

THE RELATIONSHIP BETWEEN MEANING, BASIC PSYCHOLOGICAL NEEDS,
AND MOTIVATION AT WORK: A SELF-DETERMINATION PERSPECTIVE

by

Cory Trevena

Liberty University

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

In the following dissertation, I explored the predictive influence of meaning in life on autonomous motivation at work and psychological well-being in the presence of the three basic psychological needs of autonomy, competence, and relatedness identified by self-determination theory. The first hypothesis for this correlational study was that meaning in life would distinctly predict autonomous motivation at work beyond autonomy, competence, and relatedness. The second hypothesis for this study was that meaning in life would distinctly predict psychological well-being beyond autonomy, competence, and relatedness. I conducted a multiple regression analysis on the data collected from 94 working adults recruited using Amazon's Mechanical Turk. Participants completed a self-report survey that included the Purpose in Life Test, the Multidimensional Work Motivation Scale, the World Health Organization Well-Being Index, and the Basic Psychological Need Satisfaction and Frustration Scale. A significant positive relationship was found between meaning in life and both autonomous motivation and psychological well-being after controlling for the effect of autonomy, competence, and relatedness. The outcome of this study lends theoretical support to the advancement of self-determination theory by examining meaning in life as a potential basic psychological need. It also has practical implications for organizational leaders and human resource professionals who are invested in developing and implementing strategies that motivate their employees.

Keywords: meaning in life, purpose in life, autonomous motivation, self-determination theory, basic psychological needs, autonomy, competence, relatedness, psychological well-being

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Dedication

This dissertation is dedicated to my Higher Power, who continuously leads me on a path beyond my wildest dreams. When I thought I had no more words left to write, I was gently reminded to “trust in the Lord with all your heart and lean not on your own understanding” (Proverbs 3:5).

To my husband, Bill, whose love and patience has been unwavering throughout this journey. The countless hours devoted to this project were possible with his support, allowing me to focus and cross the finish line. I could not have reached this milestone without him!

To my children, Gabriel and Alexandra, I hope that I have inspired in you a lifelong love of learning, just as Grammy inspired me. I am blessed to have two amazing children who understood the importance of this goal of mine and never questioned the time it required.

Finally, I am infinitely grateful to my parents for their unconditional love and support. Every child deserves to have someone who sees greater potential in them than they see in themselves, nurturing their ability to dream without limits. I was fortunate to experience this kind of encouragement from my mother and father, and for that, I am deeply indebted.

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CHAPTER 1: INTRODUCTION TO THE STUDY

Introduction

The search for meaning in life has been conceptualized as a universal and primary motivator of human behavior (Frankl, 1992). Few studies, however, have explored the role of meaning in life using prominent theoretical frameworks of motivation, such as self-determination theory (Hadden & Smith, 2019; Martela et al., 2018, 2023; S. Zhang et al., 2022). Previous studies based on self-determination theory examined human motivation across a variety of domains, including the work domain, positing that motivation stems from the satisfaction or frustration of basic psychological needs (Deci & Ryan, 2000; Ryan & Deci, 2019). A large body of literature demonstrates the relationship between motivation and three basic psychological needs identified by self-determination theory: autonomy, competence, and relatedness (Deci & Ryan, 2000; Ryan & Deci, 2019). These three needs, however, do not address the fundamental desire to fulfill a unique purpose in life and the motivation that stems from searching for that purpose (Frankl, 1992).

To date, only one study has been published that examined MIL in the context of self-determination theory (Hadden & Smith, 2019). The results of this preliminary study suggest that MIL may be a distinct psychological need, but additional research examining MIL as a potential BPN is needed. In the following chapter, I provide a brief review of the background literature on meaning in life, basic psychological needs, and motivation. After providing an overview of the literature, I present the problem this research aimed to fill, identify the research questions and hypotheses of the study, and outline the theoretical foundation upon which the study is based.

Background

Meaning in Life

Prior to the modern psychology era, which began in the mid- to late-1800s, philosophers and theologians explored fundamental issues such as motivation and values using philosophical and biblical reasoning (Johnson, 2010). Modernism, however, shifted the framework toward scientific methods of observation and empiricism in the search for knowledge (Johnson, 2010). Existential topics like meaning in life (MIL) and transcendence were too vague for mainstream modern psychology (King & Hicks, 2020). Viktor Frankl challenged this reductionistic approach of modern psychology (Bushkin et al., 2021). Although he differentiated between science and religion in his writings, the assumptions of his approach to existential analysis incorporated philosophical and religious influences (García-Alandete, 2023).

Although criticized by some researchers for acknowledging the role of religion in psychology (García-Alandete, 2023), Frankl's publication of *Man's Search for Meaning* in 1946 is often cited as the launching point in the scientific study of the subjective experience of MIL (King & Hicks, 2020). Frankl (1992) proposed that MIL is a subjective experience characterized as a universal and primary motivator of human behavior. His experiences as a concentration camp survivor informed his belief that the search for meaning is fundamental among all humans. He proposed that one's sense of meaning in response to life events fluctuates across time but is essential for flourishing. Frankl contended that the freedom to search for one's unique MIL leads to positive outcomes and helps individuals cope with anxiety-producing and tragic circumstances. The absence of a sense of meaning, on the other hand, leads to something Frankl referred

to as an existential vacuum, which he defined as the experience of boredom, emptiness, and loneliness.

Since Frankl first published his seminal work, the scientific study of the subjective experience of MIL has proliferated (King & Hicks, 2020), supporting many of Frankl's assumptions. Researchers expanded Frankl's definition of MIL to describe the phenomenon as the perception of coherence in life, a sense of purpose, and the belief that one's life is significant (George & Park, 2016; King & Hicks, 2020; Martela & Steger, 2016). Multiple conditions have been identified as supporting an individual's experience of MIL, including spirituality or religiosity (Dar & Iqbal, 2019; Yoon et al., 2021), connection with others (Glaw et al., 2017; Martela & Riekkari, 2018), positive emotion (Chu et al., 2020; Ward & King, 2016), future-oriented thought patterns (Baumeister et al., 2020; van Tilburg & Igou, 2019), and the satisfaction of basic psychological needs (BPNs) (Martela et al., 2023; S. Zhang et al., 2022). Higher socioeconomic status (Ward & King, 2016; F. Zhang et al., 2023) and age (Krause & Rainville, 2020) have also been associated with the experience of MIL.

Research focused on outcomes related to the subjective experience of MIL or the absence of MIL also provides supportive evidence for Frankl's assertions. MIL has been positively associated with psychological well-being (García-Alandete et al., 2018; Hooker et al., 2020; Steger, 2017). Specifically, individuals who have a high sense of MIL report better mental health outcomes (Arslan et al., 2022; Yoon et al., 2021), higher levels of resilience (Batmaz et al., 2021), better ability to cope with stress (Hooker et al., 2018; Ostafin & Proulx, 2020; Park & Baumeister, 2017), and higher life satisfaction (Wolfram, 2023) than individuals who have a low sense of MIL. Meaninglessness, on the

other hand, is associated with age-related cognitive impairment (Sutin et al., 2020), work strain (Wolfram, 2023), and substance misuse (Csabonyi & Phillips, 2020).

Frankl (1992) suggested that the search for and fulfillment of life's calling is central to MIL. Research provides evidence that meaningful work is positively associated with MIL (Allan, Dexter, et al., 2018; Allan, Douglass, et al., 2016; Allan et al., 2015; Lysova et al., 2019; Steger & Dik, 2009). Based on the relationship between meaningful work and MIL, Arnoux-Nicolas et al. (2016) propose that meaningful work may be considered a sub-domain of MIL. Meaningful work examines the personal significance of one's work activities, while MIL examines the global concept of an individual's perception of coherence, purpose, and significance in all areas of their life (Lysova et al., 2019).

Frankl's writings outline a theory of human motivation focused on the search for MIL (García-Alandete, 2023), but MIL has not been well-researched in the context of established motivational theories, such as self-determination theory (SDT). The research on meaningful work and its positive association with the satisfaction of autonomy, competence, and relatedness (Autin et al., 2022; Autin & Allan, 2020; Martela & Riekk, 2018) as well as with work motivation (Allan, Duffy, et al., 2018; Allan et al., 2019) provide indirect support that MIL may play a role in motivation from an SDT perspective. Meaningful work and MIL, however, are two distinct constructs (Lysova et al., 2019; Martela & Pessi, 2018). Few studies have been published that integrate Frankl's conceptualization of the global construct of MIL with SDT (Hadden & Smith, 2019; Martela et al., 2018, 2023; S. Zhang et al., 2022). The only study published to date that examined MIL in the context of SDT's BPNs reported preliminary support that MIL

may be considered a distinct need that enhances well-being (Hadden & Smith, 2019).

Hadden and Smith (2019) suggest that future research is needed to assess the distinct relationship between MIL and motivation in the presence of autonomy, competence, and relatedness.

Basic Psychological Needs

SDT is considered a multidimensional, broad theory that describes human motivation (Ryan & Deci, 2000, 2020). Differing from Frankl's (1992) belief that meaning is an essential component of motivation, SDT suggests that motivation is contingent upon the satisfaction of BPNs (Ryan & Deci, 2017). According to SDT, satisfaction of BPNs is vital for an individual's adjustment, integrity, and growth (Ryan, 1995).

SDT outlines a strict set of criteria that must be demonstrated empirically for a psychological phenomenon to be considered a BPN (Vansteenkiste et al., 2020). The phenomenon must be an inherent and universal psychological construct whose satisfaction contributes to well-being and frustration leads to ill-being (Vansteenkiste et al., 2020). The need must also be a distinct construct from other identified BPNs (Vansteenkiste et al., 2020). To date, three BPNs have been accepted as meeting these criteria: autonomy, competence, and relatedness (Ryan & Deci, 2017, 2019; Vansteenkiste et al., 2020).

Autonomy is conceptualized as the extent to which an individual is self-directed in their actions (Deci & Ryan, 2000). Competence is defined as a sense of mastery or efficacy over tasks and outcomes (Ryan & Deci, 2017). Relatedness is described as a feeling of belonging or connection to others (Ryan & Deci, 2017). Autonomy,

competence, and relatedness are three psychological phenomena that are positively related to well-being when satisfied (Lataster et al., 2022) and are distinct from other indicators of well-being (Bagheri & Milyavskaya, 2020; Hadden & Smith, 2019; Martela & Ryan, 2020). On the other hand, when thwarted, the need for autonomy, competence, and relatedness is associated with ill-being (Ryan & Deci, 2017; Vansteenkiste et al., 2020). Although these three needs are not equally experienced by all individuals (Ryan & Deci, 2019), they are universally important for individuals to thrive across cultures, gender, age, and socio-economic status (Chen et al., 2015; Lataster et al., 2022; Martela et al., 2023).

Ryan & Deci (2019) acknowledge that SDT is a dynamic theory, as evidenced by its growth over the last two decades. Similarly, Vansteenkiste et al. (2020) suggest that psychological needs other than autonomy, competence, and relatedness who meet the inclusion criteria may be considered as BPNs. To that end, Hadden and Smith (2019) examined MIL as a potential BPN. The authors reported that MIL is a distinct predictor of well-being in the presence of autonomy, competence, and relatedness, and therefore may meet the criteria of a BPN. Hadden and Smith (2019) encourage future research to explore the potential of MIL as a BPN.

Motivation

According to Frankl (1992), the search for MIL is a universal and fundamental motivator of human behavior. SDT, on the other hand, examines motivation from a needs-based perspective, suggesting that motivation is determined by the satisfaction or frustration of BPNs (Deci & Ryan, 2000; Ryan & Deci, 2017, 2019). According to SDT, motivation exists within a continuum that describes both levels and dimensions of

motivation (Deci & Ryan, 2000; Ryan & Deci, 2017; Van den Broeck et al., 2016, 2021).

At the one end of the continuum is autonomous motivation. Autonomous motivation includes intrinsic motivation and two extrinsic forms of motivation: integrated regulation and identified regulation (Ryan & Deci, 2020). Intrinsic motivation is described as engaging in behavior for its own enjoyment or satisfaction (Ryan & Deci, 2020).

Integrated regulation, the most autonomous form of extrinsic motivation, is described as engaging in behavior that has been assimilated into the value system of the individual (Ryan & Deci, 2020). Identified regulation involves engaging in behavior that is driven by an acceptance of the value of the behavior, even if the behavior is unenjoyable (Ryan & Deci, 2020).

The other end of the continuum is controlled motivation, which includes two extrinsic forms of motivation: introjected regulation and external regulation (Ryan & Deci, 2020). Introjected regulation involves engaging in behavior that is driven to enhance one's ego or to avoid experiencing self-inflicted negative emotions (Ryan & Deci, 2020). External regulation involves engaging in behavior that is driven by avoiding punishment or seeking reward (Ryan & Deci, 2020).

Autonomous motivation results from the satisfaction of BPNs and is positively associated with well-being (Tang et al., 2020, 2021). Individuals who are autonomously motivated report positive work-related performance, satisfaction, and commitment (Allan, Autin, et al., 2016; Deci et al., 2017; Manganelli et al., 2018). In contrast, controlled motivation is a result of BPNs being thwarted and leads to ill-being (Ryan & Deci, 2020; Tang et al., 2020). Controlled motivation is associated with distress and

burnout (Van den Broeck et al., 2021), and negatively affects work-related performance (Gagné et al., 2015).

As a macro-theory, SDT has been researched in the domain of the work environment (Deci et al., 2017). Within the organizational domain, the SDT model of work motivation focuses on the influence of the workplace context and individual differences on work behaviors and well-being, as mediated by BPN satisfaction or frustration, and autonomous or controlled motivation (Deci et al., 2017). Specifically, job design (Liu et al., 2022; Trépanier et al., 2015), leader autonomy support (Slemp et al., 2018), quality of work relationships (Kaabomeir et al., 2023), age, and intrinsic compared to extrinsic aspirations (Hope et al., 2019; Moller et al., 2022) are all factors that influence an individual's motivation. Additionally, positive associations between autonomous motivation and well-being, job attitudes, and workplace behaviors have been reported (Van den Broeck et al., 2021).

Problem Statement

The research related to SDT provides evidence that the three BPNs of autonomy, competence, and relatedness influence an individual's experience of motivation (Olafsen et al., 2018; Van den Broeck et al., 2016). Although the satisfaction of these BPNs may be an essential predictor of motivation, it does not fully explain the variance in motivation between individuals (Van den Broeck et al., 2021). Vansteenkiste et al. (2020) suggest that SDT is a dynamic framework that continues to evolve with supporting empirical evidence. The authors outline a set of inclusion criteria that future research may use to examine additional factors as BPN-candidates.

Viktor Frank (1992) proposed that meaning is a universal and fundamental factor explaining the motivation of human behavior. Despite the body of literature that has developed related to MIL, few studies have integrated MIL within the context of SDT (Hadden & Smith, 2019; Martela et al., 2018, 2023; S. Zhang et al., 2022). Closely related, the research examining meaningful work and its association with motivation suggest that vocational purpose is positively associated with the satisfaction of the three BPNs (Autin et al., 2022; Autin & Allan, 2020; Martela & Riekkari, 2018) and predicts autonomous motivation at work (Allan, Duffy, et al., 2018; Allan et al., 2019). Although meaningful work is associated with MIL, they are two distinct constructs (Lysova et al., 2019; Martela & Pessi, 2018).

In the only study published exploring MIL as a potential BPN, Hadden and Smith (2019) reported a distinct relationship between MIL and indicators of well-being after controlling for the effects of autonomy, competence, and relatedness. A single study, however, does not provide enough supporting evidence to suggest that MIL meets the inclusion criteria of a BPN (Vansteenkiste et al., 2020). Therefore, future research examining MIL as a BPN-candidate is necessary (Vansteenkiste et al., 2020). In this dissertation, I addressed this gap in literature by investigating MIL as a predictor of both autonomous motivation at work and psychological well-being in the presence of the BPNs of autonomy, competence, and relatedness. Examining MIL as a potential BPN may have theoretical implications for the advancement of SDT. This study may also have practical implications for organizational leaders who are interested in creating a working environment that harnesses the motivational influence of meaning in life.

Purpose of the Study

The purpose of this quantitative, correlational study was to explore how MIL uniquely contributes to autonomous motivation at work and psychological well-being beyond autonomy, competence, and relatedness.

Research Questions and Hypotheses

Research Questions

RQ1: What is the relationship between MIL and autonomous motivation at work after controlling for the effect of autonomy, competence, and relatedness?

Hypothesis 1: There will be a positive relationship between MIL and autonomous motivation at work after controlling for the effect of autonomy, competence, and relatedness satisfaction.

Null Hypothesis: There will be no relationship between the presence of MIL and autonomous motivation at work after controlling for the effect of autonomy, competence, and relatedness satisfaction.

RQ2: What is the relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness?

Hypothesis 2: There will be a positive relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness satisfaction.

Null Hypothesis: There will be no relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness satisfaction.

Assumptions and Limitations of the Study

This dissertation was based on three main assumptions. First, it was assumed that individuals recruited for the study were representative of the population of adults living in the United States. Participants were recruited using Amazon's Mechanical Turk (MTurk). In a review of the emerging research related to the use of MTurk, Aguinis et al. (2021) reported that MTurk provides a large and diverse participant pool when compared to traditional student samples.

Second, it was assumed that participants who completed the survey represented themselves honestly in their responses. To reduce the effect of socially desirable responses, Vésteinsdóttir et al. (2019) recommended embedding questions in surveys that evoke an expectation of honesty rather than relying on traditional methods of requesting honesty from participants in the instructions. Therefore, questions to prompt honest responses were included in the survey to reduce the effect of socially desirable responding. It was also assumed that participants responded to the survey items with attention. As recommended by Aguinis et al. (2021), attention checks were included to reduce the risk of inattention.

Finally, this study assumed that human beings completed the survey. Online data collection has been subject to an infiltration of automated responses (Storozuk et al., 2020). Screening techniques, including time and speed of survey completion, and the use of open-ended and reversed-scored response checks, are effective ways to identify automated responses (Storozuk et al., 2020). I implemented protective measures to help identify bots completing the survey.

In addition to the assumptions, there were limitations that had the potential to affect the interpretation of the data collected by this study. Although MTurk has resulted

in samples that are more like the adult working population than traditional samples of undergraduate students (Buhrmester et al., 2018), diversity among participants cannot be guaranteed. Socially desirable responding is also a potential limitation when using self-report questionnaire data (Jackson, 2016). Online administration of surveys may lessen the effect of social desirability due to an increased sense of anonymity (Gnambs & Kaspar, 2015), but may not necessarily eliminate it. It is also possible that inattention and non-human responses would affect the data. Screening checks helped to identify these potential concerns (Aguinis et al., 2021; Storozuk et al., 2020).

Another limitation of this study is that it relied on cross-sectional data. Cross-sectional data allows associations and relationships to be shown, but causality and temporality cannot be assessed (Jackson, 2016). Future research may consider longitudinal designs to examine the impact of fluctuations in MIL, autonomous motivation, and psychological well-being across time. Future research may also incorporate experimental designs to show causal relationships between MIL, autonomous motivation, and psychological well-being.

Finally, although this study focused on MIL and BPNs as predictors of autonomous motivation and psychological well-being, other variables that were not explored may affect the relationship. Demographic factors, such as cultural or gender differences, may affect an individual's sense of MIL. Future studies may consider exploring other individual-level or context-level variables.

Theoretical Foundations of the Study

The foundation for the current study was based on two theoretical frameworks: self-determination theory and meaning in life. SDT is a broad theory comprised of six

mini-theories, of which BPN theory is one (Deci & Ryan, 2000; Ryan & Deci, 2019; Vansteenkiste et al., 2020). MIL is a component of Viktor Frankl's (1992) therapeutic technique known as logotherapy. Logotherapy posits that the search for meaning in life is the most basic motivation of human behavior (Frankl, 1992). This study examines MIL in relationship with BPN theory.

The search for MIL, the longing to understand one's contribution to a higher purpose, is supported by psychological theory but also by the teachings of the Bible. The biblical story of Timothy teaches Christians that God provided His people with unique gifts that are meant to be used in conducting their purpose on Earth (*New International Version*, 1978/2011, 1 Timothy 4:14). Peter's message in 1 Peter 4:10 reinforces the message that each person received a gift from God, and it is their responsibility to use it as God intended. The challenge is that understanding the meaning or purpose that God intended for His followers' lives requires an active seeking of that purpose and when revealed, a motivation to follow the calling (Matthew 7:7). When trust is placed in God's direction, the outcome is promised to be one of hope and eternal salvation (Jeremiah 29:11). As the examples of Timothy and Peter show, the desire to find meaning has been a shared yearning among Christians throughout history.

Definition of Terms

The following is a list of definitions of terms that were used in this study.

Autonomous motivation – the complete willingness to engage in an action, resulting from the satisfaction of basic psychological needs, leading to higher levels of well-being (Ryan & Deci, 2019).

Autonomy – an individual’s desire to act with volition in alignment with one’s interests and values (Ryan & Deci, 2017).

Basic psychological need – an innate and universal construct that when satisfied, results in autonomous motivation and well-being and when thwarted, results in controlled motivation and ill-being (Ryan & Deci, 2017).

Competence – an individual’s desire to feel effective and in control of outcomes in the immediate environment (Ryan & Deci, 2017).

Meaning in life – the subjective experience that one’s life is uniquely significant and involves concrete action toward finding one’s purpose (Frankl, 1992).

Psychological well-being – an individual’s subjective evaluation of psychological states, such as positive affect and life satisfaction (VanderWeele et al., 2020)

Relatedness – an individual’s desire to feel connected to and care for others in a meaningful way (Ryan & Deci, 2017).

Significance of the Study

This study has theoretical and practical implications. First, this study examined the role of MIL in the context of the established motivational framework of SDT.

Although the relationship between occupational meaning and motivation has been explored through the construct of meaningful work (Allan, Duffy, et al., 2018; Allan et al., 2019), meaningful work and MIL are distinct constructs (Lysova et al., 2019).

Focusing on an individual’s global perception of MIL and its relationship to motivation in the context of the work environment may contribute to the ongoing development of the ontology of meaning.

Second, SDT posits that three constructs meet the criteria of a BPN: autonomy, competence, and relatedness (Ryan & Deci, 2019). Vansteenkiste et al. (2020) suggests that researchers continue to evaluate potential need-candidates to determine if other constructs meet the inclusion criteria for a BPN. Examining MIL as a one such need-candidate adds to the body of literature that may help advance the SDT of motivation.

Finally, to be successful, organizations benefit from understanding the motivating factors that drive their employees to perform (Mamun & Khan, 2020). Understanding the role that MIL plays in an employee's motivation may help create more effective workplace interventions. For example, human resource professionals may ask for employee feedback about the type of duties and tasks that employees believe contribute to their feeling of purpose. This effort to support an individual's pursuit of their calling also provides an environment for employees to have a voice in developing work opportunities that are personally motivating to them.

Summary

In this chapter, I highlighted a gap in research on the role of MIL and its relationship to motivation. Frankl (1992) suggested that MIL is the most basic motivator of human behavior. On the other hand, SDT identifies autonomy, competence, and relatedness as the three BPNs that must be satisfied for an individual to experience autonomous motivation (Ryan & Deci, 2017; Vansteenkiste et al., 2020). These three BPNs, however, do not include the need to find and fulfill one's unique purpose in life. In the only study published to date that examined MIL as a BPN, the results provided preliminary support that MIL may meet the inclusion criteria to be considered a BPN (Hadden & Smith, 2019). In this dissertation, I explored the role of MIL as a BPN-

candidate and its potential relationship with autonomous motivation at work and psychological well-being. Studying MIL as a potential BPN may contribute to the development of SDT. It also may support the practical application of developing and implementing motivational interventions in the workplace.

In the remaining chapters of this dissertation, I provide a comprehensive outline of the study. Beginning with Chapter Two, I present a comprehensive review of the literature related to MIL, BPNs, and motivation, as well as a Biblical foundation for the basis of this proposed study. In Chapter Three, I describe the research method and design that were used to examine MIL, BPNs, and motivation in this study. I review the statistical analysis of the data related to the research questions in Chapter Four. Finally, I summarize and interpret the results, including the implications and limitations of the study as well as future directions for research, in Chapter Five.

CHAPTER 2: LITERATURE REVIEW

Overview

In the following chapter, I review the literature on the psychological constructs of meaning in life, basic psychological needs, and motivation. Beginning with meaning in life, I describe a conceptualization of the construct and its key characteristics. I highlight the conditions that lead to the experience of meaning in life and the associated outcomes that ensue from perceiving life as meaningful or from the absence of meaning in life. As one of the domains in which adults may experience meaning in life, I also review the construct of meaningful work, including the operationalization, theoretical framework, dimensionality, antecedents, and outcomes of meaningful work.

After the review of meaning in life, I review the literature on basic psychological needs as defined by self-determination theory. I include the characteristics of autonomy, competence, and relatedness and relevant research related to meaning in life and motivation. I also outline the basic criteria that a psychological construct must meet to be considered a basic psychological need.

The final construct that I review in this chapter is motivation, also from the perspective of self-determination theory. I describe the continuum of motivation, as well as the associated outcomes related to the distinct types of motivation. As with meaning in life, work is a domain where adults experience varying degrees of motivation, so I include a review of the literature on the model of work motivation. I conclude the chapter with a brief section integrating the research on meaning in life and self-determination theory before ending with a description of the Biblical foundation of the proposed study.

In this section, I highlight Scripture from the Bible related to man's search for meaning and purpose in life.

Description of Search Strategy

To complete the literature review for this dissertation, I conducted multiple searches using Liberty University's Jerry Falwell Library system and Google Scholar between September 5, 2023 and February 26, 2024. I limited results primarily to peer-reviewed publications completed within the last five years. On occasion, I incorporated seminal articles and books that extended beyond the period typically searched. Keywords used for the searches include meaning in life, coherence, purpose, significance, meaningful work, basic psychological needs, autonomy, competence, significance, motivation, work motivation, and self-determination theory. To narrow the search to publications related to this dissertation, searches also included Boolean search terms and combined keywords, such as meaning in life and basic psychological needs, meaning and life and motivation, and meaning in life and self-determination theory.

Similar to the literature review search strategy, I used Google Scholar between September 5, 2023 and February 26, 2024 to conduct a search of academic literature that might support a Biblical foundation for the study. For the Biblical foundation, I did not limit the search to a time period or to peer-reviewed publications. Keywords used for the search included meaning in life or Viktor Frankl combined with religion or Christianity, using Boolean search terms. I also searched the websites of www.biblegateway.com and www.openbible.com using the keywords of meaning in life and purpose to find pertinent Scripture. Finally, I used www.bibleref.com to provide relevant commentary, chapter context, and book summaries of the Scriptures selected for this section.

Review of Literature

Meaning in Life

Meaning in life (MIL) is a subjective experience that received significant scholarly attention after Viktor Frankl (1992) published his seminal work, *Man's Search for Meaning*, in 1946. Frankl suggested that MIL is an existential experience involving concrete actions toward fulfilling a purpose or calling. Today's conceptualization of MIL among scholars extends Frankl's (1992) characterization by incorporating three interrelated components: coherence, purpose, and significance (George & Park, 2016; King & Hicks, 2020; Martela & Steger, 2016). Coherence, purpose, and significance are considered distinct factors that integrate to inform an individual's global experience of MIL (Heintzelman & King, 2019; Seachris, 2019).

The first component in the current conceptualization of MIL is coherence. Coherence is a cognitive element describing the need to make sense of life (Baumeister, 1991; Frankl, 1992; Reker & Wong, 1988). Coherence is obtained when an individual can detect patterns that provide a feeling of structure and predictability in life (Martela & Steger, 2016). It involves creating a framework in which distinct life experiences integrate into a larger context (Seachris, 2019). According to the meaning maintenance model (MMM), individuals innately construct meaning from dependable or expected patterns in environmental stimuli (Heine et al., 2006; Proulx & Inzlicht, 2012). When expected patterns are threatened, individuals activate compensatory mechanisms to construct alternate frameworks to restore their sense of meaning (Heine et al., 2006; Proulx & Inzlicht, 2012).

Support for the importance of coherence as a component of the definition of MIL is found in studies examining routine behaviors. Routines create a sense of coherence through their stability and predictability (Heintzelman & King, 2019; Mohideen & Heintzelman, 2023). Individuals who prefer routine in their daily lives and engage in behavior that aligns with their preferred routines report higher levels of MIL than individuals who do not (Heintzelman & King, 2019). Not only are meaningful routines, such as those associated with religious beliefs, prosocial behaviors, or goal pursuits, linked to MIL, but ordinary daily routines also foster a greater sense of MIL (Heintzelman & King, 2019). In one study conducted during the COVID-19 global pandemic, the positive correlation between daily routines and MIL was higher during the pandemic than the positive correlation between daily routines and MIL before the pandemic (Mohideen & Heintzelman, 2023). Therefore, the need for coherence, particularly during challenging times, is a key characteristic of MIL.

The second component of the definition of MIL is purpose. Purpose is a motivational element characterized by the relationship between goals and MIL (McKnight & Kashdan, 2009). Goals function as a directional mechanism influencing behavior (McKnight & Kashdan, 2009). Purpose involves an autonomous volition to act, or not to act, in ways that align with goals (Seachris, 2019). Hanson and VanderWeele (2021) define goals as short-term targets directed by a personal mission and contribute to one's sense of identity. The experience of purpose is influenced by the scope and the strength of purpose's effect on thoughts, feelings, and behaviors, as well as the awareness of one's purpose (McKnight & Kashdan, 2009). Although purpose appears to be rooted in prospection (van Tilburg & Igou, 2019), recent research suggests that as individuals

age, purpose becomes less about future goals and instead becomes about the evaluation of past achievements or commitment to present events (Dewitte et al., 2021).

Kim et al. (2019) published a synthesized review of studies that linked a sense of purpose in life with reduced cardiovascular disease. The authors presented supporting research for three pathways that influence the positive relationship between purpose and reduced cardiovascular disease. The first pathway addresses psychological mechanisms that may be affected by an individual's sense of purpose. The authors suggest that a sense of purpose may mitigate the physiological impact of stress by reducing an individual's reactivity to stress or by reducing the likelihood of engaging in harmful health-related behaviors to cope with stress. The second pathway identifies the biological mechanisms that may be influenced by purpose. Studies on inflammation, glucose regulation, and other relevant cardiovascular disease measures have reported positive associations between purpose and biological processes. The third pathway focuses on behavioral mechanisms that may connect purpose to reduced cardiovascular disease. The authors propose that this pathway aligns with Frankl's (1992) belief that individuals with a high sense of purpose in life can cope with difficult life experiences. According to Kim et al. (2019), a sense of purpose may increase the likelihood that individuals will endure painful, fear-inducing, or time-consuming preventative behaviors. Purpose, therefore, defined as the volition to act in alignment with important life values or goals, such as reducing the risk of life-threatening disease, is an important feature of MIL.

Significance is the third component in the tripartite characterization of MIL. Significance is an evaluative element understood as the subjective appraisal of life as worthwhile and valuable (King & Hicks, 2020; Martela & Steger, 2016). Using this

definition, significance may be conceived as relating to competency and relies on situational influences (Maneka, 2023). Other researchers suggest that this third element of MIL is an objective evaluation of one's life as worthwhile in the world regardless of competence (George & Park, 2016; Hanson & VanderWeele, 2021). Despite the slight variation in definitions, significance has received the least amount of empirical attention compared to coherence and purpose (George & Park, 2014; Maneka, 2023).

Although significance has been the least studied of the three components of MIL, studies focused on the experience of being forgotten, loneliness, and terror management theory highlight the role of significance as a component of MIL. First, individuals who perceive that they are forgotten report a low sense of MIL (Ray et al., 2019). The experience of being forgotten may lead individuals to believe that their life is not worthwhile or valuable and therefore, experience a low sense of MIL. Similarly, individuals who experience loneliness and social rejection self-report low levels of meaningfulness (Stillman et al., 2009). Social exclusion may lower an individual's belief that their life has worth or value. Finally, the body of literature examining terror management theory (TMT) has also been used to support the role of significance in MIL. According to TMT, humans experience intense anxiety or terror when pondering their mortality, fearing that their lives will not have a lasting impact on the world (Pyszczynski et al., 2015). This anxiety creates the motivational drive to engage in behavior that supports an intrinsic sense of value and self-worth through the pursuit of meaningful activities (Pyszczynski et al., 2015; Rogers et al., 2018). Thus, the desire to feel valued, or that one's life is significant, is a contributing characteristic of MIL.

In addition to understanding MIL as an evaluation of coherence, purpose, and significance, Frankl's (1992) conceptualization of MIL included a description of the will to meaning, which he defined as the distinct actions taken in search of life's purpose. He believed the will to meaning is a universal and primary human motivator of behavior. In support of Frankl's claim, Van Tongeren et al. (2018) integrated the research related to self-regulation and meaning, proposing that the search for meaning and the reaffirmation of meaning after a threat or frustration is a motivational force of human behavior. Additionally, Gaston-Breton et al. (2021) examined the positive association between meaning and life satisfaction among 12 countries on six continents, representing both individualistic and collectivistic cultures. The authors reported there were no significant differences across cultures or regions of the world, which supports the universal nature of MIL.

Frankl (1992) believed that although MIL is universally experienced, an individual's search for meaning may fluctuate across time, particularly after a threat or frustration. Fluctuations in MIL are influenced by ordinary events in daily living, and among those individuals experiencing depressive symptoms, positive daily events resulted in larger increases in MIL (Machell et al., 2015). Other research supports MIL as a dynamic experience (Newman et al., 2018). Krause and Rainville (2020) reported that MIL increases significantly in mid-life, with the strongest relationship between MIL and age occurring in late life.

Frankl (1992) also proposed that the search for MIL is a fundamental aspect of human nature. He believed that the innate need to seek meaning is a distinguishing factor between humans and other living beings. Research on the relationship between MIL and

temporal mental simulation provides support for the idea that the search for MIL is unique to humans (Waytz et al., 2015). The ability to reflect on past events or consider future events is exclusively a human phenomenon that enhances the experience of MIL (Waytz et al., 2015). Furthermore, Baumeister and Von Hippel (2020) suggest that meaning contributes to the collective knowledge of humans, resulting in adaptive advances in science, medicine, and public health that allow humans to evolve and flourish.

Recognizing MIL as an aspect of typical human existence, researchers have examined the conditions that contribute to the experience of MIL. The most commonly researched factors associated with MIL include social connections (Glaw et al., 2017; Martela & Riekkari, 2018), religiosity (Dar & Iqbal, 2019; Yoon et al., 2021), positive affect (Chu et al., 2020; Ward & King, 2016), prospection (Baumeister et al., 2020; van Tilburg & Igou, 2019), and the satisfaction of basic psychological needs (BPNs) (Martela et al., 2023; S. Zhang et al., 2022). Two demographic factors are also associated with MIL: socioeconomic status (Ward & King, 2016; F. Zhang et al., 2023) and age (Krause & Rainville, 2020).

In addition to the conditions that contribute to the experience of MIL, Frankl (1992) believed that people who are engaged in the search for meaning experience positive outcomes and flourish. A body of literature supports Frankl's assertion that MIL is an indicator of psychological well-being (Allan et al., 2019; García-Alandete et al., 2018; Hooker et al., 2020; Steger, 2017). Specifically, MIL is positively associated with mental health (Arslan et al., 2022; Yoon et al., 2021), psychological resilience (Batmaz et

al., 2021), life satisfaction (Wolfram, 2023), and the ability to cope with stress (Hooker et al., 2018; Ostafin & Proulx, 2020; Park & Baumeister, 2017).

Although associations between MIL and well-being have been reported, the search for MIL may not always result from positive outcomes. One of the central tenets of Frankl's (1992) depiction of meaning contends that human suffering is an integral aspect of experiencing MIL. He describes the unavoidable aspects of pain, guilt, and death in the human experience as the tragic triad. Frankl contends that successfully searching for meaning can buffer the impact of suffering. In support of Frankl's assertion, Vohs et al. (2019) suggest that the cognitive processes involved in developing a sense of coherence in the face of difficult experiences may strengthen an individual's sense of meaningfulness.

Although difficult life experiences may play a role in bolstering one's sense of MIL (Frankl, 1992; Vohs et al., 2019), searching for MIL may lead to negative outcomes. Li et al. (2021) published a meta-analysis indicating that searching for MIL is significantly related to negative affect. Similarly, in a study conducted by Lane and Mathes (2018), although meaningfulness was associated with positive affect, it was also associated with negative affect, specifically with anxiety as it related to the fear of failure. Additionally, Kruglanski et al. (2018) present an analysis of the MIL literature suggesting that extreme destructive behavior associated with terrorism may be a result of an underlying desire to fulfill meaning in one's life. For individuals who are struggling with their sense of value and significance, an ideology that promotes a narrative of violence to pursue collective goals may present an option to claim a sense of meaning.

Frankl (1992) identified the absence of MIL as an existential vacuum and suggested that it is associated with adverse outcomes like feelings of worthlessness and a reduced will to live. In a qualitative study investigating narratives of meaningful and meaningless experiences, Martikainen et al. (2022) reported key differences between the two experiences. The authors reported that individuals use more vivid adjectives and experiential language in their stories about meaningless experiences when compared to stories about meaningful experiences. Examples of words used to describe meaningless experiences included bored, tired, useless, and frustrated. Narratives of meaningless experiences also included elements of confinement, meaning individuals felt a lack of agency or autonomy and that they were wasting their time and/or effort in their experiences.

Lack of MIL is not only described qualitatively with words communicating negative undertones, but it is also quantitatively related to negative life outcomes. Lower subjective ratings of MIL are correlated with greater levels of cognitive impairment as individuals age (Sutin et al., 2020). The risk for cognitive impairment related to low levels of MIL is robust, as it was evident across age, sex, education, marital status, and cultural demographics (Sutin et al., 2020). Further, a lack of MIL has been reported as aggravating the negative effects of work strain on life satisfaction, especially when the work role is perceived as important (Wolfram, 2023).

Frankl (1992) suggested that people experiencing an existential vacuum are motivated to find ways to escape this sense of emptiness. Research focusing on substance use behaviors supports Frankl's assertion. Csabonyi and Phillips (2020) reported that a low presence of MIL is a significant predictor of both alcohol and illicit substance use

and this relationship is mediated by boredom. In the results of a longitudinal study conducted by Kim et al. (2020), the authors reported that higher levels of MIL significantly reduce the risk of substance misuse by 75%, even after controlling for psychological distress, health, and health behaviors.

Since 1946, when Viktor Frankl first published the book, *Man's Search for Meaning*, a significant body of research has amassed supporting many of his theoretical assumptions related to MIL. Frankl (1992) proposed that MIL was a necessary component of an individual's well-being, and multiple publications support the positive association with MIL and well-being (Allan et al., 2019; García-Alandete et al., 2018; Hooker et al., 2020; Steger, 2017). Frankl (1992) also proposed that the absence of MIL contributed an individual's ill-being and again, multiple publications support the association between lack of MIL and ill-being (Csabonyi & Phillips, 2020; Sutin et al., 2020; Wolfram, 2023). Furthermore, research supports Frankl's conceptualization of MIL as a universal and primary human motivator of behavior (Van Tongeren et al., 2018). To date, however, only one study integrated the research on MIL with self-determination theory (SDT) and BPNs (Hadden & Smith, 2019). Based on the supportive results of Hadden and Smith's (2019) study, the authors suggest future research should explore the potential that MIL meets the criteria of a BPN.

Meaningful Work

Work may create an opportunity for individuals to find meaningfulness in their lives (Allan et al., 2015; Steger & Dik, 2009). Frankl (1992) suggested that the need to discover and fulfill a life's calling is central to the will to meaning. Research supports Frankl's assertion that meaningful work is positively associated with MIL (Allan, Dexter,

et al., 2018; Allan, Douglass, et al., 2016; Allan et al., 2015; Lysova et al., 2019; Steger & Dik, 2009). While MIL is focused on a global experience of coherence, purpose, and significance, meaningful work is focused solely on the personal significance of one's work activities (Lysova et al., 2019). Although there is not one agreed upon definition of meaningful work in the social science literature, many researchers describe meaningful work as an ongoing and dynamic appraisal of the value of one's work as contributing to something larger than oneself (Tan et al., 2023).

Just like there is no single definition of meaningful work in the literature, there are also multiple theoretical frameworks underlying the research published on the topic (Bailey et al., 2019; Tan et al., 2023). One of the most frequently cited theories used to explain meaningful work is the job characteristic model, which highlights the influence that job features have on job satisfaction, performance, and turnover (Hackman & Oldham, 1976). Another theory used to describe how meaningful work affects various work-related outcomes is the job demands-resource theory. The job demands-resource theory emphasizes the role of motivational processes that result from positive and negative job features (Bakker & Demerouti, 2007). Another common framework used in meaningful work research examines work as a calling, either as a transcendent experience connecting work to something spiritual or as a secular means to finding fulfilment in a career (Steger et al., 2010).

The literature on meaningful work is also unclear as to whether meaningful work is a unidimensional or multidimensional construct. In a meta-analysis of the literature, Bailey et al. (2019) suggest that studies on meaningful work have historically focused on the unidimensional subjective experience of meaningfulness without acknowledging the

other important objective dimensions, such as task significance and sufficient wages.

Objective meaningful work is based on the tenet that employers are morally responsible for providing basic working conditions to employees that contribute to the experience of meaning (Bowie, 1998). In support of a multi-dimensional approach to studying meaningful work, Lips-Wiersma et al. (2023) reported that objective and subjective measures of meaningful work had differential effects on indicators of well-being. A second meta-analysis completed by Tan et al. (2023) also suggests that future research explore multiple levels and dimensions of meaningful work to build an integrative and comprehensive framework of meaningful work.

Although the conceptualization and theoretical development of meaningful work is still evolving, multiple positive antecedent and outcome factors have emerged from the research. Studies examining the elements that create an environment that positively influence the perception of meaningful work focus on individual-, job-, organizational-, and societal-level factors. Examples of individual-level factors positively related to meaningful work include the satisfaction of the BPN of autonomy (Autin et al., 2022; Autin & Allan, 2020; Martela & Riekkilä, 2018), an individual's core self-evaluation of their competence (Nair, 2020), positive indicators of work motivation (Allan, Duffy, et al., 2018; Allan et al., 2019), and work that aligns with an individual's identity (Schabram & Maitlis, 2017). Examples of job-level factors positively related to meaningful work include job crafting (Vermooten et al., 2019) and working in fair environments (Duffy et al., 2015). Examples of organizational-level factors positively related to meaningful work include ethical leadership (Wang & Xu, 2019) and work climates that contribute to the perception of organizational support (Bhatnagar &

Aggarwal, 2020). Finally, an example of a societal-level factor positively related to meaningful work is access to decent employment that provides fair wages within the community (Duffy et al., 2016).

Engaging in meaningful work is related to multiple individual- and group-level outcomes. At the individual-level, meaningful work is positively correlated with work engagement (Hulshof et al., 2020), job satisfaction (Allan et al., 2019), and well-being (Allan et al., 2019; García-Alandete et al., 2018; Hooker et al., 2020; Lips-Wiersma et al., 2023; Steger, 2017). At the group-level, meaningful work is positively correlated with organizational identification (Demirtas et al., 2017) and organizational citizenship behavior (Allan et al., 2019).

Recognizing the connection between meaningfulness and well-being (Allan et al., 2019; García-Alandete et al., 2018; Hooker et al., 2020; Steger, 2017) and that work provides a context for many people to experience meaning (Steger & Dik, 2009), studies have used the construct of meaningful work to extract a sense of meaning experienced through work. Although meaningful work has been suggested as a sub-domain of MIL (Arnoux-Nicolas et al., 2016), the experience of MIL and meaningful work are two distinct constructs (Lysova et al., 2019; Martela & Pessi, 2018). Meaningful work is positively related to MIL (Allan, Douglass, et al., 2016; Allan et al., 2015, 2018; Lysova et al., 2019; Steger & Dik, 2009), but the underlying mechanism involved in the relationship is unclear. Allan et al. (2019) suggests that future research include motivational, attitudinal, and behavioral components to assist in the conceptual and theoretical development of meaningful work.

Basic Psychological Needs

SDT is a macro-theory focused on human behavior and motivation (Ryan & Deci, 2017; Van den Broeck et al., 2016). One of the six mini-theories of SDT, coined basic psychological needs theory (BPNT), posits that to create the conditions for humans to achieve optimal motivation, a core set of objective psychological needs must be satisfied (Ryan & Deci, 2017; Van den Broeck et al., 2016). BPNs are innate and universal constructs, experienced across culture, gender, age, and socio-economic status (Chen et al., 2015; Lataster et al., 2022; Martela et al., 2023). Although BPNs are considered universal, they are not equally experienced among individuals (Ryan & Deci, 2017, 2019). If BPNs are satisfied, an individual thrives and flourishes (Ryan & Deci, 2019). If BPNs are deprived or not satisfied, measurable decreases in psychological growth and well-being are seen (Ryan & Deci, 2017), despite an individual's or culture's subjective value placed on satisfying the need (Chen et al., 2015).

The current research concentrated on SDT specifies three BPNs: autonomy, competence, and relatedness (Deci & Ryan, 2000; Ryan & Deci, 2017). Each of the three needs are considered essential for psychological growth and well-being, with none thought of as more important than the other (Van den Broeck et al., 2016). Autonomy refers to an individual's capacity to act in alignment with one's interests and values (Deci & Ryan, 2000). Autonomy is distinct from independence, which implies acting in separation from others (Ryan & Deci, 2017; Van den Broeck et al., 2016). Autonomy, instead, involves choice or volition, meaning an individual may choose to act individually or collectively but feels a sense of autonomy because their behavior is self-directed (Ryan & Deci, 2017; Van den Broeck et al., 2016). Autonomy satisfaction increases as individuals age (Lataster et al., 2022). As individuals age, competing priorities and

obligations may decrease, allowing for greater fulfillment of autonomy needs (Tóth-Király et al., 2018). When the need for autonomy is frustrated or not satisfied, increased internal conflict and pressure may result (Vansteenkiste et al., 2020).

Autonomy is positively related to work motivation (Theurer et al., 2018; Vo et al., 2022). When employees are empowered with choice in their tasks and control over their work activities, they experience higher levels of work motivation. Autonomy also positively predicts MIL across cultures and shows stronger associations with MIL than socio-economic status and other demographic factors (Martela et al., 2018, 2023). S. Zhang et al. (2022) suggest that a sense of ownership over activities in daily living may result in an individual experiencing greater MIL. S. Zhang et al.'s (2022) research also shows a bidirectional relationship between autonomy and MIL, potentially through the adoption of solution-oriented behaviors that provide a sense of control over the environment.

The second BPN of SDT is competence. Competence relates to achieving aptitude in tasks and activities (Ryan & Deci, 2017; Van den Broeck et al., 2016). The need for competence refers to an individual's desire to feel effective and in control of outcomes in the immediate environment (Ryan & Deci, 2017; Van den Broeck et al., 2016). Like autonomy, competence satisfaction increases with age, although the slope of the increase for competence satisfaction is lower than the slope of the increase for autonomy satisfaction (Lataster et al., 2022). As individuals age, they may experience multiple opportunities to engage in work or family roles where they can satisfy their competence needs (Lataster et al., 2022). Feelings of helplessness or failure are experienced when the need for competence is frustrated or not satisfied (Vansteenkiste et al., 2020).

The research examining the influence of competence on work motivation has resulted in mixed outcomes. In one recent study conducted by Vo et al. (2022), competence was negatively related to work motivation. Vo et al. (2022) suggest that when employees feel they have mastered their work activities, they may no longer feel challenged and thus, they may experience lower levels of work motivation. In another recent study, Autin et al. (2022) reported that the relationship between competence and work motivation showed no significance. Finally, in a meta-analysis completed by Van den Broeck et al. (2016), a significant positive relationship was reported between competence and motivation. Taken together, competence may have a complex relationship with motivation that needs further research to fully understand (Vo et al., 2022).

In contrast to work motivation, the relationship between competence and MIL is clearer. Competence positively predicts MIL across cultures and shows stronger associations with MIL than socioeconomic status and other demographic factors (Martela et al., 2018, 2023). S. Zhang et al. (2022) suggest that the sense of achievement that individuals feel when effectively completing tasks may lead to a greater sense of MIL. Like autonomy, S. Zhang et al.'s (2022) research shows a bidirectional relationship between competence and MIL. Individuals reporting high MIL also reported high academic and job performance (Ahmed et al., 2016), which may lead to an increased sense of competence.

Relatedness is the third BPN named in SDT. Relatedness involves feeling connected to and caring for others in a meaningful way (Ryan & Deci, 2017; Van den Broeck et al., 2016). The need for relatedness also refers to an individual's desire to

belong and to contribute as an integral member of a community (Ryan & Deci, 2017; Van den Broeck et al., 2016). Relatedness satisfaction increases with age as individuals approach 30 years old before dipping between the ages of 40 to 60, followed by a sharp increase after passing 60 years of age (Lataster et al., 2022). As individuals approach retirement age, they may be more likely to experience widowhood or reduced social connections which may decrease their satisfaction of relatedness needs (Lataster et al., 2022). When the need for relatedness is frustrated or not satisfied, loneliness and alienation result (Vansteenkiste et al., 2020).

Relatedness is positively related to work motivation (Vo et al., 2022). When employees feel a sense of belonging or connection in their work environment, they experience elevated levels of work motivation. Relatedness also positively predicts MIL across cultures and shows stronger associations with MIL than socioeconomic status and other demographic factors (Martela et al., 2018, 2023). S. Zhang et al. (2022) suggest that positive interpersonal relationships and belonging may lead an individual to experience greater MIL. As with autonomy and competence, relatedness has a bidirectional relationship with MIL, potentially because individuals with high MIL may be willing to spend more time attending to their relationships than individuals with low MIL (S. Zhang et al., 2022).

Inclusion Criteria for a Basic Psychological Need

Ryan and Deci (2017) explain that the research on motivation and well-being contributed to the inductive process of naming autonomy, competence, and relatedness as unique and interactive variables essential for flourishing. They also propose that an organismic perspective of human beings whose adaptation, integration, and coherence are

predicated on the satisfaction of BPNs supports a deductive approach to viewing BPNs. Because BPNs play a foundational role in SDT, Vansteenkiste et al. (2020) suggest five basic inclusion criteria that must be met for a need to be considered a BPN. The first criterion is that the need must be focused on psychological functioning as opposed to physical functioning. Although a relationship between BPNs and physiological outcomes has been reported (Petrella et al., 2021; Uysal et al., 2020; vismoradi-Aineh et al., 2022), to meet the criteria for a BPN in SDT, the need must be psychological in nature. The need for autonomy, competence, and relatedness are constructs focused on psychological flourishing (Ryan & Deci, 2019) and therefore, meet this criterion.

The second criterion proposed by Vansteenkiste et al. (2020) highlights that evidence must support need satisfaction as essential to well-being and need frustration as detrimental to psychological growth. The outcomes from the research on autonomy, competence, and relatedness show that they are positively related to well-being (Lataster et al., 2022). All individuals, regardless of socio-demographic variables, psychological characteristics, or situational features will thrive when BPNs are satisfied and will struggle when BPNs are frustrated (Vansteenkiste et al., 2020). According to Martela and Ryan (2021), based on the results from the large body of literature examining BPNs, experiencing psychological well-being is impossible without considering the satisfaction of BPNs.

The third criterion requires that the need be an inherent part of an individual's psychological nature (Vansteenkiste et al., 2020). In a recent study, Kwon et al. (2021) used resting-state functional magnetic resonance imaging (MRI) to connect BPNT to neurobiology. The authors compared the differences in association of neural connectivity

and BPN satisfaction scores between individuals who self-reported high and low life satisfaction. The results showed significant group differences between individuals low and high in life satisfaction in neural connectivity in the reward processing and emotion regulation pathways of the brain associated with autonomy, competence, and relatedness satisfaction.

Additionally, Lee and Reeve (2020) used anatomic MRIs to examine structural brain volume in areas associated with reward processing and self-related processes related to BPN satisfaction. The authors reported a positive correlation between self-reported autonomy and competence satisfaction with the ventral striatum gray matter volume. They did not include relatedness satisfaction in their analyses. Taken together, Kwon et al.'s (2021) and Lee & Reeve's (2020) studies provide support for autonomy, competence, and relatedness as inherent to human functioning.

The fourth criterion for a need to be named a BPN according to SDT is that it must be distinct from other needs (Vansteenkiste et al., 2020). The need cannot be a correlate or derivative of another need (Ryan & Deci, 2017). Studies proposing novelty/variety, MIL, and beneficence as BPN-candidates also provide support for autonomy, competence, and relatedness as distinct needs related to well-being indicators (Bagheri & Milyavskaya, 2020; Hadden & Smith, 2019; Martela & Ryan, 2020).

The fifth criterion focuses on the universality of the need among humans, regardless of socio-demographic characteristics. Universality in this context refers to etic universals, meaning that the positive outcomes of satisfying the need or the detrimental outcomes of thwarting the need remain constant across cultures (Ryan & Deci, 2019). This differs from emic universals that refer to the value and expression of needs among

different societal groups. Research on autonomy, competence, and relatedness across a variety of sociodemographic characteristics supports the three needs as universally beneficial (Chen et al., 2015; Lataster et al., 2022; Martela et al., 2023).

Ryan and Deci (2019) acknowledge that although autonomy, competence, and relatedness satisfy the criteria for consideration as a BPN, SDT is a dynamic theory that is open to further advances from research. To that end, several constructs have been proposed as meeting the criteria for consideration as a BPN in recent years. Bagheri and Milyavskaya (2020) examined the need for novelty/variety and its role as a BPN in a series of correlational and experimental studies. The authors hypothesize that novelty/variety is a distinct, universal psychological construct that predicts affect and vitality as measures of well-being. The results reported by the authors provide supporting evidence for their hypothesis, and therefore, the authors suggest additional research explore novelty/variety as a potential BPN.

A second line of research examined beneficence, a construct defined as positively impacting the lives of others, as a potential BPN (Martela & Ryan, 2020). Martela and Ryan propose that earlier research supported the distinct role of beneficence as a predictor of well-being beyond the BPNs, but additional support was needed focusing specifically on the impact of beneficence frustration on measures of ill-being. The authors report that, in their study, beneficence frustration did not have a significant association with ill-being measures after controlling for autonomy, competence, and relatedness. Martela and Ryan suggest that future research using different methodology be conducted to confirm the results. If future studies report comparable results,

beneficence may not meet the stringent criteria for a BPN and instead may be considered a well-being enhancer.

Finally, Hadden and Smith (2019) proposed that MIL may meet the criteria to be considered a BPN. The authors argue that prior research supports MIL as a psychological factor that motivates behavior and predicts well-being but had not been examined in relationship to other BPNs. Using a diary study completed by undergraduate students across a 14-day period, the authors reported that MIL independently predicted measures of well-being after controlling for autonomy, competence, and relatedness. Hadden and Smith suggest that future research is needed to assess the motivational aspect of MIL and should consider using a different population in the research design to contribute to MIL as a universal construct.

Motivation

Motivation refers to the energy and direction leading to an individual's behavior (Ryan & Deci, 2017). SDT focuses on the types, qualities, and orientations of motivation, differentiating it from other existing theories of motivation, such as cognitive-behavioral and drive-state theories, which focus primarily on the amount of motivation an individual has (Ryan & Deci, 2017, 2019). SDT views motivation as a multidimensional construct, with the integration of internal and external sources, or regulations, affecting both the quantity and quality of behavioral outcomes. According to SDT, the types of motivation an individual experiences fall within a continuum ranging between autonomous and controlled regulations (Howard et al., 2017; Ryan & Deci, 2020; Sheldon et al., 2017). Autonomous regulation, at one end of the scale, involves a complete willingness to engage in an action (Deci et al., 2017; Ryan & Deci, 2017, 2019). Controlled regulation,

at the opposing end of the scale, involves a sense of obligation to act and the result of an external source (Deci et al., 2017; Ryan & Deci, 2017, 2019).

The continuum of motivation proposed by SDT was developed using the early research on intrinsic motivation and cognitive evaluation theory (Deci & Ryan, 1980). Intrinsic motivation stems from an innate enjoyment of engaging in an action (Deci & Ryan, 2000). Individuals who are intrinsically motivated experience a greater sense of agency or volition in their actions and are considered completely self-determined. Individuals who are intrinsically motivated engage in the task at hand because they like to do what they are doing. Intrinsic motivation, therefore, is considered autonomously regulated, according to SDT (Howard et al., 2020; Ryan & Deci, 2020).

Extrinsic motivation is more complex than intrinsic motivation, evolving from the research on organismic integration theory (Ryan & Deci, 2000). Extrinsic motivation involves both autonomous and controlled regulations, depending upon how internalized the motivation is to an individual's sense of self-determination (Ryan & Deci, 2017, 2019, 2020). Ryan (1995) defines internalization as the "active assimilation of behavioral regulations that are originally alien or external to the self" (p. 405). At the autonomously regulated end of the extrinsic continuum is integrated regulation, which refers to the incorporation, or internalization, of a behavior into one's value system (Ryan & Deci, 2017, 2019, 2020). Individuals may not enjoy the task at hand, but they may engage in the behavior because it aligns with their values and beliefs. Although considered part of the continuum of motivation theoretically, empirical studies have not been able to distinguish integrated regulation from other neighboring types of motivation on the continuum (Gagné et al., 2015; Howard et al., 2017, 2020; Van den Broeck et al., 2021).

Less autonomously regulated than integrated regulation is identified regulation. Identified regulation refers to an individual's acceptance and acknowledgement of the value of the behavior (Ryan & Deci, 2017, 2019, 2020). Individuals may not enjoy the task at hand, but they are able to find meaningfulness in the activity and, therefore, may engage in the behavior willingly to achieve a desired or valued outcome (Howard et al., 2020).

Moving toward the controlled regulation end of the extrinsic continuum of motivation is introjected regulation (Ryan & Deci, 2017, 2019, 2020). Introjected regulation refers to the internal desire for ego enhancement or the avoidance of negative emotions, like guilt, shame, and anxiety. Individuals do not likely enjoy the task at hand, but they may engage in the behavior to derive a positive sense of self or avoid the negative emotions that result from not completing the behavior. Introjected motivation is considered an internally controlled form of motivation because the pressure to act is the result of an internal pressure to do so (Howard et al., 2020).

Finally, at the end of the continuum of controlled regulation of extrinsic motivation is external regulation (Ryan & Deci, 2017, 2019, 2020). External regulation refers to an individual behaving in a way that is motivated and controlled by outside sources. Individuals who are externally regulated do not enjoy the task at hand, but they may engage in the behavior because they are motivated to achieve a desired reward for completing the activity or avoiding a punishment for not completing the activity.

The continuum of motivation in SDT theory assumes intentional behavior, but an individual may demonstrate a lack of purposeful or effective action, which is referred to as amotivation (Ryan & Deci, 2017). Unlike autonomous and controlled regulations of

motivation, amotivation is not regulated and considered non-self-determined (Tang et al., 2020). Amotivation may result from multiple underlying causes, including a felt lack of competence, a lack of meaning, or a lack of autonomy or relatedness (Ryan & Deci, 2017). For example, an individual who is amotivated may not engage in goal-directed behavior, such as applying to college or for a job, after graduating high school because they do not believe they are capable of either of those tasks.

According to SDT, the satisfaction or frustration of BPNs is the primary antecedent of motivation (Olafsen et al., 2018; Ryan & Deci, 2017). When the BPNs of autonomy, competence, and relatedness are satisfied, individuals are more likely to internalize values and beliefs from external sources and experience greater autonomously regulated motivation (Ryan & Deci, 2017, 2019). Autonomous motivation, in turn, is associated with well-being (Tang et al., 2020, 2021). When the BPNs of autonomy, competence, and relatedness are frustrated, individuals experience greater controlled regulation of motivation or amotivation (Ryan & Deci, 2017, 2019). Controlled motivation and amotivation, in turn, are associated with ill-being (Ryan & Deci, 2020; Tang et al., 2020).

Work Motivation

As a macro-theory of motivation, SDT has been applied across multiple domains, such as education, healthcare, and exercise, as well as in the field of work motivation (Bureau et al., 2022; Deci et al., 2017; Kanfer et al., 2017; Ntoumanis et al., 2021; Slemp et al., 2020; Sylvester et al., 2018). Within the work environment, the SDT model of work motivation includes two independent variable categories, workplace context and individual differences, two mediating variable categories, BPN satisfaction or frustration

and autonomous or controlled motivation, and two dependent variable categories, work behaviors and well-being (Deci et al., 2017). Specifically, workplace context factors that have been reported as influencing the experience of autonomous motivation include job design (Liu et al., 2022; Trépanier et al., 2015), leader autonomy support (Slemp et al., 2018), and quality of work relationships (Kaabomeir et al., 2023). Individual difference factors that have been reported as influencing autonomous motivation include age, with Generation Z members valuing intrinsic motivation more than Generation X and Y (Mahmoud et al., 2021), and intrinsic compared to extrinsic aspirations (Hope et al., 2019; Moller et al., 2022). Related to the dependent variables, in a meta-analysis, Van den Broeck et al. (2021) reported positive association between autonomous motivation and well-being, job attitudes, and workplace behaviors.

Meaning in Life and Self-Determination Theory

Although the satisfaction of the BPNs of autonomy, competence, and relatedness is an essential component of motivation, it does not provide a complete explanation of the variance in motivation between individuals (Van den Broeck et al., 2021). In Vansteenkiste et al.'s (2020) review of the literature on BPNT, they suggest that SDT is a dynamic framework that has and continues to evolve with advances in research. As such, the authors propose five basic criteria for inclusion for constructs to be considered BPNs and encourage empirical exploration of additional need-candidates to expand SDT.

In a study conducted by Hadden and Smith (2019), the authors reported that MIL uniquely predicts well-being after controlling for autonomy, competence, and relatedness, and therefore, MIL is a construct that needs further exploration as a need-candidate. To meet the basic inclusion criteria proposed by Vansteenkiste et al.'s (2020), the need-

candidate must first be identified as a psychological construct. MIL is a psychological construct defined as a subjective experience regarding the need to make sense of one's life, engage in value-driven goals, and have a sense that one's life is worthwhile (Frankl, 1992; George & Park, 2016; King & Hicks, 2020; Martela & Steger, 2016).

The need-candidate must also positively contribute to purposeful behavior that supports individual flourishing and conversely, when thwarted, results in ill-being (Vansteenkiste et al., 2020). According to Frankl (1992), MIL is the primary motivator of behavior resulting in the psychological health of individuals. Supporting Frankl's claim, research has demonstrated a positive association between MIL and well-being (Allan et al., 2019; García-Alandete et al., 2018; Hadden & Smith, 2019; Hooker et al., 2020; Steger, 2017). Research has also demonstrated an association between the search for MIL and negative emotions, like anxiety and fear of failure, as well as violent, terroristic behavior (Kruglanski et al., 2018; Lane & Mathes, 2018; Li et al., 2021).

The third criterion proposed by Vansteenkiste et al. (2020) is that BPNs provide adaptive advantages that are inherent to human beings. Frankl (1992) proposed that searching for meaning sets human beings apart from other living organisms. Baumeister and Von Hippel (2020) argue that meaning is comprised of nonphysical connections that are organized into sensical patterns. Imposing meaning into cultural practices and historical storytelling, as two examples, leads to an adaptive social advantage contributing to the survival of the species through reproductive growth and future-oriented activity (Baumeister & Von Hippel, 2020).

Vansteenkiste et al. (2020) contend that BPNs must be distinct from one another as the fourth criterion. Although cross-sectional and longitudinal studies have reported

associations between MIL and the satisfaction of BPNs (Martela et al., 2023; S. Zhang et al., 2022), only one study has been published that examined MIL as distinct from autonomy, competence, and relatedness (Hadden & Smith, 2019). Hadden and Smith (2019) state that MIL predicts well-being in the presence of the BPNs and therefore, is distinct from autonomy, competence, and relatedness. Additional research using a different population in the research design is needed to build upon this preliminary finding.

The final criteria consideration when evaluating constructs as potential BPNs is that the need-candidate must be universal (Vansteenkiste et al., 2020). Frankl (1992) believed that the search for meaning is experienced among all humans, regardless of culture or any other socio-demographic. Gaston-Breton et al. (2021) supports the universality of meaning by reporting that meaning predicts life satisfaction across individualistic and collectivistic countries throughout six regions of the world.

Based on the five criteria proposed by Vansteenkiste et al. (2020), MIL meets the prerequisite qualifications for consideration as a BPN. Hadden and Smith's (2019) preliminary study reported that MIL uniquely predicts well-being beyond autonomy, competence, and relatedness. According to the authors, additional empirical support is needed exploring MIL as a BPN.

Biblical Foundations of the Study

Viktor Frankl (1992) was a psychiatrist prior to and after surviving two and a half years in four different concentration camps during World War II (Bushkin et al., 2021). His experiences both as a psychiatrist and Holocaust survivor led to the guiding principles of the existential therapeutic approach known as logotherapy (Bushkin et al.,

2021). Although Frankl's logotherapy views the body, the mind, and the spirit as one whole human being in search of transcendence and is influenced by Frankl's individual experiences with Judaism, he does not explicitly endorse a specific religious or Biblical approach (García-Alandete, 2023). Instead, Frankl distinguished the goal of logotherapy as psychological well-being in contrast to religion's goal of redemption (García-Alandete, 2023). Psychological well-being, according to Frankl (1997), is possible when individuals have the freedom to choose and are responsible for their own self-transcendence.

Frankl practiced psychiatry and developed the principles of logotherapy during the period in history referred to as late modernism. Prior to modernism which began during the 1600's, Biblical and philosophical theorizing related to human behavior focused on concepts like the soul and spiritual well-being (Johnson, 2010). Today's modern science, on the other hand, emphasizes the scientific method of studying the behavior of human beings, reducing the role of religious beliefs (Johnson, 2010). Frankl criticized this reductionistic approach of modernism (Bushkin et al., 2021). Frankl (1997) asserted that just as science cannot deduce the existence of an ultimate meaning, which is the term he used to describe the unknowable and divine meaning of the universe, it also cannot deny the possibility that an ultimate meaning exists.

Despite Frankl's lack of conformity to his peers' ideology that science isolate itself from existential topics like ultimate meaning, he wrote and spoke about religion impartially (García-Alandete, 2023). Frankl (1997) believed that the freedom to choose one's path in the search for ultimate meaning is as much a personal human phenomenon as is the freedom to choose one's path in the search for a personal MIL. He proposed that

man's search for ultimate meaning may, in fact, include multiple pathways or religions that lead to one truth.

The Christian religion represents one pathway that may be used to support the tenets of Frankl's (1992) logotherapy. Beginning with the concept of the will to meaning, multiple references from the Bible reinforce the importance of the search for one's unique MIL and the hopelessness that ensues from the absence of meaning. For example, the book of Ecclesiastes reinforces that wealth, power, and pleasure cannot provide lasting fulfillment and that life is meaningless and empty without God (*New International Version Bible*, 2011/1978). Christians believe that God created man in His image (Genesis 9:6), each uniquely made with a distinct purpose (Psalm 139:13-16). The Bible defines the purpose of man as the glorification of God (Isaiah 43:7) with the intention of fulfilling His will while inhabiting an Earthly body (Ephesians 2:10). Although the Bible does not clearly establish what each person's specific purpose is, Matthew 6:33 stresses the importance of searching for God's virtue above all other things and if man does this, God, in turn, will provide for all of man's needs.

Frankl's (1992) philosophy is also based on the principle that meaning is fundamental for human flourishing, but that suffering, guilt, and death, which he referred to as the tragic triad, are also part of the human experience. Logotherapy assists individuals in transcending the difficulties in life and finding MIL, even during times of pain. The Bible provides examples of Christians fulfilling their purpose in the face of suffering. One example is found in Jeremiah 29 when Jeremiah shares a letter with the Jews who were exiled to Babylon, sharing that God has a plan for them (*New International Version Bible*, 2011/1978). The letter speaks of God's purpose for them

while they are in captivity, and His plan to bring them back to Jerusalem in the future. In the letter, God tells them how to live their lives in fulfillment of His purpose while they await their return to the Promised Land, and assures them that if they search for God, He will be there for them. This chapter demonstrates that, though the Jews may not have understood the meaning of their suffering, God has a purpose for them, and He will guide those who actively seek His direction.

Frankl (1997) may have remained neutral in his support of a specific religious belief underpinning logotherapy, but he believed that man's spiritual center is the primary source for the search for meaning. His approach to treating patients as a psychiatrist focused on the search for MIL as an essential need to achieve self-transcendence, especially in the face of the tragic triad. Rising above suffering and death through the search for God's greater purpose is a central theme of the Christian faith depicted in the creation, fall, and redemption of man (Wolters, 2005). Romans 8:28 reassures Christians that in all things, both good and bad, God has a purpose for those that believe in Him (*New International Version Bible*, 2011/1978). For those that believe in God and Jesus Christ as Savior, glorifying God by acting in accordance with His will is a fundamental need for transcending the trials of earthly living and achieving salvation (1 Corinthians 2:4-14).

Summary

In Chapter 2, I provided a comprehensive literature review of MIL, BPNs, and motivation. Preliminary research supports the consideration of MIL as a BPN (Hadden & Smith, 2019), but further research is necessary. To be considered a BPN, the construct must be positively associated with behavior that supports flourishing when satisfied and

results in ill-being when thwarted. MIL is associated with well-being (Allan et al., 2019; García-Alandete et al., 2018; Hadden & Smith, 2019; Hooker et al., 2020; Steger, 2017) and the absence of MIL is associated with negative outcomes (Kruglanski et al., 2018; Lane & Mathes, 2018; Li et al., 2021). To date, however, only one study examined the relationship between MIL and indicators of well-being in the context of a BPN (Hadden & Smith, 2019). Additionally, although Frankl (1992) believed that MIL is a fundamental motivator of human behavior, research has not examined the relationship between MIL and motivation. As a key domain in which adults may experience MIL, meaningful work has been reported as positively associated with indicators of work motivation (Allan, Duffy, et al., 2018; Allan et al., 2019). Further research, however, is needed to examine the global construct of MIL and its effect on motivation at work. In the following chapter, I describe the procedures that were used to examine these gaps in the research.

CHAPTER 3: RESEARCH METHOD

Overview

In the following chapter, I describe the procedures used to examine the research questions of this study. First, I provide the research questions and hypotheses of the study. In the next section, I describe the research design, the recruitment of participants, and the study procedures. Then, I identify the measurement instruments, operational definitions of the variables, and the plan for data analysis. Finally, I conclude the chapter with an assessment of the delimitations, assumptions, and limitations of the study.

Research Questions and Hypotheses

Research Questions

RQ1: What is the relationship between MIL and autonomous motivation at work after controlling for the effect of autonomy, competence, and relatedness?

Hypothesis 1: There will be a positive relationship between MIL and autonomous motivation at work after controlling for the effect of autonomy, competence, and relatedness satisfaction.

Null Hypothesis: There will be no relationship between MIL and autonomous motivation at work after controlling for the effect of autonomy, competence, and relatedness satisfaction.

RQ2: What is the relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness?

Hypothesis 2: There will be a positive relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness satisfaction.

Null Hypothesis: There will be no relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness satisfaction.

Research Design

In this study, I utilized a quantitative, correlational method to explore the relationship between meaning in life (MIL) and autonomous motivation at work after controlling for the basic psychological needs (BPNs) of autonomy, competence, and relatedness. I also explored the relationship between MIL and psychological well-being after controlling for the BPNs of autonomy, competence, and relatedness. I selected a cross-sectional research design, appropriate for comparing group differences investigating multiple variables at a single point in time (Jackson, 2016). Cross-sectional designs are also a cost-effective approach used in psychological science that minimize risks to participants (Taris et al., 2021).

Participants

Participants included individuals over the age of 18 who were employed at the time of the study. I chose employment status as a criterion for inclusion because both meaning (Bailey et al., 2019; Dewi et al., 2022; Tan et al., 2023) and motivation (Deci et al., 2017) are relevant in the work domain. Additionally, I used the English version of the instruments measuring the variable in this study. Therefore, to be included in the study, participants needed to read and understand the English language. Participants were also required to read and agree to the informed consent before completing the survey.

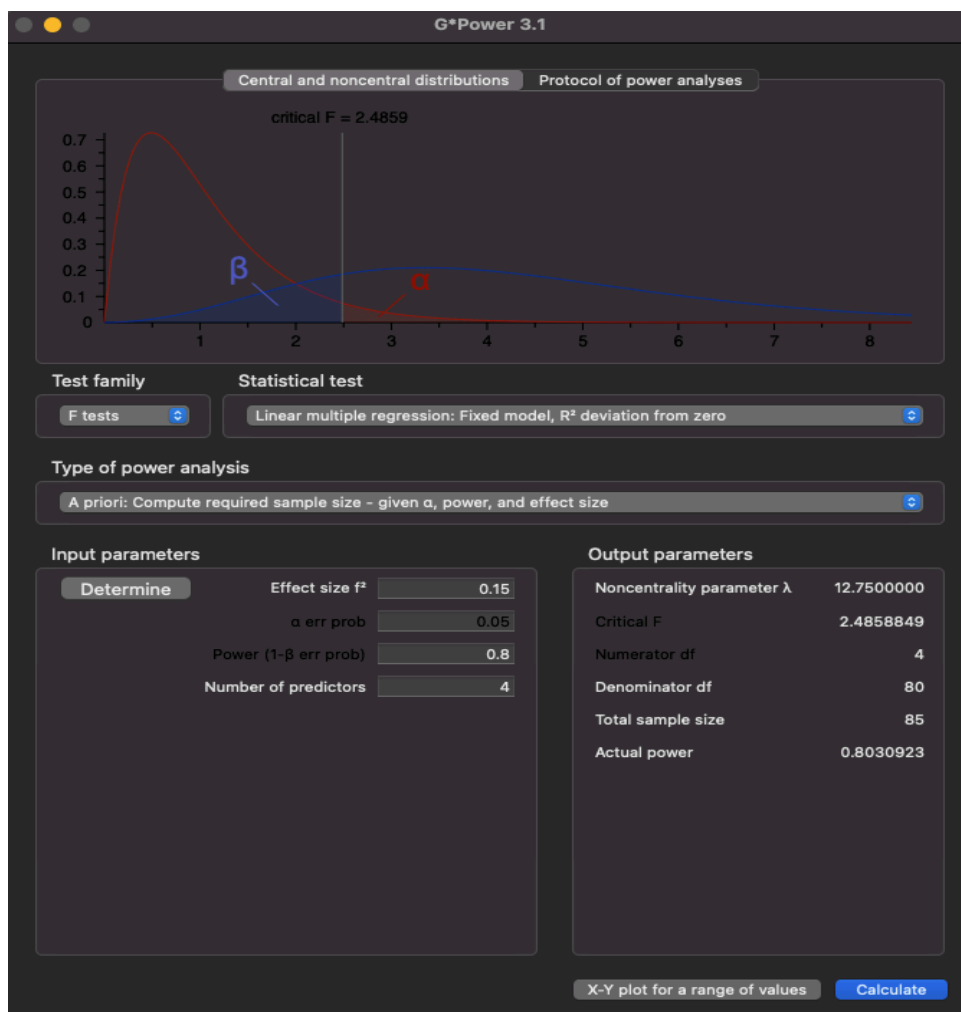
I recruited participants using the Amazon Mechanical Turk (MTurk). MTurk is a web platform that hosts Human Intelligence Tasks (HITs) posted by service requesters

for individuals 18 years of age or older to complete for compensation (Aguinis et al., 2021). I selected MTurk as a recruitment tool because it provides access to a large and diverse demographic pool of adult participants (Aguinis et al., 2021). In comparison to traditional student samples frequently used in psychological science, participants recruited using MTurk are older and have more years of work experience (Aguinis et al., 2021).

I completed an *a priori* power analysis to determine the number of participants required for this study. Using G*Power 3.1, alpha was set at .05 and power set at .80, which is conventional in psychological science (Kyonka, 2019). The number of predictor variables was set at 4: MIL, autonomy, competence, and relatedness. The effect size was set at .15 based on a moderate effect size using Cohen's f^2 (Cohen, 1988). Cohen's f^2 is appropriate when conducting regression analyses with continuously scaled variables (Cohen, 1988). For this study, total sample size needed to reach .8030923 power is 85 (See Figure 1). To allow for missing data, I recruited an additional 10%, or 9 participants, which resulted in N=94.

Figure 1

Screenshot of A Priori Power Analysis



Study Procedures

Once the institutional review board approval was received, I posted the HIT to MTurk to recruit participants for the study. The HIT included a description and purpose of the study, eligibility criteria, expected time required for participation, and compensation details. See Appendix A for the HIT used in this study. Once a participant clicked that they agreed to participate, MTurk advanced to the standard study information page, which contained the title of the study, the purpose of the study, risks and benefits, the participant's rights, and the researcher's contact information. The information sheet

also stated that data would be securely stored, anonymous, and only used for this research study. A copy of the information sheet is found in Appendix B.

Participants were informed that, if they met the inclusion criteria, they would receive US\$1.25 as compensation for a verified and complete submission of the survey. Using the current federal minimum wage in the United States of \$7.25/hour and the expectation that this survey would take 10 minutes to complete, a fair compensation for completing the survey for this study is US\$1.25 (Hara et al., 2018). Participation was voluntary, and participants had the option to leave the survey at any time. However, participants did not receive compensation if the survey was not fully completed or if it did not pass validity checks. If payment was denied to a participant, an explanation was provided to the individual through the MTurk platform. MTurk invoices service requesters using Amazon Web Services, which added additional protection to the anonymity of the participants (Buhrmester et al., 2011). Based on the anonymous submission of participant responses and compensation practices, there were no known risks to participants for participating in the study.

Once participants agreed to the conditions of the study, they gained access to the survey link generated by Qualtrics. Participants first completed the demographic items to ensure that they met the age and employment status inclusion requirement. Demographic questions included age, gender, race, employment status, and educational degree obtained. A copy of the demographic questions included in the survey is found in Appendix C. As recommended by Vésteinsdóttir et al. (2019), three questions encouraging honest responding were included at the beginning of the survey. The honest response items included in the survey are found in Appendix D. Open-ended response

items were used as validity checks to assess participant attention throughout the completion of the survey and to identify automated responses (Aguinis et al., 2021; Storozuk et al., 2020). One open-ended response item was placed between each of the validated measures used in this study. The validity checks included in the survey are found in Appendix E. Finally, the Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964), the Multidimensional Work Motivation Scale (MWMS; Gagné et al., 2015), the World Health Organization Well-Being Index (WHO-5; Topp et al., 2015), and the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS; Chen et al., 2015) self-report measures were included in the survey. After the data was collected, I exported it into SPSS Version 29 for screening and data analysis.

Instrumentation and Measurement

Purpose in Life (PIL) Test

The PIL Test is a 20-item questionnaire designed to measure meaning and purpose in life (Crumbaugh & Maholick, 1964). The stem provided for each item varies and uses a response range from 1 to 7. An example includes, “In life I have:” as the stem, and response options of 1 (“no goals or aims at all”) to 7 (“very clear goals and aims”). Scores are summed and range between 20 and 140. Higher scores reflect greater perceived meaning and purpose in life. See Appendix F for the PIL Test.

The PIL Test is translated into multiple languages and validated across a variety of domains, such as in the physical and psychological health contexts, as well as with unique populations, such as with students and the elderly (García-Alandete et al., 2017). Internal consistency ranges from .84 to .91 (García-Alandete et al., 2017). Construct and discriminant validity has been demonstrated by reporting correlations between the PIL

and a variety of constructs, such as life satisfaction, emotional stability, depression, and anxiety (Francis et al., 2019).

Multidimensional Work Motivation Scale (MWMS)

The MWMS is a 19-item questionnaire designed to measure motivation at work at the domain level (Gagné et al., 2015). The MWMS is comprised of six factors: three items measure amotivation, three items measure extrinsic regulation-social, three items measure extrinsic motivation-material, four items measure introjected regulation, three items measure identified regulation, and three items measure intrinsic motivation. The stem provided to participants is, “To what extent are the following propositions reasons for you to make efforts/to get involved in your job?” An example of identified regulation includes, “Because I personally consider it important to put efforts in this job.” An example of intrinsic motivation includes, “Because I have fun doing my job.” To measure autonomous motivation in this study, the three items of the identified regulation and the three items of the intrinsic motivation subscales were used (Trépanier et al., 2023). Responses range from 1 (not at all) to 7 (completely). Scores are summed and range from 6 to 42 for autonomous motivation. See Appendix G for the MWMS.

The MWMS is translated into several languages and has been validated across multiple countries (Gagné et al., 2015). Internal consistency for the MWMS ranges from .74-.88 (Gagné et al., 2015). Convergent and discriminant validity for the English version of the MWMS has been demonstrated by reporting correlations between the subscales of the MWMS and a variety of constructs, such as need satisfaction, supervisor’s leadership style, job design, vitality, and emotional exhaustion (Gagné et al., 2015). Results trended

in the direction hypothesized for each of the subscales of the MWMS (Gagné et al., 2015).

World Health Organization Well-Being Index (WHO-5)

The WHO-5 is a 5-item questionnaire designed to measure generic psychological well-being (Topp et al., 2015). An example of psychological well-being includes, “Over the past 2 weeks, I have felt cheerful and in good spirits.” Responses range from 0 (at no time) to 5 (all of the time). Raw scores range from 0 to 25 and are multiplied by 4 to give a final score ranging from 0 to 100. See Appendix H for the WHO-5.

The WHO-5 is translated into over 30 languages and validated across a variety of ages, countries, and both general and clinical populations (Topp et al., 2015). Internal consistency for the WHO-5 ranges from .83 to .93 (Sischka et al., 2020). Item response theory analyses support construct validity of the WHO-5 as a unidimensional scale in a general population (Topp et al., 2015).

Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS)

The BPNSFS is a 24-item questionnaire designed to measure autonomy, competence, and relatedness satisfaction and frustration (Chen et al., 2015). The BPNSFS is comprised of six factors, each measured by four items: autonomy satisfaction, autonomy frustration, competence satisfaction, competence frustration, relatedness satisfaction, and relatedness frustration. To measure BPN satisfaction in this study, only the four items of autonomy satisfaction, competence satisfaction, and relatedness satisfaction subscales from the work domain questionnaire were used. An example of autonomy satisfaction includes, “I feel that my decisions reflect what I really want.” An example of competence satisfaction includes, “I feel confident that I can do things well.”

An example of relatedness satisfaction includes, “I feel that the people I care about also care about me.” Responses range from 1 (completely untrue) to 5 (completely true). Scores from each of these subscales are summed separately and range from 4 to 20. See Appendix I for the autonomy satisfaction, competence satisfaction, and relatedness subscales of the BPNSFS.

The BPNSFS is translated into multiple languages and validated across a variety of domains, such as in the workplace or school, as well as with unique populations, such as with mothers or sports coaches (van der Kaap-Deeder et al., 2020). Internal consistency for the BPNSFS ranges from .64 and .89 (Chen et al., 2015). Convergent and discriminant validity has been demonstrated by reporting correlations between the satisfaction subscales of the BPNSFS and a variety of constructs, such as life satisfaction and vitality (Chen et al., 2015).

Operationalization of Variables

Autonomy satisfaction – is a ratio variable and was measured by the total score on autonomy satisfaction subscale of the BPNSFS (Chen et al., 2015).

Autonomous motivation – is a ratio variable and was measured by the total score on the identified regulation and intrinsic motivation subscales of the MWMS (Gagné et al., 2015).

Competence satisfaction – is a ratio variable and was measured by the total score on the competence satisfaction subscale of the BPNSFS (Chen et al., 2015).

Meaning in life – is a ratio variable and was measured by the total score on the PIL Test (Crumbaugh & Maholick, 1964).

Psychological well-being – is a ratio variable and was measured by the total score on the WHO-5 (Topp et al., 2015).

Relatedness satisfaction – is a ratio variable and was measured by the total score on the relatedness satisfaction subscale of the BPNSFS (Chen et al., 2015).

Data Analysis

Prior to uploading the data in IBM's SPSS Version 29 for analysis, I screened the data for valid responses. I rejected 15 responses that did not pass validity checks due to nonsensical responses on the open-ended questions. I continued recruiting participants through MTurk until reaching the desired sample size of 94. I also screened the data for complete responses. There were two missing values in the participant responses. All participants were over the age of 18 and indicated that they were employed. To investigate RQ1, I used multiple regression to predict autonomous motivation at work. To investigate RQ2, I used multiple regression to predict psychological well-being. Multiple regression is an appropriate analysis for examining the effect of multiple predictor variables on a criterion variable (Jackson, 2016).

Delimitations, Assumptions, and Limitations

This study included three delimitations: participants needed to be employed, over the age of 18, and able to read English. Employment was required because both meaning (Bailey et al., 2019; Dewi et al., 2022; Tan et al., 2023) and motivation (Deci et al., 2017) are experienced in the work domain, making it an ideal domain to study the variables of interest in this study. Participants needed to be over the age of 18 because this study is

examining the experience of meaning, motivation, and psychological well-being among adults. Finally, because the measurement instrument for the study was presented in the English language, participants needed to read and understand the English language to complete the study.

This study was based on three main assumptions. First, it was assumed that participants represent English-speaking, working adults living in the United States. In a review of the emerging research related to the use of MTurk, Aguinis et al. (2021) reported that Mturk provides a large and diverse participant pool when compared to traditional student samples.

Second, it was assumed that participants who complete the survey respond honestly and accurately to the survey questions. To reduce social desirability effects that may impact participant honesty, items related to honest responding were included in the survey (Vésteinsdóttir et al., 2019). It was also assumed that participants respond with their full attention. Attention checks were included to reduce the risk of inattention while completing the survey (Aguinis et al., 2021).

Finally, this study assumed that humans complete the survey. Automated responses, particularly when compensation is involved, have been a challenge when using online data collection (Storozuk et al., 2020). Effective strategies to identify automated responses, include using open-ended and reverse-scored items as well as data screening techniques evaluating the speed of survey completion (Storozuk et al., 2020), were used to screen the data before analysis.

In addition to the assumptions, there were limitations of the study design. Although Mturk has resulted in samples that are more similar to the adult working

population than traditional samples of undergraduate students (Buhrmester et al., 2018), the sample of participants using Mturk to complete this study's survey may lack demographic diversity. Additionally, the use of self-report questionnaire data may be impacted by social desirability effects (Jackson, 2016). Online administration of surveys provides a degree of anonymity that may lessen the effects of socially desirable responding (Gnambs & Kaspar, 2015). Inattention and automated responses may also infiltrate the data, despite using validity checks and data screening checks to identify these potential concerns (Aguinis et al., 2021; Storozuk et al., 2020). Finally, using a cross-sectional design was another limitation of this study. Although cross-sectional data can identify relationships between variables, it cannot assess causality and temporality (Jackson, 2016).

Summary

In Chapter Three, I provided a description of the research design and methods that were used in this study. I presented the research questions and hypotheses of the study followed by the procedures for recruiting participants and completing the study. I outlined details related to the measurement instruments, operational definitions of the variables, and the plan for statistical analysis, ending with a discussion of the delimitations, assumptions, and limitations of the study. In Chapter Four, I review the analysis of the data reflective of the research questions for this study.

CHAPTER 4: RESULTS

Overview

The purpose of this quantitative, correlational study was to explore the relationship between meaning in life (MIL) and autonomous motivation at work after controlling for the basic psychological needs (BPNs) of autonomy, competence, and relatedness. I also explored the relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness. Participants included in this cross-sectional study were recruited using Amazon's Mechanical Turk (MTurk). Participants completed an anonymous survey that contained demographic questions, followed by the Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964), the Multidimensional Work Motivation Scale (MWMS; Gagné et al., 2015), the World Health Organization Well-Being Index (WHO-5; Topp et al., 2015), and the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS; Chen et al., 2015) self-report measures. In the following chapter, I provide the findings from the analysis of the data that was collected in this study.

Descriptive Results

During data collection, I rejected 15 responses that did not pass validity checks due to nonsensical responses. I continued to recruit participants through MTurk until I reached the desired sample size of 94. All participants were over the age of 18 and indicated that they were employed. Data were uploaded into IBM's SPSS Statistics Version 29. I assessed the data for accuracy and no erroneous values were found. I also screened the data for complete responses. There were two missing values in the data set.

The missing values were imputed using mean substitution, which is appropriate when the percentage of missing data is minimal (Mirzaei et al., 2022; Popovich, 2024).

After transforming the scores on all scales used in this study into z-scores and using a criterion of ± 3.29 (.001, two-tailed), I found that there were no univariate outliers on the Purpose in Life (PIL) Test or autonomy, competence, and relatedness satisfaction subscales of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS). I found one univariate outlier in the Multidimensional Work Motivation Scale (MWMS) and one univariate outlier in the World Health Organization Well-being Index (WHO-5). Due to the minimal impact on the distribution of data, the outliers were kept for the data analyses (Leys et al., 2019).

To determine if there were any multivariate outliers, the Mahalanobis distance values were compared to the chi-squared value of 18.467. I calculated the chi-squared critical values using an alpha level of .001 and four degrees of freedom, based on the predictor variables of PIL for Research Question one (RQ1) or psychological well-being for Research Question Two (RQ2) and the autonomy, competence, and relatedness satisfaction subscales of the BPNSFS. The largest Mahalanobis distance value was 17.641, so there were no multivariate outliers.

Descriptive Results

The mean age of the participants was 31.3 years with a range of 24-64 years of age. The sample was mostly White college-educated males, who were employed full-time as first-level managers or higher. See Table 1 for participant demographics. The list of demographic questions used in this study are found in Appendix C.

Table 1***Participant Demographics***

	<i>n</i>	%
Employment status		
Full-time	88	93.6
Part-time	1	1.1
Self-employed	5	5.3
Gender identity		
Male	72	76.6
Female	20	21.3
Non-binary/third gender/I prefer to self-describe/I don't wish to answer	2	2.2
Racial/ethnic background		
Black or of African descent	4	4.3
East Asian	9	9.6
East Asian/South Asian	1	1.1
Hispanic, Latinx or of Spanish origin	4	4.3
Indigenous, American Indian, or Alaska Native	1	1.1
South Asian	2	2.2
White or European	73	77.7
Education level		
No schooling completed	1	1.1
High school diploma or equivalent (i.e., GED)	6	6.4
Bachelor's degree	70	74.5
Graduate degree or higher	17	18.1
Level of job responsibility		
Entry-level	10	10.6
Intermediate or experienced	11	11.7
First-level management	39	41.5
Middle management	24	25.5

Study Findings

Research Question One: Meaning in Life and Motivation at Work

RQ1: What is the relationship between MIL and autonomous motivation at work after controlling for the effect of autonomy, competence, and relatedness?

Hypothesis 1: There will be a positive relationship between MIL and autonomous motivation at work after controlling for the effect of autonomy, competence, and relatedness satisfaction.

Tolerance values were acceptable, ranging from .316 to .585. Variance inflation factors were also acceptable, ranging from 1.710 to 3.166. There was no indication of redundancy, multicollinearity, or singularity between the predictor variables. To assess normality, I interpreted the histogram of normal distribution of residuals, the P-P plot, and the residual scatterplot. The residuals in the histogram appeared reasonably symmetrical and within a normal distribution outline. The P-P plot showed the points close to or on the graph line. No curvilinear relationship of residuals was found on the scatterplot and the points fell within a rectangular shape. The evidence suggests that the assumptions of normality, homoscedasticity, and linearity were met.

I ran two regression models: MIL alone predicting motivation at work, and MIL with autonomy, competence, and relatedness satisfaction predicting motivation at work. The findings from model 1 indicate that MIL significantly predicted motivation at work, $\beta = .277$, $t(92) = 15.386$, $p = <.001$. In model 2, when autonomy, competence, and relatedness satisfaction were added, MIL continued to significantly predict motivation at work, $\beta = .241$, $t(89) = 9.436$, $p = <.001$ (see Table 2).

Table 2***Significance Values of Predictor Variables for RQ1***

Model		Unstandardized		Standardized	Sig.	95.0% Confidence Interval for B		Zero-order Correlations		Collinearity Statistics		
		Coefficients		Coefficients								
		Std. Error		Beta		Lower Bound	Upper Bound	Partial	Part	Tolerance	VIF	
		B		t								
1	(Constant)	2.461	1.953		.211	-1.418	6.340					
	Meaning in Life	.277	.018	.849	<.001	.241	.312	.849	.849	.849	1.000	1.000
2	(Constant)	-1.413	2.744		.608	-6.866	4.039					
	Meaning in Life	.241	.026	.738	<.001	.190	.291	.849	.707	.517	.491	2.036
	Autonomy Satisfaction	.157	.266	.058	.557	-.371	.684	.642	.062	.032	.316	3.166
	Competence Satisfaction	.169	.248	.064	.496	-.323	.661	.625	.072	.037	.344	2.905
	Relatedness Satisfaction	.149	.191	.056	.437	-.230	.528	.518	.082	.043	.585	1.710

a. Dependent Variable: Motivation at Work

Research Question Two: Meaning in Life and Well-being

RQ2: What is the relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness?

Hypothesis 2: There will be a positive relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness satisfaction.

Tolerance values were acceptable, ranging from .316 to .585. Variance inflation factors were also acceptable, ranging from 1.710 to 3.166. There was no indication of redundancy, multicollinearity, or singularity between the predictor variables. To assess

normality, I interpreted the histogram of normal distribution of residuals, the P-P plot, and the residual scatterplot. The residuals in the histogram appeared reasonably symmetrical and within a normal distribution outline. The P-P plot showed the points close to or on the graph line. No curvilinear relationship of residuals was found on the scatterplot and the points fell within a rectangular shape. The evidence suggests that the assumptions of normality, homoscedasticity, and linearity were met.

I ran two regression models: MIL alone predicting psychological well-being, and MIL with autonomy, competence, and relatedness satisfaction predicting psychological well-being. The findings from model 1 indicate that MIL significantly predicted psychological well-being, $\beta = .576$, $t(92) = 9.438$, $p = <.001$. In model 2, when autonomy, competence, and relatedness satisfaction were added to the regression analysis, MIL continued to significantly predict psychological well-being, $\beta = .323$, $t(89) = 4.055$, $p = <.001$ (see Table 3).

Table 3

Significance Values of Predictor Variables for RQ2

Model Summary and Coefficients													
		Unstandardized				Standar		95.0%		Collinearity			
		Coefficients		dized		Confidence		Correlations		Statistics			
		B	Error	Beta	t	Lower	Upper	Zero-	Partial	Part	ce	VIF	
Model		B	Error	Beta	t	Sig.	Bound	Bound	order	Partial	Part	ce	VIF
1	(Constant)	11.934	6.629		1.800	.075	-1.232	25.100					
	Meaning in Life	.576	.061	.701	9.438	<.001	.455	.697	.701	.701	.701	1.000	1.000
2	(Constant)	-14.476	8.574		-1.688	.095	-31.511	2.560					

Relatedness	.828	.596	.124	1.389	.168	-.356	2.013	.550	.146	.094	.585	1.710
Satisfaction												
Competence	.416	.774	.062	.538	.592	-1.121	1.953	.627	.057	.037	.344	2.905
Satisfaction												
Autonomy	2.045	.830	.298	2.464	.016	.396	3.694	.689	.253	.168	.316	3.166
Satisfaction												
Meaning in	.323	.080	.393	4.055	<.001	.165	.482	.701	.395	.276	.491	2.036
Life												

a. Dependent Variable: Well-being

Summary

In this chapter, I reported the results of this research study. The results supported both hypotheses in this study. The hypothesis that there is a positive relationship between MIL and autonomous motivation at work after controlling for the BPNs of autonomy, competence, and relatedness was supported. Additionally, the hypothesis that there is a positive relationship between MIL and psychological well-being after controlling for the effect of autonomy, competence, and relatedness was also supported. I discuss the findings of this study, as well as the implications for both theory and practice in Chapter Five. I also address the limitations of the study and suggestions for future research.

CHAPTER 5: DISCUSSION

Overview

The purpose of this quantitative, correlational study was to explore how meaning in life (MIL) uniquely contributes to autonomous motivation at work and psychological well-being beyond the basic psychological needs (BPNs) of autonomy, competence, and relatedness. The first hypothesis that there is a positive relationship between MIL and autonomous motivation at work after controlling for the BPNs of autonomy, competence, and relatedness was supported. The second hypothesis that there is a positive relationship between MIL and psychological well-being after controlling for the BPNs of autonomy, competence, and relatedness was also supported. In this chapter, I will discuss these findings in the context of the current state of research on this topic, the theoretical, biblical, and practical limitations, as well as discuss the study limitations and recommendations for future research.

Discussion of Findings

The findings from this research study contribute to an understanding of the relationship between MIL and both autonomous motivation at work and psychological well-being in the presence of the BPNs. Assessing MIL in the presence of the three BPNs of autonomy, competence, and relatedness allows MIL to be examined as a need-candidate within the framework of self-determination theory (SDT). To date, only one study examined MIL in the context of SDT and the results of that study suggested that further research was needed to assess the potential of MIL as a BPN (Hadden & Smith, 2019).

Research Question One: MIL and Autonomous Motivation at Work

The first research question focused on the relationship between MIL and autonomous motivation at work in the presence of the BPNs of autonomy, competence, and relatedness. The hypothesis was that there is a positive relationship between MIL and autonomous motivation at work after controlling for the BPNs. The results of the statistical analysis suggested that MIL was positively related to autonomous motivation at work and remained significant after the effect of the three BPNs were controlled for in the model. When the BPNs were added to the regression model, MIL explained 72.0% of the total variance in people's experience of autonomous motivation at work. When the BPNs were excluded from the regression model, MIL explained 71.7% of the total variance.

The results of this study lend support to Frankl's (1992) claim that MIL is positively connected to the experience of motivation. Frankl suggested that the actions individuals take to pursue life's meaning create the will to meaning. He identified that the will to meaning, in turn, is a universal and primary motivator of behavior. For this research question, the actions investigated in relationship to MIL focused on an individual's autonomous motivation in the work environment.

Frankl (1992) believed that fulfilling life's calling through vocational pursuits was an integral component of the will to meaning. Empirically, Frankl's assertion that the work environment provides an opportunity for individuals to find meaning in their lives has been supported (Allan, Duffy, et al., 2018; Allan et al., 2019). The current research study supports this area of research by suggesting that when individuals experience meaning in life globally, they report feeling autonomously motivated in their work environment. Furthermore, the results of this study uniquely contribute to the SDT

literature by reporting that the relationship between MIL and autonomous motivation remained significant after controlling for the effect of autonomy, competence, and relatedness.

Research Question Two: MIL and Psychological Well-being

The second research question focused on the relationship between MIL and psychological well-being in the presence of the BPNs of autonomy, competence, and relatedness. The hypothesis was that there is a positive relationship between MIL and psychological well-being after controlling for the BPNs. The results of the statistical analysis suggested that MIL was positively related to psychological well-being and remained significant after the three BPNs were controlled for in the model. When the BPNs were added to the regression model, MIL explained 57.0% of the total variance in people's experience of psychological well-being. When the BPNs were excluded from the regression model, MIL explained 48.6% of the total variance.

The results of this study lend support to Frankl's (1992) belief that MIL is an essential factor that leads to positive outcomes, like human flourishing and psychological well-being. Empirically, the research examining MIL and psychological well-being substantiates this relationship (Allan et al., 2019; García-Alandete et al., 2018; Hooker et al., 2020; Steger, 2017). The literature reports positive associations between MIL and mental health (Arslan et al., 2022; Yoon et al., 2021), psychological resilience (Batmaz et al., 2021), life satisfaction (Wolfram, 2023), and the ability to cope with stress (Hooker et al., 2018; Ostafin & Proulx, 2020; Park & Baumeister, 2017). The current research study adds support to this line of inquiry, suggesting that when individuals experience MIL, they also experience psychological well-being. This study uniquely contributes to the

SDT literature by reporting that the relationship between MIL and psychological well-being remained significant after controlling for the effect of autonomy, competence, and relatedness.

Contribution to Theory

According to basic psychological needs theory (BPNT), one of the six mini theories that makes up the macro-theory of SDT, a core set of objective psychological needs must be satisfied for humans to attain optimal motivation (Ryan & Deci, 2017; Van den Broeck et al., 2016). As such, the satisfaction of the three BPNs, autonomy, competence, and relatedness, is a primary antecedent of motivation (Olafsen et al., 2018; Ryan & Deci, 2017). SDT conceptualizes motivation as a multidimensional construct that accounts for the integration of internal and external sources that, in turn, affect the quality and quantity of behavior (Ryan & Deci, 2017, 2019). When the BPNs are satisfied, individuals are more likely to integrate values and beliefs from external sources into their internal ideology and experience autonomously regulated motivation (Ryan & Deci, 2017, 2019).

Five basic inclusion criteria have been suggested to determine if a need is to be considered a BPN (Vansteenkiste et al., 2020). These five criteria required are: the need must be a psychological construct, universal among all humans, inherent to the individual's psychological nature, distinct from other needs, and the satisfaction of the need must lead to well-being while the frustration of the need must lead to ill-being. Although the satisfaction of the BPNs of autonomy, competence, and relatedness is a primary antecedent of motivation, the BPNs do not fully account for the variance in

motivation between individuals (Van den Broeck et al., 2021). This suggests that additional factors may meet the criteria to be considered a BPN.

Prior to the development of SDT as a theoretical framework describing human motivation, Frankl (1992) suggested that MIL is a distinct, subjective psychological experience that motivates human behavior. He argued that MIL is universally experienced and fundamental for human existence. According to Frankl, the presence of MIL leads to positive outcomes and the absence of MIL leads to an existential vacuum that is detrimental to psychological well-being. Based on Frankl's (1992) conceptualization, MIL meets the five basic inclusion criteria to be considered a BPN. However, to date, only one study examined MIL within the context of SDT (Hadden and Smith, 2019).

Although MIL had not been studied extensively using the SDT framework of motivation, multiple studies have explored the role of meaningful work and its impact on employee's motivation (Allan, Dexter, et al., 2018; Allan, Douglass, et al., 2016; Allan et al., 2015; Lysova et al., 2019; Steger & Dik, 2009). Meaningful work, however, differs from the global experience of MIL (Lysova et al., 2019; Martela & Pessi, 2018). Meaningful work is conceptualized as the appraisal of one's work activities as valuable and significant (Lysova et al., 2019), but MIL focuses on the broader sense of coherence, purpose, and significance that one experiences regarding their existence (Lysova et al., 2019).

Using the characterization of MIL as an integration of coherence, purpose, and significance, the work environment is a logical domain where the global understanding of MIL can be experienced and enhanced. The routines of a work schedule and daily tasks

provide stability and predictability, which creates a sense of coherence (Heintzelman & King, 2019; Mohideen & Heintzelman, 2023). Goal-directed behaviors typically expected of employees in the work environment contribute to a sense of purpose (Seachris, 2019). The feeling of competence resulting from the successful completion of work assignments creates a sense of significance (Maneka, 2023). Therefore, not only did Frankl (1992) believe that vocations were one pathway toward fulfilling MIL, but research also supports the work environment as an appropriate domain to examine the role of global MIL related to motivation. Yet, to date, few studies moved beyond examining the situational appraisal of meaningful work to study the global assessment of MIL and its relationship to motivation at work.

The current study contributes to the theoretical development of SDT by reporting a positive relationship between the global experience of MIL and motivation at work, while controlling for the effect of autonomy, competence, and relatedness. The findings in this study support the previous results reported by Hadden and Smith (2019), suggesting that MIL may be a potential need-candidate for consideration as a BPN. The current study lends support to MIL as a need-candidate by addressing two of the five inclusion criteria (Vansteenkiste et al., 2020). First, the current study included a sample of working adults that was different from the sample used in Hadden and Smith's (2019) study, providing support for the universality of MIL. Second, the current study reports that MIL is positively related to both motivation at work and psychological well-being, providing support that the satisfaction of MIL is positively related to indicators of well-being. This suggests that MIL should continue to be examined within the framework of the SDT as a need-candidate.

Integration with Biblical Foundation

In the book of Genesis 9:6, Christians learn that they are made in God's image (*New International Version Bible*, 2011/1978). Psalm 139:13-16 shares the message that every person is unique and has a distinct purpose for their earthly life. The Bible defines man's purpose as the glorification of God (Isaiah 43:7) and suggests that each person has unique gifts that were provided by God (1 Timothy 4:14). Through multiple examples found throughout the Bible of God's intention for each person to fulfill an intentional purpose of Earth, it becomes clear that meaning in life is essential to human life. Yet, beginning with the age of modern psychology, Biblical truths were disregarded in psychological discourse (Johnson, 2010). Modern psychology requires the use of scientific methods to contribute to the advancement of the field. The current study integrates the existential concept of MIL with an empirical approach, providing a palatable contribution aligning with modern psychological ideals. Specifically, this study supports the Biblical concept that MIL is an essential component for the psychological well-being of man.

Implications

This research study has theoretical and practical implications. Beginning with the theoretical implications of this study, Frankl (1992) asserted that MIL is a universal and fundamental experience that leads to the motivation of human behavior. Yet, within the established motivational framework of SDT, MIL has only been explored as a BPN once prior to this study (Hadden & Smith, 2019). Earlier research focused on the similar construct of meaningful work (Allan, Duffy, et al., 2018; Allan et al., 2019). Meaningful work, however, has been conceived of as a sub-domain of MIL (Arnoux-Nicolas et al.,

2016) because it focuses solely on the experience of work activities as meaningful. Work is a domain that may lead to the fulfilment of one's purpose (Frankl, 1992), regardless of the type of work activities in which a person engages. MIL, therefore, is a global construct that focuses on the perception that one's life has significance beyond their employment status (Frankl, 1992).

The results of this study support the potential that MIL, as a global construct, is a BPN-candidate within the framework of SDT that contributes to an individual's motivation. According to Vansteenkiste et al. (2020), researchers should continue to evaluate potential need-candidates using the inclusion criteria outlined for a BPN. Based on the findings from this study, MIL meets two of the inclusion criteria of a BPN, but continued exploration is needed using a variety of experimental designs to determine if it fully meets the inclusion criteria and should be conceptualized as a BPN.

This study also has practical implications for organizational leaders. Understanding the role of meaning as a motivational factor may provide organizations with an additional strategy for creating a positive work environment. Specifically, meaningful work is positively associated with work engagement (Hulshof et al., 2020), job satisfaction (Allan et al., 2019), and well-being (Allan et al., 2019; García-Alandete et al., 2018; Hooker et al., 2020; Lips-Wiersma et al., 2023; Steger, 2017). Organizational identification (Demirtas et al., 2017) and organizational citizenship behavior (Allan et al., 2019) are also positively related to the experience of meaningful work. Therefore, organizations benefit from providing work environments that motivate their employees to perform to their maximum potential (Mamun & Khan, 2020).

In addition, finding strategies to harness meaningfulness in work environments that contain low-skilled or low-status positions is critical (Laaser & Bolton, 2022). When the experience of MIL is absent or minimal, levels of cognitive impairment, particularly as individuals age, are increased (Sutin et al., 2020). This risk for cognitive impairment related to low levels of MIL is experienced across age, sex, education, marital status, and cultural demographics (Sutin et al., 2020). A lack of MIL has also been reported as aggravating the negative effects of work strain on life satisfaction, especially when the work role is perceived as important (Wolfram, 2023). Additionally, meaning in the work environment predicts absenteeism and retirement intentions more than factors like income and benefits (Nikolova & Cnossen, 2020). Based on the findings from this study that MIL is positively related to motivation at work, organizations may consider developing interventions that enhance an individual's sense of MIL in the workplace. Specifically, workplaces may consider ways to enhance MIL by offering incentives for volunteering, workshops to learn new hobbies and/or professional development, job crafting, etc. Motivation may be improved by interventions that foster feelings of coherence, purpose, and significance for employees working in low-skilled or low-status positions where meaning is not as evident as compared to highly skilled or professional positions.

Limitations

There were several limitations that may have affected the interpretation of the findings in this study. First, prior research using the crowdsourcing platform, MTurk, as a recruitment tool for research studies suggests that it typically yields more diverse samples compared to traditional recruitment methods (Aguinis et al., 2021). However, in this

research study, there were notable differences between the participant sample and the population demographics of the United States. Participants who were Black or of African descent (4.3%) and Hispanic, Latinx, or of Spanish origin (4.3%) were underrepresented, while participants identifying as East or South Asian were overrepresented (12.9%) (United States Census Bureau, 2023). Additionally, males (76.6%) participating in this study were overrepresented and females (21.3%) were underrepresented (United States Census Bureau, 2023). Due to the difference between the sample of participants in this study and adults living in the United States, the generalizability of the results from this study may be limited.

The second limitation of the study relates to the use of self-report measures. Self-report questionnaires have been criticized due to the potential for participants to respond dishonestly or to lose attention while completing the questionnaire (Jackson, 2016). Based on the recommendation from Vésteinsdóttir et al. (2019), questions encouraging honest responses were embedded throughout the survey, but it is possible that participants answered in ways they believed were socially desirable. Additionally, the anonymity provided by online administration of surveys has been shown to lessen the effect of social desirability (Gnambs & Kaspar, 2015), but it may not necessarily eliminate it. On the other hand, while online administration may reduce the effect of social desirability, it introduces the potential for non-human responses, or bots, to complete the survey. Screening checks, such as open-ended questions, to identify and remove automated responses, as well as invalid data due to inattention from human participants, were used to help mitigate this issue (Aguinis et al., 2021; Storozuk et al., 2020). However, it is possible that bot responses infiltrated the data.

Finally, this study utilized a cross-sectional research design. Cross-sectional designs demonstrate relationships between variables (Jackson, 2016), but causality cannot be determined (Jackson, 2016). Cross-sectional designs also collect data from a moment in time, so fluctuations across time and temporality cannot be assessed (Jackson, 2016).

Recommendations for Future Research

Future research should continue to examine MIL as a potential need-candidate within the SDT framework. Vansteenkiste et al. (2020) identify five inclusion criteria that must be met for a need to be considered a BPN. One study cannot completely address all five criteria; therefore, additional research is needed. In recent years, other constructs, such as beneficence (Martela & Ryan, 2020), were explored as need-candidates. Although Martela and Ryan (2020) reported promising initial results from their research on beneficence, beneficence frustration did not result in ill-being. Without further research contradicting their findings, beneficence no longer meets the criteria of a BPN. Similar to beneficence, the absence or frustration of MIL and its relationship to measures of ill-being needs further examination. Frankl (1992) associated the absence of MIL with feelings of worthlessness and a reduced will to live. Other studies report that a lack of MIL is associated with cognitive impairment (Sutin et al., 2020) and reduced life satisfaction (Wolfram, 2023). However, there have been no studies to date that examined lack of MIL with indicators of ill-being while controlling for the effects of the frustration of autonomy, competence, and relatedness.

Future research may also consider exploring the assessment and independence of MIL from the three BPNs. In this study, MIL remained significantly related to

autonomous motivation after controlling for the effects of the BPNs, but autonomy, competence, and relatedness were not significantly related to autonomous motivation. Although Vo et al. (2022) suggest that competence may have a complex relationship with motivation, autonomy and relatedness have been reported as having positive relationships with work motivation. Similarly, MIL remained significantly related to psychological well-being after controlling for the effects of the BPNs, but autonomy was the only BPN that was significantly related to psychological well-being. It is possible that either the assessment measures of the constructs or the conceptual definitions of the constructs may overlap.

Finally, future research may also consider longitudinal designs to examine the impact of fluctuations in MIL. Frankl (1992) believed that an individual's search for meaning may fluctuate across time, particularly after a threat or frustration, which has also been supported empirically (Krause & Rainville, 2020; Newman et al., 2018). Because the current study utilized a cross-sectional design, temporal relationships between MIL and motivation cannot be extracted.

Summary

In this chapter, I provided a summary and discussion of the findings of the current research study. The study examined the relationship between MIL and both autonomous motivation at work and psychological well-being. The results indicated a positive relationship between MIL and autonomous motivation at work, as well as a positive relationship between MIL and psychological well-being. Both of these relationships remained significant after controlling for the effect of the BPNs of autonomy, competence, and relatedness. The current study integrates the existential concept of MIL

using a Biblical foundation with modern psychological standards, suggesting that MIL is fundamental to the psychological well-being of man. The study also contributes to the theoretical development of SDT, adding support to the previous results reported by Hadden and Smith (2019) that suggested MIL may be a potential need-candidate for consideration as a BPN. The practical implications of the study suggest that organizations may consider developing workplace interventions that provide opportunities for employees to find meaningfulness in their positions or in other areas of their lives.

I also explained the limitations of the current study and recommendations for future research. The sample of participants was not representative of the population of employees working in the United States and therefore, the results may be limited in their generalizability. Participants may also have responded dishonestly or without focused attention. It is also possible that bots may have completed the survey and infiltrated the survey with erroneous data. Because the study used a cross-sectional design, future research may benefit from a longitudinal design to address fluctuations in MIL across time. Future research should also continue exploring the role of MIL and its impact on motivation and psychological well-being within the SDT framework.

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APPENDIX A: HUMAN INTELLIGENCE TASK (HIT) RECRUITMENT POST

Attention Mturkers: I am conducting research as part of the requirements for the Doctor of Philosophy degree at Liberty University. The purpose of my research is to better understand the relationship between meaning in life and motivation at work. To participate, you must be 18 years of age or older and currently employed. All study materials are provided in the English language, so you must be able to read and understand the English language. Participants will be asked to complete an anonymous, online survey, which should take 10 minutes to complete. If you are interested and eligible, please click the link provided at the end of this post. An information sheet is provided as the first page of the survey. Please review the information page, and if you agree to participate, click the “proceed to survey” button at the end. All participants who fully complete the survey will receive US\$1.25 as compensation.

To take the survey, click the link below.

APPENDIX B: INFORMATION SHEET

Title of the Project: The Relationship Between Meaning, Basic Psychological Needs, and Motivation at Work

Principal Investigator: Cory Trevena, Doctoral Candidate, Psychology Department, Liberty University

Key Information about the Research Study

You are invited to participate in a research study. To participate, you must be 18 years old or older and currently employed. You must also be able to read and understand the English language.

Things you should know:

- The purpose of the study is to better understand the relationship between meaning in life and motivation at work. If you choose to participate, you will be asked to complete an anonymous, online survey. This will take approximately 10 minutes.
- You will not receive any direct benefits from participating.
- Taking part in this research project is voluntary. You do not have to participate, and you can stop at any time.

Please read this entire form and ask questions before deciding whether to participate in this research.

What is the study about and why is it being done?
--

The purpose of the study is to better understand the relationship between meaning in life and motivation at work.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

1. Complete an online, anonymous survey that will take approximately 10 minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include helping organizations understand how to keep their employees engaged in their work.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely.

- Participant responses will be anonymous.
- Data will be stored on a password-locked computer. The researcher and members of her doctoral committee will have access to the data. After three years, all electronic records will be deleted.

How will you be compensated for being part of the study?

Participants will be compensated for fully participating in this study. At the conclusion of the survey, participants will receive US\$1.25 through their MTurk account. Any participant who chooses to withdraw from the study after beginning but before completing all study procedures will not receive compensation. Any survey that does not

pass validity checks will not receive compensation. MTurk's invoicing procedures through Amazon Web Services ensures your anonymity.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free not to answer any question or withdraw at any time before submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher[s] conducting this study is Cory Trevena. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at

██████████. You may also contact the researcher's faculty sponsor, Dr.

Cynthia Evans, at ██████████.

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and want to talk to someone other than the researcher[s], **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted ethically as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

APPENDIX C: DEMOGRAPHIC QUESTIONS

What is your age?

How would you describe your employment status?

Full-time

Part-time

Temporary

Self-employed

How would you describe your gender identity? (mark all that apply)

Male

Non-binary / third gender

Female

I prefer to self-describe

I don't wish to answer

How would you describe your racial/ethnic background? (mark all that apply)

Black or of African descent

East Asian

Hispanic, Latinx or of Spanish origin

Indigenous, American Indian, or Alaska Native

Middle Eastern or North African Native

Hawaiian or Pacific Islander

South Asian

White or European

I prefer to self-describe

I don't wish to answer

What is the highest level of education you completed?

No schooling completed

Some high school

High school diploma or equivalent (i.e., GED)

Technical/trade/vocational training

Bachelor's degree

Graduate degree or higher

How would you describe your current level of job responsibility?

Entry-level (i.e., staff member, representative, associate)

Intermediate or experienced (i.e., coordinator, analyst, specialist)

First-level management (i.e., senior manager, manager, supervisor, project
manager, team leader, office manager)

Middle management (i.e., senior director, director, associate director, regional
director, advisor)

Executive or senior management (i.e., chief officer, president, vice president,
senior executive, executive)

APPENDIX D: HONEST RESPONSE ITEMS

When I answer questions about my behavior, I think about how others behave.

Strongly disagree

Somewhat disagree

Neither agree nor disagree

Somewhat agree

Strongly agree

I answer survey questions conscientiously.

Strongly disagree

Somewhat disagree

Neither agree nor disagree

Somewhat agree

Strongly agree

I am honest in my responses to survey questions.

Strongly disagree

Somewhat disagree

Neither agree nor disagree

Somewhat agree

Strongly agree

APPENDIX E: VALIDITY CHECKS

Between the PIL Test and MWMS, the following open-ended response item were included:

I am _____ years old.

Between the MWMS and BPNSFS, the following open-ended response were included:

I work _____ hours per week.

APPENDIX F: PURPOSE IN LIFE (PIL) TEST

“Removed to comply with copyright”

Crumbaugh, J. C., & Maholick, L. T. (1969). *Purpose in Life Test (PIL)* [Database record]. APA PsycTests. <https://doi.org/10.1037/t01175-000>

APPENDIX G: MULTIDIMENSIONAL WORK MOTIVATION SCALE (MWMS)

“Removed to comply with copyright”

Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van den Broeck, A., Aspli, A. K., Bellerose, J., Benabou, C., Chemolli, E., Güntert, S. T., Halvari, H., Indiyastuti, D. L., Johnson, P. A., Molstad, M. H., Naudin, M., Ndao, A., Olafsen, A. H., Roussel, P., Wang, Z., & Westbye, C. (2015). *Multidimensional Work Motivation Scale (MWMS)*[Database record]. APA PsycTests.
<https://doi.org/10.1037/t45942-000>

APPENDIX H: WORLD HEALTH ORGANIZATION WELL-BEING INDEX (WHO-

5)

Please indicate for each of the 5 statements which is closest to how you have been feeling over the past 2 weeks.

0 – At no time

1 – Some of the time

2 – Less than half the time

3 – More than half the time

4 – Most of the time

5 – All of the time

Over the past 2 weeks,

1. I have felt cheerful and in good spirits.
2. I have felt calm and relaxed.
3. I have felt active and vigorous.
4. I woke up feeling fresh and rested.
5. My daily life has been filled with things that interest me.

APPENDIX I: BASIC PSYCHOLOGICAL NEED SATISFACTION AND
FRUSTRATION SCALE (BPNSFS)

“Removed to comply with copyright”

Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., Duriez, B., Lens, W., Matos, L., Mouratidis, A., Ryan, R. M., Sheldon, K. M., Soenens, B., Van Petegem, S., & Verstuyf, J. (2015). *Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS)* [Database record]. APA PsycTests. <https://doi.org/10.1037/t73076-000>