anticipated effect sizes. Given medium effect size and $\alpha=.05$, the minimum target N for testing the significance of multiple $R = N>50 + 8k$ (p. 456).

In addition to measuring the quantitative variables, the study will include categorical variables, such as gender, residency year, degree, and area of specialty, which can be measured by the chi-square (χ^2) test of association to assess whether there is a relationship between group membership (p. 1075).

Summary

The literature shows that there is a gap between intention to address religion and spirituality (r/s) and the failure to do so. The problem is that the frequency of discussions about r/s remains low, even given patient desire to have discussions and the availability of research that supports addressing r/s in patient care. This study addresses a gap in the literature by targeting the intentions of medical residents to address r/s in patient care. This current study is designed to measure the influence of confidence (efficacy) or control (perceived behavioral control) on medical residents' intention to address r/s in patient care. Study participants will be first- through fifth-year medical residents from a hospital system.

The study will be conducted using a nonexperimental between-S research design analyzed using a multiple, or simultaneous, regression analysis. Parametric and nonparametric

statistics will be used to test the study hypotheses. The study sample size is small; however, research literature supports the smaller sample size for obtaining a medium effect size for the data in this sample.

The results of the study will provide a description of how subjective norms influence medical residents' beliefs about their confidence and degree of control to address r/s in patient care. Finally, the results will show the relationship between the influence of subjective norms and medical residents' intention to address r/s in patient care.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this study is to explore whether subjective norms moderate the relationship between perceived control and behavioral intention and between self-efficacy and behavioral intention among first- through fifth-year medical residents. A sample of medical residents working in a hospital system in southeastern Pennsylvania during the summer of the 2021 were gathered to respond to the survey questionnaire measuring subjective norms, perceived control and behavioral control and behavioral intention, and self-efficacy variables. This chapter includes a presentation of the data analyses results. Descriptive statistics of demographic and study variables are presented followed by the results of assumptions testing and inferential statistics. This chapter includes a summary of key findings of the study to address the research questions posed in the study.

Descriptive Statistics

A total of 32 participants were included in the study. Of 37 submitted responses, five were removed using listwise deletion due to an excessive number of missing values. Across the remaining 32 responses, two missing values were present, consisting of a single missing response for Q1 and Q18. The mode was used as a substitute to the missing values because the responses were nominal in nature. Frequencies and percentages of demographic characteristics using the completed data set are presented in Table 1. Four demographic characteristics—degree program, program year, specialty, and religious category—were included in the study. There were 22 participants with a MD (68.8%) while 10 participants possessed a DO (31.3%). For the program year, 14 participants were in their first year (43.8%), 8 participants were in their second year (25%), 4 participants were in their fourth year (12.5%), and 3 participants each were in their

third and fifth years (9.4%). In terms of specialty, the majority of the participants were non-procedural ($n = 23$, 71.9%). For the religious category, 11 participants classified as religious (34.4%); 10 participants each classified as non-religious and spiritual (31.3%).

Table 1

Frequencies and Percentages of Demographic Characteristics

		Frequency	Percent
Degree Program	MD	22	68.8
	DO	10	31.3
	Total	32	100.0
Program year	PGY-1	14	43.8
	PGY-2	8	25.0
	PGY-3	3	9.4
	PGY-4	4	12.5
	PGY-5	3	9.4
	Total	32	100.0
Specialty	Procedural	9	28.1
	Non-procedural	23	71.9
	Total	32	100.0
I Identify as:	None of the above	1	3.1
	Religious	11	34.4
	Non-religious	10	31.3
	Spiritual	10	31.3
	Total	32	100.0

Table 2 provides the descriptive statistics of the study variables: attitudes, confidence, control, subjective norms, and intentions. The variables were calculated using the sum of the item responses for each variable. The highest mean score was observed for confidence ($M = 9.281$, $SD = 2.492$), followed by subjective norms ($M = 7.125$, $SD = 1.385$). The attitudes variable had a mean score of 6.813 ($SD = 2.402$), control had a mean score of 6.50 ($SD = 1.078$), and intentions had a mean score of 6.78 ($SD = 1.809$).

Table 2

Descriptive Statistics of Attitudes, Confidence, Control, Subjective Norms, and Intentions

Variables

	N	Minimum	Maximum	Mean	SD	Median
Attitudes	32	3.00	12.00	6.813	2.402	6.00
Confidence	32	5.00	15.00	9.281	2.492	10.00
Control	32	4.00	8.00	6.500	1.078	6.50
Subjective Norms	32	5.00	12.00	7.125	1.385	7.00
Intentions	32	3.00	11.00	6.781	1.809	6.50

Results

Assumptions Testing

Prior to testing the hypotheses, assumptions of multiple linear regression analysis were tested. A multiple linear regression has six assumptions, namely outliers, normality, homoscedasticity, multicollinearity, independence of observation, and variable characteristics. For this study, all variables were continuous in nature. The outliers in the data were identified using boxplots of study variables. Based on the results presented in Figure 1, there are outliers for the variables of control and subjective norms. The outliers were replaced with the closest acceptable value. To test the independence of observations, the Durbin-Watson statistic was generated using SPSS v26.0. The result of the Durbin-Watson statistic was 1.979, indicating that there was no autocorrelation and the assumption of independence was not violated. Multicollinearity was assessed using the VIF statistic. The range of VIF values was 1.062 to 1.429, indicating that the assumption of multicollinearity was not violated (Table 3). The P-P plot is presented in Figure 2. Based on the P-P plot, the residuals follow a normal distribution. Thus,

the assumption of normality is not violated. Visual inspection of the residuals plot revealed that the assumption of homoscedasticity was not violated.

Figure 1

Boxplot of Attitudes, Confidence, Control, Subjective Norms, and Intentions Variables
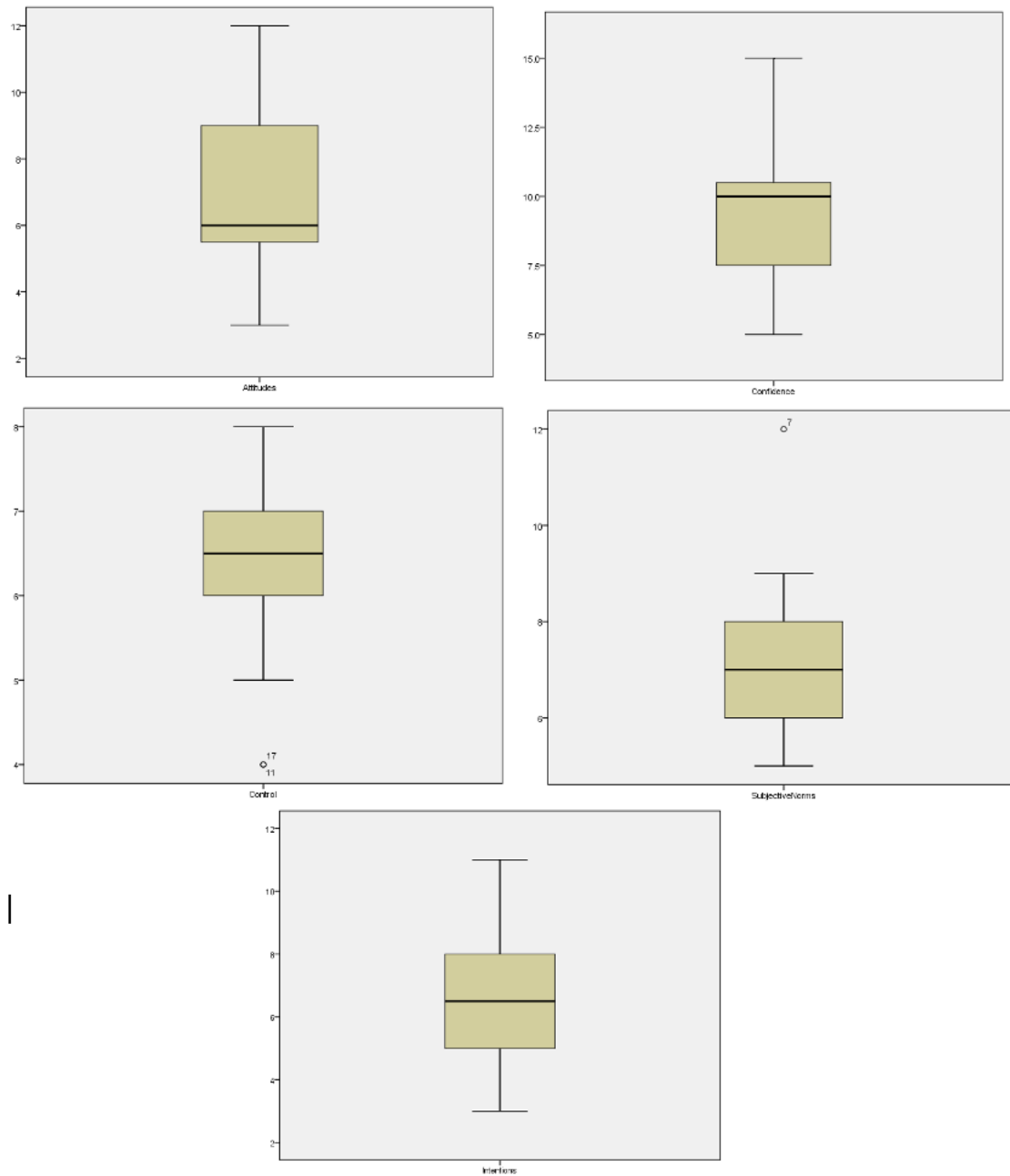
Table 3

VIF Statistics for Attitudes, Confidence, Control, and Subjection Norms

	Tolerance	VIF
Attitudes	0.700	1.429
Confidence	0.808	1.237
Control	0.941	1.062
Subjective Norms	0.810	1.235

Figure 2

Normality of Residuals Plot for Behavioral Intentions

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Intentions
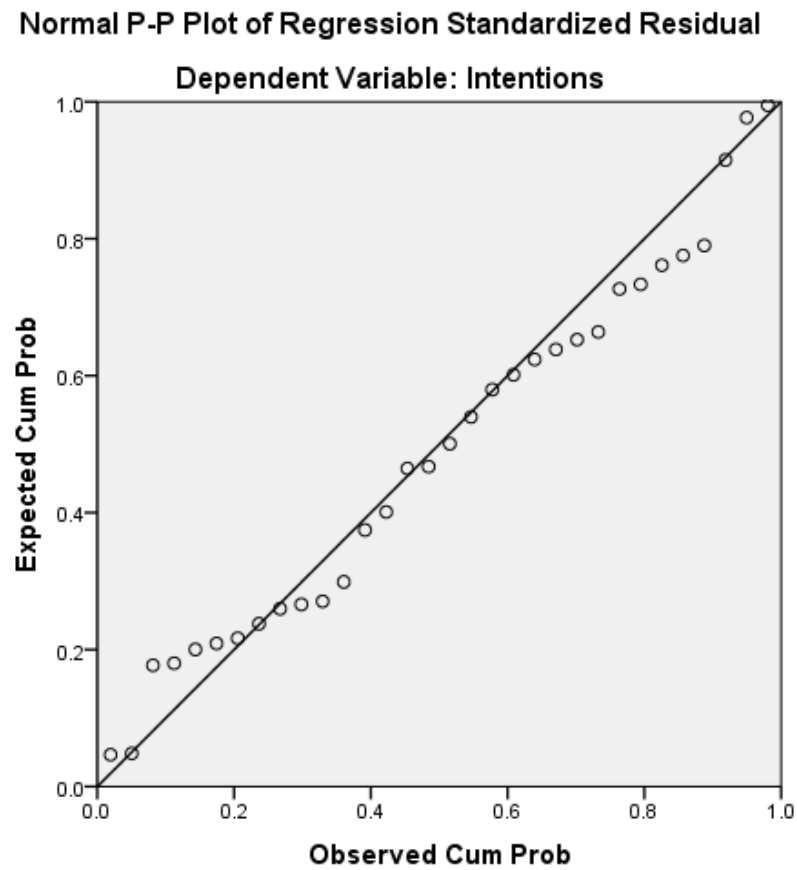
Figure 3

Scatterplot of Attitudes, Confidence, Control, and Subjective Norms With Behavioral Intentions
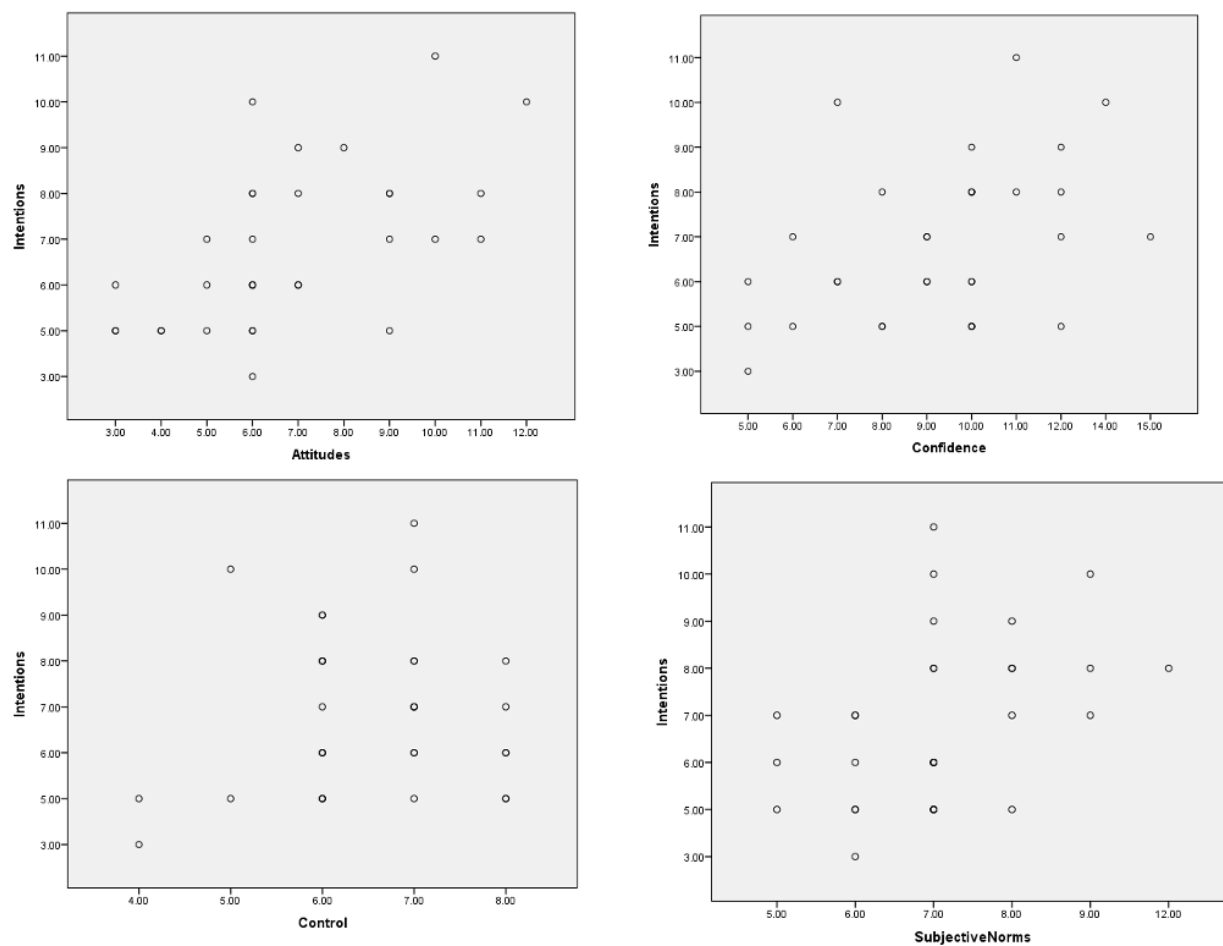
Inferential Analysis Results

To test the hypotheses posed in the study, a moderation analysis using the Hayes (2009) approach and the PROCESS macro was conducted using SPSS v26.0.

Research Question 1

The first research question was, "How do medical residents' subjective norms moderate the relationship between perceived behavioral control and behavioral intention to address r/s in patient care?" Its hypotheses were as follows:

H_{o1}: Medical residents' subjective norms do not moderate the relationship between perceived behavioral control and behavioral intention to address r/s in patient care.

H_{a1}: Medical residents' subjective norms moderate the relationship between perceived behavioral control and behavioral intention to address r/s in patient care.

The model utilized in the moderation analysis involved behavioral intention as the dependent variable, behavioral control as the predictor variable, and subjective norms as the moderating variable. The result of the analysis is presented in Table 4. The result showed that behavioral control (B = 2.119, p = .403) and subjective norms (B = 2.773, p = .290) are not significant predictors of behavioral intention. The interaction term (Int_1), which measured the moderating effect of subjective norms on the relationship between behavioral control and behavioral intention, was also determined to be insignificant (B = -.298, p = .423). Therefore, there is insufficient evidence to reject the null hypothesis. However, given the large effect size of the model (R^2 = .209) indicates significant statistical power such that, if the sample size were larger, statistical significance and a rejection of the null hypothesis would have resulted.

Table 4

Moderation Analysis of Subjective Norms on Perceived Behavioral Control and Behavioral Intention

	B	SE	t	p	LLCI	ULCI
Constant	-12.875	17.532	-0.734	.469	-48.787	23.038
Control	2.119	2.496	0.849	.403	-2.994	7.232
Subjective Norms	2.773	2.569	1.079	.290	-2.490	8.035
Int_1	-0.298	0.366	-0.814	.423	-1.047	0.452

$F(3, 31) = 2.468, p = .083, R^2 = .209$

Research Question 2

The second research question was, "How do medical residents' subjective norms moderate the relationship between resident self-efficacy and behavioral intention to address r/s in patient care?" Its hypotheses were as follows:

H_{o2}: Medical residents' subjective norms do not moderate the relationship between resident self-efficacy and behavioral intention to address r/s in patient care.

H_2: Medical residents' subjective norms moderate the relationship between resident self-efficacy and behavioral intention to address r/s in patient care.

For the second set of hypotheses, the model utilized behavioral intention as the dependent variable, self-efficacy as the predictor variable, and subjective norms as the moderating variable. The result of the analysis is presented in Table 5. The result showed that self-efficacy (B = -.159, p = .801) and subjective norms (B = -.128, p = .902) were not significant predictors of behavioral intention. The interaction term (Int_1), which measured the moderating effect of subjective norms on the relationship between self-efficacy and behavioral intention, was also determined to be insignificant (B = .065, p = .502). Therefore, there is insufficient evidence to reject the null hypothesis. As with RQ1, the large effect size of the model (R^2 = .316) suggests significant statistical power such that statistical significance would be achieved, along with a rejection of the null hypothesis, if the sample size were larger.

Table 5

Moderation Analysis of Subjective Norms on Perceived Behavioral Control and Behavioral Intention

	B	SE	t	p	LLCI	ULCI
Constant	4.845	6.610	0.733	.470	-8.700	18.386
Self-efficacy	-0.159	0.623	-0.255	.801	-1.435	1.117

Subjective Norms	-0.128	1.029	-0.125	.902	-2.235	1.979
Int_1	0.065	0.096	0.680	.502	-0.132	0.262

$F(3, 31) = 4.303, p = .013, R^2 = .316$

Summary

The purpose of this study was to explore whether subjective norms moderate the relationship between perceived control and behavioral intention and between self-efficacy and behavioral intention among first- through fifth-year medical residents. A total of 32 participants were included in the study. Assumptions of multiple linear regression were tested; only the assumption of outliers was violated. A moderation analysis, using the Hayes (2009) method and the PROCESS macro in SPSS v26.0 was used to test the two sets of hypotheses. Based on the results of the moderation analysis, behavioral control and subjective norms are not significant predictors of behavioral intent. Moreover, the interaction term was not significant in predicting behavioral intention. Therefore, there is insufficient evidence to reject the first null hypothesis. For the second hypothesis, self-efficacy and subjective norms are not significant predictors of behavioral intent. Moreover, the interaction term was not significant in predicting behavioral intention. Therefore, there is insufficient evidence to reject the second null hypothesis.

CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of this study is to explore whether subjective norms moderate the relationship between perceived control and behavioral intention and between self-efficacy and behavioral intention among first- through fifth-year medical residents. This chapter will present a discussion of the study findings, implications for pastoral counseling, limitations of the study, and areas for further research.

Discussion

The first research question was, "How do medical residents' subjective norms moderate the relationship between perceived behavioral control and behavioral intention to address r/s in patient care?" This research question was analyzed using a moderation analysis which involved behavioral intention as the dependent variable, behavioral control as the predictor variable, and subjective norms as the moderating variable. The findings of the analysis showed that behavioral control and subjective norms are not significant predictors of behavioral intent, and further, that subjective norms do not moderate the relationship between perceived behavioral control and behavioral intention to address r/s in patient care.

This finding was not inconsistent with the established literature. Légare et al. (2014) showed that TPB-based instruments could be adapted to different clinical areas of medicine, including emergency medicine, family medicine, palliative care, perinatology, and internal medicine; however, literature citing TPB as a valid framework for measuring behavioral intentions in clinical practice reflects varied explanations of behavioral intention related to physician behavior and seemed dependent upon the targeted behavior. For example, Kortteisto et al. (2010) evaluated which factors affect professionals' intention to use clinical guidelines in

decision-making about patient care. In this study, the researchers found that the strongest factor for predicting physician intent was not subjective norms but was perceived behavior control; Rashidian and Russell (2011) found that attitude and perceived control, measured directly or indirectly, significantly contributed to explaining GPs prescribing intentions while subjective norm did not (p. 751); and Seehusen et al. (2018) used a hierarchical linear regression analysis to evaluate the likelihood of prescribing metformin to patients with preDM which showed that subjective norm was not predictive of metformin prescribing practices (p. 896).

The second research question was, "How do medical residents' subjective norms moderate the relationship between resident self-efficacy and behavioral intention to address r/s in patient care?" This research question was analyzed using a moderation analysis which involved behavioral intention as the dependent variable, self-efficacy as the predictor variable, and subjective norms as the moderating variable. The findings of the analysis showed that self-efficacy and subjective norms are not significant predictors of behavioral intent, and further, that subjective norms do not moderate the relationship between self-efficacy and behavioral intention to address r/s in patient care.

Like the findings in the analysis of the first research question, these findings are not inconsistent with existing studies. However, some studies pointed to subjective norms as important predictors of intentions. For example, Limbert and Lamb (2002) found that subjective norm was the strongest predictor of intention to use the asthma guideline; Swarna et al. (2018) concluded that attitude and subjective norm are important factors associated with the primary care physician's intention to provide sick leave for patients; and Kam et al. (2012) found that attitudes toward referral to these services and subjective norms were the most important predictors of intentions to refer to Cancer Helpline services and complementary therapy support

services. The findings of this study support the varied nature of the outcomes of measuring behavioral intentions in clinical practice.

Implications

The hidden curriculum (HC) in medical education acts as a secondary socialization in which trainees internalize, through habit and learned behaviors, the institutional practices, knowledge, and viewpoints. It is a process of formation, which is primarily accomplished by apprenticeship and imprints upon students the behaviors, attitudes, and values among trainees that may conflict with professional ideals via increased physician cynicism and lack of humanitarianism (Balboni et al., 2014). Given that the values and viewpoints are transferred during this socialization process, it is interesting that subjective norms have little effect on whether rising physicians learn to integrate r/s into patient care, even though the literature supports patients' desire to address such within the patient-doctor relationship.

Luke, known as Dr. Luke, was called the beloved physician (Colossians 4:14) who was the personal physician of the apostle Paul and accompanied him on many of his missionary journeys as not only his physician but his friend (Philemon 24). Dr. Luke was the author of the book of the Acts where he recorded the healing of a man who was lame (Acts 3:2-10); signs and wonders related to the healing of the sick (Acts 3:12); and Stephen's vision as he was being stoned then finally died (Acts 7:54-60). Dr. Luke was Paul's trusted physician, friend, and fellow believer who not only provided for Paul's physical needs but also recognized and believed the miracles performed in the name of Jesus. Dr. Luke was a forerunner in integrating r/s in patient care.

From the patient perspective, Job is an example of how people with medical conditions rely on the Lord's faithfulness and sovereign will. Job says, "Though He slay me, I will hope in

Him. Nevertheless I will argue my ways before Him" (Job 13:15) which demonstrates Job's acknowledgement of his dire need but also the privilege to take his plea to the throne of grace. King Hezekiah also plead his case before the Lord. In II Kings 20, the prophet Isaiah comes to King Hezekiah with a word from the Lord. Isaiah informs the king that he needs to get his affairs in order because he is about to die (v.1). Hezekiah was considered a "good" king, one that did what was right in the sight of the Lord (2 Kings 18:3) but still he was unable to escape eventual physical death. Hezekiah prayed for God to spare his life, and God honored his request by extending his life for 15 more years (2 Kings 20:6).

According to the research, prayer is recognized as an effective coping strategy which is associated with spiritual connection, peace, calmness, decreased anxiety and improved mood resulting in better pain management and management of negative circumstances. For those in pastoral counseling, it is important to be aware of the research related to addressing r/s in patient care and to collaborate with chaplains or enter the chaplaincy field to meet spiritual needs of patients. The literature reflects the need for physicians and chaplains to collaborate on the assessment of and engagement in r/s issues; and while physicians may not be qualified to treat spiritual distress, the treatment of religious/spiritual concerns should be included in all patient treatment plans.

Limitations

There are several limitations of the study. First, the data were self-report which has the limitation of social desirability bias where participants may distort their answers to lead the researcher to believe they are not influenced by peer groups or their attending in making decisions about addressing r/s in patient care. It is possible that this could be viewed as a threat to their decision ownership.

Second, there are missing values for 20% of the surveys. For surveys with missing values, participants answered the demographic questions and skipped the questions about r/s. Two reasons may be suggested for this performance: avoidance or indifference to the topic. Third, there was weak internal and external validity. The study, after removing surveys with missing values, included a small sample size (n=32) drawn from a single, small hospital system. The results cannot be used to draw causal inferences, nor can it be generalized to a broader population of medical residents. However, study samples could be increased by expanding the number of research sites.

Finally, the scope of the study is narrow. The study examined a single moderating variable rather than examining the moderating effect of attitudes on the relationship between perceived behavioral control or self-efficacy and behavioral intention to address r/s in patient care.

Recommendations for Future Research

Future opportunities exist to study this topic by examining the interaction between categorical variables – program year, discipline, specialty, and r/s self-identification, and the predictor and outcome variables. It would be interesting to know if intention to address r/s in patient care varies across demographic groups. Further, since this study only examined a single moderating variable, subjective norm, which did not prove to effect control or confidence, it may be valuable to examine whether attitude toward the behavior would affect a medical resident's perceived control or confidence in addressing r/s in patient care. Another area for future consideration is the opportunity to study the impact of the hidden medical curriculum on resident behaviors, attitudes, and values related to r/s. Finally, a future study that examines the physician-chaplain relationship may lead to increased assessment of and engagement in r/s issues.

Summary

The purpose of this study is to explore whether subjective norms moderate the relationship between perceived control and behavioral intention and between self-efficacy and behavioral intention among first- through fifth-year medical residents. The problem is that the frequency of discussions about r/s remains low, even given patient desire to have discussions and the availability of research that supports addressing r/s in patient care. This was designed to address a gap in the literature by exploring the intentions of medical residents to address r/s in patient care, specifically, to measure the moderating effect of subjective norms on the confidence (efficacy) or control (perceived behavioral control) of medical residents' intention to address r/s in patient care.

The results showed that neither behavioral control, self-efficacy, nor subjective norms are significant predictors of behavioral intent, and further, that subjective norms do not moderate the relationship between perceived behavioral control and self-efficacy and behavioral intention to address r/s in patient care. The limitations of the study included the self-report data collection, missing values, and narrow scope which had bearing on the results of the study. For future studies, it may be helpful to increase the sample size, examine variables across specific demographics, identify attitudes as a moderating variable, and examine the relationship between the hidden medical curriculum and resident behaviors, attitudes, and values related to r/s to explore if these adjustments would yield different results.

There is significant evidence in the literature that suggests that addressing r/s in patient care makes a difference in patient outcomes. Specifically, existing literature reflects research that recognizes prayer as an effective coping strategy which is associated with spiritual connection, peace, calmness, decreased anxiety and improved mood resulting in better pain management and

management of negative circumstances. The scriptures provide examples from Job and King Hezekiah that God hears the prayers of the sick. Because the current study did not identify the moderating effect on residents' control or confidence in addressing r/s, future studies would contribute to this area of research by identifying the motivating factors of behavioral intent then design curricular components to enhance medical education in r/s in patient care.

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Appendix A: Permission to Use Survey Instrument

From: Lawrence Grierson <griersle@mcmaster.ca>
Sent: Wednesday, March 17, 2021 12:23 PM
To: Saylor, Vanessa (Social Work Program) <vsaylor1@liberty.edu>
Subject: [External] Re: Permission to use survey instrument

Thank-you for your email and your interest in our work.

If you are able to derive the survey from the publication, then please by all means feel free to make use of it in your thesis work.
It is in and of itself derived from Azjen's Theory of Planned Behaviour, for which there are some publicly available online survey building tools.
https://people.umass.edu/aizen/pdf/tpb.measurement.pdf

Best regards,
Lawrence

On Mon, Mar 15, 2021 at 2:44 AM Saylor, Vanessa (Social Work Program)
<vsaylor1@liberty.edu> wrote:
Dr. Grierson
I am a doctoral student at Liberty University Online (LUO) based in Lynchburg, VA. I am in the dissertation phase of the program.
For my doctoral dissertation, I am studying the degree to which medical residents' attitudes, subjective norms, and perceptions of control influence willingness to address religion and spirituality in patient care using theory of planned behavior as the conceptual framework.

While conducting the literature review, I found your research article, *Family medicine residents' practice intentions* (2015), and am modeling my study from your study. I would like permission to use your survey instrument with adaptations for my research question.

Is there a proper channel or request that needs to be made to you or to your department? I will be scheduled to defend my research proposal in early April and will need permission to use your instrument included in the proposal.

I would greatly appreciate this allowance and will be careful to give proper credit according to APA guidelines.

Sincerely,

Vanessa I. Saylor
Doctoral Candidate
Liberty University Online
School of Behavioral Sciences

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Appendix B: MLH IRB Outcome Letter

Main Line Health®

Date: June 08, 2021

To: Vanessa Saylor, MSW, LSW, CCM
               MLH - MLH

RE: E-21-5135 - CONFIDENCE OR CONTROL: USING THEORY OF
PLANNED BEHAVIOR TO EXPLORE MEDICAL RESIDENTS' INTENTIONS
               TO ADDRESS RELIGION AND SPIRITUALITY IN PATIENT CARE

Action: **Exempt**

Action Date: 06/08/2021

Dear Ms. Saylor:

The submitted documents for the above referenced study were reviewed by the Office of Research Protections and determined to be Exempt research in accordance with 45 CFR 46.104, effective as of the Action Date noted above.

Any proposed modifications to this study must be submitted for review prior to implementation. In some circumstances, changes to the protocol may disqualify the project from exempt status. If your research plan should expand or change, please advise the MLH IRB.

Good luck with your research and please do not hesitate to contact the Office of Research Protections at (610) 225-6222 if you have any questions or concerns.

Regards,

Albert A. Keshgegian, M.D., Ph.D.
Chairman, Main Line Hospitals Institutional Review Board

Appendix C: Study Consent

CONSENT FORM
CONFIDENCE OR CONTROL: USING THEORY OF PLANNED BEHAVIOR
TO EXPLORE MEDICAL RESIDENTS' INTENTIONS
TO ADDRESS RELIGION AND SPIRITUALITY IN PATIENT CARE

Vanessa I. Saylor
Liberty University
School of Education

You are invited to be in a research study examining the theory of planned behavior to explore medical residents' intentions to address religion and spirituality in patient care. You were selected as a possible participant because you are a medical resident in a hospital, family practice, or school setting. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Vanessa Saylor, a doctoral candidate in the School of Behavioral Sciences at Liberty University.

Background Information:

The purpose of this study is to explore the relationship between whether confidence (efficacy) or controllability (perceived control) affects intention (willingness) of medical residents to address r/s in patient care. The study will also consider the influence of related TPB variables on intention.

Procedures:

If you agree to be in this study, you will be asked to complete a one-time anonymous online or paper survey that will take approximately 10-15 minutes to complete.

Risks of being in the study:

The study has minimal risks, meaning that the risks are no more than you would encounter in everyday life. Personal information will not be gathered, and should a demographic data item potentially reveal an individual participant's identity, that entry will be removed from the study.

Benefits of being in the study:

Participants should not expect to receive direct benefit from taking part in this study. Benefits to society include providing medical residents with more knowledge about support for addressing religion and spirituality in patient

Appendix D: Assessing Medical Residents Intentions

LIBERTY
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Assessing Residents' Intentions to Address Religion/Spirituality in Patient Care

Participant Demographics

1. **Degree Program**

   ◯ MD

   ◯ DO

2. **Program year**

   ◯ Medical student

   ◯ PGY-1

   ◯ PGY-2

   ◯ PGY-3

   ◯ PGY-4

   ◯ PGY-5

3. **Specialty**

   ◯ Procedural

   ◯ Non-procedural

4. **I Identify as:**

   ◯ Religious

   ◯ Non-religious

   ◯ Spiritual

   ◯ Non-spiritual

   ◯ None of the above

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Assessing Residents' Intentions to Address Religion/Spirituality in Patient Care

Statement Response Scale

5. **For me, addressing religion or spirituality in patient care will be …**

   ◯ Not enjoyable

   ◯ Somewhat enjoyable

   ◯ Enjoyable

   ◯ Very enjoyable

6. **For me, addressing religion or spirituality in patient care will be …**

   ◯ Not important

   ◯ Somewhat important

   ◯ Important

   ◯ Very important

7. **For me, addressing religion or spirituality in patient care will be …**

   ◯ Unrewarding

   ◯ Somewhat rewarding

   ◯ Rewarding

   ◯ Very rewarding

8. **How confident are you that you will address religion or spirituality in patient care…**

   ◯ Not confident

   ◯ Somewhat confident

   ◯ Confident

   ◯ Very confident

9. For me, addressing religion or spirituality in patient care will be ...

◯ Difficult

◯ Somewhat difficult

◯ Easy

◯ Very easy

10. If I wanted to, I could easily address religion or spirituality in patient care ...

◯ Strongly disagree

◯ Somewhat disagree

◯ Agree

◯ Strongly agree

11. I am confident that I can address religion or spirituality in patient care within the health care system

◯ Strongly disagree

◯ Somewhat Disagree

◯ Agree

◯ Strongly agree

12. How much control do you believe you have in addressing religion or spirituality in patient care?

◯ No control

◯ Some control

◯ Control

◯ Complete control

13. It is completely up to me whether or not I will address religion or spirituality in patient care...

◯ Strongly disagree

◯ Somewhat disagree

◯ Agree

◯ Strongly agree

14. **It is beyond my control whether or not I will address religion or spirituality in patient care …**

◯ Strongly disagree

◯ Somewhat disagree

◯ Agree

◯ Strongly agree

15. **My family and friends think that it is important that I address religion or spirituality in patient care …**

◯ Strongly disagree

◯ Somewhat disagree

◯ Agree

◯ Strongly agree

16. **My peer group thinks that it is important that I address religion or spirituality in patient care …**

◯ Strongly disagree

◯ Somewhat disagree

◯ Agree

◯ Strongly agree

17. **My attending thinks that it is important that I address religion or spirituality in patient care …**

◯ Strongly agree

◯ Agree

◯ Disagree

◯ Strongly disagree

18. **It is my intention to address religion or spirituality in patient care.**

◯ Strongly disagree

◯ Somewhat disagree

◯ Agree

◯ Strongly agree

19. My primary goal is to address religion or spirituality in patient care.

◯ Strongly disagree

◯ Disagree

◯ Agree

◯ Strongly agree

20. I am working toward addressing religion or spirituality in patient care.

◯ Strongly disagree

◯ Somewhat disagree

◯ Agree

◯ Strongly agree