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A VALIDATION STUDY OF THE JUHNKE-BALKIN LIFE BALANCE
INVENTORY

A Dissertation

By

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Submitted in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

in

COUNSELOR EDUCATION

Texas A&M University-Corpus Christi

Corpus Christi, Texas

August, 2012

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ABSTRACT

Life balance was investigated as a unifying construct of wellness and found to be a significant, holistic concept among a variety of counseling professionals. The life balance construct is described as multifaceted and individually defined with elements of agency and autonomy. Assessment of the construct may yield information useful in supporting client change. Normative samples were drawn from both clinical and nonclinical settings ($N = 346$) and included both males ($n = 178$) and females ($n = 168$) with an age range of 18 to 67 ($M = 30.28$, $SD = 10.64$). Primary foci of this study included establishing initial evidence of validity of the internal structure of the Juhnke-Balkin Life Balance Inventory (JBLI), an instrument designed to assess life balance. The JBLI was tested for evidence of concurrent and discriminate validity with the OQ45.2 via multiple regression analysis and t tests of clinical and nonclinical samples. Using exploratory factor analysis ($N = 346$), 11 factors were retained accounting for 49% of variance in the model and corresponding scales were developed. Factors were identified based on factor loadings of .40 or greater. Reliability analysis was conducted on each scale, yielding adequate (.76) to high (.91) estimates of reliability for the 11 scales. Six of the 11 were identified as discriminant between clinical and nonclinical populations. Evidence of relationships to other variables was established between 9 of the JBLI scales and the three OQ45.2 scales. Post hoc analysis was conducted and the original factor structure was retained with an increase of 2% for a total of 51% of variance explained in the model. Results from the study serve as initial evidence of validity and reliability for an assessment instrument designed to measure life balance.

DEDICATION

This study is dedicated in part to those who volunteered as participants. In addition, the study is dedicated to all those that were instrumental in the completion of the requirements for this advanced degree in Counselor Education. Success in this endeavor was supported by faculty, family, friends, and a quest for knowledge. Many thanks and much gratitude is accorded to those that worked to make this possible. Special dedication is made to Pamela Denise Cleveland to whom my heart will always belong.

ACKNOWLEDGMENTS

Tremendous gratitude is acknowledged herein for the invaluable guidance, instruction, and care extended to me by a long list of educators, administrators and administrative assistants, supervisors, mentors, colleagues, clients, and students throughout my life and academic career. Many thanks go to Dr. Robert Smith for his exceptional leadership. Very special thanks are given to my dissertation chair, Dr. Richard Balkin, who was instrumental in my success and recognized the potential of an outlier; no one rocks as hard as he does! Additional thanks go out to Dr. Gerald Juhnke for his caring support and encouragement as well as his assistance in collecting data. Thanks and gratitude also goes to Dr. Mary Alice Fernandez for her invaluable assistance in organizing data collection sites for this study. Special thanks are due to the other members of my dissertation committee as well. Heartfelt thanks go to Dr. Marvarene Oliver in recognition of her extraordinary example of grit and determination that so resonate with me. She is a great lady and very light on her feet. Additional thanks to Dr. Manuel Zamarripa for sharing his passion for social justice and advocacy which has shaped my identity as a counselor. Thanks go to Dr. Scott Sherman for his support and great sense of humor as well as for his assistance in data collection. In addition, many thanks are extended to Compliance Officer Erin Sherman for her guidance and expertise. Last, acknowledgement and warm thanks go to Administrative Assistant Rachel Perez for her vital help and support throughout my program.

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Introduction

Interest in balance is found in both modern and ancient societies. The construct was a central tenet to Greek philosophers including Plato and Aristotle (Guthrie, 1975). Carved into a wall at the temple at Delphi are the words “nothing in excess” (Barringer, 2008), a phrase that implies balance. Balance is a fundamental belief within Eastern philosophical traditions including Buddhism and Confucianism (Leaman, 1999). In the West, members of the medical community extolled the benefits of balance early in the medieval period (Gordon, 1959). One need not look further than a television screen to see that interest in balance abounds within popular media and advertising. The public is subject to a constant barrage of admonitions to lead a balanced life and to eat a balanced diet. The term mentally unbalanced appears in a variety of medical and professional journals (e.g., *Journal of the American Medical Association*, *American Journal of Sociology*) often in connection with individuals suffering from psychological or physiological problems.

Life balance may be a unifying construct of wellness and a central determinant of wellbeing. Extant research on the balance construct is thin, resulting in a paucity of literature on the construct, a lack of adequate instruments to measure it, and only a vague understanding of its dimensions. This study is undertaken to add to the woefully small amount of literature on life balance, to demonstrate evidence of validity and reliability of the Juhnke-Balkin Life Balance Inventory (JBLI) as a measure of life balance, and to gain a better grasp of the influence of balance or imbalance in the lives of people.

The study of balance may predate the study of wellness. The relatively modern concept of wellness is believed by some to be based on the work of Halbert L. Dunn in

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the 1950s and was conceptualized further in his book, *High Level Wellness*, published in 1961. Although the term was slow to enter the mainstream lexicon, it soon gained acceptance and was widely used by the mid-1970s. Since that time a veritable avalanche of books and journal articles have been written, dedicated to the topic of wellness, many of which include the idea of balance in some form. The relationship between life balance and wellness appeared to be well established regardless of the lack of strong empirical support. In 2011, Atlanta University hosted the First Annual National Black Women's Life Balance and Wellness Conference. The conference focus was assisting black women to achieve life and career balance as well as personal wellness. The importance of the wellness construct within the helping professions is evident by inclusion in two of the eight essential program domains for the training of professional counselors as defined by the Council for Accreditation Counseling and Related Educational Programs (CACREP, 2009).

Stress, another intensely researched construct, figures prominently in the wellness literature. Young (2005) discussed stress and the relationship to wellness in a widely adopted text on wellness and counseling edited by Myers & Sweeney (2005), well-known authors in the wellness field. Using the Wheel of Wellness (Myers, Sweeney, & Witmer, 2000) as a model to depict the factors of wellness and their interconnectedness, Young (2005) indicated that stress impacted individual wellness:

“From a wellness perspective, stress may be viewed as an interruption of the state of positive balance that exists when the mind-body-spirit triad is functioning optimally. Stress, due to underdevelopment or interruption in

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one of the life's tasks, manifests as an experience of being physically, mentally, or spiritually out of balance" (p. 209).

Thus, balance would appear to be central to wellness. When one considers the image conjured of a wheel on which the so-called factors of wellness were placed, it is not difficult to imagine that same wheel beginning to wobble when impacted by stress resulting in imbalance in the individual (Myers & Sweeney, 2005). With this image and analogy in mind, it is easy to conceive of a construct such as balance or life-balance as an organizing construct within the concept of wellness.

Balance as a construct appears frequently in professional literature, often qualified in some manner (e.g. work-family balance, affect balance, life balance). Menninger (1963), in reference to physio-psycho-social balance, described balance as crucial and stated that "organisms strive for a state of balance" (p. 107). The term balance was described as something that can be obtained, as an action, and as a descriptor. Disagreement or lack of clarity exists about the balance construct (Greenhaus, Collins, & Shaw, 2003). Another construct, life balance, appears much less frequently in the literature and is also poorly defined. Both constructs are so broad, each with the capacity to encompass a number of domains, that the two may be indistinguishable.

As stated, balance and life balance were defined or qualified in a number of ways. Some definitions of balance refer to equitable time allocation (Gropel & Kuhl, 2006; Senecal, Vallerand, & Guay, 2001). Kuhnle, Hofer, & Kilian (2010) defined life balance as a gratifying amount of attention paid to the multiple components of life. Balance and life balance may be best conceptualized as balance in the various aspects of one's life.

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Balance and life balance are the subjects of a number of studies in relation to another general construct, wellbeing. Kofodimos (1993) held that a balanced life is beneficial to wellbeing. Gropel & Kuhl (2006) reported life balance to be an indicator of wellbeing and Kuhnle et al (2010) posited that life balance is directly related to wellbeing. Longfield, Romas, & Irwin (2006) suggested that wellness influenced wellbeing and life balance. Lenaghan and Sengupta (2007) investigated role balance in relation to wellbeing among working college students. The authors noted that lack of balance increased negative affect, which decreased sense of wellbeing among the participants in the study. Balance and wellbeing were studied in relation to social support as well. Green, Hayes, Dickinson, Whittaker, & Gilheany (2002) noted both positive and negative impact on mental health in a qualitative study that examined wellbeing and the balance of social relationships. Jung (1997) drew connections between balance and wellbeing in a study focused on the amount of social support received and provided by an individual. The author held that the influence of balance of social support differs with regard to gender. Females and males may perceive or experience balance differently. Leisure was studied in relation to life balance. Iwasaki, Mactavish, & Mackay, (2005) reported that leisure allowed for improved life balance. Participants in the study described leisure and the use of humor as strategies to increase life balance. Positive effects were indicated across mental, physical, and affective components. Yager and Tovar-Blank (2007) suggested that individuals often fail to create an “ideal balance between the personal, social, physical, spiritual, and occupational domains” (p. 146).

Wellbeing may be interpreted in multiple ways and in connection with balance. Miquelon and Vallerand (2008) referred to different types of wellbeing in their

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examination of the relationship between wellbeing and physical health. Their findings indicated that one type of wellbeing, self-realization, was linked to physical health.

Larsen (2009) examined positive and negative affect in relation to emotional wellbeing and described a need for balance. Ryan and Deci (2001) broadly defined wellbeing as functioning at a level of optimality. However, the authors reported little agreement on the construct of psychological wellbeing. Some perceive psychological well being to be multifaceted, including emotions, cognition, and behavior (Roothman, Kirsten, & Wissing, 2003). A shared understanding of the term appears to be elusive (Wissing & van Eeden, 2002).

Some cultures and religions view balance as a critical component of wellbeing. The restoration of balance in an individual is a component of traditional healing for many Native American groups. Balance is defined as “a desired state wherein one is in harmony with the universe” (Garrett & Carroll, 2000, p. 382). In this holistic conceptualization, balance encompasses all aspects of the individual: spiritual, psychological, families, and environment (Moodley, Sutherland, & Oulanova, 2008). Harmony is said to accompany this restoration of balance. To many Native Americans, this balance and harmony are essential to wellbeing and disruptions are harmful (Portman & Garrett, 2006). Balance appears to be a key tenet of Buddhism as well. In one form of Buddhist philosophy, believers are encouraged to seek the middle path; to do so requires a balance between extremes (Dockett, Dudley-Grant, & Bankart, 2003; Takakusu, 1973).

There is a significant amount of literature regarding the construct of work-life balance. The construct is often examined in relation to psychological wellbeing. That relationships between wellbeing and work-life balance exist is clear (Gropel & Kuhl,

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2009). Some disagreement on the term work-life balance is present in the literature. Kalliath and Brough (2008) reviewed six diverse interpretations of work-life balance. The authors extended the following definition for work-life balance: "Work-life balance is the individual perception that work and non-work activities are compatible and promote growth in accordance with an individual's current life priorities" (p. 326). Much of the research on work-life balance focused on the impact of work on the personal lives of workers. Loretto et al. (2006) indicated that an equitable balance between work and private life supports good health. Balance between the two constructs contributes to job and life satisfaction, quality of life, and reduced stress levels; the reverse was also found. Imbalance can contribute to dissatisfaction, increased stress, and poorer quality of life (Allen, Herst, Bruck, & Sutton, 2000; Aryee, 1992; Grant-Vallone & Donaldson, 2001; Greenhaus, Collins, & Shaw, 2003; Kosseck & Ozeki, 1998; Noor, 2004). A lack of balance in regard to work and life can be problematic for employees and employers. The problems or consequences can be quite serious for both (Hobson, Delunas, & Kesic, 2001). Achieving life balance is a goal for many and is sometimes a difficult one to achieve. Wellbeing, careers, and relationships can be effected when work and life are out of balance (Neault & Pickerell, 2005). Establishing a balance between work and family is beneficial in several ways including physical and psychological health in adults. Researchers held that work and family influences are interrelated and inescapable. This perspective appears to be widely accepted (Marcus-Newhall, Halpern, & Tan, 2008).

Relationships are a necessary ingredient for balance according to Williams-Nickelson (2006). Within family structures, relationships may be affected when there is an imbalance between work and family (Kalliath & Brough, 2008). Adams (1988) stated

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emphatically that there is a relationship between the constructs of friendship and wellbeing. Glover and Parry (2008) indicated that friendships are essential to wellbeing and health. Positive relationships are associated with wellbeing (Comstock, Hammer, Strentzsch, Cannon, Parsons, & Salazar II, 2008). Additional connections were drawn between life balance, social relationships, and wellbeing by Cantor, Kimmelmeier, Basten, & Prentice (2002). Some types of balance may be important for wellbeing within intimate relationships as well. Balance in relation to diverse constructs such as power, hope, and sexual pleasure have been explored (Flaskas, 2007; Nevis, Backman, & Nevis, 2003; Sprecher & Felmlee, 1997).

Agreement on the constructs is necessary to move the body of research forward. For the purposes of this study, elements of the definition endorsed by Kuhnle et al. (2010) and Moodley et al. (2008), in which life-balance encompasses spiritual beliefs, psychological domains, relationships, and environments as multiple components of life that require varying amounts of attention based on the individual are combined. The life-balance construct differs from other similar constructs (e.g. wellness) in that emphasis is placed on an individual's view and the viewpoint of others as to what aspects of life balance are important or significant to the individual.

Statement of the Problem

In order to more fully understand the scope and influence of life balance, additional research is required. Instruments are needed to accurately measure life balance as a construct and few currently exist. Assessment is essential in order to create valid and reliable instruments so that research on the construct can move forward. An instrument of this type would serve as a measure of functioning. In addition, this measure would

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provide clients and practitioners with some sense of the extent to which an individual is adjusted to the management of the various facets of his or her life. These facets include such areas as family, relationships, and spirituality.

Purpose of the Study

The purpose of this study is to provide validity evidence of internal structure and relationship to other variables as well as reliability evidence for the JBLI. In addition, the researcher seeks to add to the body of literature related to the life-balance construct. The researcher also seeks to establish the significance of life-balance as a unifying construct within the modern wellness conceptualization. Last, the researcher seeks to further the understanding of the life balance construct.

Research Hypotheses

In this study, the JBLI will be tested in order to establish initial evidence of the extent to which the instrument is reliable and valid. The researcher utilized the hypotheses listed below to guide this study.

1. The internal structure of the JBLI will yield initial evidence of validity and reliability as demonstrated by EFA.
2. Evidence of relationships to other variables including evidence of concurrent validity will be established through correlation to the OQ-45.2.
3. Evidence of discriminate validity will be demonstrated via the JBLI between clinical and non-clinical populations.
4. Higher levels of life-balance as measured by the JBLI will correlate with lower levels of distress as measured by the OQ-45.2.

Significance of the Study

This study is significant in several areas. The author of the study seeks to add to the body of literature related to the life balance construct as a unifying component of the wellness construct. In addition, the author seeks to aid in the development of an instrument that measures the life-balance construct. Next, the study is significant in that the results of the study will provide evidence of validity and reliability of an instrument that may prove useful to members of the counseling profession working with specific populations. Furthermore, the study will serve as an essential step in the validation of said instrument.

Much has been written about validity in social science research and understanding of validity has evolved over time. In 1999, the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council of Measurement in Education (NCME) held that validity is a unitary concept and fundamental to test development (*Standards for educational and psychological testing*, 1999). In a succinct definition of the construct, authors Heppner, Wampold, and Kivlighan (2008) stated that validity refers to “the degree to which inferences reflect how things actually are”, (p. 82) and Dimitrov (2009) stated that “validity has to do with whether an instrument measures what it purports to measure” (p. 35). In 2002, Shadish, Cook, and Campbell classified validity into four main types: statistical conclusion validity, internal validity, construct validity, and external validity. The first of these, statistical conclusion validity, deals with the validity or correctness of the conclusions made based on the results of statistical tests. The second, internal validity, involves inferences about causal relationships among variables. Third, construct validity is a

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reflection of how closely variables or items represent the constructs intended. Fourth, external validity refers to generalizability (Shadish, Cook, & Campbell, 2002). Internal and construct validity are of special interest in this study. Goodwin and Leech (2003) closely examined the current understanding of validity. The authors indicated that validity should be viewed as an estimation rather than an established fact. Thus, estimations of validity rely on an accumulation of evidence. The authors went on to define or explain five types of evidence of validity: evidence based on test content, evidence based on response processes, evidence based on internal structure, evidence based on relations to other variables, and evidence based on the consequences of testing.

Three of the five types of evidence of validity are addressed in the study. Two of the five are of particular interest in this study, evidence based on internal structure and evidence based on relationships to other variables. Evidence based on the internal structure is related to the construct or constructs under examination. This type of evidence reveals the extent to which the internal components of an instrument relate to the construct. An estimation of the validity of the internal structure of a test can be derived through exploratory factor analysis. However, this type of evidence should not be considered alone (Goodwin & Leech, 2003). This type of evidence is especially important in instrument development. Since little is known about the life-balance construct, evidence of solid internal structure of an instrument designed to measure the construct would increase our understanding of it. The second type of evidence of particular interest in this study is evidence based on relationships to other variables. As the term implies, evidence of this type is necessary to explore or discover relationships between variables. Again, this type of evidence is especially important in instrument

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development. According to Goodwin & Leech (2003), this body of evidence includes several types of validity evidence. Evidence for criterion-related validity, which includes both concurrent and predictive validity, falls under this category of evidence. Evidence based on relations to other variables also covers much of what was usually referred to as construct validity, particularly convergent and discriminate validity. Last, validity generalization is included in this category. Of these, evidence of concurrent and discriminant validity are of keen interest in this study.

Few studies are focused on life-balance and fewer still include a means of measuring life-balance. There has been some initial investigation into the construct in the past decade resulting in at least one model and measurement (Matuska,2010). The instrument under review in the present study differs from other proposed measures or models in that the JBLI measures a number of mental health components (eg. anxiety, depression, and substance abuse). Moreover, the JBLI is not a measure that can be described as needs based which was a criticism of the instrument developed by Matuska (2010). However, more information is needed about life balance and instruments that accurately measure the construct would be a welcome addition to counseling professionals interested in the promotion and understanding of a holistic wellness perspective. Therefore, as a means of instrument development and in an attempt to measure the life-balance construct, this study was conducted on the JBLI to provide initial evidence and estimates of validity and reliability of the instrument.

Design of the Study

The design of the study is quantitative and correlational in nature. A sample of adequate size was obtained. Stevens (2007) suggested a 1 to 10 ratio. Stability in factor

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structures is usually evident in samples over 300 (Meyers, Gamst, & Guarino, 2006).

Two instruments were used in the study, the JBLI and the OQ-45.2. Exploratory factor analysis on the data gathered from the administration of the JBLI is included. This method is an appropriate step in instrument development (Dimitrov, 2009). Data gathered from the concurrent administration of OQ-45.2 is included to establish evidence of concurrent validity.

Methodology

Population and Sample

The population in this study consisted of participants drawn from academic settings (i.e. college students) and community mental health settings (i.e. clients). The academic settings included both colleges and universities. Participants drawn from academic settings consisted of graduate students enrolled in counseling programs. Participants drawn from community mental health settings were clients in those settings. These settings included sites that offer recovery assistance in the form of counseling for those struggling with substance abuse issues. All participants were adults over 18 years of age and participation was voluntary. A sample of appropriate size was used to ensure adequate power for the study.

Data Collection and Analysis

Both of the assessments utilized in this study, the JBLI and the OQ-45.2, are self-report instruments. According to Heppner, Wampold, and Kivlighan (2008), self-report instruments are advantageous in certain aspects including relative ease of administration and little necessity for specialized skills on the part of the administrator or the participant.

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In addition, the authors indicated that self-report instruments can be used to measure or report elusive phenomena such as thoughts, emotions, and behaviors.

The OQ-45.2 is designed as a measure of client functioning over the course of therapy. The instrument is well known and is used in a variety of therapeutic settings worldwide. Lambert et al. (1996) found the measure to have high reliability and construct validity. In addition the authors held that the instrument differentiates between clinical and non-clinical samples, accurately detects change, and correlates well with other measures of client distress. In a replication study by Bringhurst, Watson, Miller, and Duncan, (2006), researchers reported internal consistency and test-retest reliability of the OQ-45.2 to be .93 and .84 respectively. In the present study, the instrument is used to establish evidence of concurrent validity with the JBLI.

In order to explore the potential reliability and validity of the JBLI, exploratory factor analysis (EFA) was conducted. Dimitrov (2009) indicated that EFA is an accepted procedure in instrument validation. The OQ-45.2 was utilized in the study to establish evidence of concurrent validity with the JBLI.

Reliability and validity are important concerns in the development of instruments and study design (Creswell, 2009; Dimitrov, 2009; Heppner, Wampold, & Kivlighan, 2008). The establishment of the psychometric properties of an instrument is crucial (Heppner, Wampold, & Kivlighan, 2008). According to Whiston (2005), reliability is sometimes viewed as a measure of consistency and instrument quality. Reliability coefficients are used to establish the degree to which error exists within scores of a given measure. Estimates of reliability are taken into consideration when selecting instruments because researchers or practitioners generally wish to select those with higher

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consistency and lower amounts of measurement error. Describing reliability in another way, Heppner, Wampold, and Kivlighan (2008) stated that reliability is a variance in scores which can be viewed as a measure of differences in individuals. Dimitrov (2009) observed that “reliability of measurements indicates the degree to which they are accurate, consistent, and replicable”, (p.15). In addition, the author identified different aspects or types of reliability including internal consistency estimates of reliability. This type of reliability is measured by the average correlation among items on a single administration of an instrument (Dimitrov, 2009). Establishing evidence of internal consistency for the JBLI is one focus of this study. However, evidence of both reliability and validity are necessary to proceed with instrument development. The participants completed the JBLI and the OQ-45.2. The two instruments were used in conjunction to establish parallel reliability. An exploratory factor analysis was conducted on the JBLI in accordance with accepted statistical procedures.

Instrumentation

The JBLI along with the OQ-45.2 is used in this study to measure the life balance construct. The JBLI consists of 91 items with responses arranged on a Likert scale. Possible responses range from *Strongly Agree*, *Agree*, *Neither Agree nor Disagree*, *Disagree*, and *Strongly Disagree*. The authors of the JBLI consulted with eight experts during the construction phase of the instrument development. All the expert reviewers held doctoral level degrees and were identified as having extensive clinical experience and having engaged in scholarly activities within the field of professional counseling. The reviewers were asked to rate the relevance (i.e. highly relevant to domain [4], relevant to this domain [3], neither relevant nor irrelevant to domain [2], irrelevant to

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domain [1], or highly irrelevant to domain [0]) of each of the seven question stems within the twelve domains included in the JBLI. The domains are Mood, Stress, Physical, Exercise Health & Nutrition, Sleep, Social-Interpersonal, and Marriage-Significant Other, Sexual and Intimacy, Work-Career, Spirituality- Religious, Happiness, Hopelessness-Helplessness, and Substance Abuse- Addictions. The experts recorded their ratings on an expert reviewer form and returned them to the authors. The information from the reviewers was utilized to refine the instrument.

The OQ-45.2 consists of 45 items with responses arranged on a Likert scale. Possible responses range from *Never*, *Rarely*, *Sometimes*, *Frequently*, and *Almost Always*. In addition, the researcher collected basic demographic information from participants in the study: age, sex, race/ethnicity, marital status, sexual orientation, and education.

Basic Assumptions

The author of the study makes basic assumptions about the participants and the instruments employed. The first basic assumption is that participants will answer the questions on the two instruments honestly. The second assumption is that the instruments measure the intended constructs.

Limitations

This study has some limitations. First, this study is limited to the measurement of the life balance construct. Second, results of the study provide only initial evidence of validity and reliability of the Juhnke Balkin Life-balance Inventory. A third limitation in this study is that both instruments utilized in this study, the JBLI and the OQ-45.2, are self-report instruments.

Definition of Terms

Within in this study, specific terms are used. Definitions of selected terms are provided for clarity. The definitions set forth fall within the range of the generally accepted use of the terms selected.

Distress---A form of stress that can negatively affect individual functioning and the ability to cope causing a state of imbalance within the mind-body-spirit triad (Myers & Sweeney, 2005).

Life-balance---The extent to which an individual balances or manages life domains such as spirituality, family, work, and other applicable areas identified as important to the individual (Bockrath, 1999; Kuhnle et al. 2010; Moodley et al. 2008).

Validity---The extent to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests (AERA, APA, & NCME, 1999, p. 9).

Evidence based on Test Content---The extent to which the content of the instrument under review is congruent with a content domain (Goodwin & Leech, 2003).

Evidence based on Response Processes---The extent to which the response tasks required of participants taking the measure is congruent with the construct being measured (Goodwin & Leech, 2003).

Evidence based on Internal Structure---The extent to which the internal components of an instrument are congruent with the construct under review (Goodwin & Leech, 2003).

Evidence based on Relations to Other Variables---The extent to which the instrument correlates to other measures (Goodwin & Leech, 2003).

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Evidence based on the Consequences of Testing---Evidence related to consequences of testing experienced by participants (Goodwin & Leech, 2003).

Reliability---A measure of consistency and instrument quality (Whiston, 2005). For the purposes of the present study, reliability evidence is demonstrated through the use of Cronbach's alpha for each subscale.

Organization of Remaining Chapters

This study is composed of five chapters. Chapter I begins with an introduction to the study followed by a statement of the problem, details of the purpose of the study, a list of the research hypotheses that will guide the study, a discussion of the significance of the study, a review of the methodology employed in the study, basic assumptions made by the researcher, limitations of the study, and definitions of terms used in the study. Chapter II contains a review of the literature regarding wellness and the life-balance construct. Chapter III provides a thorough discussion of the research methodology employed in the study. In Chapter IV, the results of the study are reported. The final chapter, Chapter V, is comprised of a discussion of the findings and conclusions reached by the researcher as well as recommendations for future research.

Chapter II

Review of Literature

This chapter consists of a review of literature relevant to the life balance construct. Life balance has been studied in relation to other constructs (e.g. wellbeing, satisfaction, stress, etc.). The terms balance and life balance have been used synonymously by some and the two constructs may be indistinguishable, one term often defining or included in the definition of the other (Pentland & McColl, 2008; Wagman, Björklund, Håkansson, Jacobsson, & Falkmer, 2011). Balance has been studied in relation to other constructs as well (e.g. wellness, affect, work/family, etc.). This chapter includes studies of both life balance and balance. In addition, the literature on wellbeing or wellness is explored in this chapter as it relates to both the aforementioned constructs.

Defining Life Balance

The life balance construct has been defined in both narrow and broad terms, encompassing singular and multiple facets of life (Gropel & Kuhl, 2006, 2009; Matuska, 2010; Pentland & McColl, 2008; Sheldon, Cummins, & Kamble, 2010; Wagman et al., 2011). Backman (2004) posited that the life balance construct was not fully formed or understood and therefore not clearly defined. Christiansen and Matuska (2006) reported a lack of consensus on the definition of life balance. In addition, the authors reported a lack of adequate means to measure the construct which adds to the current vague understanding of life balance. Although Sheldon, Cummins, and Kamble (2010) initially questioned the necessity of the construct, they concluded their study with the firm assertion that life balance is real, measurable, and worthy of future research.

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One definition of life balance was drawn from a proposed model of the construct. Matuska and Christiansen (2008) defined life balance as “a satisfying pattern of daily activity that is healthful, meaningful, and sustainable to an individual within the context of his or her current life circumstances” (Matuska & Christiansen, 2008, p.11). Perhaps the broadest definition of life balance comes from a later study by Matuska (2010) when the researcher conceptualized life balance as living a life “that is optimal for health and wellbeing” (p. 3).

Other recently proposed definitions of life balance include or are based upon the concept of time allocation (Christiansen & Matuska, 2006; Gropel & Kuhl, 2006, 2009; Sheldon, Cummins, & Kamble, 2010). Gropel and Kuhl (2006) defined life balance as “the appropriate proportion of time spent across major life domains” in their study of self-regulation and life balance (p. 54). The authors held to this definition in a later study on coping, stress and life balance (Gropel & Kuhl, 2009). Christiansen and Matuska (2006) supported the inclusion of time allocation as a component of the life balance construct and, although not the main focus of their study, Senecal, Vallerand and Guay (2001) indicated that time allocation is a central factor of life balance. Time allocation was also reported as a critical aspect of life balance by Kuhnle, Hofer, and Kilian, (2010) in a study of adolescent students. Additionally, Pentland and McColl (2008) reported that a focus on time allocation dominates the occupational science literature with regard to the life balance construct. Last, Sheldon, Cummins and Kamble (2010) held that life balance is achieved when “there is a numerically equitable distribution of time across one’s actual time-use profile, and when that actual time-use profile is psychologically congruent with one’s ideal time-use profile” (p.1098).

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Life Balance Studies

The researchers or authors of the studies contained in this portion of the chapter utilized the term *life balance* specifically. This was done for three reasons. First, disagreement exists about the life balance construct as alluded to earlier. Second, this arrangement may be more convenient for the reader. Third and last, the studies reviewed were arranged in this manner because the life balance and balance constructs have been studied in relation to a wide range of other constructs.

Life balance was studied both quantitatively and qualitatively. Researchers utilized sophisticated statistical designs as well as interviews and focus groups. The construct was conceptualized and measured in terms of activity patterns, roles, time pressure, need satisfaction, meaning, and life projects (Pentland & McColl, 2008). Little consensus existed on the life balance construct. Some suggested that establishing a valid and reliable measure of the construct was needed. Doing so may clarify the life balance construct and promote understanding. In turn, clarity and understanding may open new avenues for further research. An expanded body of research on life balance may produce therapeutic or measurement tools that will provide clinicians with additional insight into the lives and levels of functioning of their clients.

Gropel and Kuhl (2006) studied life balance in relation to self-regulation. Working under the proposition that time management was a component of self-regulation, the researchers found only an indirect relationship between time management and life balance. In the second phase of their study, the researchers posited that self-motivation, self-relaxation and self-determination were also components of self-regulation and investigated the possibility of a relationship to life balance. While self-

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motivation and self-relaxation were found to be related to self-determination, only an indirect relationship was established between life balance and self-determination and its constituent components. The researchers concluded that higher scores in self-determination facilitated life balance (Gropel & Kuhl, 2006). In a later study on affective coping, stress and life balance, Gropel and Kuhl (2009) found that individuals possessing an action orientation as opposed to a state orientation were able to maintain life balance in the face of increased stress. Taken together, one may infer that life balance requires an element of agency.

Kuhnle, Hofer, and Kilian (2010) included a time allocation component in their study of life balance among adolescent students in relation to value orientation, self-control, and school-leisure conflicts. The researchers held that it was important for adolescent students to “believe” that they were spending the correct amount of time among individual life domains (p. 251). In addition, they found that those adolescent students with higher self-control were better equipped to maintain life balance. Last, the researchers concluded that life balance was an important construct within the lives of adolescent students (Kuhnle, Hofer, & Kilian, 2010).

Wagman et al. (2011) looked at life balance in broad terms in their study of working adults. The authors found that life balance consisted of four primary components: activity balance, balance in body and mind, balance in relation to others, and time balance. According to the authors, life balance was understood or defined in different ways by different people, was subject to change or was fluid, and included multiple time perspectives such as long or short term goals. *Activity balance* naturally included some combination of work, leisure, or family or “private life” (p. 412). The

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authors noted that participants generally agreed that they felt more balanced when these aspects were not in opposition and that one area of their lives should not dominate the other. Activities included physical and mental activities as well as those that were considered necessary and those that were engaged in for pleasure. *Balance in mind and body* included activities such as eating and sleeping as well as activities that were perceived as meaningful or mentally stimulating or refreshing. Spirituality and humor were included in this dimension as well. *Balance in relation to others* was viewed as relational and included an aspect of giving and receiving support. Participants reported a need for both social interaction time as well as time spent in solitary activities. *Time balance* was viewed differently among participants and included time allocation as well as an awareness of actual time spent engaging in one activity or another. The authors stressed that participants did not feel that time allocation should be equal. According to the authors, the participants in their study indicated that life balance was also connected to general health, was enhanced by a sense of security, and was influenced by individual circumstance and personal strategies. Participants connected life balance to general health, indicating that being in good health added to a sense of balance and poor health lessened the perception of balance. Participants reported that a sense of security in one's self, in relationships, and in fiscal or economic matters enhanced life balance. In addition, participants reported that life balance was influenced by context including aspects of work, society, and family with one aspect sometimes influencing the other. Individual or personal strategies were seen as influencing life balance including coping skills, flexibility, and ability to plan for or control various aspects of life. Wagman et al. also noted that the ability to accept that which could not be changed was beneficial. The

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authors concluded that life balance was a multidimensional construct, experienced and defined individually. Last, the authors held that the life balance construct may have significance within the areas of health promotion, prevention, and rehabilitation.

Pentland and McColl (2008) held, as others have, that life balance was poorly defined and poorly understood. They posited that life balance or a balanced lifestyle was a fundamental construct within the area of occupational science and occupational therapy. According to the authors, the core of the life balance construct is based upon “the extent to which a person designs and lives in integrity with his or her own personal values, strengths and what has meaning for them” (p.135). Pentland and McColl (2008) termed this as occupational integrity which they held was “an essential precondition to life balance” (p.135). The authors also stated that life balance has been primarily studied from a behavioral perspective which included the idea that there was a “correct configuration of time, roles, activities, and projects that leads to balance and subsequently wellbeing” (p.136). The authors disputed this perspective and held that this approach overlooked individual choice. Last, the authors concluded that it was occupational integrity and not life balance that led to wellbeing (Pentland & McColl, 2008).

Matuska (2010) sought to validate a proposed model of the life balance construct along with a proposed measure of life balance. Matuska conceptualized life balance as “both congruence among desired and actual time spent in activities, and equivalence in the degree of discrepancy between desired and actual time spent across activities that meet health, relationship, challenge/interest and identity needs” (p. ii). The primary intent of the researcher was to establish construct validity of both the model and the measure. In addition, the researcher investigated possible connections between life

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balance, need satisfaction, stress, and wellbeing. The researcher found evidence of validity for both model and measure. Matuska concluded that a link existed between congruence and life balance but less so between equivalence and life balance.

Life balance emerged as one of eight themes (support networks, internalization/externalization, routines, relapse, change in perspective, rewards/punishment, emotional issues, and life balance) in a qualitative study involving women and obesity (Hayward, et al., 2002). In the study, Hayward et al. sought to gain a better understanding of the experiences of the participants who wanted to lose weight and change their lives. The authors stated that fulfilling one's needs were essential to the process. They reported that at least one participant in the study was able to do this by striking a balance between work and her other life needs; this participant reported being successful in achieving her goals. Another participant reported being less successful, being unable to strike the same balance as the successful participant. According to the researchers, these two participants represented an individual that was in balance with regard to her life and one that was out of balance. The researchers stated that "the ability to create life balance and meet one's own needs reflects a change in perspective" (p. 628). Obtaining life balance required both internal and external change in the participants (Hayward, et al., 2002).

Sheldon, Cummins, and Kamble (2010) conducted a series of studies (4) on the life balance construct. The researchers introduced two measures of life balance which they termed as objective balance and subjective balance. Both measures were based on time use. The two measures were used in all four studies to predict subjective wellbeing. In the first study in the series (Study 1), the researchers found that both measures were

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predictive of wellbeing. The sample was drawn from participants in the United States and India with the two countries representing individualistic and collectivistic cultures. According to the researchers, this was done as part of their efforts to validate the two measures, to investigate generalizability and to support their assumption that “needs are universal and that balance universally enhances need satisfaction” (p. 1100). For this phase of the study, the researchers utilized regression analysis and independent *t*-tests looking at between-subject patterns. Participants in Study 1 were asked to distribute a block of 24 hours across 10 categories (time spent sleeping, working, commuting, going to school, doing chores, recreating, health/self-maintenance, community, personal relationships, and spirituality/religion). This was intended to represent actual time spent in each category. Then, participants were asked to distribute the same block of time across the categories in the way they would like to spend the time. This was intended to represent ideal time spent in each category. Researchers then investigated discrepancies between the actual time spent (objective balance) and the ideal time spent (subjective balance). Scores were derived from the results of their investigations; lower discrepancies scores equaling higher balance scores. The researchers acknowledged that others have employed discrepancy assessments. Study 1 also included a measure of subjective wellbeing, psychological need satisfaction, and neuroticism. Based on their results from this phase of their study, researchers concluded that both of the proposed life balance measures were related to each other and that both were linked to subjective wellbeing. The second phase of the study (Study 2) was conducted to investigate whether or not the proposed life balance measures predicted stress related to time allocation giving the researchers a sense of the quality of the participants’ time

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distribution profiles. In Study 2, researchers employed a repeated measures design looking at within-subject effects while tracking the covariations between life balance, need satisfaction and subjective wellbeing over time. In addition, researchers investigated these three measures in relation to selected time stressors (time, money, ethnicity, gender, friendship, religiosity, work, appearance, travel, security, and parents). In their analysis of Study 2, Sheldon et al. found that changes in the life balance measures (objective and subjective) were linked to changes in subjective wellbeing. Also, a link was reported between one of the life balance measures (subjective balance) and psychological need satisfaction. An additional link was reported between the other life balance measure (objective balance) and reduced time stress but not the other sources of stress. The remaining two phases of the four part study were conducted to support the first two phases of the study. In the third phase of the study (Study 3), researchers utilized a different type of time allocation assessment. According to the researchers, the results from Study 3 replicated the findings from Studies 1 and 2. They concluded that “the replication of the findings using this new measure supports our assumption that the objective and subjective balance measures represent emergent properties of participants’ total life systems, properties that might be approached via various different time-use assessment methodologies” (p. 1119). In the fourth phase of the study (Study 4), researchers asked the participants to attempt to achieve a goal, become more balanced over a specific period of time. According to the researchers, this was done to investigate if being more balanced predicted changes in the life balance measures and thus predicting changes in subjective wellbeing. The researchers found that those participants who achieved the goal experienced positive changes in the life balance measures and

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subjective wellbeing. This led the researchers to assert that individuals can improve life balance and their sense of wellbeing through their actions. Based on the results from the four studies, the researchers drew several conclusions. First, the researchers held that life balance is a meaningful, real construct with important implications for wellbeing. Next, the researchers concluded that studying life balance from a time use perspective is appropriate but that time use is not the only aspect of life balance. Last, the researchers indicated that life balance is a holistic concept and involves choice, need, and satisfaction (Sheldon, Cummins, & Kamble, 2010).

Jackson, Firtko, and Edenborough (2007) linked the achievement of life balance to resilience in nurses. The authors identified life balance as a personal strength that can be applied as a strategy to increase resilience among nurses who routinely face adversity in the workplace. The authors held that personal strengths such as life balance decreased vulnerability and enhanced the health care setting in general (Jackson, Firtko, & Edenborough, 2007).

Brooks (2009) investigated life balance in relation to work stress in corporate executives and identified life balance as a way to conceptualize the “interconnectedness of all areas of life” (p. ii). The researcher also speculated that there was a connection between life balance and work stress. Subsequently, the researcher stated that there was a growing interest in efforts to institute wellness initiatives which enhance life balance and thus reduce work stress. Furthermore, the author held that organizational change might facilitate the development of work environments that promote life balance. In the study, the researcher utilized two assessment tools: a wellness inventory and a measure of stress or pressure. The researcher investigated possible links between the mental and physical

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stress reported by the participants and six domains of wellness (physical, occupational, spiritual, intellectual, emotional, and social wellness) drawn from the work of Hettler (1984). The researcher construed the six wellness domains as aspects of life balance. According to the researcher, social balance and spiritual balance were expected to be the strongest predictors of work stress. Analysis of the results did not indicate social wellness to be a significant predictor of mental wellbeing among the participants. However, spiritual wellness was shown to be a significant predictor of physical wellness. Emotional wellness was found to be the most significant predictor of both physical and mental wellbeing. Spiritual and occupational wellness was also predictors of physical and mental wellbeing to a lesser degree. The researcher concluded that specific aspects of life balance (emotional, spiritual, and occupational wellness) play a central role in mediating work stress (Brooks, 2009). The results of this study have implications for helping professionals when working with individuals who report decreased mental and physical wellbeing due to work stress.

Ward (2009) investigated possible associations between intrinsic capacity, job performance, workplace coaching, and perceived life balance. Ward found a link, although not a consistent one, between intrinsic capacity and individual perception of general health and life balance. *Intrinsic capacity* was defined as “the general capacity to value the individuality and uniqueness of oneself and others” (p. 6). *Perceived life balance* was defined as “the degree that individuals feel their work roles, family roles, and overall quality of life are balanced and not conflicting with each other” (p. 19). The findings in this study regarding the significance of an individual’s perception of life balance appeared to support the conclusions of the researchers in the study mentioned

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earlier by Kuhnle, Hofer and Kilian (2010) regarding the significance of believing that one's life is balanced. Recall also that Wagman et al. (2011) indicated that life balance was individually defined to an extent. Taken in conjunction, one could infer that life balance is defined in some way by an individual's belief or perception, differing from individual to individual.

Longfield, Romas and Irwin (2006) conducted a study with graduate students to gain a better understanding of the students' perspectives on how their graduate school experience affected their self-worth and their participation in physical and social activities. Although life balance was not part of the study focus specifically, the researchers did make a number of assertions regarding the importance of life balance. First, the researchers stated that changes to an individual's wellness perspective could affect an individual's sense of wellbeing and life balance. Second, the researchers indicated that interventions were needed to assist graduate students to "create balance in their lives" and thus "enhance their quality of life, wellness and social equity" (p. 291).

Iwasaki, Mactavish and Mackay (2005) investigated leisure as a contributing factor to resilience and as a coping strategy to combat stress. The researchers held that purposeful engagement in leisurely activities created situations that encouraged life balance. Leisure was also viewed as an avenue to personal renewal and contributed to resilience. The participants in the study were drawn from diverse groups (Aboriginal individuals with diabetes, individuals with physical disabilities, older adults with arthritis, gays and lesbians, and a group of professional managers). According to the researchers, participants identified leisure as a coping strategy that enhanced life balance. The Aboriginal participants reportedly viewed coping from a holistic perspective involving

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the mind, body and spirit, citing traditional dancing as an effective means of improving or maintaining life balance as well as laughter. One participant from the group of older adults with arthritis identified volunteering as a form of leisure activity that supported life balance, helping others as they too have been helped. The findings reported by the researchers involved active engagement by the participants (Iwasaki, Mactavish, & Mackay, 2005). These findings are in line with those reported by Gropel and Kuhl (2009) in which participants possessing an action orientation as opposed to a state orientation were better able to maintain life balance. In other words, life balance may be achieved, enhanced or maintained through conscious effort.

Life Balance and Wellbeing or Wellness

A number of researchers examined life balance in relation to wellbeing or wellness. Researchers Kuhnle, Hofer and Kilian (2010) viewed life balance as “an essential feature affecting wellbeing” (p.251) in their study involving adolescent students. Donatelle et al. (1998) argued that a negative change in one or more of life’s domains such as the physical or emotional domains could have a significant impact on an individual’s life balance and wellbeing (as cited in Longfield, Romas, & Irwin, 2006). Connolly and Meyers (2003) described life balance as an essential component for enhancing individual wellness. Life balance was recognized by Gropel and Kuhl (2006) as a key indicator of wellbeing and health.

Others have drawn connections between health and wellbeing. Health is a fluid construct comprised of various components including mental and physical health which influence wellbeing (Corse et al., 1992). When these components are balanced in the life of an individual, wellbeing may be enhanced. According to Myers (1991), individuals

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experience higher levels of wellness or an enhanced sense of wellbeing when they lead more balanced lives.

Matuska (2010) suggested that further exploration of the life balance construct may yield important information that had potential for improving health and wellbeing. The researcher speculated that life balance and wellbeing were linked through need satisfaction. However, the researcher also pointed to a lack of research on the life balance construct and only limited empirical support of how it may be connected to health and wellbeing. Sheldon, Cummins and Kamble (2010) investigated possible connections between life balance, wellbeing and psychological need satisfaction. In their multiphase study designed to test two proposed measures of life balance, objective balance and subjective balance, the researchers found that wellbeing was influenced by need satisfaction associated with life balance. The study was unique in that the researchers' findings were supported through concurrent, longitudinal, and cross-cultural methods (Sheldon, Cummins, & Kamble, 2010). Hayward et al. (2002) also reported a link between life balance and need satisfaction.

According to Pentland and McColl (2008), occupational therapists have an intuitive understanding of life balance as a predictor of wellbeing. Wagman et al. (2011) stated that associating "a life in balance" with health and wellbeing is not uncommon (p. 410). However, the researchers pointed out that understanding of life balance is limited at present. In their study of working adults in Sweden, the researchers found that life balance is health related and was described as a "sense of wellbeing" (p. 414).

Brooks (2009) stated that possible connections between wellbeing or wellness and life balance are of growing interest to individuals and organizations. The researcher

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observed that according to Archer, Probert and Gage (1987) wellness is increasingly seen as being facilitated by life balance (as cited in Brooks, 2009). In a study on life balance and work stress, the researcher found that both physical and mental wellbeing was enhanced by increased life balance (Brooks, 2009).

Balance Defined

Greenhaus, Collins, and Shaw (2003) found disagreement or lack of clarity within the literature in regard to the balance construct. Moreover, the authors stated that there were inconsistencies among definitions of balance, that measurement of the balance construct was “problematic” (p. 511), and that refinement of the construct is needed in order for research to proceed.

A number of authors have proposed definitions of the balance construct. Pentland and McColl (2008) stated that “balance is a dualistic concept; one is either balanced or not” (p. 135). Taking a somewhat more spiritual stance, Garrett and Carroll (2000) defined balance as a state of being in harmony with the universe. More recently, DiRenzo (2010) defined balance as “harmony among life roles (p. 53).

Clark (2000) maintained that balance is tied to satisfaction. In a later study, the author expanded the definition of balance further by stating that balance is related to the level of comfort an individual experiences with the amount of time and energy devoted to the life domains of work and home. The author held that balance is a result of the ways in which an individual manages aspects of the environments the individual has created or in which the individual functions (Clark, 2002).

Niles, Herr and Hartung (2001) defined balance as “effective participation in life roles that are central to one’s self-concept” (p. 8). The authors stressed the idea that a

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“balanced life” is individually defined (p. 9). The authors addressed role balance and referenced the work of Super. In their summary and throughout the monograph, the authors use the terms balance and life balance along with the phrases balanced life and balanced living.

This is yet another example of how these terms were used synonymously. Others have addressed this issue of fluid terminology as well (Pentland & McColl, 2008; Wagman et al., 2011). Balance was examined from a number of perspectives and in relation to a wide array of constructs. The term balance was described as something that can be obtained and also as an action or a descriptor. Some believe that balance is created when there is an absence of conflict between life roles (Frone, 2003). Valcour (2007) posited that balance comes from the ability to successfully meet life’s demands and handle conflicts.

Balance Studies

Balance was studied in much the same manner as life balance (e.g., in relation to other constructs). Researchers often focus on balance between one construct and another (e.g., balance between work and family). In general, balance is seen as desirable and is related to or viewed as promoting good health, wellness or wellbeing. However, balance is not viewed without controversy. From a feminist viewpoint, the concept of balance is linked to equity and justice which can be near impossible to achieve for marginalized groups within the United States (Parker & Almeida, 2001).

Menninger (1963), in reference to physio-psycho-social balance, described balance as crucial and stated that “organisms strive for a state of balance” (p. 107). Kofodimos held that balance or a balanced life included “a satisfying, healthy, and

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productive life that includes work, play, and love” (Kofodimos, 1993; p. xiii). From a Native American point of view, balance is connected to good health. In their traditional view, good health is described as “ being in balance/equilibrium, having a sense of harmony, and not being out of control of spiritual, cognitive, emotional, and physical domains” (Yurkovich & Lattergrass, 2008: p. 437).

Williams-Nickelson (2006) looked at self-care among women and balanced living. The author held that making self-care part of their routine, creates a sense of balance and contributes to good health in women. Last, Williams-Nickelson maintained that balance is gained by engaging in work that has purpose and meaning, positive relationships, and personal renewal. Scott (2006) investigated wellness and balance in a study involving women and reported that among the female healthcare workers who participated in the study, continuing education was identified as contributing to a sense of wellness and balance.

Bockrath (1999) studied the experiences of counselors in relation to wellbeing. According to the researcher, participants reported that they cultivated a sense of wellbeing through a process they described as maintaing balance. Balance was defined by the participants as managing all aspects of their lives which was often done without conscious effort.

A number of researchers investigated balance between work and family or personal life. Firm relationships or links between wellbeing and the ability to balance work and life were established (Gropel & Kuhl, 2009). Kalliath and Brough (2008) found disagreement within the literature on the meaning of the term work-family/life balance. The authors concluded that the utility of current instruments to measure the

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construct was limited and was due, in part, to confusion or lack of clarity regarding the construct. The authors redefined work-life balance as the “individual perception that work and non-work activities are compatible and promote growth in accordance with an individual’s current life priorities” (p. 326). Others suggested that balance between work and personal life were essential to career success (Friedman & Greenhaus, 2000).

Loretto et al. (2006) indicated that an equitable balance between work and private life supports good health. Balance between the two constructs contributes to job and life satisfaction, quality of life, and reduced stress levels; the reverse was also found.

Imbalance can contribute to dissatisfaction, increased stress, and poorer quality of life (Allen, Herst, Bruck, & Sutton, 2000; Aryee, 1992; Grant-Vallone & Donaldson, 2001; Greenhaus, Collins, & Shaw, 2003; Kosseck & Ozeki, 1998; Noor, 2004). A lack of balance in regard to work and life can be problematic for employees and employers. The problems or consequences can be quite serious for both (Hobson, Delunas, & Kesic, 2001). Wellbeing, careers, and relationships can be effected when work and life are out of balance (Neault & Pickerell, 2005). Establishing a balance between work and family is beneficial in several ways including physical and psychological health in adults. Researchers held that work and family influences are interrelated and inescapable. This perspective appears to be widely accepted (Marcus-Newhall, Halpern, & Tan, 2008).

Wellbeing and Wellness Defined

Both wellbeing and wellness were studied in connection to other constructs (e.g., social support, affect, health) and were used synonymously or in conjunction with each other. Both are reported to be multidimensional (Loretto, et al., 2005; Meyers & Sweeney, 2005; Miquelon & Vallerand, 2008; Roothman, Kirsten, & Wissing, 2003;

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Wissing & van Eeden, 2002). However, unlike life balance or balance, wellbeing and wellness were studied extensively with an explosion of interest over the last three decades in both the scientific and popular press. A number of studies included the concept of balance or balanced living in order to promote wellbeing or wellness.

Definitions of wellbeing and wellness share similarities as well. Basing their view of wellbeing on the work of Maslow and Rogers along with others, Ryff and Keyes (1995) defined wellbeing in terms of happiness and satisfaction with life. Waterman (1993) viewed wellbeing as a holistic concept including all aspects of one's life and values. Ryan and Deci (2001) defined wellbeing as optimal functioning. Dunn (1961) provided an early definition of wellness as "an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable. It requires a continuum of balance and purposeful direction within the environment where he is functioning" (p. 4). Hettler (1984) defined wellness as "an active process through which people become aware of, and make choices toward, a more successful existence" (p. 14) and created a well known model of the construct. Archer, Probert and Gage (1987) defined wellness as "the process and state of a quest for maximum human functioning that involves the mind, body and spirit" (p. 311). More recently, wellness was defined by Myers, Sweeney and Witmer, (2000) in the following manner:

"a way of life oriented toward optimal health and wellbeing, in which body, mind, and spirit are integrated by the individual to live life more fully within the human and natural community. Ideally, it is the optimum state of health and wellbeing that each individual is capable of achieving" (p. 252).

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Based on these definitions, wellness and wellbeing share definitive elements. Often, the definitions involve functioning, interaction within specific environments, and relationships to health. Many are holistic in perspective and encompass many facets or aspects of life domains (Wissing & van Eeden, 2002). Waterman (1993) stated that wellbeing occurs when people's lives and values are holistically or fully engaged. Some definitions and models emerged from authors and researchers who examined wellbeing or balance from non-traditional or non-Western perspectives. Wallace and Shapiro (2006) examined mental balance and wellbeing. The authors proposed a model of wellbeing based on a blending of Buddhist and Western traditions in which wellbeing is achieved through four types of mental balance: conative, attentional, cognitive, and affective. Native American views of wellness place special significance on balance between the areas of spirit, body, mind, and environment. In other words, mental health is a result of balance and harmony among these areas (Hodge, Limb & Cross, 2009).

Wellbeing and Wellness Studies

Wellbeing and wellness were studied in relation to a number of constructs as well. A significant amount of research was identified that supported links between wellbeing and physical and mental health.

Ramsay (2010) maintained that many people develop a sense of general wellbeing through balancing certain aspects of their lives: gaining confidence in their ability to achieve goals and gaining a sense of connection through positive relationships with others. Adams (1988) examined possible links between psychological wellbeing and friendship. While the researcher reported a link between psychological wellbeing and friendship, it was unclear as to how this relationship developed. Glover and Parry

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(2008) held that friendships appeared to be a significant factor in health and wellbeing in their study involving women who formed friendships after a stressful life event.

Green, Hayes, Dickinson, Whittaker, and Gilheany (2002) investigated links between wellbeing and social relationships in a qualitative study of mental health service consumers. The authors pointed out that social support is associated with wellbeing among the general population as well as among persons with mental illness. The researchers defined social support as a multifaceted construct including areas such as companionship, community activities and close relationship. The researchers held that social contacts that were sometimes positive and negative influenced mental health as did close social relationships. In addition, participants reported loneliness to be a significant factor influencing mental health and wellbeing. Researchers also found a lack of balance in relationships over time due to mental health problems. The authors reported that findings related to social support and wellbeing were inconsistent but that part of the problem has been the quantitative methodologies employed to examine links between the two constructs (Green et al., 2002). Jung (1997) looked at social support and balance in relation to wellbeing. Jung maintained that balance between giving and receiving was given little attention in the literature. The researcher hypothesized that the balance between giving and receiving support may be connected to wellbeing and that the level of balance may influence wellbeing. Based on his findings in the study, Jung (1997) reported the link between support and wellbeing does not depend on equal amounts of giving and receiving support.

Miquelon & Vallerand (2008) found a relationship between wellbeing and physical health. Within the study, the researchers investigated what they described as two

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types of well being, happiness and self-realization. The researchers proposed a model that connected these two types of wellbeing to goal motivation and physical health. After testing the model, the researchers concluded that self-realization was an essential type of wellbeing that promoted physical health.

Wissing and van Eeden (2002) examined another type of wellbeing, psychological wellbeing. The researchers found that psychological wellbeing is multifaceted, involving various aspects of self including affect, cognition and behavior. In addition, they held that psychological wellbeing is expressed in multiple areas of one's life including love, work and play. Further, Wissing and van Eeden stated that a balance among these aspects and areas was connected to a healthy lifestyle. Wissing and van Eeden acknowledged that there were an array of diverse conceptualizations of this type of wellbeing. A review of literature conducted by the researchers led them to the conclusion that there was a lack of acceptance of theories on the nature and dynamics of wellness which they described as "optimal psychological functioning" (p. 32). This definition of wellness is akin to the definition of wellbeing as optimal functioning posited by Ryan and Deci (2001). Ryan and Deci speculated that psychological wellbeing and wellness may be experienced or expressed individually. This speculation is similar to the assertions of Wagman et al. (2011) that life balance is individually defined.

Cantor, Kimmelmeier and Basten (2002) described one type of wellbeing as personal wellbeing. The researchers indicated that personal wellbeing and resilience are based in part on an individual's ability to achieve personal goals via life tasks and interaction within social environments. Based on their research, they concluded that individual resilience is tied to balance in life task participation.

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DiRenzo (2010) examined the work-life balance construct for potential contributions to individual wellbeing. The researcher noted that a large amount of the extant research dealt with the negative impact of a lack of balance between aspects of work and life which led to a decrease in individual wellbeing. Based on the results of the study the researcher held that although work-life balance was shown to be linked to individual wellbeing, the construct was more directly related to life satisfaction.

Summary of Review

Based on this review, it was clear that research on life balance as a unified construct was limited. Life balance was studied in connection to a number of constructs (e.g., self-regulation, coping, stress, leisure, behavior or activity, time allocation, satisfaction, resilience, work, etc.). In the main, a limited consensus existed about the construct. Life balance was viewed as a multidimensional construct which was individually defined. Attaining or maintaining life balance required a measure of agency. Life balance was linked to health and wellbeing or as a component of overall wellness. However, some held that the construct was not fully developed, defined, or understood.

Balance as a related construct was included in this review. Balance was investigated or written about by a number of researchers or authors most often in conjunction with other constructs. Life balance and balance shared definitive elements. The terms were often used synonymously or interchangeably.

A review of studies which connected life balance or balance to wellbeing or wellness was also included. Both life balance and balance were linked to mental and physical wellbeing as was overall wellness. The constructs were viewed as interconnected or essential, one to the other.

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In general, understanding and conceptualization of life balance was found to be somewhat fragmented. Few quantitative measures of the construct existed. Although some consensus on the life balance construct was found, many have called for further investigation of the construct.

Chapter III

Methodology

Within this chapter, the design of the study is detailed along with the specific methods utilized. Also included is a detailed account of the sample population. The process of data collection is described as well as the instrumentation used in the study. The steps taken to analyze the data are listed along with the techniques incorporated in the analysis. The chapter is concluded with a brief summary.

Participants

The participants in this study were both male ($n = 178$) and female ($n = 168$). Participant age range was 18 to 67 with only two participants failing to respond to the demographic query, $M = 30.28$, $SD = 10.64$. Participants reported a variety of educational levels ranging from high school to graduate school. Education demographics were reported as follows ($N = 339$): Bachelors 33.6%, Some College 29.8%, High School 29.5%, Masters 4.7%, Middle School 2.1%, and Doctorate .3%. A total of 7 participants or 2% of the sample did not respond to the demographic query. The following demographics on ethnicity were reported: Hispanic 47.1%, White 36.7%, Black 8.4%, Native American 1.4%, Asian 1.2%, and Other 4.6%. Additional demographics were collected on sexual orientation ($N = 319$): Heterosexual 88.4%, Bisexual 4.1%, Lesbian 1.9%, Gay 1.6%, and Other 4.1%. A total of 27 participants or 7.8% of the sample did not respond to the demographic query. Responses to the marital status query were as follows: Single 53%, Married 21.7%, Divorced 7.5%, Living Together 7.5%, Separated 3.5%, Never Married 2.9%, Partnered 2.6%, and Widowed 1.2%.

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The sample for the study ($N = 346$) was drawn from clinical settings (e.g., counseling centers) and non-clinical settings (e.g., colleges and universities). The number of participants from clinical settings was 180 or 52% of the sample. The number of participants from nonclinical settings was 168 or 48% of the sample. Participants drawn from academic settings consisted of graduate students enrolled in counseling programs and undergraduates in business programs. Both institutions of higher learning were state schools located in metropolitan areas of South Texas serving diverse populations with average enrollments of 11,000 and 32,000 students.

Participants drawn from community mental health settings were clients in those settings. One data collection site was a college counseling center at a university in the southeastern United States. The clinical settings also included sites that offer recovery assistance in the form of counseling for those struggling with substance abuse issues. Four of the clinical sites were located in South Texas. One of the sites is a 171 bed drug and alcohol rehabilitation facility providing a complete spectrum of care for adults, including medical detoxification, residential treatment, and outpatient programs. Another provides long-term residential care to adult men with a history of chronic drug and/or alcohol abuse. Services consist of comprehensive drug treatment and support services including primary health care, drug/disease prevention and education, vocational preparation and job placement, family services, housing and aftercare services. The remaining two clinical sites offer outpatient programs and group meetings for alcohol and drug abuse rehabilitation. All clinical sites were nonprofit organizations. Participants were adults over 18 years of age and all participation was voluntary.

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Measures

The measures utilized in this study, the JBLI and the OQ-45.2, are self-report instruments. The JBLI was used as a proposed measure of the life balance construct. The development of accurate tools or instruments to measure the life balance construct will facilitate further understanding of the construct. The OQ-45.2 is widely used to assess functioning. The instrument was used in the study to establish concurrent validity.

Juhnke Balkin Life-balance Inventory. The JBLI consists of 91 items with responses arranged on a Likert scale. Possible responses range from *Strongly Agree*, *Agree*, *Neither Agree nor Disagree*, *Disagree*, and *Strongly Disagree*. Items are written as declarative statements. Participants indicated their agreement or disagreement with the statements by selecting the response that most closely reflects their feeling about the statement.

The items on the JBLI were developed by the authors in an attempt to assess the various domains of life balance. The authors of the JBLI consulted with eight experts during the item development phase. All the expert reviewers held doctoral level degrees and were identified as having extensive clinical experience and having engaged in scholarly activities within the field of professional counseling. The reviewers were asked to rate the relevance [i.e. *highly relevant to domain* (4), *relevant to this domain* (3), *neither relevant nor irrelevant to domain* (2), *irrelevant to domain* (1), or *highly irrelevant to domain* (0)] of each of the seven question stems within the twelve domains included in the JBLI. The domains include Mood, Stress, Physical, Exercise Health & Nutrition, Sleep, Social-Interpersonal, and Marriage-Significant Other, Sexual and

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Intimacy, Work-Career, Spirituality- Religious, Happiness, Hopelessness-Helplessness, and Substance Abuse- Addictions.

A number of these domains were reported as being indicators of mental health when in balance and indicators of poor mental health when imbalanced. The Social-Interpersonal domain includes role and relationship balance which were shown to be influential to mental health (Glover & Parry, 2008; Green, Hayes, Dickinson, Whittaker, and Gilheany (2002). The Mood domain included affect balance which was reported as essential to mental health by Gropel and Kuhl (2009) as well as the ability to cope with stress. Balance between work-career and personal life was found to be crucial in maintaining life balance (Loretto et al., 2006). The JBLI domains were developed to be inclusive of the areas of work, love, and play or leisure, and include assessment of substance abuse. The experts recorded their ratings on an expert reviewer form and returned them. The information from the reviewers was utilized to refine the items.

OQ-45.2. The OQ-45.2 consists of 45 items with responses arranged on a Likert scale. Possible responses range from *Never, Rarely, Sometimes, Frequently, and Almost Always*. The OQ-45.2 is designed as a measure of client functioning over the course of therapy. The OQ-45.2 assesses functioning on 3 subscales: Symptom Distress, Interpersonal Relations, and Social Role. The Symptom Distress subscale was designed to screen for anxiety, depression, and substance abuse. The Interpersonal Relations subscale was designed to measure the degree of satisfaction with interpersonal relationships or the severity of problems within these relationships. An additional item in this subscale screens for substance abuse. The Social Role subscale was designed to

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assess levels of discontent or distress in regard to the areas of work, love, and leisure.

These three areas have been found to be indicators of life satisfaction

(Lambert, Gregersen, & Burlingame, 2004).

In the present study, the OQ-45.2 was used to establish evidence of concurrent validity with the JBLI. Lambert et al. (1996) reported the 3-week test-retest reliability to be .84. Individual subscale scores from normative samples were shown to have high to moderate estimates of internal consistency with the Symptom Distress subscale at .92 and the Interpersonal Relations and Social Role subscales at .74 and .70 respectively.

The OQ-45.2 was developed as a baseline screening tool. Normative data was collected from nonclinical samples across the United States including college students, community members, and business professionals. Clinical samples were drawn from a number of settings including outpatient facilities, community counseling centers, and university counseling centers. Participants ranged in age from 18 to 80 years old. The sample for this study was drawn from clinical and non-clinical populations somewhat similar to those used in norming the OQ-45.2.

Procedures

Institutional Review Board approval for this study was granted and agreements to participate in the study were secured from the data collection sites. Data collection sites for the non-clinical sample consisted of two universities in Texas. Data collection sites for the clinical sample consisted of one university counseling center in North Carolina and four counseling centers in Texas. After signing informed consent, participants completed the JBLI and the OQ-45.2 in a paper and pencil format. All participation was

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voluntary. In addition, basic demographic information was collected from participants in the study: age, sex, race/ethnicity, marital status, sexual orientation, and education.

Non-probability (i.e., convenience) sampling was employed in this study. In order to determine whether or not the JBLI is designed in such a manner as to be able to discriminate between healthy and unhealthy individuals, the sample was drawn from clinical and nonclinical settings as described earlier. No participants were excluded from the study. Sample size for this study was determined by the need for adequate statistical power. Power is dependent upon sample size (Stevens, 2007). Adequate power is difficult to achieve with small samples. Stability is another important factor. A sample of 300 or more in factor analysis is considered sufficient for stable factor structures (Meyers, Gamst, & Guarino, 2006). Generally speaking, increased sample size reduces the potential for error. A number of guidelines are published with regard to sample size and factor analysis. Often, the guidelines are based on a formula of the number of participants and the number of items. For instance, some suggest a minimum of 10 participants per item (Everitt, 1975) while others simply call for large samples of several hundred (Cureton & D'Agostino, 1983). Comrey and Lee (1992) rated sample sizes of 300 to 500 as adequate to above adequate and Cattell (1978) recommended three to six subjects per item. This study had a total *N* of 346 and the JBLI consists of 91 items, placing the sample within Cattell's guideline and one of adequate size according to Comrey and Lee.

Data Analysis

In order to gather evidence of the potential reliability and validity of the JBLI, exploratory factor analysis (EFA) was conducted. Using EFA facilitated the

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identification of underlying factors from a set of variables. It also allowed for the identification of correlations between factors and variables as well as correlations among factors.

In this EFA, an oblique rotation (Promax) was used. Factor rotation simplifies the factor structure and aids in interpretation. Oblique rotation is used when researchers hypothesize that the factors will be correlated rather than orthogonal or uncorrelated. This common rotation method was selected because it is hypothesized that the factors that emerge will be correlated since they are intended to measure a single construct, life balance. In addition, the oblique rotation was selected because this study is categorized as social science research and this strategy is consistent with social science research.

Promax is a common factor rotation method in EFA. The initial orthogonal solution is used as a basis for the Promax rotation providing the ideal oblique solution (Dimitrov, 2009). Two rules or guides were used to determine what factors are retained, Eigenvalues greater than 1 and an examination of scree plots. Once retained factors were established, estimates of reliability were derived based on scores on the various factors which were then the subscales of the JBLI. Cronbach's alpha was used to establish these estimates and further investigate the internal consistency of the scale.

Differences between the clinical and non-clinical samples were examined. For this study, I hypothesized that the clinical samples would exhibit decreased or lower life balance scores. I also hypothesized that scores from the JBLI subscales would correlate with the appropriate subscales of the OQ-45.2.

Evidence of relation to other variables which is included in the standards of validity and reliability as outlined by Goodwin and Leech (2003) and published in the

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1999 Standards for Educational and Psychological Testing (AERA et al., 1999) was investigated to address differential item functioning (DIF). I hypothesized that scores between the two samples would be significantly different, providing evidence of discriminant validity for the JBLI. Effect sizes were reported as well. Initial estimates of the validity of the internal structure of the JBLI were derived from the factor analysis, the DIF, and the extent to which the JBLI and the OQ-45.2 scores correlate.

Exploratory factor analysis is essential to instrument development. Reliability and validity are important concerns in the development of instruments and study design (Creswell, 2009; Dimitrov, 2009; Heppner, Wampold, & Kivlighan, 2008). The establishment of the psychometric properties of an instrument is crucial (Heppner, Wampold, & Kivlighan, 2008). Dimitrov (2009) indicated that EFA is an accepted procedure in instrument validation. The EFA was conducted on the JBLI in accordance with accepted statistical procedures and the Statistical Package for Social Sciences (SPSS) was used to assist in the analysis. The resulting data was analyzed and the results are presented in the following chapter. A comparison of the clinical and nonclinical samples is included in the analysis. Multiple regression was utilized to address the relationship between the two instruments (AERA et al. 1999).

The two instruments, the JBLI and the OQ-45.2, were used in conjunction to establish evidence of parallel reliability and concurrent validity. Internal consistency is another important concern in instrument development. Establishing evidence of internal consistency for the JBLI is a major focus of this study. This type of reliability is measured by the average correlation among items on a single administration of an instrument (Dimitrov, 2009). Evidence based on the internal structure is related to the

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construct or constructs under examination. This type of evidence reveals the extent to which the internal components of an instrument relate to the construct. An estimation of the validity of the internal structure of a test can be derived through exploratory factor analysis. This type of evidence is especially important in instrument development. Since little is known about the life-balance construct, evidence of solid internal structure of an instrument designed to measure the construct is crucial.

The methodology utilized within this study was consistent with current standards and rigor within social science research as well as accepted methods for instrument validation using classical test theory (AERA et al., 1999). Methods included exploratory factor analysis, reliability analysis of scales, *t* tests of clinical and nonclinical samples, and correlational analysis of the two instruments in the form of multiple regression. Results from statistical tests along with tables of relevant data are presented in the following chapter.

Chapter IV

Results

This chapter consists of the results obtained from utilizing the methodology detailed in the preceding chapter. The results are presented in narrative format along with the relevant data and tables. Scales derived from exploratory factor analysis of the JBLI are listed along with a description and the appropriate analysis (i.e., estimates of reliability). The results from reliability analysis of the OQ-45.2 scales were included along with correlational analyses (i.e., multiple regression) of the JBLI and the OQ-45.2. Demographic information was examined as well. The chapter concludes with a brief summary.

The data utilized in the study were derived from a single administration of the Juhnke-Balkin Life Balance Inventory ($N = 356$) and the OQ-45.2 ($n = 253$). Ten cases were removed from the JBLI data set due to nonrandomized omissions on the instrument reducing the initial sample to $N = 346$. The remaining data set consisted of 168 female and 178 male participants. Mean imputation for randomized omissions on the JBLI was performed, consisting of approximately 3.25% of the values in the final data set. No additional adjustments were made to the data set.

An exploratory factor analysis (EFA) using the Principle Axis method with a Promax rotation was conducted on the data derived from the JBLI. This was done to assess evidence of internal structure and identify factors for scale development. Results from the EFA serve as the basis for establishing initial evidence of validity of the internal structure of the JBLI, the first of the hypotheses guiding this study.

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Eleven factors were retained and a corresponding number of scales were created accounting for approximately 49% of the variance in the model. The identification of the eleven factors was based on factor loadings of .40 or greater. Cross loading was addressed by evaluating individual item content. Of the 91 original items included on the JBLI, 15 were eliminated. Two of the eliminated items failed to load on a single factor. The remaining items eliminated loaded on at least one factor but were deemed theoretically inconsistent with the majority of items loading on that factor. The eliminated items are catalogued in Appendix A. The items retained were catalogued by scale with reversed scored items noted and are listed in Appendix B.

The first of the eleven scales is *Affect Positivity*, describing a sense of happiness and a generally positive outlook. The second is *Global Health* which includes both physical and mental health perception. The third scale retained is *Quality of Relationships* which can be understood as satisfaction with the number and quality of significant relationships. The fourth is labeled *Substance Use/Abuse* referring to the use or abuse of drugs and alcohol or the consequences and frequency of the use or abuse of substances. Fifth is *Spiritual Support* defined as comfort and support derived from spiritual or religious beliefs. The sixth scale created is *Sleep Disturbance* which includes quality and amount of rest along with sleep patterns or interruption. The seventh scale is *Stress/Anxiety* which deals with coping, impact of stress, anxiety levels and feelings of loneliness. Developed as the eighth scale, *Sex/Intimacy*, describes the frequency and quality of sexual experiences and levels of intimacy. *Career*, the ninth scale, includes career or work efficacy, congruence, and satisfaction. Tenth is *Physical Discomfort*, a measure of the frequency and impact of physical pain. The last and eleventh scale is

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labeled *Friendship*, covering quality of existing friendships and the ability to make friends or be a friend to someone.

Each scale contributed to the amount of variance explained in the model.

Individual scale contributions were as follows: Affect Positivity 23.7%, Global Health 4.8%, Quality of Relationships 4%, Substance Use/Abuse 3%, Spiritual Support 2.7%, Sleep Disturbance 2.4%, Stress/Anxiety 2.2%, Sex/Intimacy 1.8%, Career 1.6%, Physical Discomfort 1.5%, Friendship 1.4%

Further analysis was conducted to establish initial estimates of reliability of the instrument scale scores from the normative samples using Cronbach's alpha. Scales were found to have moderate to high estimates of reliability ranging from .76 for *Physical Discomfort* to .91 for *Affect Positivity*. Table 1 contains the results from reliability analysis of the individual scales developed from the factor analysis of the JBLI.

Table 1. Estimates of Reliability of the JBLI scales (N =346).

Scale	M	SD	<i>a</i>
Affect Positivity	3.97	.70	.91
Global Health	3.76	.81	.88
Quality of Relationships	3.62	.82	.88
Substance Use/Abuse	3.55	.95	.78
Spiritual Support	3.87	.82	.83
Sleep Disturbance	3.08	.85	.83
Stress/Anxiety	3.21	.75	.82
Sex/Intimacy	3.54	.56	.81
Career	3.83	.62	.77
Physical Discomfort	3.37	.92	.76
Friendship	3.98	.73	.77

Reliability analysis was also conducted on the scales of the OQ-45.2. Results from the analysis were similar to those reported by the authors of the instrument and by the authors of a replication study utilizing the OQ-45.2. The following table (Table 2) consists of the results from the reliability analysis of the OQ-45.2.

Table 2. Reliability analysis of the OQ-45.2 scales.

Scale	M	SD	<i>a</i>	OQ45.2
Symptom Distress	28.46	15.70	.93	.92*
Interpersonal Relations	12.38	55.82	.84	.74*
Social Role	10.40	4.76	.66	.70*

*Note: Published alpha of OQ45.2

To determine if the JBLI was created in a manner that allowed for differentiation, clinical and nonclinical samples were compared via *t* tests. Independent-samples *t* tests were conducted by scale to determine if participants in the clinical sample scored lower on the JBLI indicating a lesser degree of life balance than those in the nonclinical sample. With experiment-wise Type 1 error rate of .05, a Bonferroni adjustment was conducted to control for inflated Type 1 error. Statistical significance was identified at .005. Six of the eleven tests were significant providing evidence that the items within the six scales significantly differentiate between clinical and nonclinical populations. Homogeneity of variance assumptions were not met for Quality of Relationships. Thus, *t* tests were adjusted due to unequal variances. Analysis of results supports the study hypothesis that the JBLI discriminates between clinical and non-clinical populations. Table 3 contains results from those tests along with effect sizes which ranged from quite small at .01 on the Sex/Intimacy scale to large at .95 on the Substance Use/Abuse scale.

Table 3. Results of *t* tests of clinical and nonclinical samples with effect sizes.

Scale	<i>t</i>	<i>p</i>	<i>d</i>
Affect Positivity*	4.26	<.001	.45
Global Health	-.58	.56	.06
Quality of Relationships*	3.15	.002	.33
Substance Use/Abuse*	-8.81	<.001	.95
Spiritual Support	1.49	.14	.15
Sleep Disturbance	-2.13	.03	.22
Stress/Anxiety	-2.29	.02	.25
Sex/Intimacy	-.19	.85	.01
Career*	3.72	<.001	.39
Physical Discomfort*	-5.54	<.001	.59
Friendship*	4.47	<.001	.49

**p*<.005

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Three multiple regressions were conducted in this study to investigate correlations between OQ45.2 scales and JBLI scales. Results from the regression analyses confirm the study hypothesis that evidence of relationships to other variables exists between 9 of the JBLI scales and the three OQ45.2 scales.

The first multiple regression analysis was conducted on the JBLI scales of Affect Positivity, Global Health, Substance Use/Abuse, Sleep Disturbance, Stress/Anxiety, and Physical Discomfort and the Symptom Distress scale of the OQ 45.2. Means and standard deviations along with correlation coefficients are reported in Table 4. Alpha level was set at .05. Scores were normally distributed as were standardized residuals. Scatterplots were analyzed, and no curvilinear relationships between the criterion variable and the predictor variables or heteroscedascity were evident. Statistically significant relationships were evident between four of the JBLI scales, $F(6, 246) = 86.14$, $p = <.001$ and the OQ 45.2 Symptom Distress Scale. A large effect size was noted with approximately 68% of the variance accounted for in the model, $R^2 = .678$. Examination of two scales, Global Health and Substance Use/Abuse, failed to yield evidence of a statistically significant relationship with OQ45.2 Symptom Distress Scale.

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Table 4 contains correlation coefficients for OQ45.2 Symptom Distress scale and the JBLI scales of Affect Positivity, Global Health, Substance Use/Abuse, Sleep Disturbance, Stress/Anxiety, and Physical Discomfort.

Table 4. Correlations of OQ45.2 Symptom Distress scale to selected JBLI scales ($n = 253$).

	SyD	AP	GH	SUA	SD	SA	PD	M	SD
Symptom Distress	—	-.77	-.54	-.24	-.58	-.70	-.48	1.17	.60
Affect Positivity		—	.59	.28	.55	.67	.45	3.97	.66
Global Health			—	.05	.43	.53	.44	3.75	.78
Substance Use/Abuse				—	.18	.15	.29	3.63	.96
Sleep Disturbance					—	.56	.41	3.07	.84
Stress/Anxiety						—	.38	3.17	.70
Physical Discomfort							—	3.42	.88

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A second multiple regression analysis was conducted on the JBLI scales of Quality of Relationships and Friendship and the Interpersonal Relations scale of the OQ 45.2. Means and standard deviations along with correlation coefficients are reported in Table 5. Alpha level was set at .05. Scores were normally distributed as were standardized residuals. Scatterplots were analyzed, and no curvilinear relationships between the criterion variable and the predictor variables or heteroscedascity were evident. Statistically significant relationships were detected between the two JBLI scales, $F(2, 250) = 130.27, p = <.001$, and the OQ 45.2 Interpersonal Relations scale. A large effect size was noted with approximately 51% of the variance accounted for in the model, $R^2 = .510$.

Table 5 contains correlation coefficients for OQ45.2 Interpersonal Relations scale and the JBLI scales of Quality of Relationships and Friendship.

Table 5. Correlations of OQ45.2 Interpersonal Relations scale to selected JBLI scales ($n = 253$).

	IntRel	QoR	F	M	SD
Interpersonal Relationships	—	-.56	-.57	1.16	.65
Quality of Relationships		—	.24	3.64	.78
Friendship			—	3.99	.69

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A final multiple regression analysis was conducted on the JBLI scales of Spiritual Support, Sex/Intimacy, and Career and the Social Role scale of the OQ 45.2. Means and standard deviations along with correlation coefficients are reported in Table 6. Alpha level was set at .05. Scores were normally distributed as were standardized residuals. Scatterplots were analyzed, and no curvilinear relationships between the criterion variable and the predictor variables or heteroscedascity were evident. A statistically significant relationship was detected between the three JBLI scales, $F(3, 249) = 16.43$, $p < .001$, and the OQ 45.2 Social Role scale. A moderate effect size was noted with approximately 17% of the variance accounted for in the model, $R^2 = .165$

Table 6 contains correlation coefficients for OQ45.2 Social Role scale and the JBLI scales of Spiritual Support, Sex/Intimacy, and Career.

Table 6. Correlations of OQ45.2 Social Role scale to selected JBLI scales ($n = 253$).

	SR	SS	SI	C	M	SD
Social Role	—	-.27	-.24	-3.29	1.20	.50
Spiritual Support		—	.12	.28	3.85	.82
Sex/Intimacy			—	.27	3.53	.54
Career				—	3.85	.57

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Table 7 contains combined results for the three tests of multiple regression. Statistically significant relationships were detected between 9 of the 11 JBLI scales and the 3 OQ45.2 scales.

Table 7. Combined results of Multiple Regression Analysis.

Predictor	B	SE	β	<i>t</i>	<i>p</i>	sr ²
Symptom Distress						
Affect Positivity	-.40	.05	-.44	-7.85	<.001	.08
Global Health	-.03	.04	-.03	-.71	.48	<.001
Substance Use/Abuse	-.02	.03	-.03	-.65	.52	<.001
Sleep Disturbance	-.09	.03	-.13	-2.69	.01	.01
Stress/Anxiety	-.23	.05	-.27	-5.14	<.001	.03
Physical Discomfort	-.08	.03	-.12	-2.55	.01	.01
Interpersonal Relations						
Quality of Relationships	-.38	.04	-.45	-9.86	<.001	.19
Friendship	-.43	.04	-.46	-9.98	<.001	.20
Social Role						
Spiritual Support	-.14	.04	-.22	-4.03	<.001	.04
Sex/Intimacy	-.21	.05	-.22	-3.99	<.001	.04
Career	-.19	.05	-.21	-3.76	<.001	.04

Post Hoc Analysis

Post hoc analysis was conducted on the JBLI data set excluding the instrument items that were removed and forcing an 11 factor solution. Procedural steps were identical utilizing exploratory factor analysis, principal axis factoring, and a Promax rotation. The original factor structure was retained and 51% of the variance was explained in the new model, an increase of 2%. Ideally, a post hoc analysis of this type is conducted with a new sample. However, the post hoc analysis provides additional supporting evidence of internal structure of the JBLI using only those items retained from the original factor analysis conducted for this study.

The final results from this study were reported in this chapter. Results were derived from statistical analyses including factor analysis, reliability analysis, *t* tests of clinical and nonclinical samples, and multiple regression of JBLI and OQ 45.2 scales. The results serve as evidence of positive support in part or total for all four of the hypotheses set forth in this study. The following chapter contains a discussion of these results.

Chapter V

Discussion

This chapter contains information derived from the study. Limitations of the study are listed and explained. Implications of the information and results that followed with the culmination of the study are included. A number of perspectives was considered and reviewed with regard to the implications of the study. Suggestions for future research are included in detail. The chapter ends with a brief discussion of conclusions drawn from the study.

The primary focus of this study was the initial validation of an assessment tool. As reported in Chapter I of this study, validation is fundamental to instrument development (AERA et al., 1999). Counselors who utilize assessment tools and a variety of instruments should be confident that the materials are valid and the scores are reliable. This practice goes far to safeguard the welfare and dignity of their clients, allowing researchers to examine a wide range of phenomena and to add to the understanding of them. In short, instrument validation is one of the building blocks of the body of knowledge in counselor education.

The current understanding of validity in social science research evolved over time, changing as the nascent field of social science research matured. The field has moved from a fixed view of validity to one based almost entirely on correlation, then to a specific purpose-driven understanding of it, and on to an increasingly sophisticated approach to issues of validity. As the use of instrumentation continued to grow within the field, new concerns about validity emerged due to the sheer volume of inferences and decisions that were being made based on test or instrument scores in a number of arenas

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including therapeutic and educational settings. This was followed by attempts to deconstruct the concept of validity, dividing and labeling the construct into separate types. Others held that validity was a unitary concept. Concern about the consequences for or impact on those that take the instruments became an issue. The current view of validity appears somewhat more holistic, less narrow, and cumulative. In other words, validity is based, in part, on the preponderance of evidence.

Some of the controversy surrounding validity may be tied to how researchers speak about validity. The ways in which researchers discuss data or results may shape the way others think about data and past or outdated definitions may still be an influence. Validity is based on evidence which often consists of estimates. As perspectives and understanding of validity and other satellite issues become more sophisticated, this distinction may become more important (Goodwin & Leech, 2003). Effort was made in this study to speak to this distinction by incorporating the terms estimate and evidence in the discussion of validity and results from the study.

In this study, special attention was given to the components of validity as outlined by AERA et al. (1999) and Goodwin and Leech (2003). Prior to this study, evidence based on test content was accumulated from expert reviewers (8) who drew their conclusions from experience and theory. These professionals possess decades of combined clinical experience and published research in a number of the areas included in the instrument domains. Support for inclusion of the item domains selected by the instrument's authors was found in the literature. Researchers held that the life balance construct encompassed a wide range of domains including positive and negative affect, mental and physical health including substance use or abuse, rest, exercise, work, and

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relationship quality and type. The test content component of validity is also central to test development and was sufficiently addressed in this study. The majority of the original instrument items were retained after analysis.

The scales which were developed as result of statistical analysis were based on existing or practical concepts. Some were considered psychological domains while others can be described as interpersonal or physical. The Affect Positivity scale includes aspects of happiness, optimism, future orientation, and positivity which may be related to self-efficacy. Others have noted that self-motivation was a component of life balance and may be tied to efficacy. This concept is in line with other researchers who found that life balance was viewed as a personal strength. The scale also includes elements of perception. Development of the scale was based on multiple theoretical perspectives (e.g., Brooks, 2009; Gropel & Kuhl, 2006; Hayward et al., 2002; Jackson et al., 2007; Ramsay, 2010; Ward, 2009). The Global Health scale was designed to evaluate elements of mental and physical health from an individual perspective as well as the perspective of significant others. Positive health in both areas was reported as being connected to or influential to life balance (Hayward et al., 2002; Miquelon & Vallerand, 2008; Yurkovich & Lattergrass, 2008; Wagman et al., 2011; Wissing & van Eeden, 2002). Substance Use/Abuse was included as this area can negatively impact quality of life and both mental and physical health in an individual. Support for this scale was drawn from some of the same sources as the Global Health scale. The Sleep Disturbance and Physical Discomfort scale were tied to health research as well. The Stress/Anxiety scale was supported by research with regard to their impact on health and wellbeing (Brooks, 2009; Donatelle et al., 1998; Gropel & Kuhle, 2009). The Sex/Intimacy scale, the Quality of Relationships

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scale, and the Friendships scale were measures of interpersonal relationships. While intimate relationships are not necessarily sexual, they can be and sexual relationships are not always intimate. The Quality of Relationships scale was designed as a measure of relationship qualities such as love and support. The Friendship scale includes having positive friendships and the ability to be a friend to others. Inclusion of the two scales was supported by theory as well (Glover & Parry, 2008; Green et al, 2002; Ramsay, 2010; Wagman et al., 2011). The Career scale provides a measure of work satisfaction or congruence and also touches on interpersonal relationships. Inclusion of the scale was based on research in the area of work or career domains (e.g., Brooks, 2009; Loretto et al., 2006; Neault & Pickerell, 2005; Ward, 2008). Spiritual Support was related to the comfort an individual draws from spiritual beliefs and attitudes as well as religious practices, both traditional Western concepts and nontraditional concepts including those of Native Americans. Much support for this scale existed and was supported by research on life balance, wellbeing, and wellness (Hettler, 1984; Hodge et al., 2009; Myers et al., 2000; Wagman et al. 2011).

Only a small portion of the support within the literature is listed within the preceding discussion of the JBLI scales as identified in this study. The scales are aligned or similar to those studied or considered central to life balance. Some of the terms appeared to have shared meaning. Factors retained from the instrument analysis were aligned with the OQ45.2 based on best fit. Similar or identical domains to those of the JBLI and the OQ45.2 were identified throughout the review of literature as being relevant to life balance or a component of life balance.

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Evidence based on response processes was not specifically addressed in this study. It is possible that some participants selected their responses to the items based on what they believed to be the most socially anticipated or acceptable response and is listed as a limitation of the study. It is also possible that the settings from which the participants were drawn (clinical and nonclinical) had some influence on participant response selection.

Establishing evidence of validity based on internal structure was of particular interest in this study. As Goodwin and Leech (2003) identified, this component of evidence often derives from factor analysis which was the basis of the methodology employed in the study. However, as the authors also stated, this component of validity should not be considered alone. Analysis of differential item functioning was crucial to addressing evidence of validity based on internal structure in this study.

Another component of validity of particular concern in this study was evidence based on relations to other variables. This was addressed primarily through the use of an established and widely used instrument (OQ 45.2) in conjunction with the instrument under development (JBLI). Additionally, this component of validity was addressed in this study by known-group comparison.

Last, evidence of validity based on the consequences of testing was not addressed in this study but is not deemed a limitation of the study. After investigation of three of the five components of validity and obtaining estimates derived through statistical means, it is accurate to assert that evidence of validity exists in a sufficient amount and to an adequate degree for the Juhnke-Balkin Life Balance Inventory.

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In this study, assertions of validity and reliability are made based on results from statistical procedures and analysis. Conducting an exploratory factor analysis allowed for examination of factor loading trends and the development of the instrument scales. Once factors were identified, they were labeled with terms in current or common use and a brief description was provided. Items were grouped by scale based on theoretical fit and tested for their contribution to the explanation of variance. Items that contributed sufficiently were retained and those that did not or reduced the overall percentage of variance explained were removed from the scale. This refinement process reduced the number of items on the instrument from 91 to 76. Retained factors and items became the scales of the instrument and were ready for further testing.

The individual scales were tested to assess estimates of reliability. Estimates for scale reliability were found to range from acceptable to high. These estimates were somewhat similar to those of the OQ 45.2. Additional reliability analysis was conducted on the OQ 45.2 scales and results mirrored those of other studies. Results from multiple regression analysis of the JBLI scales and scales of the OQ 45.2 were analyzed and evidence of the convergent validity of the scales was established.

An important task in this study was to discern whether or not the instrument was written in a manner that would allow for differentiation between participants in the sample. The sample for the study was again somewhat similar to that of the normative sample for the OQ 45.2. Participants were drawn from clinical and nonclinical settings. Six of the eleven scales were shown to differentiate between members of clinical and nonclinical groupings (Affect Positivity, Quality of Relationships, Substance Use/Abuse, Career, Physical Discomfort, and Friendship). An inverse relationship existed between

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items on the JBLI and items on the OQ45.2. When participants indicated a higher level of distress on an OQ45.2 item, the same participants indicated a lower level of life balance on a JBLI item. This indicated that items on the JBLI clearly differentiate between individuals in distress and those who are not currently in distress. Gathering evidence in support of this aspect of the JBLI was central to this study.

A review of current literature clearly established that many believe the life balance construct to be real, meaningful to the client and the counseling professional, and worthy of future research (Sheldon, Cummins, & Kamble, 2010). Although the research hypotheses were supported, important questions that are beyond the scope of this study remain about the life balance construct.

For example, the participants were queried on their personal perceptions of a number of psychological and physiological constructs (e.g., anxiety, stress, rest, pain) in order to assess life balance; more information was needed to understand the personal relevance of the construct. The JBLI is not a measure of the impact of life balance but rather the presence or absence of the construct. Another unresolved issue is the extent to which the perception of others influenced life balance. Ellis held that perception was as important as reality (Ellis, 1994). Answering some items on the JBLI required participants to take a perspective other than their own on several topics. In this manner, life balance was both real and perceived.

A number of authors and researchers made significant contributions to the body of knowledge about the construct in recent years (e.g., Gropel & Kuhl, 2006, 2009; Pentland & McColl, 2008; Matuska, 2010; Sheldon, Cummins, & Kamble, 2010). Life balance was often studied in connection to a diverse array of constructs such as work or career,

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self-determination, stress, and time use among many others (Gropel & Kuhl, 2006, 2009; Kuhnle, Hofer, & Kilian, 2010; Ward, 2009). Studies involving or focused on the construct were conducted in the United States and abroad.

Wagman et al. (2011) studied life balance in broad strokes. In their study of working adults, the researchers classified four areas of life balance. Classifications included the concept of balance in activity, the individual's mind and body, in relation to others, and time. These classifications can be interpreted as how clients might approach various life domains. In the simplest terms, an approach may include the extent to which individuals work and play, think and feel, interact with others, and spend time. With regard to time use, the authors noted that participants in their study stressed that time use or allocation does not have to be equal among life domains. This assertion ran contrary to other studies and definitions of the construct that indicated that time allocation needed to be equal across domains in order to achieve life balance (Sheldon et al., 2010).

Pentland and McColl (2008) contested the idea that there was an appropriate or correct formula with regard to time use or allocation. The views of both Wagman et al. and Pentland and McColl appeared to support the notion that life balance is a personal construct involving individual choice and autonomy.

Support for the life balance construct was found in historical contexts as well. Ancient peoples such as the Greeks found balance in life to be not only desirable but essential (Guthrie, 1975). In the Far East, religious and philosophical teachings extolled the benefits of leading a balanced life (Leaman, 1999). At the same time across the vast Pacific, Native American peoples saw balance as connected to wellbeing (Portman & Garrett, 2006). The medical community has long been aware of the benefits associated

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with taking a balanced approach to daily life (Gordon, 1959). Some have posited that the helping professions should be informed by the humanities as well as science.

As discussed earlier, there was disagreement regarding the definition of the construct (Backman, 2004). Many held that the construct was multifaceted which was reflected in the manner the construct was studied. The term was seen as broad, an umbrella construct if you will, and encompassed a wide range of life domains. Such terms can become organizing constructs that facilitate discussion in educational and therapeutic settings and, with the right tools, be measured. The construct has been reported as individually defined and experienced (Wagman, et al., 2011), a reasonable assertion considering the diversity of human endeavor.

Balance and life balance were used interchangeably by some. This practice may be an obstacle in the path to increased understanding of either or both. The life balance and balance constructs appeared related. Discussing or referencing balance in conjunction with another construct was found to be common within the literature (i.e., work and family). Balance may be more properly viewed as an individual component; life balance as a construct then represents the holistic sum of balance for the individual.

Implications for Counseling

Studies of this type are impactful in a number of ways. First and foremost, studies designed to determine the qualities and merits of an instrument have direct impact on clients. Validation studies are conducted in part to ensure client safety and welfare. Consequences related to testing are a significant issue. Additional positive benefits for clients often emerge from validation studies in the form of new assessment tools that support or enhance the therapeutic process.

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Counselors benefit from studies of this type as well. New tools and materials are tried and tested with a measure of safety in this manner. These same tools may be useful in assisting clients. Counselors can then work from a position of enhanced confidence with regard to the instruments they employ in their work.

Next, this study adds to the body of knowledge about the life balance construct. Based on the review of the extant literature on the construct, interest has clearly grown in life balance and consensus on definition and impact proceeds through formative stages. Assessment instruments that provide a measure of life balance are needed to further examine and refine the construct. Initial evidence was established in this study for the JBLI as a measure of life balance.

The need for balance in life is firmly established in literature, culture, religion, and science and has existed as a goal for decades if not centuries. The construct itself is holistic in that it attends the totality of the human experience. Increased interest in the life balance construct may represent a new perspective on wellness. With a focus on wellness or wellbeing as an established tenet in counseling, a clearer understanding of the components or aspects of organizing constructs such as life balance is needed. The life balance construct may have significance within the areas of health promotion, prevention, and rehabilitation (Wagman et al 2011). The construct was firmly linked to wellness by a number of researchers cited in this study.

Since life balance was found to be linked to a number of other significant constructs such as mental and physical wellbeing, discussion of the construct may be a natural fit in a therapy session. Donatelle et al. (1998) reported that disruptions in one or more life domains could be detrimental to wellbeing and life balance. Through

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discussion or assessment of life balance in session, clients may be moved to consider the interconnectedness of life domains, the impact of the decisions they make, and the consequences of a lack of balance in their lives. Researchers investigating life balance pointed to an element of agency within the construct and held that life balance was defined individually (Gropel & Kuhl, 2006; Wagman et al., 2010). In other words, life balance takes work, can change overtime, and may look or be configured differently for each individual. Promotion of life balance by counseling professionals may aid in the enhancement of autonomy and efficacy in some populations. At least one researcher found that internal or external change was often required to achieve or maintain life balance (Hayward et al., 2002). Indeed, lack of life balance may lead to change.

Life balance, then, can be understood as a unifying, all-encompassing construct by both client and counselor. Taking a holistic view of the client, wellness or wellbeing, and the impact or influence of the various aspects of human existence continues to gain momentum in scientific and popular arenas. Waterman (1993) held that wellbeing and balance are enhanced when individuals are holistically engaged. Further study of life balance may yield additional support for this holistic view, increase understanding, and encourage or inspire the creation of new approaches or techniques to assist clients.

Limitations

A limitation typical in studies in which self-report instruments are used was that individual participants selected responses that they believed were more acceptable or desired regardless of accuracy. A limitation such as this may be more pronounced in studies that utilize clinical populations. A long held belief in the study of physics is that the act of observation or study changes that which is being studied. The same may be

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true in social science research. Researchers generally assume that individuals responded truthfully.

Studies can be limited based on sample demographics as well. Often, samples are unequally distributed with regard to gender having disproportionate ratios of males and females. The sample for this study was somewhat unusual in that males and females were almost equal in representation with only ten more males than females. Males and females may define and experience life balance differently. For example, a feminist view of balance or life balance was found to be tied to justice and equity (Parker & Almeida, 2001).

The same can be said of ethnic distribution of a sample. One limitation of this study may be that ethnic representation was unequal. Participants that identified as Hispanic or Latina/o comprised the majority of the total sample. Unequal ethnic representation was especially evident in the low number of participants identifying as Asian or Native American. Culture and ethnic group identification or membership may influence the way that constructs such as life balance are defined or valued.

Gender and ethnic inequality in sample composition has hindered attempts at generalizability in social science research in the past. The same may be said of sexual orientation and marital status. The majority of participants in this sample identified as single and heterosexual. A practical assumption may be that people who are single or married experience life or life balance in different and possibly significant ways as do people of different sexual orientations.

Differences between participant age and education level may be a limitation as well. Attention to some life domains may be considered more urgent or unimportant by

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study participants based on stage of life or education level or training. The assumption that differences exist is easily made. How those differences influence, enhance, or detract from life balance may prove to be enlightening.

All of these demographic inequalities or unequal distributions should be considered and may be limitations of this study from certain perspectives. A review of sample demographics is a good first step in reading or analyzing any research. Demographic distribution is not always a cause for concern. The instrument that was utilized in this study was not written in a manner that allowed for examination of differences or similarities with regard to the life balance construct among participants based on age, education level, gender, ethnicity, or sexual orientation.

Suggestions for Future Research

More research on the nature and impact of life balance is needed to gain better understanding of the construct. Future research may also move researchers and clinicians to consensus on the definition of life balance. In addition, this study served as an initial validation of the Juhnke-Balkin Life Balance Inventory. Additional evidence of validity for the JBLI would serve to increase confidence in the use of the instrument. For example, utilizing a larger sample and employing confirmatory factor analysis procedures would aid in the accumulation of further evidence of validity for the instrument.

Another area of potential interest with regard to both the JBLI and the life balance construct is cultural relevance. Life balance as a meaningful construct may be valued, understood, or desired to a greater or lesser degree based on culture. For example, Sheldon et al. (2010) included samples from the traditionally individualistic and collectivistic cultures of the United States and India. Although cultural differences were

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not the focus of the study, a comparative investigation of cultural differences might be accomplished in this manner and yield information about cultural differences or similarities. Investigations of the ways in which culturally diverse individuals create their worlds, interact with others, and manage the intricacies of daily life or balance them would add to understanding and improve multicultural stance. The concept of life balance was found to be a significant component of some spiritual and religious traditions or beliefs. Concerns of about such matters held by culturally diverse clients may be addressed through use of the JBLI and discussion or interpretation of results.

Furthermore, additional information is needed about the way in which life balance is experienced by males and females. Societal pressures or demands based on gender may influence perspective on life balance for some. One group may have certain advantages over the other with regard to achieving life balance or the effort required. Jung (1993) reported differences based on gender with regard to balance of social support, believed by some to be a component of life balance. Examination of gender differences with regard to life balance may yield significant information.

Life balance may be something that lessens or increases overtime. Studies designed to chronicle life balance over the lifespan may add support to that assertion. Understanding and identifying events, obstacles, or strategies that influence life balance may have implications for helping professions such as mental health counseling, career counseling, couples or family counseling, and counseling for older individuals among others. A lack of or sense of life balance may be especially significant to the quality of life for these individuals.

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Much was written about the importance of balance between work and career. Studies focused on ways to increase a sense of balance or enhance awareness of the negative effects of imbalance in this area may eventually lead to increased productivity or job satisfaction. Based on the literature review for this study, the career domain appeared to be tied to other aspects of life and should not be overlooked. As the 21st century workplace continues to evolve, so too must understanding of the interconnectedness of work and daily life. The advent of new technologies in the workplace and private life may exert hidden or unrecognized pressures on individuals. Increased expectations of accessibility or connectivity via telephone and computers coupled with pressures on privacy may be an excellent example.

Life balance may be a relevant construct in academic settings as well. Expectations placed on learners by educators, parents, or coaches may influence life balance in these individuals both positively and negatively. As performance demands increase, life balance may seem elusive to some. Kuhnle et al., (2010) found that life balance was a relevant construct in the lives of adolescents. The authors revealed that students needed to believe that they were adequately attending life domains. This followed the idea that the perception of being in balance is significant. The term “*a well-rounded student*” implies a degree of balance in the life of the student. Addressing life balance in student populations may aid retention efforts especially in higher education settings. Scott (2006) found that continuing education was beneficial in maintaining life balance in adult females and Longfield et al. (2006) called for interventions to help graduate students create a more balanced life.

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Studies of life balance among individuals in clinical settings in which treatment for alcohol or substance abuse related problems is provided may yield important information about self-care, life management, and relapse prevention. Assessment tools such as the JBLI may prove useful in facilitating increased self-awareness of areas or life domains that were previously ignored or considered less important by those being treated in clinical settings.

At least one group of researchers, Wagman et al., (2011) suggested that future study of the life balance construct may be significant in the areas of health promotion, prevention, and rehabilitation. Prevention has long been a central feature of counseling. The possibility that awareness of life balance or efforts to enhance it in the lives of individuals may prevent or promote increased health or wellbeing exists and requires future study.

Burnout or compassion fatigue remains of interest within the counseling profession. Counselors who routinely overextend themselves may experience a life imbalance. The same may hold true for educators at all levels. Studies designed to measure life balance in those that provide clinical or educational services may add to the understanding of the phenomenon. Counselors or educators who enjoy a greater sense of life balance may be better prepared to assist clients or students in achieving or maintaining it.

Conclusion

The results of the study serve as positive support for all four of the study hypotheses. Much of the information may prove useful in or provide the impetus for future study. Validation studies of this type are part of the fundamental building blocks

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of counselor education and the counseling profession. Results of this study provide initial evidence and estimates of reliability and validity for an instrument that provides a measure of the balance among individually valued life domains.

Life balance is a particularly relevant construct within the counseling professions that allows for a holistic view or perspective of clients and the issues they struggle to change, overcome, or accept. Taking this more holistic view may serve to enhance understanding of the interconnectedness of life domains, positive and negative influences, consequences of actions, and the concepts of wellness and wellbeing. Indeed, as counselors continue to move toward a more comprehensive wellness stance the information and knowledge gathered and created in this study will be helpful. The JBLI has the potential to be a useful, holistic tool in support of that stance.

In closing, this study was designed and conducted to extend the work of others, specifically the authors of the JBLI. In this manner, researchers are able to push the limits of their present understanding and add to the body of knowledge within a number of arenas including the helping professions. In addition, engagement in collegial or collaborative efforts to lift clients up so that they may actualize or strive to achieve their full potential engenders rewards for all. Moving forward in positive directions is more easily accomplished together.

Appendix A

A. Items eliminated from the JBLI.

- 7. I often find my spiritual – religious beliefs cause me concern or dissatisfaction.
 - 10. I weigh at least 10 pounds more than I should.
 - 13. I am optimistic about the future.
 - 15. I find little if any part of my current job fulfilling.
 - 17. Sometimes I eat too little or eat too much.
 - 19. I tend to avoid relationships that lead to closer connections with others.
 - 27. Overall, I would describe my friends as mentally healthy people.
 - 34. I have few friends who I speak or interact on a regular basis.
 - 39. I often become anxious or depressed when I think about my work.
 - 47. I feel conflicted about my religious – spiritual beliefs.
 - 64. I have not been under the influence of alcohol or non-doctor prescribed drugs within the last year.
 - 69. I am helpless to the circumstance I am in or anticipate in the near future.
 - 83. I look forward to the interactions I have with people each day.
 - 85. Few good things are in my future.
 - 87. Very close family and/or friends who know me well have expressed concern about my moods.
-

Appendix B

B. Retained Items by JBLI scale with reverse scored items noted (* = reverse scored).

Scale 1: Affect Positivity

1. My future looks exciting to me.
 2. I am able to make satisfying choices regarding my life.
 5. Family and/or friends who know me well would say I am an unhappy person.*
 9. I do at least one fun activity each day (e.g., go for a walk, read the paper, etc.).
 11. I experience happiness each day.
 12. I enjoy life.
 35. Family and/or friends who know me well say that I am a happy person.
 40. One time per week or more, I wish I were not alive.*
 52. My life feels hopeless.*
 63. I feel sad or “empty” most days.*
 67. I am happy most of the day.
 71. Within the last six months I have not felt significant feelings of depression.
 76. I rarely experience happiness in my day.*
-

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Scale 2: Global Health

18. Most people who know me well believe that I have healthy habits.
22. I am unhappy with my appearance.*
31. I exercise on a regular basis.
32. Most days I feel psychologically healthy or very healthy.
37. I have healthy ways to relieve my stress.
38. I am in relatively good shape.
49. I generally feel good about my eating habits.
57. I would say that I am one of the physically healthiest persons in my age group.
78. I generally eat a healthy or balanced diet.
86. Family and/or friends who know me well would say that I am in good physical condition.
-

Scale 3. Quality of Relationships

14. Although I am married or have a significant other, I often feel alone, lonesome, or unhappy within our relationship.*
20. My marital partner or significant other and I have a good relationship.
25. I often feel disconnected from my partner or significant other.*
51. My marital partner or significant other loves me.
58. I have a marital partner or significant other I trust and enjoy.
60. I look forward to spending time with my partner or significant other.
81. My marital partner or significant other and I are not very compatible.*
-

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Scale 4. Substance Use/abuse

3. Within the last six months I have not misused prescription drugs.*
30. Most weeks I spend less than \$10 on alcohol or non-doctor prescribed drugs.*
41. Within the last six months I have attempted to “cut down” on my alcohol or drug use.
43. Within the last year I have not angered anyone due to my drinking or drugging.*
44. Family members and/or friends who rarely drink alcohol or use non-prescribed drugs have recently expressed concerns about my drinking or drugging behaviors.
66. During the last year my drinking or drug use has hurt others.
-

Scale 5. Spiritual Support

4. I am comfortable with my spiritual – religious beliefs.
21. My spiritual - religious beliefs bring me feelings of purpose.
26. My spiritual – religious beliefs provide little comfort.*
59. I draw strength from my religious – spiritual beliefs.
88. I really do not have any spiritual or religious beliefs.*
-

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Scale 6. Sleep Disturbance

6. I often awaken at least once a night and have difficulty falling back to sleep.
28. I usually do not get enough sleep.
50. Most days I feel like I could sleep all day.
55. I usually feel refreshed when I awaken from sleep.*
82. Even when I am tired I have difficulty falling asleep.
89. I would say I am a “healthy sleeper” who gets enough sleep.*
91. I feel tired often.
-

Scale 7. Stress/Anxiety

24. Very close friends and/or family tell me I need to relax more.
33. Most days I feel lonesome.
48. I worry that stressful events in my life will result in unhealthy decisions or negatively effect my health.
72. I would describe myself as a generally calm person.*
75. I tend to overreact to stressful events.
79. Within the last six months I have not had significant feelings of anxiety.*
80. I manage my stress well.*
84. I am able to concentrate well most days.*
-

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Scale 8. Sex/Intimacy

23. The frequency of my sexual experiences is good.
45. My sexual experiences frequently are disappointing or nonexistent.*
46. I enjoy sex.
54. I have a satisfying amount of intimacy within my life.
70. My intimate experiences are rewarding.
74. I generally find little sexual joy or satisfaction.*
-

Scale 9. Career

8. I am good at what I do in the workplace.
29. I derive satisfaction from my work.
42. I have chosen a vocation that matches who I am.
53. My current job is personally fulfilling.
61. Family and friends who know me well would say that I have many favorable
directions that I may choose to go.
90. Friends and/or family who know me well would say that I like my job or career.
-

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Scale 10. Physical Discomfort

16. I often experience some type of physical pain.*
56. Some days I feel like I can barely move because my body hurts.
68. For my age group I have more than the usual amount of aches and pains.
77. I have few if any major aches or pains.*
-

Scale 11. Friendship

36. I have a difficult time forming friendships or relationships.*
62. I have good friends who I enjoy.
65. Most of my friends would say that I am a “good friend”.
73. My friendships and interpersonal relationships with others are mostly rewarding.
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