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Pepperdine University
Graduate School of Education and Psychology

UTILIZATION OF THE MULTIDIMENSIONAL WELL-BEING ASSESSMENT TO
UNDERSTAND WELL-BEING IN INDIVIDUALS WITH CHRONIC MEDICAL
CONDITIONS/ILLNESSES

A clinical dissertation submitted in partial satisfaction
of the requirements for the degree of
Doctor of Psychology

by

Jaqulyn Spezze

October, 2015

Shelly Harrell, Ph.D. – Dissertation Chairperson

This clinical dissertation, written by

Jaqulyn Spezze

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

Doctoral Committee:

Shelly Harrell, Ph.D., Chairperson

Robert de Mayo, Ph.D.

Bruce Rush, Psy.D.

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ACKNOWLEDGEMENTS

When I started my doctoral program I knew it was going to be a long journey and I even thought of the program and this dissertation as a marathon. What I did not realize was that it was not a regular marathon (e.g., 26.2 miles), but rather an ultramarathon. The doctoral program and specifically this dissertation has taught me that when I think I cannot take another step and do not have any more in me, I can actually take thousands of more steps forward. It really taught me to persevere and that I can do so much more than I actually think I can. So throughout this process I have just kept taking one slow step at a time and thinking about putting one foot in front of the other. In the end I am still moving forward no matter how slow or grueling it may be. I would like to thank my advisors, committee members, family, and friends because without them I would have never been even been able to write this dissertation, let alone complete my doctoral program. First, I would like to thank Shelly Harrell, my advisor and chair, a million times for EVERYTHING she has ever done for me. Dr. Harrell, I knew when we met the first day of graduate school that I wanted to work with you, but I did not know how much you would help me throughout my doctoral program. Countless times you have helped me and I really appreciate it from the bottom of my heart. I am not only a better clinician and researcher because of you, but I am also a better person. Next, I would like to thank my committee members, Robert deMayo and Bruce Rush. Thank you both for providing me with support and amazing feedback. I really appreciate all the work you put into guiding this dissertation. I would like to thank the two people that really inspired me to become a psychologist and specifically inspired the topic of my dissertation, Pop and Mina. Pop, thank you for always supporting me in everything I do and thank you for not only being an amazing father throughout everything, but also being my best friend. Mina, thank you for your enduring love and support throughout the first 18-years of my

life. You always believed in me and made me feel like I could accomplish anything. I have carried that with me beyond my first 18 years of my life and I carry it with me every day. Your incredible strength inspires me to persevere during the difficult times. I also want to thank Udo and Kim, my older brother and sister for their support. In addition, I would like to thank Mark, my fiancé and soon to be husband. Thank you for your endless support and understanding. You helped me keep my sanity through all the challenges I had to face during this dissertation and doctoral program. You have been with me throughout my entire graduate education and without you I could not have done this. Thank you to all my graduate school colleagues and friends. Specifically, I want to thank Kristen, Jessica, and Elisha for being there for me during the fun times and the challenging times. I especially enjoyed out times outside of school, specifically at cooking club. You are all amazing friends, people, colleagues, and clinicians. Lastly, I would like to thank my patients/clients that inspire me every day to be a better clinician and a better person.

VITA

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EDUCATION

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Pepperdine University, Graduate School of Education & Psychology, Los Angeles, CA

Dissertation Title: Utilization of the Multidimensional Well-Being Assessment (MWA) to Understand Well-Being in Individuals with Chronic Medical Illnesses/Conditions

Master of Arts in Clinical Psychology with an Emphasis in Marriage & Family Therapy

May 2011 Pepperdine University, Graduate School of Education & Psychology, Malibu, CA

Master of Science in Healthcare Administration and Management

June 2009

Certificate in Clinical Research

Rosalind Franklin University of Medicine and Science, Chicago, IL

Bachelor of Science in Biology

May 2006

Bachelor of Arts in Psychology

Loyola Marymount University, Los Angeles, CA

CLINICAL TRAINING EXPERIENCE

VA Los Angeles Ambulatory Care Center, Los Angeles, CA

Aug. 2014 – Aug. 2015

Psychology Intern

East Los Angeles Posttraumatic Stress Disorder Clinic

- Clinically interview and assess veterans for PTSD and other co-occurring disorders utilizing the following measures: Combat Exposure Scale, Los Angeles Symptom Checklist, Modified PTSD Symptom Scale, PTSD Checklist for DSM-5 (PCL-5), Mississippi Scale for Combat Related PTSD, Michigan Alcohol Screening Tests (MAST), Drug Abuse Screening Test (DAST), and Beck Depression Inventory II (BDI-II)
- Conduct individual psychotherapy with veterans with PTSD utilizing Cognitive Processing Therapy and Prolonged Exposure and also provide psychotherapy to veterans with PTSD and a Substance Use disorder utilizing motivational interviewing and relapse prevention techniques
- Co-facilitate a psychoeducational PTSD group focusing on anger management
- Collaborate on an interdisciplinary team in order to coordinate and plan treatment for veterans

Supervisor: Carolyn Feigel, Ph.D.

Behavioral Medicine/Primary Care Mental Health Integration

- Provide time-limited individual behavioral medicine treatment to veterans utilizing empirically validated interventions (e.g., relaxation techniques, mindfulness, biofeedback, pacing, cognitive behavioral therapy interventions) through individual psychotherapy
- Co-facilitate time-limited, support, and skills-based psychotherapy groups, such as Problem Solving, Women’s Chronic Pain, Smoking Cessation, and Pain Management Skills Training Groups
- Attend weekly Behavioral Medicine Seminar that cover topics, such as pain, tinnitus, diabetes, biofeedback, mindfulness, and relaxation training
- Participate in workshops for veterans, such as Target Diabetes, Target Pain, and Tinnitus Workshops

Supervisors: Debra Sobol, Ph.D., Michael Karakashian, Ph.D., and Kimberly Newsom, Ph.D.

Mental Health Outpatient Clinic

- Conduct initial intake assessments and present case to Mental Health Clinic Team in order to discuss differential diagnosis, treatment planning, and referrals each week
- Administer and interpret psychodiagnostic assessments in order to clarify diagnoses and guide the appropriate psychiatric and psychological treatment for veterans utilizing a variety of assessment measures, such as the MMPI-2, MCMI-III, BDI-II, MMSE, BAI, Los Angeles Checklist, PCL-C, MMPI-2-RF, and the Rorschach
- Co-facilitate Relationship/LGBQ , Anxiety Management, Life Skills, Seeking Safety, and CBT for Psychosis groups
- Conduct individual psychotherapy utilizing Acceptance and Commitment Therapy (ACT) and Time-Limited Dynamic Therapy (TLDP) and attend weekly group supervision/seminars
- Attend weekly Staff/Intern interdisciplinary team meetings and seminars (e.g., motivational interviewing, psychopharmacology)

Supervisors: Susan Steinberg, Ph.D., Paul Lo, Ph.D., Anna Leshner, Psy.D., Carissa Klevens, Ph.D., and Carole Goguen, Psy.D.,

VA Sepulveda Ambulatory Care Center, North Hills, CA

Sept. 2013–Jul. 2014

Psychology Pre-Intern

Addictive Behaviors Clinic (ABC)

- Provided therapeutic interventions to veterans in an Intensive Outpatient Program (IOP) that was recovery oriented and included evidence-based treatments for early recovery and relapse prevention
- Facilitated and co-facilitated psychotherapy groups that were abstinence-based (e.g., Matrix Early Recovery/Relapse Prevention Groups, DBT Skills-Based Emotions Management Group) within the IOP and also groups based on the harm reduction approach outside of the IOP (e.g., Seeking Safety based on Lisa Najavits’ workbook)

- Conducted individual psychotherapy with veterans with dual diagnoses utilizing empirically-validated treatments, such as Cognitive Processing Therapy with veterans with PTSD (after being abstinent from all substances)
- Clinically interviewed and completed intake assessments with veterans entering the ABC program by obtaining a detailed substance use history and assessing co-morbidities
- Attended interdisciplinary team meetings twice a week in order to collaboratively make both administrative and treatment decisions for veterans in the ABC program

Supervisor: Melissa Lewis, Ph.D.

Primary Care Mental Health Integration

- Conducted initial assessments and “curb-side” consults for patients experiencing their first contact with mental health services through referrals from primary care physicians
- Co-facilitated time-limited psychotherapy groups (e.g., ACT and Chronic Pain, Coping with Medical Illness, Introduction to Relaxation and Meditation, Meditative Movement)
- Provided time-limited individual psychotherapy with veterans with psychiatric sequelae impacting their medical conditions and/or primary psychiatric disorders in Health Psychology, Primary Care Mental Health Integrative, and Women’s Health Clinics
- Collaborated with an interdisciplinary treatment team to increase quality of veterans’ care by clarifying diagnoses and created comprehensive treatment plans
- Attended didactics (e.g., Environment of Care, Diversity and Culture Competency: Military and VA Culture, Suicide Prevention)

Supervisors: Sarah Duman, Ph.D. and Erin Joyce, Psy.D.

Wiseburn School District, Hawthorne, CA

Sept. 2013 – June 2014

Doctoral Practicum Student

- Provided school-based individual psychotherapy to children with mild to moderate behavioral and emotional difficulties
- Collaborated with school personnel to identify, address, and treat child’s psychological, academic, and social needs
- Provided psychoeducation to parents regarding child’s psychosocial needs and behavioral problems

Supervisor: Keegan Tangeman, Psy.D.

Harbor-UCLA Medical Center, Torrance, CA

Sept. 2012 – Aug. 2013

Psychology Extern in Behavioral Medicine

- Provided behavioral medicine interventions to medical patients presenting with psychiatric sequelae impacting their medical illnesses/conditions or primary psychiatric conditions
- Conducted intake interviews and provided psychotherapy to patients with HIV/AIDS and various psychological diagnoses ranging from minor adjustments to severe psychopathology
- Performed psychological consultations for patients with various medical illnesses/conditions in the Obstetrics, Gynecology, Family Medicine, and Immunology clinics

- Conducted behavioral medicine psychodiagnostic assessments and also psychologically screened patients for renal transplantation
- Collaborated with multiple interdisciplinary treatment teams to clarify diagnoses, identify high-risk patients, create comprehensive treatment plans, and increase the quality of care for patients
- Shadowed post-doctoral fellow in the inpatient ward and participated in patient rounds
- Attended Grand Round lectures and didactics

Supervisors: Astrid Reina, Ph.D.

Pepperdine University Psychological Clinic, Los Angeles, CA

Sept. 2012 – Aug. 2014

Doctoral Practicum Student

- Conducted initial intake assessments and long-term individual psychotherapy for adults at a university-based community clinic for a range of Axis I disorders using cognitive behavioral, psychodynamic, and humanistic therapeutic interventions
- Administered, scored, and interpreted outcome and working alliance measures
- Provided coverage for the clinic emergency pager and conducted crisis management as needed
- Evaluated an underserved adolescent for the Boys Hope Girls Hope program utilizing cognitive and emotional assessments to determine readiness for a competitive college preparatory school and completed an integrative report

Supervisor: Shelly P. Harrell, Ph.D. and Carolyn Keatinge, Ph.D.

Union Rescue Mission, “Skid Row,” Los Angeles, CA

Sept. 2011 – Oct. 2013

Doctoral Practicum Student

- Provided individual and couples therapy for adults with substance use disorders and/or chronic mental illnesses using cognitive behavioral, dialectical behavior, and humanistic based therapies in a residential treatment program for substance use and/or homelessness
- Conducted initial intake assessments, performed crisis interventions, and participated in case management
- Co-facilitated a wellness group for clients with chronic medical and mental illnesses, promoting awareness of stress and the mind-body connection
- Participated in substance abuse, motivational interviewing, spirituality, and diversity trainings

Supervisors: Shelly P. Harrell, Ph.D. and Aaron Aviera, Ph.D.

AIDS Project Los Angeles, Los Angeles, CA

Jan. 2010-Oct. 2012

MFT and Doctoral Practicum Student

- Conducted initial intake assessments and provided short and long term individual and couples psychotherapy to low income clients with HIV/AIDS, using cognitive-behavioral, dialectical behavior, systems, and psychodynamic interventions
- Created treatment plans for clients with a variety of psychiatric disorders, such as mood, anxiety, substance abuse, personality, and psychotic disorders

- Utilized psychoeducation, supportive therapy, motivational interviewing, and harm reduction interventions in a prevention program to explore the impact of substance abuse and high risk sexual behaviors as it related to physical and mental health
- Participated in interdisciplinary weekly meetings and educational trainings, psychiatric consultation, and case conferences

Supervisors: Karla Kahler, LMFT, Lydia Szamraj, LMFT, and Richard Levin, LMFT

RESEARCH EXPERIENCE

LA BioMed at Harbor-UCLA Medical Center, Los Angeles, CA Sept. 2012-Aug. 2013

Research Assistant

- Participated in research examining the delay of care in cervical cancer among Latina women
- Assisted and performed extensive literature searches

Investigator: Astrid Reina, Ph.D.

Harrell Research Group at Pepperdine University, Los Angeles, CA Sept. 2011- May 2015

Project Manager

- Engage in collaborations and discussions with research lab in order to conduct a variety of research studies focusing on well-being, stress and health, behavioral medicine, and multiculturalism
- Assist in the development of a multidimensional and multicultural well-being scale and aid in the collection of data for a psychometric study
- Conduct literature reviews and assist in the development of group interventions for stress and chronic illnesses

Investigator: Shelly Harrell, Ph.D.

eHarmony, Santa Monica, CA Apr. 2011-Sept. 2011

Research Interviewer

- Collected quantitative and qualitative data for a longitudinal study on marriage through administering self-report surveys and engaging couples in various interactions (e.g., conflict management, problem solving)
- Assessed psychopathology of individuals within a couple utilizing the Structured Clinical Interviews for Major Depressive Disorder and Generalized Anxiety Disorder
- Authored a scientific blog on relationships, marriage, and dating for the eHarmony advice and lab websites

Investigator: Gian Gonzaga, Ph.D.

Loyola Marymount University, Los Angeles, CA Oct. 2002 – May 2004

Research Assistant

- Conducted learning, memory, and Alzheimer's research utilizing lab rats
- Assisted with developing, troubleshooting, and designing of experiments in a collaborative setting

- Responsible for planning and performing daily experiments and caring for live animals

Investigator: Michael Foy, Ph.D.

SUPERVISORY EXPERIENCE

Pepperdine University Psychological Clinic, Los Angeles, CA

Sept. 2013 – Aug. 2014

Peer Supervisor

- Provided weekly individual peer supervision for four first-year Psy.D. doctoral level therapists fostering the development of clinical skills, such as intake assessments, diagnosis, treatment planning, interventions, and the application of ethical and legal issues
- Participated in weekly supervision-of-supervision in order to increase supervisory skills
- Facilitated case conferences and provided feedback to first-year Psy.D. doctoral level therapists to increase case conceptualization and diagnostic skills
- Presented a two hour workshop on Substance Use Disorders

Supervisor: Aaron Aviera, Ph.D.

TEACHING EXPERIENCE

Pepperdine University Graduate School of Psychology, Los Angeles, CA Sept. 2012-Apr. 2014

Teaching Assistant

- Review scoring of cognitive and personality measures including, but not limited to, the Bender –Gestalt II, COWAT, FAS, MMPI-2, MMSE, NEO, RAVLT, Rorschach, Trails A & B, VMI-6, WAIS-IV, WISC-IV, and WRAT-IV
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Supervisors: Susan Himmelstein, Ph.D. and Carolyn Keatinge, Ph.D.

Pepperdine University Graduate School of Psychology, Encino, CA

Sept. 2011- Apr. 2013

Teaching Assistant

- Graded examinations and provided assistance for master-level clinical psychology courses: Clinical Interventions with Children and Adolescents
- Assisted professor with comprehensive literature searches

Supervisor: Drew Erhardt, Ph.D.

Pepperdine University, Malibu, CA

Aug. 2010 - June 2012

Teacher Assistant

- Provided assistance to undergraduate level psychology courses: Research Methods, Psychology and Religion, Family Therapy, and Advanced Research Seminar
- Graded research proposals, examinations, and assignments
- Led study sessions with students before examinations to test content mastery

Supervisor: Elizabeth Krumrei, Ph.D.

LEADERSHIP POSITIONS

- President of Psy.D. Student Government Association Apr. 2013 – Aug. 2014
- Oversaw all Student Government Association meetings, taskforces, and committees, as well as, served as liaison between faculty, administration, and students
- Secretary of Psy.D. Student Government Association Sept. 2012 – Apr. 2013
- Prepared agenda and minutes for Student Government Association Meetings and also served on the Executive Board
- First Year Class Representative of Psy.D. Student Government Association Sept. 2011 – Aug. 2012
- Served as spokesperson for class and presented concerns of class, introduced legislation, and collaborated on the advocacy committee
- Co-President of Research and Practice Team at Pepperdine University Feb. 2010 – Feb. 2011
- Co-facilitated monthly meetings for master level students in order to provide a forum for dialogue about research and the also bridge research and clinical practice of psychology

PUBLICATIONS

Agee, E. R., Spezze, J. D., & Underwood, J. J. (in press). Parent education model for child and adolescent onset psychosis, *Graduate Student Journal of Psychology*.

PROFESSIONAL PRESENTATIONS

Spezze, J. D., Clark, K., & Harrell, S. P. (2013, August) *Getting “FFIT”*: Developing an integrative behavioral health intervention for diverse homeless men. Poster presented at the One Hundred Twenty-First Annual Convention of the American Psychological Association, Honolulu, HI.

Agu, N., Spezze, J. D., & Harrell, S. P. (2013, August) *Facilitating focus & flow: A holistic approach to cardiovascular disease for African American women*. Poster presented at the One Hundred Twenty-First Annual Convention of the American Psychological Association, Honolulu, HI.

Spezze, J. D., Bellete, N. Z., Strong, V. O., Underwood, J. J., Skulstad, H., & Harrell, S. P. (2012, August) *It’s about time: An inclusive perspective on psychotherapy and well-being in the LGBTQ population*. Poster presented at the One Hundred Twentieth Annual Convention of the American Psychological Association, Orlando, FL.

Agee, E. R., Spezze, J. D., Underwood, J. J., Romero, E., Harrell, S. P., & Michell, C. L. (2012, August) *God and skid row: Clinical implications of integrating mental health services*

and spirituality/religion. Poster presented at the One Hundred Twentieth Annual Convention of the American Psychological Association, Orlando, FL.

Underwood, J., Spezze, J., Strong, V., Hansell, L., & Harrell, S. (2012, March) *Self-care equals community care: Expanding therapist self-care to include meaning, purpose, and community*. Poster presented at the Fifth Annual Conference of the Society for Humanistic Psychology, Division 32 of the American Psychological Association, Pittsburgh, PA.

Flores, V., Mitchell, K., Rodriguez, L., Spezze, J., Torres, A., Zamora, L., & Foy, M. R. (2004, May) *Ovarian steroid hormones mediate delayed condition taste aversion learning in rats*. Poster presented at Stanford Psychology Undergraduate Conference, Stanford, CA.

Truitt, K., Spezze, J., & Foy, M. (2003, May). *Age and sex differences on condition taste aversion learning in rats*. Paper presented at Stanford Psychology Undergraduate Conference, Stanford, CA.

SPECIALIZED TRAININGS AND WORKSHOPS

Introduction to the Use & Interpretation of the PAI Oct. 2014

- One Day Personality Assessment Inventory Seminar

Instructors: John E. Kurtz, Ph.D. at West Los Angeles VA Healthcare Center

Prolonged Exposure (PE) Seminar Sept. 2014

- Six Hour Prolonged Exposure Therapy Seminar

Instructors: Paul Lo, Ph.D. and Kimberly Newsom Ph.D., at VA Los Angeles Ambulatory Care Center

Acceptance and Commitment Therapy Seminar Aug. 2013-Sept. 2013

- Acceptance and Commitment Therapy (ACT) Five Week Seminar

Instructor: David Schafer, Psy.D. at VA Sepulveda Ambulatory Care Center and Nursing Home

Behavioral Medicine Seminar May 2013

- Integrated Care: Foundations of Behavioral Medicine Training

Instructor: Astrid Reina, Ph.D. at Harbor-UCLA Medical Center

Acceptance and Commitment Therapy Training Sept. 2012

- Acceptance and Commitment Therapy (ACT) One Day Workshop

Instructor: Lynn McFarr, Ph.D. at Harbor-UCLA Medical Center

Cognitive Behavioral Analysis System of Psychotherapy Training Sept. 2012

- Cognitive Behavioral Analysis System of Psychotherapy(CBASP) in the Treatment of Chronic Depression One Day Workshop

Instructor: Lynn McFarr, Ph.D. at Harbor-UCLA Medical Center

Dialectical Behavior Therapy Training Sept. 2012

- Dialectical Behavior Therapy (DBT) in the Treatment of Borderline Personality Disorder Two Day Workshop

Instructor: Lynn McFarr, Ph.D. at Harbor-UCLA Medical Center

PROFESSIONAL AFFILIATIONS

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Pepperdine University Colleagues Grant

ABSTRACT

This study examined multiple dimensions of well-being among adults with chronic medical conditions/illnesses utilizing the Multidimensional Well-Being Assessment (MWA). Specifically, the dimensions of well-being that were assessed included physical, emotional, and relational, as well as dimensions of well-being that have not previously been studied in individuals with chronic medical conditions/illnesses, such as collective and transformational well-being. A non-random sample of 268 participants with chronic medical conditions/illnesses completed multiple measures of well-being as part of a larger psychometric investigation of the MWA. Significant positive correlations were found between physical well-being and measures of subjective well-being assessing satisfaction with life, flourishing, and positive emotion. Significant negative correlations were found between the MWA dimensions and measures of distress and negative emotion. Furthermore, results of a series of MANOVAs found that multiple dimensions of well-being yielded statistically significant differences between groups on various demographic and background variables (e.g., age, race/ethnicity, relationship status, parental status, income, socioeconomic status, stress level, illness interference). This study's findings also indicated that there are differences between adults with chronic medical conditions who rated religion as important and those who rated religion as not important on several dimensions of well-being. This study has implications for future research related to understanding well-being in individuals with chronic medical conditions/illnesses.

Chapter I: Introduction

What does it mean to live well and how do we do it? This central question has created various philosophies, religions, economic structures, societies, and customs since the earliest recorded history and is still sought after and debated today. Historically, the fields of medicine and psychology attempt to answer this question by understanding ills and deficits and how to overcome or remove them. However, this approach falls short, as the absence of pathology does not equate to the presence of well-being and the presence of pathology does not equate to lack of well-being. Well-being is defined as, “optimal psychological functioning and experience” (Ryan & Deci, 2001, p. 142). It is by studying well-being that these health-related disciplines investigate positive capacities and human potential. Well-being has many dimensions and by studying the multiple dimensions of well-being, well-being as a whole, and the context and culture of well-being this will deepen our understanding of well-being.

This study is particularly interested in physical health and well-being. Physical health is an important aspect of well-being. However one does not need to be free from a medical condition/illness to have well-being as evidenced by research findings on health related quality of life (HRQOL). Research indicates that chronic medical conditions/illnesses have significant negative effects on physical health; however mental health may remain unaffected (Alonso et al., 2004; Hopman et al., 2009; Singer, Hopman, & MacKenzie, 1999). The aforementioned research supports that poor health does not necessarily equate to low levels of well-being and especially not in all domains of well-being. Remarkably individuals are able to overcome limitations due to their medical condition/illness and pursue their goals, while there are other individuals that do not overcome the challenges that their medical condition/illness presents to them. What causes one individual to thrive with a chronic medical condition/illness while another person is impaired? What dimensions of well-being are most important to individuals with chronic

medical conditions/illnesses? Are there relationships between physical health dimensions of well-being and subjective and emotional well-being? Another important research issue involves whether physical health should be treated as an independent variable (e.g., health status as a predictor of subjective well-being) or as a dependent (e.g., religiosity as a predictor of physical health well-being). Primarily, this study seeks to understand well-being in individuals with various chronic medical conditions/illness in a more profound and comprehensive manner.

Besides health related quality of life (HRQoL) or physical well-being, spiritual and religious well-being has been one of the most studied aspects of well-being in individuals with chronic medical conditions/illness. Research indicates that religiosity and spirituality impact those with physical health concerns, particularly those with chronic medical conditions/illnesses (Debruin, 2006; Naghi, Phillip, Phan, Cleenwerck, & Schwartz, 2012). Religiosity and spirituality are such important aspects of life for many people, fundamental in their understanding of themselves and their world, and a vital part of their human experience, whether they have a chronic medical condition/illness or not (Shafranske & Maloney, 1990). It is suggested that spiritually-related well-being may impact overall well-being, both subjectively and psychologically (Lun & Bond, 2013; Steger & Frazier, 2005). Spiritual beliefs and religious practices seem to affect physical well-being, either directly by improving symptoms or indirectly by encouraging preventative behaviors and discouraging high risk behaviors (Mouch & Sonnega, 2012; Strawbridge, Shema, Cohen, & Kaplan, 2001). Religiosity and spirituality's impact on well-being among those with chronic medical conditions/illnesses has mostly been identified in the literature by measuring quality of life, particularly health related quality of life (Basinski, Stefaniak, Standnyk, Sheikh, & Vingerhoets, 2013; Paiva et al., 2013). However, is there a relationship between religious/spiritual well-being and general well-being among individuals

with chronic medical conditions? Are there differences on dimensions of well-being between those who rate religion as very important and those who rate religion as not important?

This study is in pursuit of understanding well-being in individuals with chronic medical conditions/illnesses in a more comprehensive manner. The reason this is so important to understand is because approximately half of adults in the United States as of 2012, approximately 117 million people, have at least one chronic medical condition/illness (CDC, 2014). In addition, about one in four or 25% of adults in the United States have multiple chronic medical conditions/illnesses (Ward, Schiller, & Goodman, 2014). Furthermore, seven of the top ten causes of death are due to chronic medical conditions/illnesses, including heart disease, cancer, chronic lower respiratory diseases, diabetes, cerebrovascular diseases, Alzheimer's disease, and kidney disease (CDC, 2015). More than half (i.e., 1,681,626) of the deaths in 2013, were caused by chronic medical conditions (CDC, 2015). In 2006, approximately eighty-four percent of health care spending was for individuals that had one or more chronic medical conditions (Robert Wood Johnson Foundation, 2010). Understanding well-being in individuals with chronic medical condition/illnesses is absolutely critical due to the prevalence, impact, and cost these chronic medical conditions/illnesses have on society, but also the tremendous impact it has on the individual, their families, and communities as a whole.

Chapter II: Literature Review

There is variation among individuals and groups as how to achieve optimal functioning. There are important differences in understandings of well-being between and within cultures (Joshanloo, 2014). Levin (2013) states the following:

There are almost as many definitions of well-being as there are definers; accordingly, the precise composition of this construct, as far as component parts, is not a settled fact...Nonetheless, distinct dimensions can be identified, corresponding to respective psychological functions, each with a strong traditions of measurement and study. (p. 274)

However, well-being research has tended to identify and follow the philosophical assumptions of either hedonic or eudaimonic traditions to investigate well-being. The hedonic tradition refers to happiness based on positive affect and the eudaimonic tradition refers to living life in a deep, satisfying way (Deci & Ryan, 2008). These two theories of how individuals achieve optimal psychological functioning have been shown to be stable constructs throughout the history of western philosophy and throughout psychological research (Busseri & Sadava, 2012; Deci & Ryan, 2008; Diener, 2000; King & Napa, 1998). Although distinct, the literature consistently suggests that hedonic and eudemonic well-being are interrelated (Friedman, 2008; Friedman & Robbins, 2012; King & Napa, 1998; Robbins, 2008, Ryan, Huta, & Deci, 2008).

Conceptualizations of Well-Being

Subjective well-being. Epicurus (1926) laid the groundwork for hedonism as he stated, “For it is to obtain this end that we always act, namely, to avoid pain and fear...And for this cause we call pleasure the beginning and end of a blessed life” (p. 87). Hedonic well-being, also referred to in the psychological literature as Subjective Well-Being or SWB, is an individual’s

well-being based on subjective evaluations of their own happiness reflecting the balance of pleasurable thoughts and feelings and negative thoughts and feelings (Kahnemann, Diener, & Schwartz, 1999). Subjective well-being assumes that the presence of pleasure and the absence of pain will bring about happiness. Diener (2000) states, “People experience abundant SWB when they feel many pleasant and few unpleasant emotions, when they are engaged in interesting activities, and when they experience many pleasures and few pains and when they are satisfied with their own lives” (p. 34).

Current moods have a strong effect on how satisfactory people rate their lives (Schwartz & Strack, 1999). This is congruent with hedonic well-being philosophy. Hedonic satisfaction with life is based on a global judgment of satisfaction with different domains of life such as vocational and romantic domains. Satisfaction with specific domains of life is dependent on experiencing more pleasant emotions and moods than negative emotions and moods; therefore, feeling happy more often than not will produce life satisfaction and lead to living a good life (Diener, 2000). Individuals’ optimal well-being may be measured by the amount of time a person experiences pleasant emotions (Diener, Sandvik, & Pavot, 1991). Diener’s (2000) survey of over 7,200 international college students concluded that hedonic happiness is valued worldwide but western cultures place more importance on experiencing pleasure than other cultures.

Pleasure and positive affect are important human experiences not only because they represent intrinsically preferred states, but also because they can facilitate and support other human functions. Subjective well-being has been associated with increased cognitive flexibility and efficiency by enhancing problem-solving abilities and it has been inferred that this leads to generosity and interpersonal understanding (Isen, 2003). Increased subjective well-being

evidenced by increased positive affect may alert individuals that they are having a meaningful experience and that they are acting in accordance with their values (King, Hicks, Krull, Del Gaiso, 2006).

Psychological well-being. Aristotle is credited for the West's first distinguishing between eudaimonia and hedonia in his work *Nicomachian Ethics*, where he contrasted hedonia's path to well-being based on experiencing pleasure with eudaimonia path to well-being based on living a virtuous life (Ryan et al., 2008). Positive affect, happy emotions, pleasant thoughts, and contentment are not the criteria for psychological well-being, although those may be consequences of a life lived purposeful with meaning and accordance to values. Eudaimonia reflects the position that happiness should not be the measure of optimal psychological functioning and places emphasis on actualizing one's fullest potential (Joshanloo, 2014).

If hedonic well-being can be thought of as outcome-focused, then eudaimonic well-being can be thought of as process-focused. Eudaimonic well-being places emphasis on the content of an individual's life and the process one goes through to obtain a complete life, realizing one's own human potentials (Ryan & Deci, 2001). Eudaimonia assumes that well-being is a way of living in comparison to hedonia's subjective appraisals of happiness (Ryan, et al., 2008). Robbins (2008) states that eudaimonia is "a reflection of a person who is flourishing in terms of his or her character strengths and virtues" (p. 100). Aristotle's eudaimonia identifies various traits that people should strive for. These virtues are the eudaimonic path to well-being. He stated that genuine happiness was the result of harmony within those virtues including autonomy, mastery of one's environment, personal growth, personal relationships, life purpose, self-acceptance, and other virtues to strive for in a well-lived life (Robbins, 2008).

Psychological well-being is found in a life of depth, meaning, and community (Ryan et al., 2008). Research indicates that increased psychological well-being is associated with increased subjective well-being and may produce feelings of happiness, pleasure and satisfaction (Deci & Ryan, 2008; Friedman & Robbins, 2012; Robbins, 2008; Ryan et al., 2008). Subjective well-being seems to be consistently correlated with psychological well-being (Compton, Smith, Cornish, & Qualls, 1996; Keyes, Shmotkin, & Ryff, 2002; McGregor & Little, 1998). However, eudaimonic well-being suggests the possibility that one may be living a good, complete life that brings about unpleasant thoughts and feelings. It allows for one to fully experience not only the thrills and awes of life but also its anxieties (Schneider, 2004). The eudaimonic perspective holds that living well with meaning and purpose facilitates an appreciation of anxieties as they help adapt and construct an even better existence, which may come at the sacrifice of hedonic happiness (Joshnloo, 2014).

The focus of eudaimonic research has been to specify what living well entails and to identify the expected consequences of such living. These consequences may include hedonic satisfactions, but typically eudaimonic theorists have been especially interested in other outcomes indicative of a good life, such as vitality, intimacy, health, and sense of meaning, among others. By contrast, the focus of hedonic research has been on pleasure. The experience of subjective happiness does not necessarily mean one has cultivated those characteristics and qualities that enable a person to live an authentically good life. If one is living an authentically good life, however, one enhances the capacity for deep, enduring and mature expressions of happiness and joy (Robbins, 2008).

Physical well-being. Physical well-being, also known as health, is a multi-dimensional construct (Cacioppo & Berntson, 2007; Gochman, 1997) that is more than just the absence of

illness (Ryff, Singer, & Love, 2004). Physical well-being can be conceptualized as both a state and as a process (Carver, 2007; Kaplan, 1994, 2003). The biomedical model of health identifies health as a state and defines it as a lack of disease or illness (e.g., lack of acute symptoms, chronic conditions, and/or disability), lack of functional impairment, and a positive self-assessment of one's own health (Breslow, 1972; Idler & Kasl, 1991). Physical well-being is operationalized in a variety of ways ranging from a subjective single item self-report assessment measure about one's overall health (e.g., individual endorsing that they feel they are in good health or poor health) to specific physiological measures (e.g., blood pressure, cholesterol levels, blood sugar levels). Theorists in the field also define health as a lifelong process that is regulated over time, such as the immune system, endocrine system, and nervous system, and also how the systems interact in order to maintain homeostasis, or balance, within the body (Cacioppo & Berntson, 2007). When homeostasis or balance is threatened the risk increases for biological systems breaking down and can, over time, eventually lead to a physical decline (McEwen, 1998; McEwen & Stellar, 1993). Another approach to health conceptualizes it in relationship to stress. On a molecular level, health is also defined as having a physiological response to stress and then rapidly recovering to baseline level (Kemeny, 2007).

The manner in which physical well-being is determined is relative to where an individual is on the continuum of health (i.e., optimal functioning to clinical illness) relative to one's age (Howell, Kern, & Lymbomirsky, 2007). For healthy individuals the goals for health include preventing disease and maintaining normal functioning of the body. In addition, well-being in healthy individuals should help maintain or increase functioning and also decrease risk for disease, illness, and early mortality (Howell, et al., 2007). For individuals with chronic medical conditions/illnesses the goals are to maintain well-being and control symptoms. Well-being in

individuals with chronic conditions/illnesses attempt to decrease symptoms, increase symptom control, and increase longevity (Howell et al., 2007).

Chronic Medical Conditions/Illnesses

Chronic medical conditions/illnesses are rising in prevalence each year as the US population ages, grows, life expectancy increases, and medicine advances (Goodman, Posner, Huang, Parekh, & Koh, 2013). There are several definitions of chronic medical conditions in the literature. The U.S. Department of Health and Human Services within the Centers for Disease Control and Prevention defined chronic medical conditions/illnesses as “A chronic disease or condition has one or more of the following characteristics: is permanent; leaves residual disability; is caused by nonreversible pathological alteration; requires special training of the patient for rehabilitation; or may be expected to require a long period of supervision, observation, or care (Bernstein et al., 2003, p. 128). The World Health Organization (2014) define chronic medical conditions/illnesses as “Chronic diseases are diseases of long duration and generally slow progression.” Goodman et al. (2013) examined several definitions of chronic medical conditions in the literature and discovered several recurrent themes within the definitions of chronic medical conditions. Goodman et al. (2013) found that the themes for chronic medical conditions were the “non-self-limited nature, the association with persistent and recurring health problems, and a duration measure in months and years (p.1).” The aforementioned study also examined the literature and applied a classification system influenced by the Office of Assistance Secretary of Health (OASH) to determine what medical conditions qualified as chronic. Twenty medical conditions were determined to be chronic and they are as follows: hypertension, congestive heart failure, coronary artery disease, cardiac arrhythmias, hyperlipidemia (i.e., high cholesterol), stroke (i.e., cerebrovascular disease), arthritis, asthma,

autism spectrum disorder, cancer, chronic kidney disease, chronic obstructive pulmonary disease, dementia, depression, diabetes, hepatitis, osteoporosis, schizophrenia, and substance use disorders (Goodman et. al., 2013).

Well-Being among Individuals with Chronic Medical Conditions/Illnesses

A substantial amount of research has examined quality of life (QOL) in individuals with chronic medical conditions/illnesses. The three most widely studied domains of QOL in individuals with chronic medical conditions are physical, psychological, and social functioning. However the primary focus of most of the research has been on health-related quality of life (HRQOL) rather than general QOL, social QOL, or psychological QOL in individuals with chronic medical conditions/illnesses. HRQOL is one element of QOL or well-being. HRQOL is defined as an illness' impact on an individual's function and the management of physical, mental, and social functioning (Wikman, Wardle, & Steptoe, 2011).

Research findings on HRQOL suggest that chronic medical conditions/illnesses have significant negative effects on physical health; however mental health may remain unaffected (Alonso et al., 2004; Hopman et al., 2009; Singer et al., 1999). Alonso et al. (2004) examined HRQOL in individuals with chronic medical conditions/illnesses in eight countries and found that these individuals in all eight countries had lower HRQOL than those without a chronic medical condition/illness. They also found that conditions/illnesses that were the most symptomatic and disabling had lower HRQOL, specifically those with arthritis, congestive heart failure, and chronic lung disease.

Another study (Sprangers et al., 2000) examined what chronic medical conditions/illnesses had better and poorer HRQOL. The study found that individuals with cerebrovascular/neurologic, gastrointestinal, renal, and musculoskeletal conditions had the

poorest HRQOL, while individuals with dermatologic conditions, hearing impairments, psychiatric disorders, and urogenital conditions had better HRQOL. The study also indicated that individuals that were female, older, had a lower level of education, not living with a partner, and had at least one co-morbid chronic medical condition/illness had the poorest HRQOL.

Nonetheless, individuals with poor health do not necessarily have poor QOL or well-being, since there are individuals that adapt and overcome in the face of illness to pursue and achieve their goals (Wikman et al., 2011). It is not well understood why this may be the case. General QOL and well-being has rarely been assessed in those with chronic medical conditions/illness and not much is known about general QOL or general well-being in individuals with chronic medical conditions/illnesses. One of the few studies that examined general QOL and affective QOL (i.e., emotional well-being) in individuals with chronic medical conditions/illnesses found that there are associated impairments in general QOL and affective QOL in individuals with chronic medical conditions/illnesses, but different conditions/illnesses have varying degrees of impact on QOL (Wikman et al., 2011). Specifically, the study found that individuals that had endured a stroke had the most impaired QOL and also the greatest reduction in positive well-being. Findings also suggest that individuals with cancer had the least impaired QOL and well-being (Wikman et al., 2011). The aforementioned study also indicated that a reduction in general QOL and affective QOL is associated with having multiple co-morbid chronic medical conditions/illnesses. Although this study expanded upon the research on general QOL and affective QOL in individuals with chronic medical conditions/illnesses, it also had limitations in its measurement of well-being. Specifically, Wikman et al. (2011) only utilized the Control, Autonomy, Satisfaction, Pleasure—19 (CASP-19) to measure QOL and two questions from the General Health Questionnaire to

measure affective well-being, which are not comprehensive measures of QOL and also does not incorporate all the domains of well-being.

Arnold et al. (2004) performed a study that examined quality of life (QOL) in individuals with chronic medical conditions/illnesses. Specifically, the study investigated the contribution of three domains of QOL to overall QOL in individuals with one of eight chronic medical conditions/illnesses (e.g., lung disorder, heart condition, hypertension, diabetes mellitus, back problems, rheumatoid arthritis, migraines, dermatological disorders). The three domains of QOL they examined were physical functioning, social functioning, and psychological functioning. The researchers determined that the psychological functioning domain of QOL was the only domain that contributed to overall QOL for all eight chronic medical conditions/illnesses. Whereas social and physical functioning domains contributed to overall QOL in only five of the chronic medical conditions/illnesses (e.g., lung disease, back problems, hypertension, migraines, and rheumatoid arthritis). These findings emphasize the importance of these three domains of QOL in individuals with chronic medical conditions. Furthermore, this study found that the separate domains of QOL had a limited contribution to individuals' with chronic medical conditions overall QOL, suggesting that impairments in one or more domains of QOL does not necessarily result in an impairment in overall QOL (Arnold et al., 2004). Lastly, the findings of this study suggest that the QOL in individuals with a chronic medical condition did not differ from those without a chronic medical condition.

Although, Arnold et al. (2004) had some important findings, it also had a fair amount of limitations that this present study aspires to address. One major limitation of this study was that the participants were extremely homogenous and were described as elderly individuals from northern Netherlands. Furthermore, they only examined three domains of QOL, psychological,

social, and physical. Lastly the QOL measure used in this study was not comprehensive and was a twenty item questionnaire called the Medical Outcome Study Short Form General Health Survey.

Research has also examined the positive effects of well-being on health outcomes in individuals with chronic medical conditions/illnesses. A meta-analysis by Howell et al. (2007) determined that well-being impacts health outcomes in a positive manner. Specifically, well-being is positively related to short-term and long-term health outcomes, as well as, symptom control of chronic medical conditions/illnesses (Howell et al., 2007). In another study, Bottoms and Allen (2005) found that participants with chronic medical illnesses/conditions showed a reduction in quality of life when there was a decline in their level of independence and changes in their social relationships.

Wenger, Mattson, Furberg, and Elinson (1984) determined three domains that affect well-being in individuals with a general medical condition/illness. The first domain that affected well-being in individuals with general medical conditions/illnesses was an individual's capacity and ability to perform activities of daily living and their level of social, cognitive, emotional, occupational, and economic functioning. The second domain is an individual's life satisfaction and perception of their own well-being. The last domain is the physical sequelae of the medical condition, such as the symptoms related to the disease and levels of impairment. However, Wenger et al. did not determine what domains of well-being are most important to individual with chronic medical conditions/illnesses.

Religiosity, Spirituality, and Physical Health

Religiosity, spirituality, and well-being. Religiosity is a complex, multidimensional construct involving the intertwining of behaviors, beliefs, affects, experiences, and values

(Levin, 2013). It is one of the common aspects of the human experience and it is often a concern among those seeking psychological treatment (Shafranske & Sperry, 2005). Religiosity is generally defined as group, public displays of faith while spirituality typically refers to individual experiences (MacDonald, 2000). Literature has also regularly shown that both religiosity and spirituality have positive associations with well-being and the belief that these aspects increase well-being is almost a mainstream belief held within the field (Levin, 2013). Most studies of religiosity and spirituality investigate Protestant and Catholic Christian religiosity and there is concern that these results are then generalized to diverse religious and spiritual populations (Joshnloo, 2014; Moberg, 2002). However, though this concern remains valid due to the inequality of research, studies tend to show religiosity and spirituality has a positive effect on well-being in the Buddhist community, in the Israeli Jewish community, in the Mormon community, and in the Muslim community (Allen & Wang, 2014; Johnstone et al., 2012; Levin, 2013; Vasegh & Mohammadi, 2007).

Religiosity, spirituality, and subjective well-being. Most of the literature concerning religiosity and spirituality defined well-being in line with subjective well-being, focusing on happiness and positive affect and repeatedly suggests that an increase in public displays of religiosity, such as regularly attending worship services, and spiritual practices, such as praying or meditating, increase positive affective states and subjective feelings of happiness (Koenig, McCullough, & Larson, 2001; Lun & Bond, 2013; McFadden, 1995). This trend has been found to be particularly strong among older adults (Jackson & Bergeman, 2011; Krouse, 2003).

Religiosity, spirituality, and psychological well-being. It has been suggested that religiosity and spirituality impact psychological well-being. Some findings suggest that an increase in psychological well-being is responsible for the increase in subjective well-being.

Jackson and Bergeman (2011) found psychological well-being to have a mediating effect between both religiosity and spirituality and subjective well-being, but only among older adults. It could be inferred that these older adults are more likely to have a chronic medical condition/illness due to their age.

The construct of spiritual well-being in the literature is closely tied with psychological well-being. McClain, Rosenfeld, and Breitbart (2003) and Muldoon and King (1995) state that meaning and value are centrally tied to spiritual well-being. Acknowledging and assessing spiritual well-being helps to honor the full person as part of a holistic understanding of personhood which understands people as multidimensional, including the body, mind, and spirit. This is consistent with recommendations by the World Health Organization to address quality of life while assessing health by encompassing the multiple dimensions of personhood, including psychological, social, and spiritual dimensions (Ben-Arye, Steinmentz, & Ezzo; 2013).

Spirituality, religion, and chronic medical conditions/illnesses. Research suggests that when someone has increased levels of religiosity and/or spirituality this is related to having better health in general (George, Larson, Koenig, & McCullough, 2000; Lee & Newberg 2005; Powell, Shahabi, & Thoresen, 2003). Literature has shown a beneficial relationship between religiosity and physical health from improving symptoms of Irritable Bowel Syndrome to reducing diastolic blood pressure (Debruin, 2006; Larson et al., 1989). Some of these benefits may be due to behaviors encouraged or discouraged by religious or spiritual beliefs. Longitudinal studies suggest that higher religiosity improved physical health by encouraging healthier behaviors (Strawbridge et al., 2001; Wills, Yeager, & Sandy, 2003). Naghi, et al. (2012) found that increased spirituality was associated with increased medication compliance in patients with chronic heart failure, therefore improving their prognosis.

It has been suggested the perceptions of one's health, and not the health itself, is affected by religiosity. The benefits of religiosity in patients with cancer were affected by whether they viewed God as stern and judgmental or loving and forgiving (Meisenhelder, Schaeffer, Younger, & Lauria, 2013). Johnstone et al. (2012) found that there were no health differences in their sample of 160 people, but those with higher levels of religiosity and spirituality held more positive attitudes about their health than those with lower levels of religiosity and spirituality. Diverse samples have shown that those who prioritize their religious beliefs above all else in organizing and understanding the world and who report a very close relationship with a higher power tend to self-report their health statuses more positively than they actually are (Holt et al., 2012; Rogers Skidmore, Montgomery, Reidhead, & Reidhead, 2010).

However, these attitudes about physical health may actually translate to improved health. In an analysis of over 20 independent studies measuring religiosity in patients of cardiac surgery, Mouch and Sonnega (2012) concluded that increased levels of religiosity and spirituality improved patients' prognosis. They found that results consistently show religiosity and spirituality to be associated with higher levels of optimism before surgery, and lower levels of distress and depression after surgery which tended to relate to fewer complications in surgery, shorter length of hospital stays, improved physical functioning post-operation, and reduced chance of post-operation short-term death (Mouch & Sonnega, 2012).

Research indicates that religiosity and spirituality are also associated with well-being among those with physical health conditions. A majority of the research on well-being among those with physical illness operationalizes well-being as the absence of mental health symptoms (Smith, McCollough, & Poll, 2003; Wills, et al., 2003). While this is an important relationship to understand, well-being is best understood as adding to the human experience, as opposed to

protecting from deficiencies or distress (Ryan & Deci, 2001). Patients' quality of life has been a way to measure these relationships. For example, one study found that breast cancer patients who were receiving chemotherapy and regularly participated in religious activities maintained higher scores of quality of life compared to those who did not participate in religious activities during their treatment (Paiva et al., 2013). Higher scores on measures of spirituality were also associated with improved quality of life in patients with chronic heart failure (Naghi et al., 2012). A study of patients with chronic pancreatitis investigated depth of faith and how influential their religious beliefs were in their worldview. They found that although patients with deeper religious beliefs and medical conditions reported higher levels of pain associated with their illness, they also showed improved quality of life compared to those whose faith was not as influential in their lives (Basinski et al., 2013).

Measuring Well-Being

Currently, well-being is measured utilizing two different constructs, theory-driven constructs (e.g., subjective well-being, psychological well-being) and specific domain constructs (e.g., physical, relational, religious/spiritual). Well-being is typically measured utilizing self-report measures allowing individuals to assess their current state of well-being and personal values (Binder, 2013). Subjective well-being indicators are often used to measure well-being, such as domain satisfaction judgments, life-satisfaction judgments, quality of life judgments, measures of hedonic balance, and positive and negative affect (Zou, Schimmack, & Gere, 2013). There are also numerous scales of specific aspects of well-being, such as sense of community, social identity, and spirituality.

Well-being is often operationalized as quality of life (QOL) in many health related studies. Quality of life is defined as "Individuals' perception of their position in life in the

context of the culture and the value system in which they live and in relation to their goals, expectations, standards and concerns,” (World Health Organization, 1997, p.1). The domains of QOL that are most widely used are physical, psychological, and social functioning, which is similar to well-being (Spilker, 1990). Therefore, quality of life and well-being will be used interchangeably.

The following measures represent some of the current, most widely-used well-being measures: Gallup-Healthways Well-Being Index-5 (Well-Being 5; Gallup-Healthway, 2009), International Well-being Index/Personal Well-being Index - Adults (PWI-A; Cummins, 2006), The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), Quality of Life Inventory (QOLI; Frisch, Cornell, Villanueva, & Retzlaff, 1992), The Quality of Well-Being Scale (QWB; Kaplan, Bush, & Berry, 1976), Ryff’s Scales of Psychological Well-being (PWB; Ryff, 1989), and The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larson, & Griffin, 1985). The Flourishing Scale (Diener, et. al, 2009) and The Scale of Positive and Negative Experience (SPANE; Diener et. al, 2009) are other measures of well-being that are current representations of subjective well-being.

Rationale

Overall, the current research on well-being tends to be unidimensional and there is not a unified multidimensional measure of well-being that considers aspects that may be of relevance to individuals that have a chronic medical condition/illness. The Multidimensional Well-Being Assessment (MWA; Harrell et al., 2013) was developed to be a more inclusive measure of well-being. The MWA includes both the physical health, psychological, social, emotional, and religious-spiritual well-being, while also incorporating domains of well-being that are often

measured separately such as, sense of community, meaning and purpose, transformational growth, and social-cultural identity.

After a thorough review of the literature the majority of research examining well-being or quality of life in individuals with chronic medical conditions/illnesses has focused on health related quality of life and somewhat on psychological and social quality of life rather than general well-being or other important domains of well-being. This study has expanded upon the current research on well-being or quality of life by examining well-being in individuals with chronic medical conditions/illnesses, with some particular attention to spiritual well-being and perceived importance of spirituality to one's overall well-being. It is important that this study examined well-being in individuals with chronic medical conditions/illnesses in order to aid mental health professionals, as well as primary care physicians and specialists, to better understand how well-being impacts health status and health behaviors. This understanding may also have implications for designing effective treatments enhancing treatment outcomes since there are approximately 117 million individuals with chronic medical conditions. The amount of individuals with chronic medical conditions/illnesses will only continue to grow due to the aging population and sedentary lifestyles. In addition, medical advancements will aid in increasing one's life expectancy and decreasing chronic medical conditions/illness; however medical advances may also increase one's life expectancy and increase the likelihood of acquiring a chronic medical condition/illness.

Chapter III: Methodology and Procedures

This study was designed to better understand well-being in individuals who have chronic medical conditions/illnesses. It is part of The Well-Being Project, a larger ongoing psychometric study of the Multidimensional Well-Being Assessment (MWA; Harrell et al., 2013). As of March 1, 2015, the database from the larger psychometric study included a diverse sample of 966 participants from community and student populations. The psychometric study has been approved by the university Institutional Review Board and is currently in the final phases of data collection.

The MWA was developed for the primary purpose of establishing a culturally-informed, inclusive, and multidimensional measure of well-being that takes into account the multiple contexts of well-being. Many aspects of well-being measured by the MWA have not been included in other comprehensive scales of well-being, such as transformational well-being, collective well-being, and transcendent well-being. An important goal of the MWA is to contribute an instrument to the measurement of well-being that is more inclusive of aspects of well-being that may be particularly relevant to racial/ethnic minority groups and those of lower socioeconomic status. These aspects of well-being emerged from the literature in multicultural psychology where themes of collectivism, spirituality, and overcoming adversity are prominent (Jackson, 2006). Conceptualizing well-being inclusive of these ideas and measuring the resulting multidimensional construct in a single instrument is the unique contribution of the MWA.

In the larger study, data was collected either online via a website or as a paper-and-pencil questionnaire. The online questionnaire was completed from any device (e.g., computer, smartphone, tablets) where an internet connection is available. Participants were recruited in

several ways. The first method of recruitment utilized snowball methods (i.e., person-to-person recommendation, social networking sites). The second method of recruiting participants involved gaining permission from the manager or head of organizations to make announcements that directed participants to the online questionnaire or to conduct pencil-and-paper administrations during meetings or gatherings. Another method of recruitment was distributing and/or posting written or electronic announcements in a variety of community and university settings that directed participants to the online questionnaire. Finally, another method of recruiting participants involved securing permission to do a group face-to-face administration in meetings of classes or organizational groups. The process involved a research staff member introducing the research project orally to the identified group at a time arranged with the class or organization. All participants were provided with a hardcopy or a website copy of the “Information for Research Participants” (see Appendix A). If the participants were recruited in person then the research staff reviewed the “Information for Research Participants” document verbally with the participants, and asked if there were any questions about participation in the research.

Study Design and Approach

The current study utilized a cross-sectional correlational design to examine well-being among individuals with chronic medical conditions/illnesses. Research variables included dimensions of well-being of the MWA, general well-being scales, measures of distress, participant demographics, and the importance of religion/spirituality in participants’ lives. The following research questions guided the design and analysis of the study.

Research question 1. Is there a significant relationship between the level of well-being on the MWA physical health dimension and indicators of subjective well-being as measured by

the MWA Emotional dimension, the SWLS, Flourishing Scale, and the SPANE in individuals with chronic medical conditions/illnesses?

Hypothesis 1. It is expected that there will be a significant positive correlation between the MWA physical health dimension and indicators of subjective well-being in individuals with chronic medical conditions/illnesses.

Research question 2. Is there a significant relationship between the MWA physical health dimension and indicators of distress as measured by the SPANE-N and the BADD in individuals with chronic medical conditions/illnesses?

Hypothesis 2. It is expected that there will be a significant negative correlation between the MWA physical health dimension and indicators of distress in individuals with chronic medical conditions/illnesses.

Research question 3. Is there a significant relationship between the MWA physical health dimension and religious-spiritual well-being in individuals with chronic medical conditions/illnesses?

Hypothesis 3. It is expected that there will be a significant negative correlation between the MWA physical health dimension and religious-spiritual well-being in individuals with chronic medical conditions/illnesses.

Research question 4. Among individuals with chronic medical conditions/illnesses, are there differences on dimensions of well-being between those who rate religion as very important and those who rate religion as not important?

Hypothesis 4. It is expected that well-being will be significantly different among those who rate religion as important.

Descriptive question 1. What dimensions of well-being are rated highest in importance to individuals with chronic medical conditions/illnesses?

Descriptive question 2. Do dimensions of well-being scores differ between individuals with different chronic medical conditions/illnesses?

Descriptive question 3. Do dimensions of well-being scores differ between individuals with a single chronic medical condition/illnesses versus individuals with multiple chronic conditions/illnesses?

Descriptive question 4. Among individuals with chronic medical conditions/illnesses, what demographic group differences (according to gender, age, income, socioeconomic status, race/ethnicity, level of education, relationship status, parental status, stress level, and illness interference) are observed on dimensions of well-being?

Descriptive question 5. How do individuals with chronic medical conditions/illness rate the individual items in the MWA Transcendent Well-Being domain?

Sample

The sample for the current study was selected from the 966 participants who had started completion of the online questionnaire as part of the larger Well-Being Project as of March 1, 2015. Participants that had more than two demographics and/or 10 or more missing questions on the MWA were deleted from the dataset which resulted in a total of 571 participants who had complete questionnaires as of March 1, 2015. Of these, 268 adults over 18-years old who reported an identified chronic medical condition or illness comprised the final sample for this study. Each qualifying participant identified one or more of the following chronic medical conditions/illnesses: arthritis, asthma or other respiratory disease, cancer, cardiovascular disease, cerebrovascular disease (e.g., stroke), chronic fatigue syndrome, chronic pain, diabetes

(including pre-diabetes or insulin resistance) , Epstein-Barr, gastrointestinal disease, high cholesterol, HIV/AIDS, hypertension, migraines or chronic headaches, musculoskeletal disease, obesity, and transplant recipients. Exclusion criteria included indication of chronic mental illness. The minimum number of participants needed to test the hypotheses was determined to be 107 by using power tables developed by Cohen (1992), specifying a power set at 0.80, a medium effect size, and a significance level of 0.05.

Recruitment and Data Collection

The recruitment procedures of this study were derived from the larger psychometric study and participants were recruited in accordance with the approved application to the Institutional Review Board (IRB) of Pepperdine University. Data collection utilized non-random sampling. Since data collection was in progress and the researchers are part of the larger project staff, approved data collection methods were used with a focus on locations where there are likely to be high levels of individuals with spiritual and religious affiliations and those with chronic health issues (e.g., churches, medical clinics, senior centers, non-profit organizations, etc.).

Organizations were chosen based on location, convenience, and previous knowledge that the organization was interested in furthering research. The researchers contacted leaders of these various organizations to obtain permission to make an announcement about the study at meetings, posted flyers on their property, or distributed the questionnaires to the members of the organization. The researchers also obtained permission from the leaders of targeted organizations to email members on the list-serves in order to ask them to participate in the project. A direct link to the online questionnaires was included. Specifically, individuals recruited through a list-serve, social media, and posted advertisements were directed to the study through the university's Qualtrics interface

(https://pepperdinegsep.azl.qualtrics.com/SE/?SID=SV_b26n119407u2pvL), or the MWA

website (www.wellbeingresearch.net). The completion of the questionnaires takes approximately 45 minutes.

All participants were provided the “Information for Research Participants” (see Appendix A) electronically. This document informed the participants that their responses will remain anonymous if they choose to participate. The “Information for Research Participants” also emphasized that their participation was voluntary and that they can simply submit an incomplete questionnaire if they chose not to continue to participate in the study. Participants had the option of entering a weekly prize drawing for a \$30.00 gift certificate to their choice of over 100 retail stores, restaurants, and entertainment venues through giftcertificates.com.

Measures

In order to test the research questions in this study the following measures of well-being were used: Multidimensional Well-Being Assessment (MWA), Broad Assessment of Distress and Dysfunction (BADD), The Flourishing Scale, The Satisfaction with Life Scale (SWLS), and The Scale of Positive and Negative Experience (SPANE). The MWA was used in all of the research questions and is the primary measure of well-being that is being researched in this study. The MWA Emotional dimension, the SWLS, Flourishing Scale, and the SPANE were utilized to measure subjective well-being. The BADD and SPANE-N were used to measure distress in individuals with chronic medical conditions/illnesses in relationship to physical health on the MWA. The SPANE-P scale, the SWLS, and the Flourishing Scale were used to measure subjective well-being in order to examine if there is a relationship between the MWA’s measure of physical health and the Flourishing Scale, the MWA’s Emotional dimension, the SPANE-P, and the SWLS’s indicators of subjective well-being.

Multidimensional Well-Being Assessment (MWA; Harrell et al., 2012; see Appendix B). The MWA is a 160-item scale assessing five general wellness contexts and 2-4 dimensions of well-being within each context for a total of 15 well-being dimensions. These include the *Psychological Wellness* context comprised of four dimensions of well-being (Emotional, Functional, Transformational, and Awareness), the *Physical Wellness* context comprised of three dimensions of well-being (Health and Body, Environmental, and Safety), the *Relational Wellness* context comprised of two dimensions of well-being (Prosocial and Relationship Quality), the *Collective Wellness* context comprised of four dimensions of well-being (Community, Sociocultural Identity, Participatory, and National Context) and the *Transcendent Wellness* context comprised of two dimensions of well-being (Meaning-Purpose-Flow and Spiritual-Religious). Development of the MWA included identifying core dimensions of well-being emerging from the scholarly literature (with particular attention to culturally diverse populations), generating an exhaustive pool of items for the MWA, and reducing the number of items through a Q-sort procedure.

Each of the 160 items are rated on a 5-point Likert-type scale. Respondents are asked to rate each item based on how much the statement was true for them over the past two weeks. Responses ranged from “Never/Not at all” to “Always/Extremely.” Scores were calculated for each Wellness Context, as well as for each dimension of well-being by adding the ratings and dividing by the number of items so that scores were comparable across domains and dimensions.

In June 2013, preliminary psychometric data was analyzed on the first 94 participants in the larger study. Initial alpha reliabilities and validity coefficients were computed and are summarized in Tables 1 and 2 below. The preliminary data indicated that the MWA has promising psychometric properties. Reliability coefficients in the MWA ranged from .70-.96.

The initial findings also indicated that the MWA has strong construct and known-groups validity. In addition, this analysis indicated the following top five self-reported determinants of overall well-being: “The quality of my relationships with the people closest to me,” “Having positive emotions and feelings,” “My physical health,” “My daily activities and achievements,” and “Having a sense of meaning and purpose.”

Table 1

Reliability Coefficients for MWA Well-Being Dimensions

Context and Dimension	# Of Items	Cronbach's Alpha	Mean	Standard Deviation
Physical	31	.90	4.58	0.60
Health	12	.84	4.11	0.78
Environment	11	.78	4.48	0.70
Safety	8	.83	5.15	0.73
Psychological	40	.96	3.96	0.72
Emotional	12	.92	4.08	0.85
Functional	10	.83	4.09	0.72
Awareness	6	.75	4.80	0.82
Transformative	12	.88	3.67	0.86
Relational	27	.91	4.24	0.71
Relationship Quality	15	.88	4.41	0.83
Prosocial	12	.89	4.08	0.83
Collective	35	.94	3.38	0.87
Identity	12	.86	3.59	1.00
Community	10	.86	3.60	0.97
Participatory	8	.85	3.01	1.17
National	5	.70	3.31	0.95
Transcendent	27	.94	3.48	1.06
Meaning-Purpose	14	.89	3.70	0.92
Spirituality	13	.94	3.28	1.38

Table 2

Validity Coefficients for the MWA Well-Being Dimensions

Context and Dimension	SWLQ	Flourishing Scale	SPANE-Positive	SPANE-Negative
Physical	.36**	.41**	.46**	-.56**
Health	.32*	.45**	.54**	-.55**
Environment	.31*	.40**	.44**	-.49**
Safety	.26*	.16	.15	-.35**
Psychological	.48**	.64**	.69**	-.63**
Emotional	.61**	.68**	.81**	-.72**
Functional	.49**	.55**	.60**	-.61**
Awareness	.25*	.43**	.54**	-.52**
Transformative	.38**	.59**	.52**	-.42**
Relational	.44**	.53**	.55**	-.42**
Relationship Quality	.57**	.52**	.65**	-.48**
Prosocial	.17	.38**	.27*	-.23
Collective	.18	.49**	.40**	-.29*
Identity	.19	.49**	.45**	-.36**
Community	.33**	.59**	.49**	-.38**
Participatory	.00	.31*	.16	-.09
National	.12	.32*	.31*	-.21
Transcendent	.28*	.52**	.56**	-.49**
Meaning	.46**	.60**	.60**	-.49**
Spirituality	.14	.40**	.46**	-.43**

SWQL = Satisfaction with Life Questionnaire (Diener et. al, 1985)

Flourishing Scale (Diener, et. al, 2009)

SPANE-Positive = Positive Emotion-Scale of Positive and Negative Emotion (SPANE; Diener et. al, 2009)

SPANE-Negative = Negative Emotion- Scale of Positive and Negative Emotion (SPANE; Diener et. al, 2009)

The Background Questionnaire (Harrell et al., 2012; See Appendix C). The

Background Questionnaire is a basic 15-item demographic questionnaire developed by the larger project investigator to obtain descriptive information about the research participants. There are 13 questions that request information regarding the participant's gender, age, race/ethnicity, country of birth and residence, zip/postal code, education, employment, relationship status, parental status, and financial situation. Two additional questions ask if the past 2 weeks had been particularly impacted by an illness or stress.

Broad Assessment of Distress and Dysfunction (BADD) (Harrell, 2014; See Appendix D). Harrell (2014) developed the revised BADD as a measure of general psychosocial functioning and symptomatology. The BADD is a 36-item scale that integrates common expressions about psychological distress (e.g., “I felt like I was going crazy, like I was losing my mind”; “I felt like a failure or a loser”). Items are rated on a 5 point Likert-type scale ranging from “Never true for me” to “Always true for me” over a specified amount of time (e.g., 2 weeks). According to the preliminary analysis of the data from the larger psychometric study (Harrell et al., 2013), the BADD has strong internal consistency reliability with an alpha reliability of .86. The BADD also has good construct validity as evidenced by the negative correlations with measures of positive well-being and a non-significant relationship with social desirability.

Flourishing Scale (Diener et al., 2010; Appendix E). The Flourishing Scale is a self-report measure of psychological and social functioning, theoretically based in psychological and social well-being. It is an 8-item measurement assessing positive relationships, feelings of competence, and a sense of purpose. Higher scores indicate psychological strength and optimistic view of self and future. Internal consistency reliability was reported at .87, and is considered strong (Diener et al., 2010). Furthermore, the convergence with Satisfaction with Life Scale was .62 (Diener et al., 2010). The Flourishing Scale is also reported to correlate with other well-being measures (e.g., Ryff scales of Psychological Well-being, Deci and Ryan’s Basic Need Satisfaction in General Scale) at significant levels.

Questionnaire for Eudaimonic Well-Being (QEWB) (Waterman et al., 2010; See Appendix F). The QEWB is a 21-item self-report measure utilizing a 5-point Likert scale. The QWEB measures well-being as conceptualized in eudaimonic philosophy by quantifying aspects

of self-discovery, perceived development of potential, sense of meaning and purpose in life, intense involvement in activities, investing significant effort in activities, and enjoyment in personally expressive activities (Waterman et al., 2010). Internal consistency was statistically substantial (Cronbach's alpha = 0.85) and the convergence with measures of subjective well-being and psychological well-being were 0.47 and 0.63, respectively.

The Satisfaction with Life Scale (SWLS; Diener et al., 1985; See Appendix G). The SWLS is a measure utilized to assess global life satisfaction and judgments of subjective well-being (Diener, et al., 1985). Items are rated on a 7-point scale from strongly disagree to strongly agree. The SWLS has strong internal reliability and moderate temporal stability. The Cronbach's alpha found by Diener, et al., 1985 is 0.87; however, several other researchers found this coefficient alpha ranging from .79 to .89 (Pavot & Diener, 1993). The internal consistency of the 5 items were .81, .63, .61, .75, and .66 (Diener, et al., 1985). In its validation, the correlations with other subjective measures of well-being ranged from 0.5 - 0.75. The SWLS has been one of the most widely used measurements for assessment of subjective well-being. The psychometric properties of the SWLS were established in diverse population including non-psychiatric medical outpatient (Arrindell, Meeuwesen, & Huyse, 1991), as well as in several different countries.

The Scale of Positive and Negative Experience (SPANE; Diener et al., 2009; See Appendix H). The SPANE is a 12-item measurement designed to assess subjective well-being by measuring positive feelings (6 items) and negative feelings (6 items). For both the positive and negative items, three of the items are general (e.g., positive, negative) and three per subscale are more specific (e.g., joyful, sad). In particular, the scale assesses negative and positive experiences and feelings based on the frequency of feelings during the past month. The SPANE has the following three scales: Positive Experience, Negative Experience, and the Balance

between the two (Diener et al., 2009). Internal consistency reliabilities of Positive, Negative, and Balance were .84, .80, and .88 (Cronbach's alpha), respectively. In addition, the SPANE correlated substantially with the PANAS the Positive, Negative and Balance at .59, .70, and .77, respectively (Diener et al., 2009).

Chapter IV: Results

Description of Participants

The 268 participants included 206 females (76.9%) and 62 males (23.1%). Ages of participants ranged from 18 to 77-years-old with a mean age of 37.22 (SD=15.03). Participants reported the following chronic medical conditions or illnesses: seventy-five had migraines or chronic headaches (28%), sixty-four had chronic pain (23.9%), sixty-three had allergies (23.5%), forty-seven were obese (17.5%), thirty-seven had hypertension (13.8%), twenty-five had a respiratory disease (9.3%), twenty-four had arthritis (9%), twenty-one had high cholesterol (7.8%), fifteen had diabetes or pre-diabetes (5.6%), fifteen had anemia (5.6%), thirteen had an gastrointestinal disease (4.9%), thirteen had an endocrine disease (4.9%), seven had reproductive problems (2.6%), five had heart/cardiovascular disease (1.9%), five had cancer or blood disease (1.9%), three had an infectious disease (e.g., HIV/AIDS, hepatitis C; 1.1%), two had a musculoskeletal disease (0.7%), one had Epstein-Barr or chronic fatigue syndrome (0.4%), one had a kidney transplant, and one had a neurological disease(0.4%). Over half of the participants ($N=156$, 58%) in this study have only one chronic medical condition/illness. There are sixty-four participants (23.9%) with two chronic medical conditions/illnesses, twenty-two participants (8.2%) with three, thirteen participants (4.9%) with four, and seven participants (2.6%) with five chronic medical conditions/illnesses.

Table 3

Illness Demographics

Demographic	N	Frequency
<u>Chronic Medical Condition/Illness</u>		
Migraines/Chronic Headaches	75	28%
Chronic Pain	64	23.9%

(continued)

Table 3

Illness Demographics

Demographic	N	Frequency
Allergies	63	23.5%
Obesity	47	17.5%
Hypertension	37	13.8%
Respiratory Disease/Asthma	25	9.3%
Arthritis	24	9%
High Cholesterol	21	7.8%
Diabetes/Pre-Diabetes	15	5.6%
Anemia	15	5.6%
Gastrointestinal Disease	13	4.9%
Endocrine Disease	13	4.9%
Reproductive Disorders	7	2.6%
Heart/Cardiovascular Disease	5	1.9%
Cancer/Blood Disease	5	1.9%
Infectious Disease	3	1.1%
Musculoskeletal Disease	2	0.7%
Epstein-Barr/Chronic Fatigue Syndrome	1	0.4%
Neurological Disease	1	0.4%
Organ Transplantation	1	0.4%
<u>Number of Chronic Medical Condition/Illness</u>		
One	156	58%
Two	64	23.9%
Three	22	8.2%
Four	13	4.9%
Five	7	2.6%
<u>Illness Interference</u>		
Negatively Affected by Illness	88	32.8%
Not Negatively Affected by Illness	180	67.2%
<u>Stress Level</u>		
About the Same Amount of Stress as Usual	118	44%
More Stress Than Usual	104	38.8%
Less Stress Than Usual	45	16.8%

Of the 268 participants with chronic medical conditions/illnesses, nearly one-third (32.8%) reported that they had been negatively affected by their illness condition during the last two weeks, while the majority (67.2%) were not negatively affected. In addition, 44% of

participants with chronic medical conditions/illnesses experienced about the same amount of stress as usual in the last two weeks, while 38.8% experienced more stress than usual in the last two weeks, and only 16.8% experienced less stress than usual.

Half ($N=134$) of the participants indicated their racial-ethnic identification as White (e.g., North American, European, South African, Australian, Multiethnic White). The remaining half included thirty-two of Latino/Hispanic decent (11.9%); thirty-one of Asian/Pacific Islander decent (11.6%); twenty-nine of Middle Eastern, Arab, and Persian/Iranian decent (10.8%); twenty-six were of African/Black American, Afro Caribbean, and Black African (9.7%); and sixteen were Multiracial/Multiethnic Minorities (6%). Demographic and descriptive data is presented in Tables 4 and 5.

Table 4

Race/Ethnicity and Religious/Spiritual Demographics

Demographics	N	Frequency
<u>Race/Ethnicity</u>		
White	134	50%
Latino	32	11.9%
Asian/Pacific Islander	31	11.6%
Middle Eastern/Persian/Arab	29	10.8%
African/Black American/Afro Caribbean/Black African	26	9.7%
Multiracial/Multiethnic Minority	16	6%
<u>Religious/Spiritual Affiliations</u>		
Catholic	54	20.1%
Protestant Christianity	51	19%
Spiritual	37	13.8%
Nondenominational or Other Christian	35	13.1%
Jewish	25	9.3%
Atheist	22	8.2%
Agnostic	18	6.7%
Muslim/Islam	8	3%
Hindu	7	2.6%
Other Spiritual or Religious Belief System	6	2.2%
Buddhist	5	1.9%

Participants consisted of the following religious/spiritual affiliations: fifty-four Catholic (20.1%), fifty-one Protestant Christianity (e.g., Methodist, Baptist, Lutheran, Episcopalian, etc.; 19%), thirty-seven Spiritual with no specific religious belief and New Age or New Thought Spirituality (13.8%), thirty-five Nondenominational or other Christian (13.1%), twenty-five Jewish (9.3%), twenty-two Atheist (8.2%), eighteen Agnostic (6.7%), eight Muslim/Islam (3%), seven Hindu (2.6%), 6 (2.2%) Other Spiritual or Religious Belief System (e.g., Druze, Indigenous/Cultured Centered Religion, Wiccan, Pagan), and 5 (1.9%) Buddhist.

With respect to educational attainment, the largest percentage of participants had obtained a graduate or professional degree (42%). Thirty-three percent had a college/university degree, twenty-eight percent were community college or vocational/trade school graduates, fourteen percent had a high school degree or equivalent or did not obtain a high school degree or equivalent. Furthermore the majority of the participants were in school or in a training program (60.4%). Specifically, forty-nine percent were enrolled full-time and twelve percent were enrolled part-time. Forty percent were not in school or a training program. With respect to employment, forty three percent were working full-time for pay, twenty-eight percent were working part-time for pay, nineteen were not currently working for pay by choice, and ten percent were unemployed but looking for a job. Most participants listed an annual income between \$50,000 and \$100,000 (33.9%), 18.7% had an annual income between \$100,000 and \$250,000, while 16% were between \$25,000 and \$50,000 annual income, 15.7%t earned less than \$25,000 a year, and 4.9% made more than \$250,000 a year. Only fourteen percent of participants had their basic needs met (with no extras), while forty-four percent had everything they needed plus a few extras, twenty-one percent were able to purchase many of the things they

wanted, twenty percent were able to buy luxury items or buy nearly anything they wanted, and less than one percent did not always have their basic needs met.

Table 5

Other Demographics

Demographics	N	Frequency
<u>Education</u>		
Did Not Obtain High School Degree or Equivalent	1	0.004%
High School Degree or Equivalent	37	13.8%
Community College or Vocational/Trade School Graduate	28	10.4%
College/University Degree	89	33.2%
Graduate or Professional Degree	113	42.2%
<u>Annual Income</u>		
Less Than \$25,000	42	15.7%
\$25,000 to \$50,000	43	16%
\$50,000 to \$100,000	76	28.4%
\$100,000 to \$250,000	50	18.7%
More than \$250,000	13	4.9%
<u>Socioeconomic Status</u>		
Did Not Have Basic Needs Met	2	0.007%
Basic Needs Are Met but No Extras	38	14.2%
Have Everything They Need and A Few Extras	118	44%
Able To Purchase Many of the Things They Want	56	20.9%
Within Limits They Are Able to Have Luxury Items	47	17.5%
Can Buy Nearly Anything They Want	7	2.6%
<u>Relationship Status</u>		
Not Currently Dating	72	26.9%
Currently Dating	39	14.6%
In an Intimate Relationship with Boyfriend or Girlfriend	55	20.5%
In Permanent Relationship With Life Partner	102	38.1%

In regards to relationship status, thirty-eight percent of participants were in a permanent relationship with their life partner or spouse, twenty-seven percent were not currently dating, twenty-one percent were in an intimate relationship with a boyfriend/girlfriend, and fifteen

percent were dating or going out casually. A little over half (51.5%) of participants had never been married, thirty-three percent were currently married, ten percent of participants had divorced or are currently divorced, sixteen percent were currently living together with their spouse or life partner, three percent had been widowed, and less than one percent were separated from their current spouse or life partner. The majority of the participants (81%) were not parents or legal guardians of children under the age of 18-years old and only nineteen percent were parents of children. Furthermore the majority of participants (90.7%) were not currently primary caregivers for someone that is elderly or a dependent.

Data Analysis

The Statistical Package for the Social Sciences (SPSS) 22 was utilized to analyze the data collected. Data analysis included preliminary and descriptive analyses, correlational analyses, t-tests and ANOVAs to compare MWA scores on demographics, and a series of exploratory multiple regressions to look at the most salient correlates of well-being in individuals with chronic medical conditions/illnesses.

Coefficient alphas were computed for the MWA physical health dimension and MWA emotional dimension, the SWLS (Diener et al., 1985), and the SPANE-P (Diener et al., 2009) in individuals with chronic medical conditions/illnesses. Construct validity was examined based on the correlation between the MWA physical health dimension scores and scores obtained from the BADD (Harrell, 2014), Flourishing Scale (Diener et al., 2010), SPANE-N (Diener et al., 2009), SPANE-P (Diener et al., 2009), and SWLS (Diener et al., 1985).

An exploratory multiple regression analysis was performed to identify the most significant predictors of well-being among individuals with chronic medical conditions/illnesses. A further multiple regression analysis was performed to detect patterns or differences (within

group) in well-being in individuals that have chronic medical conditions/illnesses and rate religion/spirituality as important versus those that rate religion/spirituality as unimportant. In addition, further multiple regression analysis were performed to detect different patterns in the most important dimensions of well-being, after accounting for the influence of demographic variables (e.g., gender, age, socioeconomic status, income, race/ethnicity, level of education, relationship status, parental status, stress level, illness interference).

Preliminary Analysis

All of the variables were cleaned by assessing the frequencies, means, and minimum and maximum scores. There were no significant outliers found in the data set. Means and standard deviations were computed for each of the measures of well-being.

Frequencies were conducted for gender, age, illness or medical conditions, illness interference, levels of perceived stress, ethnic identification, religious affiliation, level of education, financial status, household income, work or student status, occupation, sexual orientation, marital and relationship status, child or elderly caregiver status, place of birth, parent's place of birth, and length of time living in the United States. The participants in this study were diverse in the majority of the aforementioned variables. The following variables were selected to examine in this study: age, gender, illness or medical conditions, illness interference, levels of perceived stress, ethnic identification, religious affiliation, level of education, financial status, household income, work or student status, occupation, sexual orientation, marital and relationship status, and child or elderly caregiver status.

Well-Being in Individuals with Chronic Medical Conditions/Illnesses

Relationships of physical well-being. The first hypothesis of this study stated that there would be a positive correlation between the MWA physical health dimension and indicators of

subjective well-being as measured by the MWA Emotional dimension, the SWLS, Flourishing Scale, and the SPANE in individuals with chronic medical conditions/illnesses. Pearson r correlations were computed to assess bivariate relationships between physical well-being and various measures of subjective well-being in individuals with chronic medical conditions/illnesses. The physical health dimension on the MWA positively correlated ($p < .01$) with the emotional dimension of the MWA, the SWLS, the Flourishing Scale, and the SPANE-P (see Table 6), which all measure subjective well-being. The correlation was found to be statistically significant and the first hypothesis was confirmed.

The second hypothesis predicted that there would be a significant negative correlation between the MWA physical health dimension and indicators of distress in individuals with chronic medical conditions/illnesses. Pearson r correlations were computed to assess bivariate relationships between physical well-being and various measures of distress in individuals with chronic medical conditions/illnesses. The findings suggest that the physical health dimension on the MWA negatively correlated ($p < .01$) with the BADD and SPANE-N (see Table 6), which are measures of distress. The correlation was found to be statistically significant and the aforementioned findings confirm the second hypothesis.

The third hypothesis expected that there would be a significant negative correlation between the MWA physical health dimension and religious-spiritual well-being in individuals with chronic medical conditions/illnesses. A Pearson r correlation was computed to assess a bivariate relationship between physical well-being and spiritual-religious well-being in individuals with chronic medical conditions/illnesses. The physical health dimension on the MWA was positively correlated with the religious-spiritual dimension of well-being on the MWA (see Table 6). This correlation was found to be statistically significant; however this

finding does not confirm the third hypothesis because the relationship is positive rather than negative.

Table 6

Pearson R Correlations between Physical Well-Being and other Well-Being Measures

Measures	MWA Physical Well-Being
MWA Emotional Well-Being	.735**
SWLS	.469**
SPANE Positive	.556**
Flourishing Scale	.529**
SPANE Negative	-.453**
BADD	-.498**
MWA Spiritual-Religious Dimension	.296**

** . Correlation is significant at the 0.01 level (2-tailed).

Well-being among those who rate religion as important. The fourth hypothesis expected that among individuals with chronic medical conditions/illnesses, there would be differences on dimensions of well-being between those who rate religion as very important and those who rate religion as not important. After the equalities of variance were confirmed by the Levene's Test for homogeneity of variance there were some significant differences on dimensions of well-being in individuals with chronic medical conditions/illnesses between those who rated religion as very important, somewhat important, a little important, and not at all important. The dimension that was in violation of homogeneity of variance was the Meaning-Purpose-Flow dimension because the Levene's Test ($p=0.15$). Therefore only for this dimension the significance criteria will increase from $p \leq .05$ to $p \leq .01$. Post hoc comparisons using the Tukey test indicated that there were significant differences between mean scores for those who rated religion as important and not important within the Spiritual-Religious, Meaning-Purpose-Flow, Community, Sociocultural Identity, and Transformational dimensions.

The MANOVA results indicated that there were differences between those who rated religion as important and those who rated religion as not important on several dimensions of well-being, $F(45, 711) = 8.976, p < .0005, \text{Wilks } \Lambda = .000$. Univariate analysis results found significant differences between those who rated religion as important and those who rated religion as not important in both the Spiritual-Religious and the Meaning-Purpose-Flow dimensions of well-being, which are both in the larger Transcendent well-being domain. Those who rated religion/spirituality as not at all important scored significantly lower on the Spiritual-Religious dimension of well-being than those who rated religion/spirituality as a little important ($F(3, 253) = 158.6; p = .000$), somewhat important ($F(3, 253) = 158.6; p = .000$), and very important ($F(3, 253) = 158.6; p = .000$). Additionally, those who rated religion/spirituality as a little important scored significantly lower on the Spiritual-Religious dimension of well-being than those who rated religion as somewhat important ($F(3, 253) = 158.6; p = .000$) and very important ($F(3, 253) = 158.6; p = .000$). In addition, those who rated religion as somewhat important scored significantly lower on the Spiritual-Religious dimension than those who rated religion/spirituality as very important ($F(3, 253) = 158.6; p = .000$). On the Meaning-Purpose-Flow dimension of well-being, those who rated religion/spirituality as very important scored significantly higher than those participants that rated religion/spirituality as not at all important not at all important, ($F(3, 253) = 8.927; p = .000$), a little important ($F(3, 253) = 8.927; p = .001$), and somewhat important ($F(3, 253) = 8.927; p = .028$). Univariate analysis results found significant differences between those that rated religion/spirituality as important and not important in both the Sociocultural Identity and the Community dimensions of well-being, which are both in the larger Collective well-being domain. Those who rated religion/spirituality as very important scored significantly higher on the Sociocultural Identity compared to those who rated

religion/spirituality as a little important ($F(3, 253) = 12.309; p=.000$) and not at all important ($F(3, 253) = 12.309; p=.000$). Additionally, those who rated religion/spirituality as somewhat important scored significantly higher than those that rated religion/spirituality as not at all important ($F(3, 253) = 12.309; p=.007$). In addition, in the Community dimension of well-being those who rated religion/spirituality as very important score significantly higher than those who rated religion/spirituality as not at all important ($F(3, 253) = 4.801; p=.003$) and a little important ($F(3, 253) = 4.801; p=.045$). A univariate analysis result found significant differences between those that rated religion as important and not important in Transformational dimension of well-being, which is within the larger Psychological well-being domain. Those that rated religion/spirituality as very important scored significantly higher on the Transformational dimension of well-being compared to those that rated religion/spirituality as not at all important ($F(3, 253) = 4.855; p=.01$) and those that rated religion/spirituality as a little important ($F(3, 253) = 4.855; p=.008$).

Highest rated dimensions of well-being. The means of the dimensions of well-being that were rated by individuals with chronic medical conditions/illnesses ranged from $M=2.59$ to $M=3.87$. The Relationship Quality ($M=3.87, SD=0.366$) dimension of well-being on the MWA was rated the highest among those with chronic medical conditions/illnesses and rated the Emotional dimension ($M=3.66, SD=0.569$) of well-being as the second highest. The third highest rated dimension of well-being was the Safety dimension ($M=3.58, SD=0.717$). The Physical Health ($M=3.55, SD=0.657$) and the Awareness ($M=3.55, SD=0.651$) dimensions of well-being were the fourth highest rated dimension of well-being. The fifth highest rated dimension of well-being was the Functional-Behavioral dimension ($M=3.54, SD=0.59$) and six highest rated dimensions were the Meaning-Purpose-Flow ($M=3.53, SD=0.665$) and Transformational

($M=3.53$, $SD=0.636$) dimensions. The lowest rated dimension of well-being was the Sociocultural Identity dimension ($M=2.59$, $SD=0.96$) and the second lowest rated dimension of well-being was on the Spiritual-Religious dimension ($M=2.69$, $SD=1.12$). The other dimensions were rated and had the following means: Participatory ($M=2.71$, $SD=0.844$), National Context ($M=2.85$, $SD=0.918$), Community ($M=2.96$, $SD=0.854$), Environmental ($M=3.38$, $SD=0.687$), and Prosocial ($M=3.42$, $SD=0.677$).

Table 7

Means and Standard Deviations of MWA Dimensions of Well-Being

Dimension	Mean	SD
Relationship Quality	3.87	0.366
Emotional	3.66	0.569
Safety	3.58	0.717
Physical Health	3.55	0.657
Awareness	3.55	0.651
Functional	3.54	0.590
Meaning-Purpose-Flow	3.53	0.665
Transformational	3.53	0.636
Prosocial	3.42	0.677
Environmental	3.38	0.687
Community	2.96	0.854
National Context	2.85	0.918
Participatory	2.71	0.844
Spiritual-Religious	2.69	1.12
Sociocultural Identity	2.59	0.96

Differences in well-being among different chronic medical conditions/illnesses.

Participants were categorized into eight different groups depending on their chronic medical condition. The following were the eight different groups that were examined: anemia ($N=7$, 2.6%), cancer and transplants ($N=6$, 2.2%), cardiovascular disease and cardiovascular risk factors (this included hypertension, hypercholesterolemia, diabetes, and obesity; $N=55$, 20.5%), chronic pain (this included chronic pain, chronic migraines, chronic headaches, and arthritis; $N=111$,

41.4%), gastrointestinal diseases ($N=15$, 5.6 %), conditions or diseases that elicit an immunoresponse (e.g., allergies, infectious diseases, fibromyalgia, lupus, eczema, and psoriasis; $N=38$, 14.2 %), reproductive and endocrine diseases or conditions (e.g., thyroid issues; $N=12$, 4.5%), and respiratory disorders (e.g., asthma, COPD; $N=22$, 8.2%).

A MANOVA procedure indicated that there were differences on well-being dimensions among the different chronic medical conditions, $F(120, 3,814) = 1.551$, $p < .05$, Wilks $\Lambda = .022$. Univariate analysis results found significant differences between a few chronic medical conditions/illnesses. Those with cardiovascular disease or cardiovascular risk factors scored significantly higher on the Participatory dimension of well-being compared to those with respiratory diseases ($F(8, 548) = 1.916$; $p = .013$). In addition, those with chronic pain scored higher on the Participatory dimension of well-being compared to those with respiratory diseases ($F(8, 548) = 1.916$; $p = .019$). Lastly, those that had cardiovascular disease and risk factors scored higher on the Safety dimension of well-being compared to those with anemia ($F(8, 548) = 2.647$; $p = 0.048$).

Table 8

Univariate Comparisons on Well-Being Dimensions for Different Chronic Medical Conditions/Illnesses

Dimension of Well-Being	F	Sig.
Environmental	1.913	.056
Physical Health	3.446	.001
Safety	2.647	.007
Emotional	1.323	.229
Functional	1.482	.160
Transformational	1.229	.279
Awareness	1.268	.258
Prosocial	1.551	.137
Relationship Quality	1.132	.339

(continued)

Table 8

Univariate Comparisons on Well-Being Dimensions for Different Chronic Medical Conditions/Illnesses

Dimension of Well-Being	F	Sig.
Sociocultural Identity	.557	.814
Community	.819	.586
Participatory	1.916	.055
National Context	.598	.779
Meaning-Purpose-Flow	1.146	.331
Spiritual-Religious	.616	.764

Well-being among those with one or more chronic medical condition/illness. A

MANOVA procedure indicated that there were no differences on well-being dimensions among those that had one chronic medical condition/illness or had more than one chronic medical condition/illness, $F(15, 246) = 1.550$, $p < .05$, Wilks' $\Lambda = .089$. Univariate analysis results confirmed that there was not a significant difference between means of those with one chronic medical condition and those with multiple chronic medical conditions. Furthermore, there were not any statistically significant differences on the individual dimensions of well-being between those that have one chronic medical condition/illness or more than one medical condition.

Relationships among Demographic Variables and Well-Being

A series of MANOVAs were conducted to determine if there were any differences on any of the MWA dimensions and each demographic variable. The fifteen dimensions of the MWA were the dependent variables and each demographic variable served as the independent variable in each MANOVA analysis.

The MANOVAs indicated that there were no gender or level of education differences on any of the fifteen dimensions of well-being on the MWA. Significant differences were found for each of the other demographic variables tested.

Age. The MANOVA results indicated that there was a difference between age groups on MWA dimensions of well-being, $F(75, 1163) = 1.704, p < .0005, \text{Wilks } \Lambda = .000$. Univariate analysis results found significant differences between age groups in both the Physical Health and the Environmental dimensions of well-being, which are both in the larger Physical well-being domain. It was determined that on the Environmental dimension those that were between the ages of 60-79-years old scored significantly higher than those that were 20-29-years old ($F(5, 256) = 4.675; p = .04$) and for those that were 30-39-years old ($F(5, 256) = 4.675; p = .006$). Also on the Environmental dimension those who were 30-39-years old scored significantly lower on this dimension than those that were 40-49-years old ($F(5, 256) = 4.675; p = .023$). It was determined within the Physical Health dimension those that were 60-79-years old scored higher than those that were 20-29-years old ($F(5, 256) = 2.648; p = 0.05$) and also 30-39-years old ($F(5, 256) = 2.648; p = .032$).

Table 9

Univariate Comparisons on Well-Being Dimensions for Age

Dimension of Well-Being	F	Sig.
Environmental	4.675	.000
Physical Health	2.648	.024
Safety	2.471	.033
Emotional	1.167	.326
Functional	1.557	.173
Transformational	.988	.426
Awareness	2.283	.047
Prosocial	1.439	.211
Relationship Quality	.57	.723
Sociocultural Identity	1.094	.364
Community	1.456	.205
Participatory	1.716	.131
National Context	.453	.811
Meaning-Purpose-Flow	.776	.568
Spiritual-Religious	1.395	.226

Race/Ethnicity. The MANOVA results indicated that there was a difference between racial/ethnic groups on MWA dimensions of well-being, $F(75, 1163) = 2.235, p < .0005$, Wilks $\Lambda = .000$. Univariate analysis results found significant differences between racial/ethnic groups on the Environmental and Safety dimensions of well-being, which are both in the larger Physical well-being domain. It was determined that on the Environmental and Safety dimensions there was only one significant difference on each dimension and it was between Whites and those of Middle Eastern/Arab/Persian decent. Whites were found to score higher on the Environmental ($F(5, 256) = 3.186; p = .005$) and Safety ($F(5, 256) = 4.961; p = .001$) dimensions than those of Middle Eastern/Arab/Persian decent. Univariate analysis results also found significant differences between racial/ethnic groups on the Relationship Quality and Prosocial dimensions of well-being, which are in the larger Relational well-being domain. It was determined that on the Prosocial dimension Whites had significantly higher scores than those of Middle Eastern/Arab/Persian decent ($F(5, 256) = 1.997; p = .041$). Furthermore, on the Relationship Quality dimension those of Middle Eastern/Arab/Persian decent had significantly lower scores than Latinos/Hispanics ($F(5, 256) = 4.633; p = .001$), Whites ($F(5, 256) = 4.633; p = .001$), and Asians/Pacific Islanders ($F(5, 256) = 4.633; p = .044$). Additionally, univariate analysis results found significant differences between racial/ethnic groups on the Awareness and National Context dimensions, which are in the Psychological and Collective domains of well-being, respectively. On the Awareness dimension there were several significant differences in race/ethnicity. African-Americans had significantly higher scores on the Awareness dimension than those of Middle Eastern/Arab/Persian decent ($F(5, 256) = 5.385; p = .00$) and also higher than those of Asian/Pacific Islander decent ($F(5, 256) = 5.385; p = .032$). Whites also scored significantly higher on the Awareness dimension than those of Middle Eastern/Arab/Persian

descent ($F(5, 256) = 5.385; p=.001$). On the National Context dimension of well-being Latinos/Hispanics scored significantly higher than those of Middle Eastern/Arab/Persian ($F(5, 256) = 2.010; p=.037$).

Table 10

Univariate Comparisons on Well-Being Dimensions for Race/Ethnicity

Dimension of Well-Being	F	Sig.
Environmental	3.186	.008
Physical Health	.624	.681
Safety	4.961	.000
Emotional	1.808	.112
Functional	1.599	.161
Transformational	.949	.450
Awareness	5.385	.000
Prosocial	1.997	.080
Relationship Quality	4.633	.000
Sociocultural Identity	2.208	.054
Community	.568	.725
Participatory	1.524	.183
National Context	2.010	.078
Meaning-Purpose-Flow	1.536	.179
Spiritual-Religious	1.902	.094

Income. The MANOVA results indicated that there was a difference between income groups on the MWA dimensions of well-being, $F(75, 1163) = 1.569, p < .01, \text{Wilks' } \Lambda = .002$. Univariate analysis results found significant differences between income levels on all dimensions of the Physical well-being domain, specifically on the Environmental, Physical Health, and Safety dimensions. It was determined that on the Environmental dimension those that made less than \$25,000 a year scored lower than those that make \$100,000-\$250,000 ($F(5, 213) = 5.899; p=.011$) and also had lower Environmental well-being than those that made more than \$250,000 ($F(5, 213) = 5.899; p=.013$). Furthermore, those that made \$25,000-\$50,000 had lower scores on the Environmental well-being dimension compared to those that made \$50,000-\$100,000 ($F(5,$

213) = 5.899; $p=.018$), \$100,000-\$250,000 ($F(5, 213) = 5.899$; $p=.001$), and those that make more than \$250,000 ($F(5, 213) = 5.899$; $p=.003$). On the Physical Health dimension those that made \$25,000-\$50,000 had significantly lower scores than those that made \$50,000-\$100,000 in a year ($F(5, 213) = 3.379$; $p=.004$). Those that made less than \$25,000 ($F(5, 213) = 4.463$; $p=.004$) and those that made \$25,000-\$50,000 ($F(5, 213) = 4.463$; $p=.017$) scored significantly lower on the Safety dimension of well-being compared to those that made \$100,000-\$250,000. Those that made less than \$25,000 ($F(5, 213) = 4.463$; $p=.023$) also had significantly lower scores on the Safety dimension of well-being compared to those that made more than \$250,000. On the Functional dimension of well-being those that made \$25,000-\$50,000 a year scored significantly less than those that made \$50,000-\$100,000 a year ($F(5, 213) = 2.402$; $p=.025$). Those that made \$25,000-\$50,000 scored significantly lower on the Prosocial dimension of well-being than those that made less than \$25,000 a year ($F(5, 213) = 3.563$; $p=.033$) and those that make \$50,000-\$100,000 a year ($F(5, 213) = 3.563$; $p=.030$).

Table 11

Univariate Comparisons on Well-Being Dimensions for Income

Dimension of Well-Being	F	Sig.
Environmental	5.899	.000
Physical Health	3.379	.006
Safety	4.463	.001
Emotional	1.638	.150
Functional	2.402	.038
Transformational	2.129	.062
Awareness	2.069	.070
Prosocial	3.563	.004
Relationship Quality	1.323	.255
Sociocultural Identity	1.714	.132
Community	1.853	.103
Participatory	1.014	.410

(continued)

Table 11

Univariate Comparisons on Well-Being Dimensions for Income

Dimension of Well-Being	F	Sig.
National Context	.878	.496
Meaning-Purpose-Flow	2.048	.072
Spiritual-Religious	.585	.711

Socioeconomic status. The MANOVA results indicated that there was a difference between socioeconomic status groups on the MWA dimensions of well-being, $F(75, 1163) = 2.216, p < .01, \text{Wilks' } \Lambda = .000$. Univariate analysis results found significant differences between socioeconomic statuses on all dimensions of the Physical well-being domain, specifically on the Environmental, Physical Health, and Safety dimensions. On the Environmental dimension those that endorsed having everything they needed and a few extras had lower scores than those that were able to purchase luxury items ($F(5, 256) = 10.101; p = .00$) and those that could buy nearly anything they wanted ($F(5, 256) = 10.101; p = .025$). Furthermore on the Environmental dimension of well-being those that endorsed having their basic needs met with no extras scored significantly lower than those that were able to purchase many things they wanted ($F(5, 256) = 10.101; p = .00$), those that could purchase luxury items ($F(5, 256) = 10.101; p = .00$), and those that could buy nearly anything they wanted ($F(5, 256) = 10.101; p = .00$). On the Physical Health dimension of well-being those that endorsed having their basic needs met with no extras had lower scores than both those that could buy luxury items ($F(5, 256) = 4.580; p = .013$) and those that could buy nearly everything they wanted ($F(5, 256) = 4.580; p = .012$). It was determined that those that were able to buy luxury items scored higher on the Safety dimension than those that had everything they needed with a few extras ($F(5, 256) = 5.84; p = .001$) and higher than those that had their basic needs met with no extras ($F(5, 256) = 5.84; p = .00$). Also on

the Safety dimension those that could buy many of the things they wanted scored higher than those that have their basic needs met with no extras ($F(5, 256) = 5.84; p=.021$).

Univariate analysis found significant differences between socioeconomic statuses in both the Emotional, Functional, and Awareness dimensions of well-being, which are all in the Psychological domain of well-being. Those that endorsed that they could buy luxury items had significantly higher scores on the Emotional dimension than the following groups: those that have everything they need and a few extras ($F(5, 256) = 5.585; p=.048$) and those that have their basic needs met with no extras ($F(5, 256) = 5.585; p=.002$). Additionally, those that could buy nearly anything they want scored higher on the Emotional dimension than those that had their basic needs met with no extras ($F(5, 256) = 5.585; p=.017$). It was also determined that those that could buy luxury items scored significantly higher on the Functional dimension of well-being compared to those endorsed having their basic needs met with no extras ($F(5, 256) = 4.275; p=.027$). On the Awareness dimension of well-being those that could buy nearly anything they wanted scored significantly higher than those that had their basic needs met but no extras ($F(5, 256) = 2.682; p=.015$).

Lastly, a univariate analysis found significant differences between socioeconomic statuses on the Community dimension of well-being, which is part of the Collective domain. It was found that those that were able to buy luxury items scored higher on the community dimension than those that had their basic needs met with no extras ($F(5, 256) = 3.487; p=.034$).

Table 12

Univariate Comparisons on Well-Being Dimensions for Socioeconomic Status

Dimension of Well-Being	F	Sig.
Environmental	10.101	.000

(continued)

Table 12

Univariate Comparisons on Well-Being Dimensions for Socioeconomic Status

Dimension of Well-Being	F	Sig.
Physical Health	4.58	.001
Safety	5.84	.000
Emotional	5.585	.000
Functional	4.275	.001
Transformational	1.663	.144
Awareness	2.682	.022
Prosocial	.171	.973
Relationship Quality	2.422	.036
Sociocultural Identity	1.346	.246
Community	3.487	.005
Participatory	3.671	.003
National Context	1.501	.190
Meaning-Purpose-Flow	.998	.419
Spiritual-Religious	.712	.615

Relationship status. The MANOVA results indicated that there was a difference between relationship status groups on the MWA dimensions of well-being, $F(45, 726) = 2.219$, $p < .0005$, Wilks' $\Lambda = .000$. Univariate analysis results found significant differences between relationship status groups on all dimensions of the Physical well-being domain, specifically on the Environmental, Physical Health, and Safety dimensions. On the Environmental dimension of well-being those who were dating or going out casually had a lower score than those who were in a permanent relationship with a life partner ($F(3, 258) = 4.068$; $p = .005$). On the Physical Health dimension of well-being those who were in a permanent relationship with a life partner scored higher than those who were not dating at all ($F(3, 258) = 4.338$; $p = .011$) and also higher than those who were dating or going out casually ($F(3, 258) = 4.338$; $p = .047$). Those who were in a permanent relationship with a life partner scored higher on the Safety dimension of well-being than those who were dating or going out casually ($F(3, 258) = 4.897$; $p = .004$) and also

higher than those who were in an intimate relationship with a boyfriend or girlfriend ($F(3, 258) = 4.897; p=.043$).

Univariate analysis results found significant differences between relationship status groups on the Emotional, Relationship Quality, and Community dimensions, which are part of the Psychological, Relational, and Collective domains of well-being, respectively. On the Emotional dimension of well-being those who were not dating at all scored lower than those who were in a permanent relationship with a life partner ($F(3, 258) = 3.238; p=.035$). Those who were in a permanent relationship with a life partner scored higher on the Relationship Quality dimension of well-being than those who were not currently dating ($F(3, 258) = 7.783; p=.002$) and also those who were dating or going out casually ($F(3, 258) = 7.783; p=.003$). Those who were in an intimate relationship with a boyfriend or girlfriend scored higher on the Relationship Quality dimension than those who were not currently dating at all ($F(3, 258) = 7.783; p=.012$) and also higher than those who were dating or going out casually and those that are in an intimate relationship with a boyfriend or girlfriend ($F(3, 258) = 7.783; p=.012$). Lastly, on the Community dimension of well-being those who were in a permanent relationship with a life partner had significantly higher scores than those who were dating or going out casually ($F(3, 258) = 3.132; p=.037$).

Table 13

Univariate Comparisons on Well-Being Dimensions for Relationship Status

Dimension of Well-Being	F	Sig.
Environmental	4.068	.008
Physical Health	4.338	.005
Safety	4.897	.003
Emotional	3.238	.023

(continued)

Table 13

Univariate Comparisons on Well-Being Dimensions for Relationship Status

Dimension of Well-Being	F	Sig.
Functional	2.434	.065
Transformational	.304	.823
Awareness	2.125	.098
Prosocial	1.785	.150
Relationship Quality	7.783	.000
Sociocultural Identity	.545	.652
Community	3.132	.026
Participatory	1.995	.115
National Context	.303	.823
Meaning-Purpose-Flow	1.019	.385
Spiritual-Religious	.939	.422

Parental status. The MANOVA results indicated that there was a difference between relationship status groups on the MWA dimensions of well-being, $F(15, 246) = 1.895$, $p < .05$, Wilks' $\Lambda = .024$. Univariate analysis results found one significant differences between those with children and those without children. On the Community dimension of well-being those how who were currently a parent or legal guardian of a child had higher scores than those who are not a parent or guardian of a child ($F(1, 260) = 7.133$; $p = .008$).

Table 14

Univariate Comparisons on Well-Being Dimensions for Parental Status

Dimension of Well-Being	F	Sig.
Environmental	.001	.974
Physical Health	.005	.942
Safety	.115	.734
Emotional	.031	.861
Functional	.505	.478
Transformational	.605	.438
Awareness	.420	.517

(continued)

Table 14

Univariate Comparisons on Well-Being Dimensions for Parental Status

Dimension of Well-Being	F	Sig.
Prosocial	1.051	.306
Relationship Quality	1.312	.253
Sociocultural Identity	3.217	.074
Community	7.133	.008
Participatory	3.635	.058
National Context	.097	.756
Meaning-Purpose-Flow	.074	.786
Spiritual-Religious	3.402	.066

Stress level. The MANOVA results indicated that there was a difference between stress level groups on the MWA dimensions of well-being, $F(30, 488) = 1.728, p < .05, \text{Wilks' } \Lambda = .011$. Univariate analysis results found significant differences between those who were experiencing more stress than usual and those who were experiencing about the same amount of stress. Those who were experiencing more stress than usual scored higher on the following dimensions of well-being compared to those who were experiencing about the same amount of stress in the last two weeks: Environmental ($F(2, 258) = 6.221; p = .001$), Physical Health ($F(2, 258) = 2.792; p = .049$), Emotional ($F(2, 258) = 5.539; p = .005$), Functional ($F(2, 258) = 6.549; p = .001$), and Community ($F(2, 258) = 3.330; p = .029$).

Table 15

Univariate Comparisons on Well-Being Dimensions for Stress Level

Dimension of Well-Being	F	Sig.
Environmental	6.221	.002
Physical Health	2.792	.063
Safety	.185	.832

(continued)

Table 15

Univariate Comparisons on Well-Being Dimensions for Stress Level

Dimension of Well-Being	F	Sig.
Emotional	5.539	.004
Functional	6.549	.002
Transformational	1.771	.172
Awareness	2.309	.101
Prosocial	1.791	.169
Relationship Quality	2.428	.090
Sociocultural Identity	.671	.512
Community	3.330	.037
Participatory	2.485	.085
National Context	.995	.371
Meaning-Purpose-Flow	1.553	.214
Spiritual-Religious	.085	.919

Illness interference. The MANOVA results indicated that there was a difference between illness interference groups on the MWA dimensions of well-being, $F(15, 246) = 3.027$, $p < .0005$, Wilks' $\Lambda = .000$. Univariate analysis results found significant differences on several dimensions of well-being between those who were negatively affected by a medical condition/illness in the last two weeks and those that were not affected by a medical condition/illness. Those who endorsed being negatively affected by a medical condition/illness in the last two weeks scored lower on all the following dimensions of well-being compared to those who did not endorse being negatively affected by a medical condition/illness: Environmental ($F(1, 260) = 8.588$; $p = .004$), Physical Health ($F(1, 260) = 27.553$; $p = .00$), Emotional ($F(1, 260) = 21.067$; $p = .00$), Functional ($F(1, 260) = 13.896$; $p = .00$), Transformational ($F(1, 260) = 4.812$; $p = .029$), Awareness ($F(1, 260) = 7.409$; $p = .007$), Relationship Quality ($F(1, 260) = 4.844$; $p = .029$), Sociocultural Identity ($F(1, 260) = 7.419$; $p = .007$), Community ($F(1, 260) = 13.028$;

$p=.00$), National Context ($F(1, 260) = 4.988$; $p=.026$), and Meaning-Purpose-Flow ($F(1, 260) = 5.295$; $p=.022$) dimensions.

Table 16

Univariate Comparisons on Well-Being Dimensions for Illness Interference

Dimension of Well-Being	F	Sig.
Environmental	8.588	.004
Physical Health	27.553	.000
Safety	1.646	.201
Emotional	21.067	.000
Functional	13.896	.000
Transformational	4.812	.029
Awareness	7.409	.007
Prosocial	.024	.877
Relationship Quality	4.844	.029
Sociocultural Identity	7.419	.007
Community	13.028	.000
Participatory	3.539	.061
National Context	4.988	.019
Meaning-Purpose-Flow	5.295	.020
Spiritual-Religious	1.693	.006

Highest Rated Items on the MWA Transcendent Well-Being Domain

The means of the questions on the MWA's Transcendent well-being domain ranged from $M=0.59$ to $M=3.54$ in the participants. Individuals with chronic medical conditions/illnesses rated the question stating "I lived with integrity, was true to myself and my values ($M=3.54$, $SD=1.057$)" the highest on the Transcendent domain. Participants then rated the item stating "I felt like my life had meaning, like I'm here for a purpose" as the second highest item ($M=3.48$, $SD=1.367$) and third highest rated item was "I had a strong sense of my values, what is most important to me ($M=3.46$, $SD=1.22$). The fourth highest rated item on the Transcendent domain was "I felt a strong sense of gratitude, an appreciation for both the ups and downs in my life ($M=3.16$, $SD=1.317$)" and the fifth highest rated item was "I was guided positively by my

intuition about things (M=3.09, SD=1.294).” The five highest rated items were all in the Meaning-Purpose-Flow dimension within the Transcendent domain. The lowest rated item on the Transcendent domain of well-being among participants with chronic medical conditions was “I received valuable counsel from a minister, rabbi, imam, priest, guru, pastor, or other religious leader (M=0.59, SD=1.15).” The second lowest rated item was “I witnessed or experienced spiritual healing (M=1.00, SD=1.376)” and the third lowest rated item was “I enjoyed expressing and sharing my spirituality with other people or in a faith community (M=1.26, SD=1.45).” Participants rated the item stating “I spent time praying, reading religious/spiritual books, or listening to spiritual music (M=1.45, SD=1.527)” as the fourth lowest item and the fifth lowest rated item was “My faith or spirituality was strengthened through reading, classes, or discussions (M=1.61, SD=1.587).” The five lowest rated items were all in the Spiritual-Religious dimension within the Transcendent domain of well-being on the MWA.

Table 17

Top Five Rated Items on the Transcendent Well-Being Domain on the MWA

Items on the Transcendent Well-Being Domain	Mean	SD
I lived with integrity, was true to myself and my values (“walked my talk”).	3.54	1.057
I felt like my life had meaning, like I’m here for a purpose.	3.48	1.367
I had a strong sense of my values, what is most important to me.	3.46	1.222
I felt a strong sense of gratitude, an appreciation for both the ups and downs in my life.	3.16	1.317
I was guided positively by my intuition about things.	3.09	1.294

Table 18

Five Lowest Rated Items on the Transcendent Well-Being Domain on the MWA

Items on the Transcendent Well-Being Domain	Mean	SD
I received valuable counsel from a minister, rabbi, imam, priest, guru, pastor, or other religious	0.59	1.150
I witnessed or experienced spiritual healing.	1.00	1.376
I enjoyed expressing and sharing my spirituality with other people or in a faith community.	1.26	1.450
I spent time praying, reading religious/spiritual books, or listening to spiritual music.	1.45	1.527
My faith or spirituality was strengthened through reading, classes, or discussions.	1.61	1.587

Chapter V: Discussion

This study's main focus was to gain a better understanding of well-being among those who have chronic medical conditions/illnesses utilizing a recently developed measure, the Multidimensional Well-Being Assessment (Harrell et al, 2013). Specifically, this study examined relationships of physical well-being and other dimensions of well-being among individuals with chronic medical conditions. Most hypotheses were supported and consistent with findings that were confirmed by the current literature. In addition, this study examined new areas of research, especially in understanding well-being in individuals with chronic medical conditions/illnesses in a more comprehensive manner. Specifically, many dimensions of well-being have never been examined in individuals with chronic medical conditions, such as transformational, community, sociocultural identity, prosocial, and national context dimensions of well-being.

Relationships with Physical Health Well-Being

Physical health well-being or Health Related Quality of Life (HRQoL) is the most researched type of well-being in individuals with chronic medical conditions/illnesses. Therefore part of this study examined whether physical health well-being on the MWA was related to subjective well-being on the MWA and other well-researched scales of well-being. Additionally, this study sought to understand if physical health well-being on the MWA was related in some manner to subjective distress as measured on the BADD, a recently developed measure of distress and dysfunction, and the SPANE-N, a well-researched measure of distress. In addition, this study was particularly interested in the relationship between physical health well-being and spiritual-religious well-being.

Subjective well-being and distress. In the individuals with chronic medical conditions/illnesses in this sample, physical health well-being and subjective well-being were

positively correlated with each other. In other words, when individuals with chronic medical conditions in this study had higher physical health well-being they also had higher subjective well-being and conversely, when they had lower physical health well-being they also had lower subjective well-being. This positive correlation between physical health and subjective well-being has been supported by several research studies (George & Landerman, 1984; Larson, 1978; Okun, Stock, Haring, & Witter, 1984). It is also important to note that this was consistent across all four measures of subjective scales of well-being (e.g., SWLS, MWA Emotional Well-Being dimension, Flourishing Scale, SPANE-P) studied. It appears that physical health may exert a significant impact on a person's subjective well-being, especially when one has a chronic medical condition. Given that this is a correlational analysis and directionality cannot be determine, it can also be postulated that one's subjective well-being can similarly positively affect one's physical well-being. Furthermore, it should be noted that previous research has found that self-rated health measures not only reflect one's subjective perception of health, but also reflects one's emotional adjustment to a medical condition thus affecting one's subjective well-being. Therefore self-rated measures of physical health well-being and subjective well-being can be inflated by this emotional element. Research has thus found that one's actual or objective health is less important than one's perception of their physical health (Diener, Suh, Lucas, & Smith, 1999; Hooker & Siegler, 1992; Watson & Pennebaker, 1989)

Furthermore, physical health well-being was found to be negatively correlated with subjective distress in individuals with chronic medical conditions/illnesses in this study. Specifically, when individuals with chronic medical conditions/illnesses in this study had higher physical health well-being they tended to have lower distress levels and when individuals with chronic medical conditions had lower physical health well-being they also had higher distress

levels. This relationship was consistent with both measures of distress, the BADD and SPANE-N, utilized in this study. Findings suggest that physical health has a significant impact on a person's distress level. It might also be that one's distress level or stress can negatively impact one's physical well-being, which has been found in previous studies (Carver, 2007; Keller, Shiflett, Schleifer, & Barlett, 1994). Furthermore it has been found that chronic distress or stress can negatively impact the immune system (Cohen & Williamson, 1991; Segerstom & Miller, 2004) over time and thus this can negatively affect overall health.

Spiritual-religious well-being. In participants with chronic medical conditions/illnesses, the physical health dimension on the MWA was positively correlated with the spiritual-religious dimension of well-being on the MWA. The data suggests that when individuals with a chronic medical condition/illness had higher physical health well-being they also had higher spiritual-religious well-being and when they had lower physical health well-being they also had lower spiritual-religious well-being. This is an interesting finding since it was hypothesized that there was going to be a significant relationship, but it was going to be negatively correlated rather than positively correlated. Initially, it was thought that individuals with a chronic medical condition/illness would have lower physical health well-being and therefore they would have higher spiritual-religious well-being because they would seek out religion and/or spirituality (Bottoms & Allen, 2005). However, Campbell, Yoon, and Johnstone (2010) found a similar result as the present study. Their research suggests that individuals with better health were more religious and spiritual and those with poorer health had decreased amounts of religiosity and spirituality. They suggest that instead of becoming more religious or spiritual when one is ill, that individuals with medical conditions start to question their spiritual or religious beliefs, as well as their sense of meaning and purpose because their lives become disrupted, which is also

supported by Devins et al. (2001). Another hypothesis is that religious question and testing of faith may occur earlier in the illness process which may create more distress in the transcendent domain of well-being. However, later in the illness process when people have worked through this they might experience post-traumatic growth (e.g., meaning making) and spiritual development processes may be more likely. If this were to be true then this has implications for points of intervention since some research suggests that people who experience post-traumatic growth may have increased quality of life (Helgeson, Reynolds, & Tomich, 2006; Stanton, Bower, & Low, 2006).

Well-Being among Those Who Rate Religion as Important

Findings from this study suggest that there were some significant differences on dimensions of well-being between those who rated religion as very important, somewhat important, a little important, and not at all important. This supports the fourth and final research hypothesis. Specifically, significant differences were found on the Transformational, Sociocultural Identity, Community, Meaning-Purpose-Flow, and Spiritual-Religious dimensions of well-being between individuals with chronic medical conditions/illnesses that rated religion as important and those that rated religion/spirituality as not important. Differences on the spiritual-religious dimension of well-being is to be expected between those that rate religion as important and not important in individuals with chronic medical conditions/illness. Specifically, individuals that rated religion as very important had a significantly higher means on all dimensions of well-being that were statistically significant (i.e., Spiritual-Religious, Meaning-Purpose-Flow, Transformational, Sociocultural Identity, and Community dimensions) compared to any other rating of religious importance. This finding suggests that those with chronic medical conditions/illnesses and those that rate religion as very important have higher levels of well-

being in the Spiritual-Religious, Meaning-Purpose-Flow, Transformational, Sociocultural Identity, and Community dimensions. Furthermore, it is interesting that those that rated religion as important also had a significantly higher means on the Meaning-Purpose-Flow dimension of well-being, possibly suggesting that those people with a chronic medical condition that feel that religion/spirituality is important may have higher feelings of meaning and purpose in their lives. It was also found that individuals that rated religion or spirituality as important also had significantly higher means on the community and sociocultural identity dimensions of well-being than those who rated religion/spirituality as not important. These findings are unique and have not been found in the literature. A hypothesized possibility for these findings are that those that are religious or spiritual also are very connected to their community, specifically a religious community and also one of their main sociocultural identities could be related to being religious or spiritual. Further study and replication is needed to provide additional testing of this hypothesis.

Dimensions of the MWA and Chronic Medical Conditions/Illnesses

Participants in this study with chronic medical conditions/illnesses scored highest on the relationship quality dimension of well-being than on any other dimension of well-being. The top dimension of well-being rated by those with chronic medical conditions/illnesses highlights how extremely important one's relationships and the quality of those relationships are to them. Previous studies have shown that individuals with strong social support are more adjusted to their chronic illness, better able to manage their chronic illness, and may also have enhanced self-efficacy and sense of mastery (Rosland et al., 2008; Umberson, 1987). Emotional and safety dimensions of well-being on the MWA were the second and third top rated dimensions of well-being, respectively. Research has found that Emotional well-being is important to those with

chronic medical conditions/illnesses and is important for good health outcomes. The reason for the Safety Dimension of well-being was rated third by those with chronic medical conditions/illnesses is unclear since these findings are unique and have not been found in the literature. A hypothesized possibility for these findings are that this would be a top rated dimension for most individuals whether they had a medical condition or not. Further study and replication is needed to provide additional testing of this hypothesis. The fourth highest dimension was physical health. This dimension of well-being was expected to be more highly rated among those with chronic medical conditions/illnesses. It is hypothesized that those with chronic medical conditions/illnesses rated their Physical Health well-being lower because although they might want higher Physical Health well-being their current status might be lower than they would like. Further study and replication will is needed to provide confirmation. Knowing the top four dimensions of well-being for individuals with chronic medical conditions could be clinically relevant because this could be something to track or assist individuals with chronic medical conditions/illnesses while in treatment.

The lowest rated dimension of well-being within individuals with chronic medical conditions/illnesses was the Sociocultural Identity dimension. The second and third lowest rated dimensions of well-being were Spiritual-Religious and Participatory well-being in participants with chronic medical conditions/illnesses. It was unexpected that the Spiritual-Religious dimension of well-being would be rated so low by individuals with chronic medical conditions. However, research supports that individuals with better health also are more religious or spiritual (Campbell, et al., 2010); therefore those that are in poorer health or have a chronic medical condition might be less religious or spiritual and thus score lower on the religious-spiritual dimension of well-being. In regards to Participatory well-being (i.e., involvement in change

efforts and issues in one's community), there were no research findings to confirm or challenge this finding since this dimension of well-being has not been researched in this population. Further studies are needed; however, it may be important for people with chronic illness to remain involved in a larger community in some way that makes them feel useful or that they are making a difference.

Differences in Well-Being among Different Chronic Medical Conditions/Illnesses

Significant differences were found in the Participatory and Safety dimensions of well-being among different chronic medical conditions. There were significant differences in the Participatory dimension of well-being between those with respiratory diseases and those with cardiovascular diseases and risk factors and also for those with respiratory disease and those with chronic pain. Individuals with anemia and cardiovascular disease and risk factors for cardiovascular disease had a significant difference on the safety dimension of well-being. Although there is a fair amount of research on well-being among different medical conditions there was no research found that examined Participatory or Safety well-being among different chronic medical conditions/illnesses. Furthermore there was no research that found differences in well-being among those with respiratory diseases and cardiovascular disease and risk factors or respiratory diseases and chronic pain. Lastly, there has been no research that found differences in well-being between those with anemia and cardiovascular disease and cardiovascular risk factors. Further research is needed to be completed in this area of well-being to better understand these findings and see if they can be replicated in another sample.

Well-Being among Those with One or More Chronic Medical Conditions/Illnesses

This study indicated that there were no significant differences on well-being dimensions between those with one chronic medical condition and those with multiple chronic medical

conditions (i.e., two or more). This is in contrast to previous research which has found differences in well-being between individuals with one chronic medical condition/illness and those that had two or more chronic medical conditions (Barile et al., 2013; Sprangers, et al., 2000; Wikman et al., 2011). The aforementioned studies also found that those with two or more chronic medical conditions had poorer well-being or quality of life than those with one chronic medical condition. It may be that chronic medical condition is operationalized differently in different studies. For example, in the current study, conditions were considered chronic even if the participant was not currently experiencing any negative symptoms. Furthermore, it might have been important to examine the differences in overall well-being between those with one and multiple chronic medical conditions, since previous research looks at overall well-being. Replication of this study is needed to further explore this contradictory finding.

Demographic Variables and Well-Being in Chronic Medical Conditions/Illnesses

Exploratory analyses were conducted to examine possible differences in dimensions of well-being among ten demographic variables among individuals with chronic medical conditions/illnesses. Significant differences among dimensions of well-being were found among eight of the ten demographic variables, age, race/ethnicity, income, socioeconomic status, parental status, relationship status, stress level, and illness interference. Gender and educational level did not show any significant differences on any dimension of well-being. Although there were some interesting differences found in the exploratory analyses conducted for the current study, replication and further research is needed examining demographic variability on well-being among those with chronic medical conditions/illnesses.

Age. Physical Health and Environmental dimensions of well-being differences were found between some of the age groups. Those that were in their 60's and 70's scored

significantly higher on the Environmental and Physical Health dimensions of well-being compared to those in their 20's and 30's. This was an interesting finding because one might assume the opposite. However those that are older may have an environment they are comfortable in or may have more funds to be in a desirable environment. In regards to physical health, those that are older might be more adjusted to their health condition and aging unlike those that are younger with a chronic medical condition. Another interesting finding was that those that were in their 30's had significantly lower scores on the Environmental dimension of well-being compared to those in their 40's.

Although no research was found specifically on Physical Health or Environmental well-being in relationship to age, there is research on psychological well-being. Research findings on psychological well-being are mixed in regards to older adults compared to younger adults. Some studies suggest that older adults experience increased levels of psychological well-being compared to those that are middle aged (Blanchflower & Oswald, 2008; Jeste et al., 2013; Stone, Schwartz, Broderick, & Deaton, 2010). Some of these studies have found that those that are in their twenties have similar levels of happiness as those in their eighties, while those that are middle aged are at their "*rock bottom*" of happiness. This pattern is often called a U-shaped curve of well-being. Other studies do not show the U-shaped curve of well-being and aging (Charles, Reynolds, & Gatz, 2001; López-Ulloa, Møller, & Sousa-Poza, 2013). What is consistent among many of these findings is that adults in the second half of their adult lives have greater life satisfaction and better mental health. Furthermore, another study found a positive correlation between older adults, ages 50 to 99, and successful aging (Jeste et al., 2013).

Race/Ethnicity. Significant differences were observed between racial-ethnic groups on the Environmental, Safety, Awareness, Relationship Quality, Prosocial, and National Context

dimensions of well-being. This study found that those of Middle Eastern/Arab/Persian descent had significantly lower scores on Environmental, Safety, Prosocial, Relationship Quality, and Awareness dimensions of well-being compared to Whites. Furthermore, those of Middle Eastern/Arab/Persian descent scored significantly lower on the Relationship Quality dimension of well-being compared to Latinos/Hispanics and Asians/Pacific Islanders. Findings also suggest that African-Americans and Asian/Pacific Islanders both scored significantly higher on the Awareness dimension compared to those of Middle Eastern/Arab/Persian descent. Lastly, those of Middle Eastern/Arab/Persian descent scored significantly lower on the National Context dimension of well-being compared to Latinos/Hispanics. The aforementioned findings of this study highlights that those of Middle Eastern/Arab/Persian descent have the lowest well-being in all dimensions of well-being mentioned (i.e., Environmental, Safety, Awareness, Relationship Quality, Prosocial, National Context) than any other race/ethnicity. There was no previous research found in individuals of Middle Eastern/Arab/Persian descent with chronic medical conditions/illness and well-being. It is hypothesized that individuals of Middle Eastern/Arab/Persian descent might not have access to healthcare, as well as they might have differing health beliefs, differing perceptions of health, and differing help seeking behaviors compared to other races or ethnicities. Furthermore, this group of individuals have other sociopolitical stressors that are specific to their culture, such as conflicts in their countries of origin, immigration, discrimination, levels of acculturation, and generational pressures (Moshfegh, 2014), which in turn could account for their lower levels of well-being.

Income. This study found that there were significant differences on the Environmental, Safety, Physical Health, Functional, and Prosocial well-being dimensions among different incomes. The general patterns of the findings suggest that those with lower income scored lower

on the aforementioned dimensions of well-being and those with a higher income generally scored higher on those dimensions of well-being. The only previous research done on income and well-being among those with chronic medical conditions focused on health related quality of life or physical health well-being. Studies have found that there usually is a positive correlation between income and health-related quality of life among cancer survivors (Marmot, 2002; Short & Mallonee, 2006). Short and Mallonee (2006) found that individuals with cancer that also have high-income are more likely to survive cancer and also have increased well-being compared to those cancer survivors with a lower income. This research study also accounted for the effects health can have on one's ability to earn money while ill. The aforementioned findings may be attributed to the idea that those with more income may be able to afford better healthcare and live healthier lifestyles (e.g., afford healthy food, afford gym memberships) thus increasing their Physical Health well-being.

It can also be hypothesized that individuals with more resources can live in a nicer and safer environment to account for the higher levels of Environmental well-being. Furthermore, those with higher income may have more resources and time to spend participating in activities that are prosocial and functional, which may account for the higher levels of Prosocial and Functional well-being.

Socioeconomic status. This study found that there were significant differences on the Environmental, Safety, Physical Health, Emotional, Functional, Awareness, and Community well-being dimensions among different socioeconomic statuses. Generally, it was found in this study that those with higher socioeconomic status, similar to those with higher incomes, had higher levels of well-being on the aforementioned dimensions of well-being. Similar reasons to why those with higher income scored higher on Environmental, Safety, Physical Health, and

Functional well-being dimensions could be applied to socioeconomic status. Similar to income, there has been very little research in looking at well-being and socioeconomic status in those with chronic medical conditions/illnesses. However, Worthington and Krentz (2005) found that the strongest predictor of Physical Health well-being or health related quality of life (HRQoL) in individuals with HIV was employment status. In addition they found that income was also significant as an independent predictor. Lastly, this study found that no other socioeconomic characteristics were significant predictors of HRQoL.

Furthermore those with higher socioeconomic status also had higher scores on the Community dimension, which could be due to those with higher socioeconomic status being able to live in nicer and safer communities, and therefore possibly being more invested in their communities. Another hypothesis in regards to those having higher socioeconomic status and higher levels of Emotional well-being is that those with higher socioeconomic status may also have less economic stressors (i.e., they are able to pay for healthcare costs), which would cause them to possibly have increased Emotional well-being.

Relationship status. There were significant differences on the Environmental, Physical Health, Safety, Relationship Quality, Emotional, and Community dimensions of well-being among different relationship statuses. The general pattern noticed in this data was that those in a permanent relationship with a life partner had significantly higher scores in several of the dimensions of well-being. This is consistent with the research that has been done on well-being and marriage. A literature review (Combs, 1991) found individuals who were married experienced less mental health issues and less stress than individuals that were not married. Combs (1991) found that the evidence in the research supports the protection/support hypothesis. This hypothesis states that individuals that are married experience less physical and emotional

issues compared to those that are unmarried because married individuals have consistent companionship, interpersonal closeness, gratification, and support dealing with daily stressors (Combs, 1991). This review still seems to hold true after years of research. Wilson and Oswald (2005) performed a longitudinal survey of the research on marriage and well-being and they found the following information about individuals that are married: 1) are less likely to have psychological illnesses, 2) have increased longevity, 3) have increased physical health, 4) have increased happiness, and 5) engage in less high risk behaviors. In addition, Kiecolt-Glaser and Newton (2001) found that married individuals live longer because marriage protects individuals from various health issues, such as minor illnesses like a cold or flu to serious and chronic medical conditions, such as cancer and heart disease.

The protection/support hypothesis seems to suggest that permanent relationships can increase relationship quality and emotional support, which would explain the higher levels of Relationship Quality and Emotional well-being found in this study. Research has also found that a spouse can provide emotional support that can help one cope better with their chronic medical condition/illness (Ross, Mirowsky, & Goldsteen, 1990).

Furthermore, permanent relationships can provide more financial stability according to the research (Chun & Lee, 2001; Wilson & Oswald, 2005). It can be hypothesized that the financial stability of marriage may lead to increased Environmental, Safety, and Physical Health well-being compared to those that are single, divorced, or widowed. Additionally, those in permanent relationships may have more community ties due to a larger network and usage of community resources, which may explain their higher levels of Community well-being.

Parental status. There was only one significant difference found between participants who were parents or legal guardians of a child and those were not parents or guardians. Those

that were currently parents or legal guardians of a child scored significantly higher on Community well-being compared to those that were not currently parents or legal guardians of a child. One hypothesis is that adults who are currently parents may feel more connected to their community due to more interaction with community structures such as schools and parks, as well as with the parents of their children's friends who are also in these settings.

Research on parental status in general has found that having children in the household is associated with lower levels of well-being (Hansen, 2012; Stanca, 2012). However, this is a complicated subject to research and there are often different results in various populations because different studies control for different factors (Deaton & Stone, 2014). Deaton and Stone (2014), recently performed a research study that controlled for various background factors (e.g., marital status, socioeconomic status, etc.) and they found a slight negative association with well-being and life satisfaction in those that currently had children within their household compared to those that did not have children currently with their household.

Stress level. There were significant differences on several dimensions of well-being between those that experienced more stress than usual and those that were experiencing the same amount of stress as usual. There were significant differences on the Environmental, Physical Health, Emotional, Functional, and Community dimensions of well-being between those that were experiencing more stress than usual and those that are experiencing about the same amount of stress in the last two week. Research supports that stress and the perception of stress negatively affects one's well-being, specifically one's health, health related quality of life, mood, and general well-being (DeLongis, Folkman, & Lazarus, 1988; Lazarus & Folkman, 1984; Lovallo, 2010). It can be hypothesized that experiencing more stress would cause emotional and physical distress and therefore decreased levels of Emotional and Physical Health well-being.

Illness interference. There were significant differences found on eleven of the fifteen dimensions of well-being in those who were negatively affected by a chronic medical condition/illness in the last two weeks compared to those who were not affected by their chronic medical condition/illness in the last two weeks. Specifically, those who were negatively affected by a chronic medical condition/illness in the last two weeks scored significantly lower on the Environmental, Physical Health, Emotional, Functional, Transformational, Awareness, Relationship Quality, Sociocultural Identity, Community, National Context, and Meaning-Purpose-Flow dimensions of well-being compared to those that were not negatively affected by a chronic medical condition/illness in the last two weeks. This finding illustrates that if one's health is being negatively affected that the majority of the dimensions of well-being and possibly well-being in general is lower. This finding also highlights the importance of understanding the well-being in individuals with chronic medical conditions/illnesses because when one is negatively affected by a chronic illness it also negatively affects several dimensions and domains of well-being. Although there is limited research on illness interference and the different dimensions of well-being, one previous study supports these findings. As mentioned earlier, Wikman et al. (2011) found that there are impairments in general and emotional well-being in individuals with chronic medical conditions/illnesses. In other words, when looked at a whole it appears that chronic medical conditions/illnesses interfere and impact one's life negatively; however the research notes that different illnesses (i.e., cancer versus having a stroke) have varying degrees of impact on the individual's well-being (Wikman et al., 2011). This is an important finding because it highlights that having a chronic medical condition/illness impacts so many different areas of one's life and numerous dimensions of well-being.

Individual Transcendent Well-Being Items

Examining the individual items on the Transcendent well-being domain revealed some interesting trends among individuals with chronic medical conditions/illnesses. The most interesting finding was that the five highest rated items on the Transcendent domain were all within the Meaning-Purpose-Flow dimension and the five lowest rated items were all in the Spiritual-Religious dimension within the Transcendent domain. It can be hypothesized that those with chronic medical conditions/illnesses are more concerned with meaning and purpose than spirituality and religion. It may be that those with chronic medical conditions are experiencing more existential issues than religious or spiritual issues.

Religion and spirituality has been associated with greater quality of life or well-being among individuals with various medical conditions (Basinski et al., 2013; Naghi et al., 2012; Paiva et al., 2013) and research has found that increased religiousness and spirituality is associated with better health (George et al., 2000; Lee & Newberg 2005; Powell et al., 2003). However, there has not been any specific research examining how individuals with chronic medical conditions rate religious and spiritual well-being versus meaning and purpose well-being. In other words, there has not been any research examining whether meaning and purpose well-being is more important to one's well-being compared to religious and spiritual well-being.

Limitations of Present Study

Constructs such as well-being, health, spirituality, and religiosity may be universal, but they are expressed and understood differently in different contexts and cultures (Diener & Suh, 2000). While this study attempted to be sensitive and allow representation of multicultural understandings of these constructs of well-being, the principal researchers and the majority of the participants in this study reside in the United States and are influenced by Western culture.

The addition of transformational well-being, collective well-being, and transcendent well-being to other dimensions of well-being is unique and although psychological literature gives credence to the importance of these aspects in a multidimensional conceptualization, there is little quantitative data to support the importance. Additional research is needed to better understand the degree of relevance of these dimensions to different populations, in different geographical locations, and in different sociocultural groups, to support the data and conclusions made.

Another area of limitation involved characteristics of the sample. One very important challenge of the study was the disproportionate amount of females to males in the sample. In addition, there was a disproportionate amount of educated individuals and those with higher socioeconomic status. In addition, the sample size of individuals with specific chronic medical conditions/illnesses could be larger. There were an adequate number of participants who reported chronic pain, arthritis, allergies, as well as cardiovascular diseases and risk factors. However, there was a very low number of participants with diabetes, cancer, musculoskeletal disorders, gastrointestinal disease, endocrine diseases, urogenital conditions, HIV/AIDS, hepatitis, and renal disease.

It is also important to remember that assumptions regarding instruments of well-being are being made especially since the MWA is a newly created measure of well-being. All interpretations utilizing the MWA should be taken with caution. Furthermore, this study uses correlations that may be used to show and describe relationships, yet it cannot claim to report the cause of a relationship. Therefore this study is limited by the correlational aspect. Lastly, there is potential for spurious findings in the exploratory analyses, meaning that the findings may not be

real and just artifacts of the number of analyses conducted. Thus it will be particularly important for future research to examine all multiple dimensions of well-being more consistently.

Potential Contributions of the Present Study

One of the primary objectives of the present study was to examine dimensions well-being in individuals with chronic medical conditions/illnesses. Specifically, a multidimensional measure of well-being has never been utilized within this population. Most of the literature on individuals with chronic medical conditions/illness primarily focus on Health Related Quality of Life or physical health well-being. One of the primary contributions of this study is the examination of multiple dimensions of well-being among those with a chronic medical condition or illness.

Furthermore, this study provided additional research support for relationships between the dimensions of well-being and those with chronic medical conditions/illnesses. This has provided a better understanding of the dimensions of well-being that have received minimal attention to this point. This increased understanding may be used clinically by allowing practitioners to understand the potential importance of these aspects of their clients' lives and may have implications for interventions that more specifically target improvements on particular dimensions of well-being.

Another objective of this research study was to contribute to the validation the Multidimensional Well-Being Assessment. The inclusion of a scale that comprehensively includes aspects of well-being, particularly a scale that may be relevant to racial/ethnic minority groups and those of lower socioeconomic status, is invaluable in the fields of psychological research and practice as we broaden multicultural understanding. Furthermore, the MWA has been developed to incorporate important dimensions of well-being that have received minimal

attention in measurements of well-being. These dimensions include Transformative well-being, Collective well-being, and Transcendent well-being. Conceptualizing well-being inclusive of these ideas and measuring the resulting multidimensional construct in a single instrument is unique. The MWA, as a comprehensive and culturally-inclusive measure of well-being, will give the ability to measure of effectiveness of interventions to improve mental health and physical health, not merely the reduction of symptomatology.

Future Research

There are several issues raised by this study that warrant further investigation. Firstly, replication in general would help to provide additional testing of many of the findings that have never been reported in previous research. Secondly, obtaining a larger and more diverse sample of chronic medical conditions/illnesses would help confirm or challenge the findings of this study, especially in regards to the differences in dimensions of well-being between different chronic medical conditions. Thirdly, future studies could have a sample that had more evenly distributed genders, education levels, and socioeconomic status. Lastly, there could be more demographic information that was specific to those with chronic medical conditions/illnesses, such as how long they have had the chronic medical condition and what conditions negatively affects them the most.

REFERENCES

- Allen, G. E. K., & Wang, K. T. (2014). Examining religious commitment, perfectionism, scrupulosity, and well-being among LDS individuals. *Psychology of Religion and Spirituality, 6*(2), 1-8. doi:1037/a0035197
- Alonso, J., Ferrer, M., Gandek, B., Ware, J. E., Aaronson, N. K., Mosconi, P., ... IQOLA Project Group. (2004). Health-related quality of life associated with chronic conditions in eight countries: Results from the International Quality of Life Assessment (IQOLA) Project. *Quality of Life Research, 13*, 283-298. <http://www.ncbi.nlm.nih.gov/pubmed/15085901>
- Arnold, R., Ranchor, A. V., Sanderman, R., Kempen, G. I. J. M., Ormel, J., & Suurmeijer, T. P. B. M. (2004). The relative contribution of domains of quality of life to overall quality of life for different chronic diseases. *Quality of Life Research, 13*, 883-896. <http://link.springer.com/article/10.1023%2FB%3AQURE.0000025599.74923.f2>
- Arrindell, W. A., Meeuwesen, L., & Huyse, F. J. (1991). The Satisfaction With Life Scale (SWLS): Psychometric properties in a non-psychiatric medical outpatients sample. *Personality and Individual Differences, 12*(2), 117-123. doi: 10.1016/0191-8869(91)90094-R
- Barile, J. P., Thompson, W. W., Zack, M. M., Krahn, G. L., Horner-Johnson, W., & Bowen, S. E. (2013). Multiple chronic medical conditions and health-related quality of life in older adults, 2004-2006. *Preventing Chronic Disease, 10*, 1-11. <http://dx.doi.org/10.5888/pcd10.120282>
- Basinski, A., Stefaniak, T., Stadnyk, M., Sheikh, A., Vingerhoets, A. J. J. M. (2013). Influence of religiosity on the quality of life and on pain intensity in chronic pancreatitis patients after neurolytic celiac plexus block: Case-controlled study. *Journal of Religion and Health, 52*, 276-284. doi: 10.1007/s10943-011-9454-z
- Ben-Arye, E., Steinmetz, D., & Ezzo, J. (2013). Two women and cancer: The need for addressing spiritual well-being in cancer care. *Spirituality in Clinical Practice, 1*, 71-77. doi: 10.1037/2326-4500.1.S.71
- Bernstein, A. B., Hing, E., Moss, A. J., Allen, K. F., Siller, A. B., & Tiggler, R. B. (2003). *Health care in America: Trends in utilization*. Hyattsville, MD. National Center for Health Statistics.
- Binder, M. (2013). Innovativeness and subjective well-being. *Social Indicators Research, 111*(2), 561-578. doi: 10.1007/s11205-012-0020-1
- Blanchflower, D. G., & Oswald, A. J. (2008). Is well-being U-shaped over the life cycle? *Social Science and Medicine, 66*, 1733-1749. doi: 10.1016/j.socscimed.2009.05.038

- Bottoms, J. M., & Allen, J. B. (2005). Optimizing quality of life when treating patients with chronic medical illnesses. In L. Vandecreek & J. B. Allen (Eds.), *Innovations in clinical practice: Focus on health and wellness* (pp. 5-20). Sarasota, FL: Professional Resource Press.
- Breslow, L. (1972). A quantitative approach to the World Health Organization definition of health: Physical, mental and social well-being. *International Journal of Epidemiology*, *1*, 347-355. doi: 10.1093/ije/1.4.347
- Busseri, M. A., & Sadava, S. W. (2012). Subjective well-being as a dynamic and agentic system: Evidence from a longitudinal study. *Journal of Happiness Studies*, *14*, 1085-1112. doi: 10.1007/s10902-012-9368-9
- Cacioppo, J. T., & Berntson, G. G. (2007). The brain, homeostasis, and health: Balancing demands of the internal and external milieu. In H. S. Friedman & R. C. Silver (Eds.), *Foundations of health psychology* (pp. 73-91). New York, NY: Oxford University Press.
- Campbell, J. D., Yoon, D. P., & Johnstone, B. (2010). Determining relationships between physical health and spiritual experience, religious practices, and congregational support in a heterogeneous medical sample. *Journal of Religious Health*, *49*, 3-17. doi: 10.1007/s10943-008-9227-5
- Carver, C. S. (2007). Stress, coping, and health. In H. S. Friedman & R. C. Silver (Eds.), *Foundations of health psychology* (pp.117-144). New York, NY: Oxford University Press.
- Centers for Disease Control and Prevention (2014). Chronic diseases: The leading causes of death and disability in the United States, *National Center for Chronic Disease Prevention and Health Promotion*, <http://www.cdc.gov/chronicdisease/overview/index.htm> last updated May 9, 2014
- Centers for Disease Control and Prevention (2015). FastStats: Deaths and mortality, <http://www.cdc.gov/nchs/fastats/deaths.htm> Last updated February 6, 2015
- Charles, S., Reynolds, C., & Gatz, M. (2001). Age-related differences and changes in positive and negative affect over 23 years. *Journal of Personality and Social Psychology*, *80*, 136-151. doi: 10.1037//0022-3514.80.1.136
- Chun, H., & Lee, I. (2001). Why do married men earn more: Productivity or marriage selection?, *Economic Inquiry*, *39*, 307-19. http://econpapers.repec.org/article/oupecinqu/v_3a39_3ay_3a2001_3ai_3a2_3ap_3a307-19.htm
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155-159. doi: 10.1037/0033-2909.112.1.155

- Cohen, S., & Williamson, G. M. (1991). Stress and infectious disease in humans. *Psychological Bulletin*, *109*, 5-25. doi: 10.1037/0033-2909.109.1.5
- Combs, R. H. (1991). Marital status and personal well-being: A literature review, *Family Relations*, *1*, 97-102. doi: 10.2307/585665
- Compton, W. C., Smith, M. L., Cornish, K. A., & Qualls, D. L. (1996). Factor structure of mental health measures. *Journal of Personality and Social Psychology*, *71*(2), 406-413. <http://www.ncbi.nlm.nih.gov/pubmed/8765489>
- Cummins, R. A. (2006). Australian Unity Wellbeing Index: Report 14.1—Fifth Anniversary Special Report—Summarizing the major findings. Melbourne: Australian Centre on Quality of Life, School of Psychology, Deakin University. <http://vhost47.hosted-sites.deakin.edu.au/reports/survey-reports/survey-014-1-report.pdf>
- Deaton, A., & Stone, A. A. (2014). Evaluation and hedonic wellbeing among those with and without children at home. *Proceedings of the National Academy of Sciences*, *111*(4), 1328-1333. doi: 10.1073/pnas.1311600111
- Debruin, J. E. (2006). *The mediating influence of spirituality on the relationship between personality factors and clinical outcomes of irritable bowel syndrome* (Doctoral Dissertation). Retrieved from Dissertation Abstracts International: Section B: The Sciences and Engineering, *67*(5-B), 2829.
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, *9*, 1-11. doi: 10.1007/s10902-006-9018-1
- DeLongis, A., Folkman, S., & Lazarus, R. S. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. *Journal of Personality and Social Psychology*, *54*(3), 486-495. doi: 10.1037/0022-3514.54.3.486
- Devins, G. M., Dion, R., Pelletier, L. G., Shapiro, C. M., Abbey, S., Raiz, L. R., et al. (2001). Structure of lifestyle disruptions in chronic disease: A confirmatory factor analysis of the Illness Intrusiveness Rating Scale, *Medical Care*, *39*, 1097-1104. doi: 10.1097/00005650-200110000-00007
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*(1), 34-43. doi: 10.1037//0003-066X.55.1.34
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, *49*, 71-75. doi: 10.1207/s15327752jpa4901_13
- Diener, E., Sandvik, E., & Pavot, W. (1991). Happiness is frequency, not the intensity, of positive versus negative affect. In F. Strack, M. Argyle, & N. Schwartz (Eds.), *Subjective well-being: An interdisciplinary perspective* (pp. 119-139). Oxford, UK: Pergamon.

- Diener, E., & Suh, E. M. (2000). *Culture and subjective well-being*. Cambridge, Mass: MIT Press.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276-302. doi: 0033-2909/99/\$3.00
- Diener, E., Wirtz, D., Biswas-Diener, R., Toy, W., Kim-Prieto, C., Choi, D. W., & Oishi, S. (2009). New measures of well-being. In E. Diener (Ed.), *Assessing well-being: The collected works of Ed Diener* (pp. 247-266). New York, NY: Springer.
- Diener, E., Wirtz, D., Toy, W., Kim-Prieto, C., Choi, D. W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, *97*(2), 143-156. doi: 10.1007/s11205-009-9493-y
- Epicurus (1926). *The extant remains: Letter to Menoecus and principal doctrines translated by Bailey*. Oxford, England: Oxford University Press.
- Friedman, H. (2008). Humanistic and positive psychology: The methodological and epistemological divide. *The Humanistic Psychologist*, *36*(2), 113-126. doi: 10.1080/08873260802111036
- Friedman, H. L., & Robbins, B. D. (2012). The negative shadow cast by positive psychology: Contrasting views and implications of humanistic and positive psychology on resiliency. *The Humanistic Psychologist*, *40*(1), 87-102. doi: 10.1080/08873267.2012.643720
- Frisch, M.B., Cornell, J., Villanueva, M., & Retzlaff, P. J. (1992). Clinical validation of the Quality of Life Inventory: A measuring of life satisfaction for use in treatment planning and outcome assessment. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, *4*, 92 -101. doi: 10.1037/1040-3590.4.1.92
- Gallup-Healthways Inc. (2009). *Gallup-Healthways Well-Being™ Index: Methodology report for indexes*. Retrieved from <http://wbi.meyouhealth.com/files/GallupHealthwaysWBI-Methodology.pdf>
- George, L.K. & Landerman, R. (1984). Health and subjective well-being: A replicated secondary data analysis. *International Journal of Aging and Human Development*, *19*(2), 133-156. doi: 10.2190/QGJN-0N81-5957-HAQD
- George, L. K., Larson, D. B., Koenig, H. G., & McCullough, M. E. (2000). Spirituality and health: What we know, what we need to know. *Journal of Social and Clinical Psychology*, *19*, 102-116. doi: 10.1521/jscp.2000.19.1.102
- Gochman, D. S. (1997). Health behavior research: Definitions and diversity. In D. S. Gochman (Ed.), *Handbook of healthy behavior research I: Personal and social determinants* (pp. 3-20). New York, NY: Plenum Press.

- Goodman, R. A., Posner, S. F., Huang, E. S., Parekh, A. K., Koh, H. K. (2013). Defining and measuring chronic conditions: Imperatives for research, policy, program, and practice. *Preventing Chronic Disease, 10*, 1-16. doi: 10.5888/pcd10.120239
- Hansen, T. (2012). Parenthood and happiness: A review of folk theories versus empirical evidence, *Social Indicators Research, 108*(1), 29-64.
<http://link.springer.com/article/10.1007/s11205-011-9865-y>
- Harrell, S. P. (2014). A psychocultural perspective on positive psychology and well-being. *California Psychologist, 47*(2), 8-11.
- Harrell, S.P., Moshfegh, N., Anderson, G., Orozco, M., Park, E., & Pena, C.V. (2012, March). Developing a framework and measure of multiple contexts of well-being: Personal, relational, collective, transcendent, and physical. Poster presented at the annual convention of Society for Humanistic Psychology, Pittsburgh, PA.
- Harrell, S., Moshfegh, N., Anderson, G., Orozco, M., Pena, C., Bellete, N., Underwood, J., Park, E., Chimel, L., & Abou-Ziab, H. (2013). The Multidimensional Well-being Assessment (MWA): Measuring Relational, Collective, Transcendent, Psychological, and Physical Contexts of Wellness. Poster presented at the Third World Congress on Positive Psychology, International Positive Psychology Association, Los Angeles, CA, USA.
- Helgeson, V. S., Reynolds, K. A., & Tomich, P. L. (2006). A meta-analytic review of benefit finding and growth, *Journal of Consulting and Clinical Psychology, 74*, 797-816. doi: 10.1037/0022-006X.74.5.797
- Holt, C. L., Schultz, E., Williams, B., Clark, E. M., Wang, M. Q., & Southward, P. L. (2012). Assessment of religious and spiritual capital in African American communities. *Journal of Religion and Health, 51*, 1061-1074. doi: 10.1007/s10943-012-9635-4
- Hooker, K., & Siegler, I. C. (1992). Separating apples from oranges in health ratings: Perceived health includes psychological well-being. *Behavior, Health, and Aging, 2*, 81-92.
<http://psycnet.apa.org/psycinfo/1993-05267-001>
- Hopman, W. M., Harrison, M. B., Coo, H., Friedberg, E., Buchanan, M., & Van Den Kerkhof, E. G. (2009). Associations between chronic disease, age and physical and mental health status. *Chronic Disease Canada, 29*(3), 108-116. doi: 10.1007/s11136-011-9954-z
- Howell, R. T., Kern, M. L., & Lyubomirsky, S. (2007). Health benefits: Meta-analytically determining the impact of well-being on objective health outcomes. *Health Psychology Review, 1*(1), 83-136. doi: 10.1080/17437190701492486
- Idler, E. L., & Kasl, S. (1991). Health perceptions and survival: Do global evaluations of health status really predict mortality? *Journals of Gerontology, 46*, S55-S65. doi: 10.1093/geronj/46.2.S55

- Isen, A. M. (2003). An influence of positive affect on decision making in complex situations: Theoretical issues with practical implications. *Journal of Consumer Psychology, 11*(2), 75-85. doi: 10.1207/S15327663JCP1102_01
- Jackson, Y. (2006). *Encyclopedia of multicultural psychology*. Thousand Oaks, CA: SAGE Publications.
- Jackson, B. R., & Bergeman, C. S. (2011). How does religiosity enhance well-being? The role of perceived control. *Psychology of Religion and Spirituality, 3*(2), 149-161. doi: 10.1037/a0021597
- Jeste, D. V., Savla, G. N., Thompson, W. K., Vahia, I. V., Glorioso, D. K., Martin, A. S., ... Depp, C. A. (2013). Association between older age and more successful aging: Critical role of resilience and depression. *American Journal of Psychiatry, 170*, 188-196.
- Johnstone, B., Yoon, D. P., Cohen, D., Schopp, L. H., McCormack, G., Campbell, J., & Smith, M. (2012). Relationships among spirituality, religious practices, personality factors, and health for five different faith traditions. *Journal of Religion and Health, 51*, 1017-1041. doi: 10.1007/s10943-012-9615-8
- Joshanloo, M. (2014). Differences in the endorsement of various conceptualizations of well-being between two Iranian groups. *Psychology of Religion and Spirituality, 6*(2), 138-149. doi: 10.1037/a0035510
- Kahnemann, D., Diener, E., & Schwartz, N. (1999). *Well-being: The foundations of hedonic psychology*, New York, NY: Sage.
- Kaplan, R. M. (1994). The Ziggy theorem: Toward an outcome-focused health psychology. *Health Psychology, 13*, 451-460. doi: 10.1037/0278-6133.13.6.451
- Kaplan, R. M. (2003). The significance of quality of life in health care. *Quality of Life Research, 12*, 3-16. <http://www.ncbi.nlm.nih.gov/pubmed/12803306>
- Kaplan, R. M., Bush, J. W., & Berry, C. C. (1976). Health status: Types of validity and the index of well-being. *Health Services Research, 11*(4), 478-507. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1071947/>
- Keller, S. E., Shiflett, S. C., Schleifer, S. J., & Bartlett, J. A. (1994). Stress, immunity, and health. In R. Glaser & J. Kiecolt-Glaser (Eds.), *Handbook of Human Stress and Immunity* (pp. 217-244). San Diego, CA: Academic Press.
- Kemeny, M. E. (2007). Psychoneuroimmunology. In H. S. Friedman & R. C. Silver (Eds.), *Foundations of Health Psychology* (pp. 92-116). New York, NY: Oxford University Press.

- Keyes, L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, 82(6), 1007-1022. doi: 10.1037/0022-3514.82.6.1007
- Kiecolt-Glaser, J. K., & Newton, T. L. (2001). Marriage and health: His and hers, *Psychological Bulletin*, 127, 472-503. doi: 10.1037/0033-2909.127.4.472
- King, L. A., Hicks, J. A., Krull, J. L., & Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *Journal of Personality and Social Psychology*, 90(1), 179-196. doi: 10.1037/0022-3514.90.1.179
- King, L. A., & Napa, C. K. (1998). What makes life good? *Journal of Personality and Social Psychology*, 75(1), 156-165. doi: 10.1037/0022-3514.75.1.156
- Koenig H. G., McCullough, M. E., & Larson, D. B. (2001). *Handbook of religion and health*. New York, NY: Oxford.
- Krouse, N. (2003). Religious meaning and subjective well-being in late life. *Journal of Gerontology*, 58(3), 160-170. doi: 10.1039/geronb/58.3.S160
- Larson, R. (1978). Thirty years of research on the subjective well-being of older Americans. *The Gerontologist*, 33, 109-25. doi: 10.1039/geronj/33.1.109
- Larson, D. B., Koenig, H. G., Kaplan, B. H., Greenberg, R. S., Logue, E., & Tyroler, H. A. (1989). The impact of religion on men's blood pressure. *Journal of Religion and Health*, 28(4), 265-278. doi: 10.1007/BF00986065
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York, NY: Springer.
- Lee, B. Y., & Newberg, A. B. (2005). Religion and health: A review and critical analysis. *Zygon*, 40, 443-468. doi: 10.1111/j.1467-9744.2005.00674.x
- Levin, J. (2013). Religious behavior, health, and well-being among Israeli Jews: Findings from the European Social Survey. *Psychology of Religion and Spirituality*, 5(4), 272-282. doi: 10.1037/a0032601
- Lopez-Ulloa, B. F., Moller, V., & Sousa-Pozer, A. (2013). How does subjective well-being evolve with age? A literature review. *Journal of Population Aging*, 6, 227-246. doi: 10.1007/s12062-013-9085-0
- Lovallo, W. R. (2010). Emotions and stress. In J. M. Suls, K. W. Davidson, & R. M. Kaplan (Eds.), *Handbook of health psychology and behavioral medicine* (pp. 31-48). New York, NY: The Guilford Press.
- Lun, V. M. C., & Bond, M. H. (2013). Examining the relation of religion and spirituality to subjective well-being across national cultures. *Psychology of Religion and Spirituality*, 5(4), 304-313. doi: 10.1037/a0033641

- MacDonald, D. A. (2000). Spirituality: Description, measurement, and relation to the five factor model of personality. *Journal of Personality*, 68(1), 153-197. doi: 10.1111/1467-6494.t01-1-00094
- Marmot, M. (2002). The influence of income on health: View of an epidemiologist, *Health Affairs*, 21(2), 31-46. doi: 10.1377/hlthaff.21.2.31
- McClain, C. S., Rosenfeld, B., Breitbart, W. (2003). Effect of spiritual well-being on end-of-life despair in terminally-ill cancer patients. *Lancet*, 361, 1603-1607. Retrieved from <http://thelancet.com>
- McEwen, B. S. (1998). Protective and damage effects of stress mediators. *New England Journal of Medicine*, 338, 171-179. doi: 10.1056/NEJM199801153380307
- McEwen, B. S., & Stellar, E. (1993). Stress and the individual. *Archives of Internal Medicine*, 153, 2093-2101. doi: 10.1001/archinte.1993.00410180039004
- McFadden, S. H. (1995). Religion and well-being in aging persons in an aging society. *Journal of Social Issues*, 51(2), 161-175. doi: 10.1111/j.1540-4560.1995.tb01329.x
- McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: On doing well and being yourself. *Journal of Personality and Social Psychology*, 74(2), 494-512. doi: 10.1037/0022-3514.74.2.494
- Meisenhelder, J. B., Schaeffer, N. J., Younger, J. & Lauria, M. (2013). Faith and mental health in oncology population. *Journal of Religion and Health*, 52(2), 505-513. doi: 10.1007/s10943-011-9497-1
- Moberg, D. O. (2002). Assessing and measuring spirituality: Confronting dilemmas of universal and particularly evaluative criteria. *Journal of Adult Development*, 9(1), 47-60. doi: 10.1023/A:1013877201375
- Moshfegh, N. (2014). *The multidimensional wellbeing assessment: Preliminary validation in an Iranian sample*. Retrieved from Dissertation Abstracts International: Section B: The Science and Engineering, 75(11-B).
- Mouch, C. A., & Sonnega, A. J. (2012). Spirituality and recovery from cardiac surgery: A review. *Journal of Religion and Health*, 51, 1042-1060. doi: 10.1007/s10943-012-9612-y
- Muldoon, M., & King, N. (1995). Spirituality, health care, and bioethics. *Journal of Religion and Health*, 34, 329-349. <http://hdl.handle.net/10822/747209>

- Naghi, J. J., Phillip, K. J., Phan, A., Cleenewerck, L., & Schwartz, E. R. (2012). The effects of spirituality and religion on outcomes in patients with chronic heart failure. *Journal of Religion and Health, 51*, 1124-1136. doi: 10.1007/s10943-010-9419-7
- Okun, M. A., Stock, W. A., Haring, M. J. & Witter, R. A. (1984). Health and subjective well-being: A meta-analysis, *International Journal of Aging Human Development, 19* (2), 111-132. doi: 10.1037/0882-7974.6.1.100
- Paiva, C. E., Paiva, B. S. R., de Castro, R. A., de Padua Souza, C., de Paiva Maia, Y. C., Ayres, J. A., & Michelin, O. C. (2013). A pilot study addressing the impact of religious practice on quality of life of breast cancer patients during chemotherapy. *Journal of Religion and Health, 52*, 184-193. doi: 10.1007/s10943-011-9468-6
- Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment, 5*(2), 164-172. doi: 1040-3590/93/\$3.00
- Powell, L. H., Shahabi, L., & Thorensen, C. E. (2003). Religion and spirituality: Linkages to physical health. *The American Psychologist, 58*, 36-52. doi: 10.1037/0003-066X.58.1.36
- Robbins, B. D. (2008). What is the good life? Positive psychology and the renaissance of humanistic psychology. *The Humanistic Psychologist, 36*(2), 96-112. doi: 10.1080/08873260802110988
- Robert Wood Johnson Foundation. (2010). Chronic care: Making the case for ongoing care. Princeton, New Jersey. <http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf54583>. Accessed January 2015
- Rogers, D. L., Skidmore, S. T., Montgomery, G. T., Reidhead, M. A., & Reidhead, V. A. (2012). Spiritual integration predicts self-reported mental and physical health. *Journal of Religion and Health, 51*, 1188-1201. doi: 10.1007/s10943-010-9425-9
- Rosland, A. M., Kieffer, E., Israel, B., Cofield, M., Palmisano, G., Sinco, B., ... Heisler, M. (2008). When is social support important? The association of family support and professional support with specific diabetes self-management behaviours. *Journal of General Internal Medicine, 23*, 1992-1999. doi: 10.1007/s11606-008-0814-7
- Ross, C. E., Mirowsky, J., & Goldsteen, K. (1990). The impact of family on health: Decade in review, *Journal of Marriage and Family, 52*, 1064. <http://www.jstor.org/stable/353319>
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141-146. doi:10.1146/annurev.psych.52.1.141
- Ryan, R., Huta, V., & Deci, E. (2008). Living well: A self-determination theory on eudaimonia. *Journal of Happiness Studies, 9*(1), 139-170. doi:10.1007/s10902-006-9023-4

- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 6, 1069-1081. doi:10.1037/0022-3514.57.6.1069
- Ryff, C. D., Singer, B., Love, G. D. (2004). *Positive health: Connecting well-being with biology*, 359(1449), 1383-1394. doi: 10.1098/rstb.2004.1521
- Schwartz, N., & Strack, F. (1999). Reports of subjective well-being: Judgmental processes and their methodological implications. In D. Kahneman, E. Diener, & N. Schwartz (Eds.), *Well-Being: Foundations of Hedonic Psychology* (pp. 61- 84). New York, NY: Sage.
- Schneider, K. (2004). *Rediscovery of awe: Splendor, Mystery and the fluid center of life*. St. Paul, MN: Paragon House.
- Segerstrom, S. C., & Miller, G. E. (2004). Psychological stress and human immune system: A meta-analytic study of 30 years of inquiry. *Psychological Bulletin*, 130, 601-630. doi:10.1037/0033-2909.130.4.601
- Shafranske, E. P., & Maloney, H. N. (1990). Clinical psychologists' religious and spiritual orientations and their practice of psychotherapy. *Psychotherapy*, 27(1), 72-78. doi:10.1037/0033-3204.27.1.72
- Shafranske, E. P., & Sperry, L. (2005). Addressing the Spiritual Dimension in Psychotherapy: Introduction and Overview. In L. Sperry & E. Shafranske (Eds.), *Spiritually Oriented Psychotherapy*. Washington, DC: American Psychological Association.
- Short, P. F., & Mallonee, E. L. (2006). Income disparities in the quality of life of cancer survivors, *Medical Care*, 44(1), 16-23. doi:10.1097/01.mir.0000188986.84819.3a
- Singer, M. A., Hopman, W. M., & MacKenzie, T. A. (1999). Physical functioning and mental health in patients with chronic medical conditions. *Quality of Life Research*, 8(8), 687-691. <http://www.jstor.org/stable/4037996>
- Smith, T. B., McCollough, M. E., & Poll, J. (2003). Religiousness and depression: Evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin*, 129(4), 614-636. doi: 10.1037/0033-2909.129.4.614
- Spilker B. (1990). *Quality of life assessments in clinical trials*. New York, New York: Raven Press.
- Sprangers, M. A. G., de Regt, E. B., Andries, F., van Agt, H. M. E., Bijl, R. V., de Boer, J. B., ...de Haes, H. C. J. M. (2000). Which chronic conditions are associated with better or poorer quality of life? *Journal of Clinical Epidemiology*, 53, 895-907. doi: 10.1016/S0895-4356(00)00363-2

- Stanca, L. (2012). Suffer the little children: Measuring the effects of parenthood on well-being worldwide. *Journal of Economic Behavior and Organization*, *81*(3), 742-750. doi: 10.1016/j.jebo.2010.12.019
- Stanton, A. L., Bower, J. E., & Low, C. A. (2006). Posttraumatic growth after cancer. In L. G. Calhoun & R. G. Tedeschi (Eds.), *Handbook of posttraumatic growth: Research and practice*. (pp.138-175). Mahwah, NJ: Erlbaum.
- Steger, M. F., & Frazier, P. (2005). Meaning in life: One link in the chain from religiousness and well-being. *Journal of Counseling Psychology*, *52*(4), 574-582. doi: 10.1037/0022-0167.52.4.574
- Stone, A. A., Schwartz, J. E., Broderick, J. E., & Deaton, A. (2010). A snapshot of the age distribution of psychological well-being in the United States. *Proceedings of the National Academy of Sciences*, *107*, 9985-9990. doi: 10.1073/pnas.1003744107
- Strawbridge, W. J., Shema, S. J., Cohen, R. D., & Kaplan, G. A. (2001). Religious attendance increases survival by improving and maintaining good health behaviors, mental health, and social relationships. *Annals of Behavioral Medicine*, *23*(1), 68-74. <http://www.ncbi.nlm.nih.gov/pubmed/11302358>
- Umberson, D. (1987). Family status and health behaviours: Social control as a dimension of social integration. *Journal of Health and Social Behavior*, *28*, 306-319. <http://www.jstor.org/stable/2136848>
- Vasegh, S., & Mohammadi, M. (2007). Religiosity, anxiety, and depression among a sample of Iranian medical students. *International Journal of Psychiatry in Medicine*, *37*(2), 213-227. doi: 10.2190/J3V5-L316-0U13-7000
- Ward, J. W., Schiller, J. S., & Goodman, R. A. (2014). Multiple chronic conditions among US adults: A 2012 update. *Prevention of Chronic Disease*, *11*. doi: 10.5888/pcd11.130389
- Waterman, A. S., Schwartz, S. J., Zamboanga, B. L., Ravert, R. D., Williams, M. K., Agocha, V. B., ... Donnellan, M. B. (2010). The Questionnaire for Eudaimonic Well-Being: Psychometric properties, demographic comparisons, and evidence of validity. *The Journal of Positive Psychology*, *5*(1), 41-61. doi: 10.1080/17439760903435208
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, *54*, 6, 1063-70. doi: 10.1037/0022-3514.54.6.1063
- Watson, D., & Pennebaker, J. W. (1989). Health complaints, stress, and distress: Exploring the central role of negative affectivity. *Psychological Review*, *96*, 234-254. doi: 10.1037/0033-295X.96.2.234

- Wenger, N. K., Mattson, M. E., Furberg, C. D., & Elinson, J. (1984). Assessment of quality of life in clinical trials of cardiovascular therapies. *American Journal of Cardiology*, *54*, 908-913. <http://www.ncbi.nlm.nih.gov/pubmed/6333175>
- Wikman, A., Wardle, J., & Steptoe, A. (2011). Quality of life and affective well-being in middle-aged and older people with chronic medical illnesses: A cross-sectional population based study. *PLoS ONE*, *6*(4), 1-9. doi: 10.1371/journal.pone.0018952
- Wills, T. A., Yeager, A. M., & Sandy, J. M. (2003). Buffering effect of religiosity for adolescent substance use. *Psychology of Addictive Behaviors*, *17*(1), 24-31. doi: 10.1037/0893-164X.17.1.24
- Wilson, C. M., & Oswald, A. J. (2005). How does marriage affect physical and psychological health? A survey of the longitudinal evidence, *Institute of Study of Labor, Study Paper 1619*, (Bon, Germany: Institute for the Story of Labor, May 2005), 16. <https://dspace.lboro.ac.uk/dspace-jspui/handle/2134/16485>
- World Health Organization. (1997). Measuring quality of life: The world health organization quality of life (WHOQOL) instruments. Division of Mental Health and Prevention of Substance Abuse. p. 1-12. http://apps.who.int/iris/bitstream/10665/63482/1/WHO_MSA_MNH_PSF_97.4.pdf
- World Health Organization. (2014). Noncommunicable diseases. http://www.who.int/topics/noncommunicable_diseases/en/ /. Accessed December 2014
- Worthington, C., & Krentz, H. B. (2005). Socio-economic factors and health-related quality of life in adults living with HIV. *International Journal of STD and AIDS*, *16*(9), 608-614. doi: 10.1258/0956462054944408
- Zou, C., Schimmack, U., & Gere, J. (2013). The validity of well-being measures: A multiple-indicator-multiple-rater model. *Psychological Assessment*, *25*(4), 1247-1254. doi: 10.1037/a0033902

APPENDIX A

Information for Research Participants

The Harrell Research Group



Well-Being



Project

Individual Adult Questionnaire

How have **YOU**
been doing lately?



Dr. Shelly P. Harrell and The Harrell Research Group at Pepperdine University invite you to participate in a large research study on well-being. We want to better understand and measure well-being for different people in different life situations. We are trying to get a diversity of people to complete our questionnaire and help us learn more about what makes life GOOD!

This questionnaire will take about 40 minutes to complete. Participating in our research study makes you eligible for one of our WEEKLY PRIZE DRAWINGS for a chance to win a \$30 gift certificate to your choice of over 100 retail stores, restaurants, and entertainment venues through GiftCertificates.com. The Prize Drawing Entry Form can be found at the end of this questionnaire.

Please read the attached "Information for Research Participants". You can return the completed questionnaire to us in any of the following ways:

BY FAX: 888-380-7835

BY EMAIL AS A SCANNED ATTACHMENT: wellbeing@harrellresearchgroup.org

BY POSTAL MAIL: The Well-Being Project
c/o Dr. Shelly Harrell
Pepperdine University
6100 Center Drive, 5th floor
Los Angeles, CA 90045

THANK YOU FOR YOUR PARTICIPATION!
PLEASE SPREAD THE WORD ABOUT OUR PROJECT!
(www.wellbeingresearch.net)

INFORMATION FOR RESEARCH PARTICIPANTS

Harrell Research Group (HRG) Well-Being Project: Adult Questionnaire Study

- ✓ **DESCRIPTION.** The "HRG Well-Being Project: Adult Questionnaire Study" is a research study being conducted by Shelly P. Harrell, Ph.D. and The Harrell Research Group at Pepperdine University's Graduate School of Education and Psychology. This study is part of a group of research projects designed to gain a more inclusive and comprehensive understanding of well-being among a diversity of adults (18 years or older).
- ✓ **PAPER QUESTIONNAIRE COMPLETION.** Participation in this research involves completing a questionnaire about your recent feelings and experiences, both positive and negative. Completion of this study's questionnaire will take approximately 45 minutes. Participants who receive the questionnaire at a meeting or event will be given written instructions regarding where it can be returned. Participants who download the questionnaire from our website can **fax it back to us at 888-380-7835 or email it back to us as a scanned attachment to wellbeing@harrellresearchgroup.org**. Participants may also choose to return a completed questionnaire by postal mail to: The Well-Being Project, c/o Dr. Shelly Harrell, Pepperdine University, 6100 Center Drive, 5th floor, Los Angeles, CA, USA 90045.
- ✓ **PARTICIPATION.** Research participation is entirely voluntary. You can choose to not participate at all, or to withdraw from the research by not finishing the questionnaire at any time without any negative consequence. You also have the choice of participating in the [online version of the study](#) which has its own "Information for Research Participants" document. Each person may only participate in this research only **ONE TIME**, choosing either the questionnaire study or the online study.
- ✓ **THE PRIZE DRAWING.** Anyone who completes the questionnaire can choose to enter the weekly prize drawing for a \$30 gift certificate to a choice of over 100 stores, restaurants, movie theaters, and hotels including Macy's, Bloomingdales, Bed Bath & Beyond, Staples, Old Navy, TJ Maxx, Sears, Bath & Body Works, AMC & Loews Theaters, Barnes and Noble, F.Y.E., Fandango, Red Lobster, Chili's, Boston Market, Hyatt Hotels, and many others. (See <http://www.giftcertificates.com> for a complete list.) One winner will be randomly selected each week from the group of people who have completed a questionnaire during the previous week. A **complete** questionnaire is required in order to be entered into the prize drawing.
 - A valid email address, initials of your first and last name, and your state/country of residence are required for entry into the prize drawing. Email addresses will not be used for any purpose other than announcing the results of the prize drawing. Email addresses will not be associated (physically or electronically) with the questionnaire responses. Each week, the winner's initials and state/country of residence will be announced on the project website and the winner will be notified by email. Additional details about the weekly prize drawings can be found at <http://wellbeingresearch.blogspot.com/2013/01/prizedrawinginfo.html>.
- ✓ **CONFIDENTIALITY.** Participant names are not obtained for this research study. Email addresses, that may include names, will be kept separately from the questionnaires and it will not be possible to connect email addresses with questionnaire responses as they will be separated into different databases. In addition, ALL data will be kept confidential and will only be accessible to the research staff of The Harrell Research Group. Finally, any presentation or publication of the results of this research project will not identify specific participants or institutions. Only general statistics and grouped data will be shared.

- ✓ **SECURITY:** All electronic data will be password protected and available only to research staff. Electronic questionnaire data will be maintained in password-protected files for a minimum of 7 years. Data sets created for the purpose of conducting the Prize Drawings will be kept separately from the questionnaire data, encrypted, and password protected. Prize Drawing files will be deleted after 5 years. Passwords will be changed annually to maintain the security of the data. Paper questionnaires will be entered into the electronic questionnaire database using numeric codes. Any hardcopy questionnaires will be kept in a locked file cabinet in a locked office on the West Los Angeles campus of Pepperdine University and then destroyed after 5 years.
- ✓ **BENEFITS:** Participation in the Well-Being Project does not guarantee any specific benefits to participants. However, some participants may experience one or more of the following: (1) finding it interesting to answer questions about your well-being, (2) learning more about different ways well-being can be experienced, (3) feeling positive about contributing to research that may help the field of psychology to better understand well-being, and (4) feeling positive about informing the development and validation of a comprehensive and inclusive questionnaire on well-being.
- ✓ **RISK:** While all research involves some risk, this research study is considered to involve only minimal risk. The primary risks include possible boredom or emotional discomfort when thinking about one's health and well-being. Participants are free to take breaks or to discontinue participation any time. In the event of emotional discomfort, participants may want to consider the resources listed below.
- ✓ **RESOURCES:** A list of well-being and mental health resources is available on the project website at <http://wellbeingresearch.blogspot.com/p/resources.html>. These include:
 - Psychology Today: therapists.psychologytoday.com
 - Positive Psychology Center/Authentic Happiness: www.authentic happiness.sas.upenn.edu
 - American Psychological Association (APA): www.apa.org
 - National Institute of Mental Health: www.nimh.nih.gov
 - The National Alliance on Mental Illness (NAMI): 1 (800) 950-NAMI (6264); www.nami.com
 - National Suicide Prevention Lifeline: 1-800-273-TALK (8255), www.suicidepreventionlifeline.org
 - Pepperdine University Community Counseling Centers (IN THE LOS ANGELES, CA AREA):
 - Encino- (818) 501-1678; gsep.pepperdine.edu/clinics/encino;
 - Irvine- (949) 223-2570; gsep.pepperdine.edu/clinics/irvine;
 - West Los Angeles- (310) 568-5752; gsep.pepperdine.edu/clinics/west-los-angeles
- ✓ **QUESTIONS:** Many questions about this research are addressed in the Frequently Asked Questions (FAQs) section of the project website at <http://wellbeingresearch.blogspot.com/p/info-faqs.html>. Additional questions or concerns about the project may be directed to the Harrell Research Group staff at (424) 235-5030 or at support@harrellresearchgroup.org. Dr. Harrell can be contacted at sphphd@harrellresearchgroup.org. Questions about research participant rights should be directed to Doug Leigh, Ph.D., Chairperson of the Graduate and Professional Schools Institutional Review Board, Pepperdine University, Graduate School of Education and Psychology, 6100 Center Drive, Los Angeles, CA 90045, (310) 568-2389, doug.leigh@pepperdine.edu.

By choosing to return a completed questionnaire, I am affirming that all information above has been read and understood, and I am agreeing to be a research participant in The Well-Being Project.

APPENDIX B

Multidimensional Assessment Measure

- 0=NEVER/NOT AT ALL= Not true for me during the past 2 weeks, not even one time
 1=RARELY/A LITTLE= True for me only a few times during the past 2 weeks
 2=SOMETIMES/SOMEWHAT= True for me about half the time
 3=PRETTY OFTEN/MOSTLY= True for me most days during the past 2 weeks
 4=VERY FREQUENTLY/ALMOST ALWAYS= True for me usually everyday
 5=ALWAYS/EXTREMELY= True for me nearly all day everyday (USE THIS SPARINGLY!)
 N/A=DOES NOT APPLY TO ME= This statement doesn't relate to my life at all

	Never	Rarely	Sometimes	Mostly	Very Frequently	Always	N/A
1. I was satisfied with how things were going in my life.	0	1	2	3	4	5	N/A
2. I felt strong and empowered.	0	1	2	3	4	5	N/A
3. I handled my daily challenges well, coped effectively with everyday stress/problems.	0	1	2	3	4	5	N/A
4. I felt like my life had meaning, like I'm here for a purpose.	0	1	2	3	4	5	N/A
5. I was creative or had good ideas.	0	1	2	3	4	5	N/A
6. I did something to help make the world a better place.	0	1	2	3	4	5	N/A
7. I felt caring and loving feelings towards the people closest to me.	0	1	2	3	4	5	N/A
8. I was able to relax or calm myself when I needed to.	0	1	2	3	4	5	N/A
9. There was someone I could trust with my most personal/private thoughts and feelings.	0	1	2	3	4	5	N/A
10. I was able to use or display my knowledge, skills, and/or talents.	0	1	2	3	4	5	N/A
11. I made good decisions.	0	1	2	3	4	5	N/A
12. I felt safe getting to and from the places I needed to go.	0	1	2	3	4	5	N/A
13. I felt physically healthy and strong enough to handle the demands of my daily activities.	0	1	2	3	4	5	N/A
14. There was someone who encouraged, supported, or motivated me.	0	1	2	3	4	5	N/A
15. I took time to "smell the roses", really noticing and enjoying things from my senses (e.g., aromas, sounds, tastes).	0	1	2	3	4	5	N/A
16. I actively participated in an organization related to my culture or another community that is important to me.	0	1	2	3	4	5	N/A
17. I had positive interactions with people (neighbors, co-workers, salespersons, etc).	0	1	2	3	4	5	N/A
18. I spent time in places with lots of grass, flowers, trees, clean rivers, lakes, or beaches, etc.	0	1	2	3	4	5	N/A
19. I spent time doing my hobbies, special projects, or other activities that I enjoy.	0	1	2	3	4	5	N/A
20. I did some type of physical exercise for fitness, strength, endurance or fun.	0	1	2	3	4	5	N/A
21. I showed patience with a person or situation.	0	1	2	3	4	5	N/A
22. I was open to new things; willing to step out of my comfort zone.	0	1	2	3	4	5	N/A
23. I felt proud of my cultural heritage (or the history/background of another group in society important to my identity).	0	1	2	3	4	5	N/A
24. I was satisfied with my situation related to romance or intimacy.	0	1	2	3	4	5	N/A
25. I was comforted by the presence of a Higher Power/God in my life.	0	1	2	3	4	5	N/A
26. I had a positive event or activity to look forward to.	0	1	2	3	4	5	N/A
27. People in my neighborhood know each other and can depend on each other.	0	1	2	3	4	5	N/A
28. I felt safe from physical harm from people I know.	0	1	2	3	4	5	N/A
29. I felt compassion or sympathy for someone.	0	1	2	3	4	5	N/A
30. I was able to be myself, to be "real" with the people I care about (didn't have to pretend or be fake).	0	1	2	3	4	5	N/A
31. I felt respected by others for my positive qualities or actions.	0	1	2	3	4	5	N/A
32. My faith or spirituality was strengthened through reading, classes or discussions.	0	1	2	3	4	5	N/A
33. I felt like I was "home" when I was with people from my culture (or another group in society important to my identity).	0	1	2	3	4	5	N/A
34. I bounced back or recovered from any disappointments or bad things that happened.	0	1	2	3	4	5	N/A
35. I listened to what my body needed in terms of rest, water, food, etc.	0	1	2	3	4	5	N/A
36. There was plenty of open space in my community; it was not overcrowded by people or traffic	0	1	2	3	4	5	N/A
37. My home country was strong and stable in terms of leadership and political matters.	0	1	2	3	4	5	N/A

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 1=RARELY/A LITTLE= True for me only a few times during the past 2 weeks
 2=SOMETIMES/SOMEWHAT= True for me about half the time
 3=PRETTY OFTEN/MOSTLY= True for me most days during the past 2 weeks
 4=VERY FREQUENTLY/ALMOST ALWAYS= True for me usually everyday
 5=ALWAYS/EXTREMELY= True for me nearly all day everyday (USE THIS SPARINGLY!)
 N/A=DOES NOT APPLY TO ME= This statement doesn't relate to my life at all

	Never	Rarely	Sometimes	Mostly	Very Frequently	Always	N/A
38. My faith and spiritual beliefs were strong.	0	1	2	3	4	5	N/A
39. I had someone in my life who "has my back", who is there for me when I need them.	0	1	2	3	4	5	N/A
40. I felt emotionally connected to my culture or another group in society that is important to me (e.g., religious, disability, sexual orientation, military, large extended family, etc.).	0	1	2	3	4	5	N/A
41. I gained a greater knowledge and understanding of a local, national, or global issue.	0	1	2	3	4	5	N/A
42. I was "moved" by creative expression, had a strong emotional connection or experience related to music, art, dance, etc.	0	1	2	3	4	5	N/A
43. I felt accepted and welcomed by people at my workplace, school, or other place where I spend a lot of time.	0	1	2	3	4	5	N/A
44. I felt joy and happiness inside.	0	1	2	3	4	5	N/A
45. I felt connected to a purpose larger than my personal life.	0	1	2	3	4	5	N/A
46. I was able to relieve (or didn't experience any) symptoms of stress in my body (e.g., neck/back tension, headache, stomachache, dizziness, trouble breathing, etc.).	0	1	2	3	4	5	N/A
47. I supported someone in getting through a difficult situation.	0	1	2	3	4	5	N/A
48. I was satisfied with my sexual functioning and activity.	0	1	2	3	4	5	N/A
49. I had a network of people available to me that were important sources of help and support in my life.	0	1	2	3	4	5	N/A
50. I felt really "alive", present and engaged with the here-and-now moments of my life.	0	1	2	3	4	5	N/A
51. I felt good about the direction my home country was going in.	0	1	2	3	4	5	N/A
52. I was a leader or took initiative to start some action for change in my community or organization.	0	1	2	3	4	5	N/A
53. I had a strong awareness of how I was feeling and what I needed.	0	1	2	3	4	5	N/A
54. I was confident in myself, my self-esteem was high.	0	1	2	3	4	5	N/A
55. The water, electricity, and plumbing worked fine where I was living.	0	1	2	3	4	5	N/A
56. I felt loved by and/or in a close relationship with a Higher Power/God in my life.	0	1	2	3	4	5	N/A
57. I felt a strong sense of gratitude, an appreciation for both the ups and downs in my life.	0	1	2	3	4	5	N/A
58. I effectively managed any physical pain or health problems I was having.	0	1	2	3	4	5	N/A
59. I did something to try to resolve a conflict or improve a relationship.	0	1	2	3	4	5	N/A
60. I enjoyed special time with a pet or other animal.	0	1	2	3	4	5	N/A
61. I felt at peace inside of myself.	0	1	2	3	4	5	N/A
62. I worked together with others on an issue of mutual concern in my community, workplace, school, or other setting.	0	1	2	3	4	5	N/A
63. I felt guided by a vision or mission for my life.	0	1	2	3	4	5	N/A
64. I observed or learned something positive about my culture (or another group in society that is very important to my identity).	0	1	2	3	4	5	N/A
65. I showed kindness, did something nice for someone.	0	1	2	3	4	5	N/A
66. I felt like things were improving in my life.	0	1	2	3	4	5	N/A
67. I avoided things that are harmful or dangerous to my health (e.g., cigarettes, excessive alcohol, illegal drugs, driving recklessly, etc.).	0	1	2	3	4	5	N/A
68. How I lived my daily life was consistent with my spiritual or religious beliefs.	0	1	2	3	4	5	N/A
69. I enjoyed spending time in my neighborhood or local community.	0	1	2	3	4	5	N/A
70. I felt connected to the rhythms and patterns of nature (e.g., animals, trees, oceans, stars, mountains, or other living things).	0	1	2	3	4	5	N/A

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	Very						
	Never	Rarely	Sometimes	Mostly	Frequently	Always	N/A
71. I felt good about how I was fulfilling my role in my family, culture, or in another group in society most important to me.	0	1	2	3	4	5	N/A
72. I did or said something to lift someone's spirits.	0	1	2	3	4	5	N/A
73. I felt safe from gang violence, terrorism, police (or military) violence.	0	1	2	3	4	5	N/A
74. I had an amazing or "peak" experience (e.g., heightened awareness, awe, intense connection with another person, a creative burst, a revelation).	0	1	2	3	4	5	N/A
75. I did a good job at work, school, or with my other responsibilities.	0	1	2	3	4	5	N/A
76. I spent time in meditation, personal reflection, or deep contemplation.	0	1	2	3	4	5	N/A
77. I intervened or stood up for someone in a situation involving injustice or unfairness.	0	1	2	3	4	5	N/A
78. I felt a strong sense of belonging in my neighborhood (e.g., it felt like home to me).	0	1	2	3	4	5	N/A
79. I assisted someone in need.	0	1	2	3	4	5	N/A
80. I enjoyed expressing and sharing my spirituality with other people or in a faith community.	0	1	2	3	4	5	N/A
81. I gave good advice or guidance to someone.	0	1	2	3	4	5	N/A
82. I lived with integrity, was true to myself and my values ("walked my talk").	0	1	2	3	4	5	N/A
83. My living environment was generally safe and healthy (e.g., free from mold, industrial pollution, dangerous chemicals, rodents, broken glass, peeling paint, etc.).	0	1	2	3	4	5	N/A
84. I felt supported by people at my workplace, school, or other place where I spend a lot of time.	0	1	2	3	4	5	N/A
85. I felt a greater understanding of myself (e.g., why I am the way that I am, why I do the things that I do).	0	1	2	3	4	5	N/A
86. I felt safe from hate crimes, violence, or discrimination based on something about me like my race, religion, gender, sexual orientation, disability, etc.	0	1	2	3	4	5	N/A
87. I had companionship or a good social life, people to talk to or do things with.	0	1	2	3	4	5	N/A
88. The beauty and miracles of nature made me feel closer to a Higher Power/God.	0	1	2	3	4	5	N/A
89. I felt safe from sexual violence or exploitation.	0	1	2	3	4	5	N/A
90. I was "in the zone", got totally lost or immersed in an activity that I enjoyed.	0	1	2	3	4	5	N/A
91. I felt better about something that had been bothering me.	0	1	2	3	4	5	N/A
92. I received valuable counsel from a minister, rabbi, imam, priest, guru, pastor, or other religious leader.	0	1	2	3	4	5	N/A
93. I stopped to pay attention to what I was feeling emotionally and/or physically.	0	1	2	3	4	5	N/A
94. I had a strong sense of my values, what is most important to me.	0	1	2	3	4	5	N/A
95. My spiritual/religious beliefs and activities gave me strength and guidance through the challenges I faced.	0	1	2	3	4	5	N/A
96. I got along well with family members.	0	1	2	3	4	5	N/A
97. I was guided positively by my intuition about things.	0	1	2	3	4	5	N/A
98. The place where I live was mostly free from very loud noises such as traffic, trains, gunshots, sirens, etc.	0	1	2	3	4	5	N/A
99. I felt positively connected with the soul or spirit of another person (living or deceased).	0	1	2	3	4	5	N/A
100. I felt accepted by many people in my culture (or another group in society that is very important to me).	0	1	2	3	4	5	N/A

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 N/A=DOES NOT APPLY TO ME= This statement doesn't relate to my life at all

	Never	Rarely	Sometimes	Mostly	Very Frequently	Always	N/A
101. I had a feeling of wisdom, insight, or understanding about life.	0	1	2	3	4	5	N/A
102. My neighborhood or local community was an important part of my life.	0	1	2	3	4	5	N/A
103. I felt a lot of national pride in my home country.	0	1	2	3	4	5	N/A
104. I resisted temptation; said "no" to something that would have been bad for me.	0	1	2	3	4	5	N/A
105. I felt connected to all of humanity regardless of race, nationality, social class, etc.	0	1	2	3	4	5	N/A
106. I expressed gratitude or appreciation to someone.	0	1	2	3	4	5	N/A
107. I participated in or contributed to positive change on a social justice issue or cause.	0	1	2	3	4	5	N/A
108. I motivated, encouraged, or cheered someone on.	0	1	2	3	4	5	N/A
109. I displayed my identification with my culture or another important identity group (symbols, clothing, language, artwork, home décor, bumper stickers, etc.).	0	1	2	3	4	5	N/A
110. I felt safe from threats, verbal abuse, emotional abuse, or stalking.	0	1	2	3	4	5	N/A
111. My basic needs were met (e.g., shelter, food, clothing).	0	1	2	3	4	5	N/A
112. I felt a clear awareness of who I am, my identity.	0	1	2	3	4	5	N/A
113. I helped someone understand or learn something.	0	1	2	3	4	5	N/A
114. I volunteered my time in the service of people in need, animals, the environment, or another cause important to me.	0	1	2	3	4	5	N/A
115. I was valued and respected at my workplace, school, or other place where I spend a lot of time.	0	1	2	3	4	5	N/A
116. Someone prayed or said blessings for me.	0	1	2	3	4	5	N/A
117. I got enough hours of peaceful, uninterrupted sleep.	0	1	2	3	4	5	N/A
118. I made sure I was informed about things happening in my neighborhood community.	0	1	2	3	4	5	N/A
119. I felt good about my friendships.	0	1	2	3	4	5	N/A
120. I was growing and learning important life lessons.	0	1	2	3	4	5	N/A
121. I felt secure and grounded by my roots in my culture or another group in society important to my identity.	0	1	2	3	4	5	N/A
122. I look forward to being at work, school, or another place where I spend a lot of time (other than where I live).	0	1	2	3	4	5	N/A
123. I learned something new, became more knowledgeable.	0	1	2	3	4	5	N/A
124. I extended forgiveness or let go of negative feelings that I was having toward someone.	0	1	2	3	4	5	N/A
125. I did something to move my life forward or head in the right direction.	0	1	2	3	4	5	N/A
126. I felt committed to making my home country a better place.	0	1	2	3	4	5	N/A
127. I was aware of the connection between my mind, my emotions, and what was going on in my body.	0	1	2	3	4	5	N/A
128. I felt loved.	0	1	2	3	4	5	N/A
129. I felt safe in the neighborhood where I live.	0	1	2	3	4	5	N/A
130. I spent time praying, reading religious/spiritual books, or listening to spiritual music.	0	1	2	3	4	5	N/A
131. I was productive, got things done.	0	1	2	3	4	5	N/A
132. I felt that my family was well-respected in our cultural community or another important community.	0	1	2	3	4	5	N/A
133. I was becoming a better person; something about me was changing for the good.	0	1	2	3	4	5	N/A
134. I felt like someone really understands me and knows me well.	0	1	2	3	4	5	N/A

- 0=NEVER/NOT AT ALL= Not true for me during the past 2 weeks, not even one time
 1=RARELY/A LITTLE= True for me only a few times during the past 2 weeks
 2=SOMETIMES/SOMEWHAT= True for me about half the time
 3=PRETTY OFTEN/MOSTLY= True for me most days during the past 2 weeks
 4=VERY FREQUENTLY/ALMOST ALWAYS= True for me usually everyday
 5=ALWAYS/EXTREMELY= True for me nearly all day everyday (USE THIS SPARINGLY!)
 N/A=DOES NOT APPLY TO ME= This statement doesn't relate to my life at all

	Never	Rarely	Sometimes	Mostly	Very Frequently	Always	N/A
135. I felt inspired or excited about something.	0	1	2	3	4	5	N/A
136. My loved ones were safe from violence, abuse, or harassment.	0	1	2	3	4	5	N/A
137. Something good happened or turned out the way I wanted it to.	0	1	2	3	4	5	N/A
138. I had smiles, fun, and laughter in my life.	0	1	2	3	4	5	N/A
139. I got plenty of fresh outdoor air.	0	1	2	3	4	5	N/A
140. I felt good putting the needs of my family, culture, or other group (most important to me) above my own personal needs and wants.	0	1	2	3	4	5	N/A
141. I made progress dealing with a problem or getting rid of a bad habit.	0	1	2	3	4	5	N/A
142. I followed through on something, kept my word, or did what I said I would do.	0	1	2	3	4	5	N/A
143. I felt hopeful and optimistic.	0	1	2	3	4	5	N/A
144. I took good care of my health.	0	1	2	3	4	5	N/A
145. I witnessed or experienced spiritual healing.	0	1	2	3	4	5	N/A
146. I did something with excellence, something to be proud of.	0	1	2	3	4	5	N/A
147. I was able to purchase most (or all) of the material things that I wanted.	0	1	2	3	4	5	N/A
148. I did things during my free time (e.g., movies, music, books, websites, social activities) that reflected my culture or another group in society very important to my identity.	0	1	2	3	4	5	N/A
149. I was able to make something positive out of a negative situation.	0	1	2	3	4	5	N/A
150. Buildings and public areas in my neighborhood were kept in good condition.	0	1	2	3	4	5	N/A
151. I had a positive attitude, was in a good mood.	0	1	2	3	4	5	N/A
152. I enjoyed the physical comforts of home like my bed, my kitchen, or my bathroom.	0	1	2	3	4	5	N/A
153. I felt a strong sense of belonging at my workplace, school, or another place where I spend a lot of time.	0	1	2	3	4	5	N/A
154. I felt comfortable with my sexuality.	0	1	2	3	4	5	N/A
155. I had positive feelings about my home country.	0	1	2	3	4	5	N/A
156. I had enough privacy where I was living.	0	1	2	3	4	5	N/A
157. I took special care of my grooming or physical appearance (e.g., hair, clothing, face, body).	0	1	2	3	4	5	N/A
158. I had self-control.	0	1	2	3	4	5	N/A
159. I was a respectable member of my culture (or another group in society that I most identify with) and represented it well.	0	1	2	3	4	5	N/A
160. I ate mostly healthy and nutritious foods.	0	1	2	3	4	5	N/A

Next, please indicate the importance of each of the following in determining your well-being at this time in your life. Specifically: If what is going on in that area, positive or negative, affects how satisfied you are with your life then it would be considered **MORE** important to your well-being. If what is going on in that area of your life doesn't make much of a difference to how satisfied you are with your life then it would be considered **LESS** important to your well-being.

	Not at all Important	A little Important	Somewhat Important	Very Important
1. My daily activities and achievements.	1	2	3	4
2. Doing good things for other people.	1	2	3	4
3. Having positive emotions and feelings.	1	2	3	4
4. Having a sense of belonging to a strong community (e.g., workplace, neighborhood, school, or other organization).	1	2	3	4
5. Having strong self-awareness—being aware of what I am feeling, sensing, thinking.	1	2	3	4
6. My physical health and functioning.	1	2	3	4
7. My spirituality or religious experience.	1	2	3	4
8. Having a sense of meaning and purpose.	1	2	3	4
9. Being safe from harm or danger.	1	2	3	4
10. Improving myself and making progress on changes I'm working on.	1	2	3	4
11. Participating in positive social/community change.	1	2	3	4
12. A strong identity and connection to my culture (or another group in society central to my identity such as my religion, sexual orientation, or ability/disability status).	1	2	3	4
13. The physical environment where I am living.	1	2	3	4
14. The quality of my relationships with the people closest to me.	1	2	3	4
15. How things are going in the country I consider home.	1	2	3	4

Finally, **BEFORE YOU LEAVE THIS PAGE**, using the 15 areas of life listed above, please **CIRCLE THE THE FIVE (5) MOST IMPORTANT** areas for determining your well-being at this time in your life.

APPENDIX C

The Background Questionnaire

DATE: _____

FIRST, JUST A BIT ABOUT YOU: The purpose of this first section is to provide us with an overall description of the people who have participated in our research project. We appreciate your openness in sharing this information so that we can look at diverse experiences of well-being. Please remember that we have no way of identifying you personally. Our research will only accurately inform a greater understanding of well-being if participants respond honestly. Thank you for your participation!

1. Your Gender: _____ Male _____ Female

2. Your current age in years: _____

3a. Your Country of Birth: _____

3b. Your Mother's Country of Birth: _____

3c. Your Father's Country of Birth: _____

4. Your Country of Current Residence: _____

5. Length of time in your current country of residence (# of years): _____

6. Your current zip or postal code: _____

7a. Which ONE of the following broad categories BEST describes your general racial-ethnic group identification at this time in your life?

- Native American/American Indian/First Nations
- North American White
- Other White (European, South African, Australian, Russian, etc.)
- White Multiethnic- Please specify:
- Multiracial/Multiethnic Minority- Please specify:
- Black African (continental)
- African/Black American
- Afro-Caribbean (Jamaican, Haitian, Trinidadian, etc.)
- Afro-Latino (Dominican, Puerto Rican, Cuban, etc.)
- Mexican/Mexican American
- Latino/Hispanic- Central or South American (El Salvador, Guatemala, Brazilian, Peruvian, Columbian, etc.)
- White Latino/Hispanic
- Middle Eastern/Arab descent
- Persian/Iranian descent
- Pacific Islander (Tongan, Samoan, etc.)
- South Asian/Indian/Pakistani
- Chinese/Chinese American
- Korean/Korean American
- Japanese/Japanese American
- Southeast Asian (Vietnamese, Cambodian, Laotian, etc.)
- Other- Please specify:

7b. In your own words, please describe your racial-ethnic-cultural identity: (please be specific; Examples: "Afro Brazilian born and raised in the United States", "Southern White American", "Chinese Canadian", "Multiracial with Black and Korean", "Iranian American identifying primarily Jewish", "United States born White living in Japan for over 30 years and identifying primarily with Japanese culture" etc.)

8a. Which one of the following BEST describes your general religious/spiritual affiliation at this time in your life? (Please CIRCLE only ONE response)

- Jewish / Judaism
- Catholic / Catholicism
- Protestant Christianity (Methodist, Baptist, Lutheran, Episcopalian, etc.)
- Nondenominational or Other Christianity: _____
- Unitarian, Universalist
- Muslim / Islam
- Ba'hai
- Buddhism
- Hinduism
- Indigenous / Culture-Centered Religious Belief System
- Religious Science
- New Age or New Thought Spirituality
- Wiccan or Other Pagan Religion
- Other Spiritual or Religious Belief System (please specify): _____
- Spiritual with no specific religious belief system
- Agnostic
- Atheist
- None of the Above

8b. In your own words, please more specifically describe your religious/spiritual identification and/or belief system (e.g., non-practicing cultural Jew, African Methodist Episcopal, Progressive Christianity, Eastern Orthodox Christianity, Sunni Muslim, etc.):

9. What is the highest level of education that you have achieved?

- Some high school or less
- High School Degree or Equivalent
- Community College, Vocational or Trade School Graduate (e.g., Cosmetology, Electrician, etc.)
- College/University Degree (B.A., B.S., etc.)
- Graduate or Professional Degree (e.g., MBA, M.D., Ph.D.)

10. Are you currently in school or a training program?

- Yes, full-time
- Yes, part-time
- No

11. Are you currently working for pay?

- Working full-time for pay
- Working part-time for pay
- Not working for pay currently but looking for a job
- Not currently working for pay by choice

12. What is your profession, occupation, or vocation?

13. Which of the following BEST describes your relationship status over the PAST TWO WEEKS?

- Not currently dating at all
- Dating or going out casually
- In an intimate relationship with a boyfriend or girlfriend
- In a permanent relationship with my life partner

14. Please check any or all of the following that apply to you:

- Single, never married
- Currently married
- Living together with my spouse or life partner
- Separated from my current spouse or life partner
- Divorced
- Widowed

15. Which of the following best describes your sexual orientation identity at this time?

- Heterosexual
- Bisexual
- Gay or Lesbian (Homosexual)
- Questioning
- Other(please describe): _____

16. Are you currently a primary caregiver (physical, legal, financial responsibility) for an elderly person or dependent adult (older than 18 years)?

- Yes
- No

17a. Are you currently a parent or legal guardian of a child (birth-18 years)?

- Yes
- No

17b. If yes, how many children (birth-18 years old) currently live with you? _____

18a. Which of the following best describes your financial situation at this time?

- My basic needs like food and shelter are not always met.
- My basic needs are met (food, shelter, clothing) but no extras
- I have everything I need and a few extras.
- I am able to purchase many of the things I want.
- Within limits, I am able to have luxury items like international vacations, new cars, etc.
- I can buy nearly anything I want, anytime I want.

18b. In US Dollars, what was your approximate annual household income during the past year?

- Less than \$25,000
- \$25,000-\$50,000
- \$50,000-\$100,000
- \$100,000-\$250,000
- \$250,000-\$500,000
- More than \$500,000

19. During the PAST TWO WEEKS, how much stress have you experienced?

- Less than usual
- About the same as usual
- More than usual

20a. During the PAST TWO WEEKS, have you been negatively affected by an illness or condition that interfered with your regular lifestyle?

- Yes
- No

20b. Which, if any, of the following health conditions have you experienced over the PAST TWO WEEKS? (please check ALL that apply)

- Flu/Influenza or Severe Cold
- Moderate to Severe Allergic Reaction/Allergies
- Anemia
- Obesity
- Migraines or Chronic Headaches
- Chronic Back Pain
- Significant Cut or Wound from an injury
- Concussion or other Head Injury
- Musculoskeletal Injury (broken bones, torn ligaments, sprains, dislocations, Carpal Tunnels, etc.)
- Gastrointestinal Problem (diarrhea, constipation, food poisoning, etc.)
- Hernia
- Appendicitis, Kidney Stones, or other Acute Health Problem
- Pre-Diabetes or Insulin Resistance
- Diabetes
- High Blood Pressure (Hypertension)
- High Cholesterol
- Heart / Cardiovascular Disease

- Depression, Anxiety, Phobia, or PTSD
- Adult ADHD
- Cerebrovascular Disease (Stroke, TIAs)
- Musculoskeletal Disease (Lupus, Fibromyalgia, etc.)
- Gastrointestinal Disease (Ulcerative Colitis, Irritable Bowel Syndrome, Crohn's Disease, etc.)
- Neurological Disease (Epilepsy, Parkinson's, Multiple Sclerosis, Huntington's Disease, etc.)
- Alzheimer's Disease or other Memory Problem
- Cancer, Malignant Tumor, or Blood Disease
- Endocrine or Thyroid Disease
- Asthma or Other Respiratory Disease
- Arthritis
- Alcohol/Drug Abuse or Addiction
- Anorexia, Bulimia, or Binge Eating Disorder
- HIV / AIDS
- Epstein-Barr / Chronic Fatigue Syndrome
- Reproductive Problem
- Sleep Disorder
- Limited Mobility requiring an assistive device such as a walker or wheelchair
- Deafness or Hearing Problem
- Blindness or Vision Problem
- Other Physical or Mental Health Condition or Addiction that has been diagnosed by a health care professional (please specify): _____

21. Finally, please feel free to indicate below any important aspect of your identity or background (relevant to your well-being) that we have not included in the questions so far: _____

APPENDIX D

Broad Assessment of Distress and Dysfunction

BROAD ASSESSMENT OF DISTRESS, DYSFUNCTION, AND DISORDER (BADDD; Harrell, 2011)

The following statements are about different ways that people experience distress or problems in their lives. Please circle the number that indicates how frequently you have felt that way over the PAST TWO WEEKS.

0=NEVER true for me (Not at all during the past two weeks) or **DOES NOT APPLY**

1=RARELY true for me (Just a few times; once or twice a week)

2=SOMETIMES true for me (About half the time or several days during the past two weeks)

3=FREQUENTLY true for me (Most of the time or most days during the past two weeks)

4=(ALMOST) ALWAYS true for me (Everyday or nearly all the time during the past two weeks)

	Never	Rarely	Sometimes	Frequently	Always
1. I felt overwhelmed by the stress of my life.	0	1	2	3	4
2. I felt hopeless or trapped, unable to find relief.	0	1	2	3	4
3. I felt lost, like I had no direction or purpose.	0	1	2	3	4
4. I was really tired, worn out, exhausted.	0	1	2	3	4
5. I felt confused, like I didn't know what to do or what I want.	0	1	2	3	4
6. I was irritable, in a bad mood, or just felt angry.	0	1	2	3	4
7. I felt afraid; there was danger or threats.	0	1	2	3	4
8. I felt insecure and inferior to other people.	0	1	2	3	4
9. I didn't care about much of anything, nothing really mattered.	0	1	2	3	4
10. I felt guilty, ashamed, or bad about myself.	0	1	2	3	4
11. I felt like life was really unfair to me.	0	1	2	3	4
12. I felt like there was nothing to look forward to.	0	1	2	3	4
13. I engaged in behaviors that could have negative consequences (risky sex, gambling, financial debts, drugs or alcohol, criminal activities).	0	1	2	3	4
14. I had problems getting along with other people at work, school, or in other settings (stores, social situations, etc.).	0	1	2	3	4
15. I didn't take care of my responsibilities at home, work, or school.	0	1	2	3	4
16. I felt isolated and disconnected from other people.	0	1	2	3	4
17. I couldn't stop worrying about things.	0	1	2	3	4
18. I made bad choices or didn't use good judgment.	0	1	2	3	4
19. There was trouble in my close relationships (family, friends, or romantic).	0	1	2	3	4
20. I felt out of control; like I couldn't control myself in things I said or did.	0	1	2	3	4
21. There was violence in my life that touched me or my loved ones.	0	1	2	3	4
22. I felt like a failure or a loser.	0	1	2	3	4
23. My emotions or behavior interfered with my job, school, relationships, or other activities.	0	1	2	3	4
24. I did things that I felt bad about.	0	1	2	3	4
25. I had sleep problems like insomnia or nightmares.	0	1	2	3	4
26. I had feelings of intense panic.	0	1	2	3	4
27. There were disturbing thoughts or images I couldn't get out of my mind.	0	1	2	3	4
28. I felt like I was going crazy, like I was losing my mind.	0	1	2	3	4
29. I felt really sad or depressed.	0	1	2	3	4
30. I did things that were messing up my life.	0	1	2	3	4
31. I felt on edge, nervous, had a lot of anxiety.	0	1	2	3	4
32. I had trouble concentrating, focusing, or remembering things.	0	1	2	3	4
33. I felt like I might have serious emotional problems.	0	1	2	3	4
34. I felt intense rage or had temper outbursts, yelling and screaming at others.	0	1	2	3	4
35. I had crying spells I couldn't stop.	0	1	2	3	4
36. I experienced physical changes such as my heart beating really fast, headaches, rashes, stomachaches, dizziness, or shortness of breath.	0	1	2	3	4

APPENDIX E
Flourishing Scale

FLOURISHING SCALE

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Below are 8 statements with which you may agree or disagree. Using the 1–7 scale below, indicate your agreement with each item by indicating that response for each statement.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

___ I lead a purposeful and meaningful life

___ My social relationships are supportive and rewarding

___ I am engaged and interested in my daily activities

___ I actively contribute to the happiness and well-being of others

___ I am competent and capable in the activities that are important to me

___ I am a good person and live a good life

___ I am optimistic about my future

___ People respect me

Scoring:

Add the responses, varying from 1 to 7, for all eight items. The possible range of scores is from 8 (lowest possible) to 56 (highest PWB possible). A high score represents a person with many psychological resources and strengths

APPENDIX F

Questionnaire for Eudaimonic Well-Being

The Questionnaire for Eudaimonic Well-Being (Waterman et al)

This questionnaire contains a series of statements that refer to how you may feel things have been going in your life. Read each statement and decide the extent to which you agree or disagree with it. Try to respond to each statement according to your own feelings about how things are actually going, rather than how you might wish them to be. Please use the following scale when responding to each statement.

Strongly Disagree 0 1 2 3 4 Strongly Agree

1. I find I get intensely involved in many of the things I do each day.
 2. I believe I have discovered who I really am.
 3. I think it would be ideal if things came easily to me in my life. (R)
 4. My life is centered around a set of core beliefs that give meaning to my life.
 5. It is more important that I really enjoy what I do than that other people are impressed by it.
 6. I believe I know what my best potentials are and I try to develop them whenever possible.
 7. Other people usually know better what would be good for me to do than I know myself. (R)
 8. I feel best when I'm doing something worth investing a great deal of effort in.
 9. I can say that I have found my purpose in life.
 10. If I did not find what I was doing rewarding for me, I do not think I could continue doing it.
 11. As yet, I've not figured out what to do with my life. (R)
 12. I can't understand why some people want to work so hard on the things that they do. (R)
 13. I believe it is important to know how what I'm doing fits with purposes worth pursuing.
 14. I usually know what I should do because some actions just feel right to me.
 15. When I engage in activities that involve my best potentials, I have this sense of really being alive.
 16. I am confused about what my talents really are. (R)
 17. I find a lot of the things I do are personally expressive for me.
 18. It is important to me that I feel fulfilled by the activities that I engage in.
 19. If something is really difficult, it probably isn't worth doing. (R)
 20. I find it hard to get really invested in the things that I do. (R)
 21. I believe I know what I was meant to do in life.
- (R) Item is reverse scored.

APPENDIX G

The Satisfaction with Life Scale

SATISFACTION WITH LIFE QUESTIONNAIRE (SWLQ; Diener et al)

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

____ In most ways my life is close to my ideal.

____ The conditions of my life are excellent.

____ I am satisfied with my life.

____ So far I have gotten the important things I want in life.

____ If I could live my life over, I would change almost nothing.

- 31 - 35 Extremely satisfied
- 26 - 30 Satisfied
- 21 - 25 Slightly satisfied
- 20 Neutral
- 15 - 19 Slightly dissatisfied
- 10 - 14 Dissatisfied
- 5 - 9 Extremely dissatisfied

APPENDIX H

The Scale of Positive and Negative Experience

Scale of Positive and Negative Experience (SPANE)

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Please think about what you have been doing and experiencing during the past four weeks. Then report how much you experienced each of the following feelings, using the scale below. For each item, select a number from 1 to 5, and indicate that number on your response sheet.

1. Very Rarely or Never
2. Rarely
3. Sometimes
4. Often
5. Very Often or Always

Positive

Negative

Good

Bad

Pleasant

Unpleasant

Happy

Sad

Afraid

Joyful

Angry

Contented

Appendix I
IRB Approval

PEPPERDINE UNIVERSITY

Graduate & Professional Schools Institutional Review Board

May 14, 2013



Protocol #: P0313F07

Project Title: Psychometric Validation of the Multidimensional Well-Being Assessment (MWA) and Broad Assessment of Distress and Dysfunction (BADD) in Diverse Populations



Thank you for submitting your application, Psychometric Validation of the Multidimensional Well-Being Assessment (MWA) and Broad Assessment of Distress and Dysfunction (BADD) in Diverse Populations, for expedited review to Pepperdine University's Graduate and Professional Schools Institutional Review Board (GPS IRB). The IRB appreciates the work you have done on the proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. As the nature of the research met the requirements for expedited review under provision Title 45 CFR 46.110 (Research Category 7) of the federal Protection of Human Subjects Act, the IRB conducted a formal, but expedited, review of your application materials.

I am pleased to inform you that your application for your study was granted **Approval**. The IRB approval begins today, **May 14, 2013**, and terminates on **May 14, 2014**. In addition, your application to waive documentation of informed consent, as indicated in your **Application for Waiver or Alteration of Informed Consent Procedures** form has been **approved**.

Please note that your research must be conducted according to the proposal that was submitted to the GPS IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For **any** proposed changes in your research protocol, please submit a Request for Modification form to the GPS IRB. Please be aware that changes to your protocol may prevent the research from qualifying for expedited review and require submission of a new IRB application or other materials to the GPS IRB. If contact with subjects will extend beyond **May 14, 2014**, a **Continuation or Completion of Review Form** must be submitted at least one month prior to the expiration date of study approval to avoid a lapse in approval.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the GPS IRB as soon as possible. We will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the GPS IRB and the appropriate form to be used to report this information can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* (see link to "policy material" at <http://www.pepperdine.edu/irb/graduate/>).

Please refer to the protocol number denoted above in all further communication or correspondence.

related to this approval. Should you have additional questions, please contact me. On behalf of the GPS IRB, I wish you success in this scholarly pursuit.

Sincerely,

Doug Leigh, Ph.D.
Chair, Graduate and Professional Schools IRB
Pepperdine University
Graduate School of Education & Psychology