UNDERSTANDING RESILIENCE AND HAPPINESS
AMONG COLLEGE STUDENTS

By

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A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of
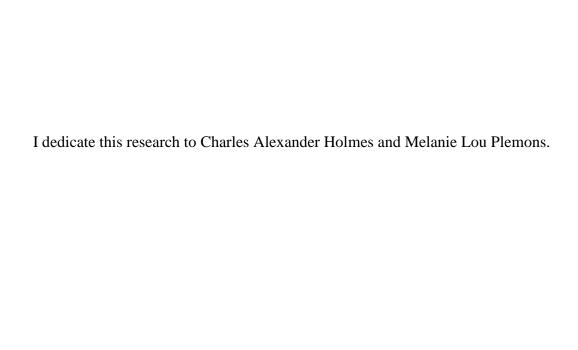Master of Arts in Psychology

Middle Tennessee State University
2014

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I dedicate this research to Charles Alexander Holmes and Melanie Lou Plemons.

ACKNOWLEDGMENTS

I would like to thank my loving fiancé, Charles, who has shown me nothing but unconditional love and support. I would like to thank my mother for raising me to always believe in myself and to never give up. I would also like to thank Dr. James Rust, Dr. William Compton, and Dr. Monica Wallace for their assistance and support with this research project. In addition, I would like to thank Dr. Toto Sutarso and Emily Pilaczynski for helping with the data analyses. Without all of them none of this would have been possible.

ABSTRACT

The purpose of this study was to determine relationships between several constructs

related to positive psychology, including resilience and happiness. Previous research has

shown a need to study positive aspects including happiness and resilience in relation to

negative life events. The present study assessed 299 undergraduate college students' age,

gender, socio-economic status, spirituality, resilience, happiness, social support, and

optimism through an online questionnaire. The study had several important findings

including a positive correlation between happiness and resilience. The study found

happiness and spirituality to be the best predictors of resilience. Adverse childhood

experiences were found to be positively correlated with both happiness and resilience.

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CHAPTER I

Introduction

Positive Psychology

When Martin E. P. Seligman was president of the American Psychological Association, he reminded psychologists that psychology was meant to increase human strengths (Seligman & Csikszentmihalyi, 2000). Seligman's efforts helped pave the way for a new direction in psychology, which is known today as positive psychology. Positive psychology is a growing area that attempts to balance positive aspects of human life and development with negative developmental challenges such as psychopathology (Seligman & Csikszentmihalyi, 2000). Positive psychology is interested in adaptive characteristics of individuals including creativity, positive emotions, positive behaviors, happiness, fulfillment in life, and other factors that lead an individual to the best possible functioning (Sheldon & King, 2001).

According to Seligman and Csikszentmihalyi (2000) there are three areas of positive psychology. The first is positive subjective states (e.g., happiness, love, contentment), which are positive emotions. Secondly, positive individual traits (e.g., courage, wisdom, determination) which are positive patterns of behavior. Thirdly, positive institutions, which are studied at a society level and include healthy family and work environments. Thus, positive psychology studies the positive aspects of human behavior and flourishing on many different levels. Positive psychology seeks to study and understand what people do right and what leads to "the good life" (Compton & Hoffman, 2013). The good life simply refers to the most fulfilling a life that is lived well.

Seligman (2002) described the good life as being able to use personal strengths daily in order to attain true happiness and significant gratification. The good life is attained through feeling connected to others, having positive personal traits, and life regulation abilities (Seligman, 2002).

In the past, many areas of psychology focused on mental illness, but now with the growth of positive psychology, the field is expanding its focus toward wellness as well as toward improved mental health outcomes such as hardiness development (Burns, Anstey & Windsor, 2011). Vaillant (2003) explained that psychiatry also focuses on mental health, that positive mental health is more than the absence of mental illness, and that the field of positive psychology is a promising way to view mental health. The positive psychology movement wants to find factors that lead people and communities to not only survive, but flourish (Vaillant, 2003). By attending to adaptive aspects of the human experience, positive psychology can assist a large proportion of individuals increase well-being (Seligman, 2011).

Even though positive psychology is primarily interested in positive aspects of life, it has recognized that negative aspects of life often play important roles in creating positive changes (Wong, 2010). For example, negative feelings such as remorse, disappointment, and frustration can serve as motivators toward positive life changes and ought not be ignored as an overall understanding of humans (Wong, 2010). Future research founded in positive psychology needs to move beyond only studying happiness by researching related concepts to happiness (Wong, 2010). For instance, both positive

and negative emotions need to be considered when conducting research to determine how they both interact with happiness (Sheldon, Kashdan, & Steger, 2011).

Models of Well-Being

Overall, people are able to adjust to life's difficulties and still strive to be positive individuals who are not controlled completely by their past and who can be more influenced by goals in the future. Some individuals have a great capacity to be resilient and overcome challenges extremely well and thrive. Often the term "flourishing" is used in positive psychology to describe when someone achieves a high level of well-being (Keys & Lopez, 2002). There are a number of models that define styles of flourishing.

Fredrickson's Broaden-and-Build model. The broaden and build theory places more importance on the presence of positive emotions compared to the number of negative emotions due to the power that positive emotions have in creating resources for future success. The broaden and build theory was created by Barbara Fredrickson (Fredrickson, 2001).

In Fredrickson's model, positive emotions are viewed as helping foster adaptive behavior as well as reshaping our cognitive thinking patterns that will lead to positive thoughts. Thus, positive emotions broaden our alertness and build through learning to create additional cognitive and emotional resources (Garland et al., 2010). Furthermore, positive emotions may serve as a remedy for negative consequences of stress, as stated in Fredrickson's undoing hypothesis (Fredrickson, 2001). Fredickson and Losada (2005) discovered there needs to be a 2.9 or higher ratio of positive to negative emotions in order for people to flourish.

Studies have discovered that negative and positive emotions are more independent than dependent; thus, they can have different causes and co-occur (Schimmack, 2008). Therefore, decreasing negative emotions will not automatically increase positive emotions. Positive emotions must be enhanced independent of changes in negative emotions. Fredrickson described ways in which positive emotions can be enhanced such as laughing, being empathetic, and challenging oneself (Fredrickson & Joiner, 2002). The broaden and build theory explains that positive emotions and resilience work together to improve mental health status.

Happiness. The documentary, *Happy* (Shimizu & Belic, 2011) described positive psychology as a new field focusing on happiness because being happy can help individuals accomplish their goals and flourish. A leading psychologist in researching happiness, Sonja Lyubomirsky (2001), concludes that happiness is a central part of positive psychology. Although people experience many problems throughout their lives, a clear majority of individuals overall report to be happy and doing well (Diener, 2009a). In order for happiness to predominate, the amount of good and positive experiences need to outweigh the bad and negative (Cohen & Fredrickson, 2009). By promoting and increasing good experiences, one is able to help modulate negative experiences (Sparks & Baumeister, 2008).

Psychological well-being (PWB). Ryff (1985, 1995) developed a model of psychological well-being that contains the six dimensions of self-acceptance, personal growth, positive relations with other people, autonomy, purpose in life, and environmental mastery. Self- acceptance relates to a person's ability to understand

themselves and accept any positives or negatives about their abilities in order to have an overall positive view of themselves. Personal growth relates to being open, developing new potentials, and increasing in self-knowledge over one's lifetime. Having positive social relationship with others as well as empathy for others are important to well-being. Being independent as well as resisting pressure from society fall under the autonomy dimension. Finding meaning in one's life plus life direction and goals are part of the purpose in life dimension. The dimension of environmental mastery relates to feeling competent and being able to select the circumstances and environments in which one may accomplish one's goals.

Modes of fulfillment. Coan (1974, 1977) describes the process of finding happiness involving five modes of fulfillment. The first mode is efficiency, which relates to someone using their talents or abilities well. The second mode is creativity, which relates to people who are artistic. The third is inner harmony, which relates to searching for one's true self. The fourth is relatedness, which deals with close personal relationships and love. The last mode is self-transcendence with relates to a person's connection with a higher power or God.   Coan explained that people can attain fulfillment from any of the five modes.

Subjective well-being. Subjective well-being is measured as a combination of three components: happiness, satisfaction with life, and neuroticism. Happiness deals with people's perception of their emotional state, satisfaction with life deals with people's judgment about their lives, and level of neuroticism refers to the amount of anxiety, depression, and low self-esteem that is present. Subjective well-being can be

understood by breaking it down into an affective part and a cognitive part (van Hoorn, 2007). The affective part relates to having more positive affect and less negative affect, while the cognitive part is how an individual views the events of her or his life (van Hoorn, 2007). Historically, there have been complications in defining and measuring subjective well-being. However, contemporary research has shown that subjective well-being can be measured on a continuum represented by numbers, where each number represents increasing amounts of well-being (Diener, 2009b). In the majority of early research on positive psychology, happiness and subjective well-being were synonymous (Compton & Hoffman, 2013).

Furthermore, Vaillant (2003) wrote that one way to view mental health is through subjective well-being. High subjective well-being is characterized by high life satisfaction and by the person having more positive emotions than negative emotions (Burns, et al. 2011). Subjective well-being leads to a person having more resources to promote creativity and protects against learned helplessness (Vaillant, 2003).

Seligman's PERMA Model. Martin Seligman's original ideas about happiness and well-being contributed to the emergence of positive psychology (Compton & Hoffman, 2013). His latest theory on well-being involves positive emotion, engagement, relationships, meaning, and accomplishment, which create the acronym PERMA (Seligman, 2011). His new well-being theory explains that positive emotion, engagement, and meaning are not enough to create well-being because people also need positive relationships and positive accomplishments (Seligman, 2011). People need

strong social supportive relationships as well as personal goals and sense of competence (Seligman, 2011).

Wong's Positive Psychology. Positive psychology aims to study what is positive about people in good times as well as in times of struggle. According to Wong, the four pillars of positive psychology include virtue, meaning, resilience, and well-being (Wong, 2010). Wong wrote his paper on the four pillars of positive psychology to try to clarify some of the inconsistencies found in the field of positive psychology. Wong describes virtue as pertaining to one's character and meaning as finding purpose in one's life. Although not part of the present study both concepts are important. The present study will focus on resilience and well-being pillars in order to better understand the relationship between these two pillars.

Definitions. The terminology and definitions in positive psychology tend to vary or overlap which can cause confusion and ambiguity (Sheldon, Kashdan, & Steger, 2011). As with other aspects of positive psychology, the term happiness has lead to difficulties in research because it has been hard to define. For example, as early as 1984 Diener explained that research on one subject, such as subjective well-being, can have a variety of terms used to represent the same construct including happiness and positive affect. In fact, Valliant (2003) wrote that the term happiness can be used to refer to a delusional state; therefore, the term subjective well-being is often used to dispel some of the problems associated with the terminology of happiness (Valliant, 2003). For example, the term happiness can be used to explain the feeling attained from maladaptive behavior such as being high on drugs (Valliant, 2003). Another author, van Hoorn,

(2007) explained that the terms happiness and subjective well-being are used as equivalent terms. This is not without debate because some individuals view the terms as being identical, but most view subjective well-being and happiness as being unique constructs (van Hoorn, 2007). Diener (1984) wrote that happiness is often used in many different ways in daily life which can make its meaning more unclear for research purposes. The debate about terminology is not new. There was a shift from using the word happiness to a better defined term in the field, such as subjective well-being (Diener, 1984). Consequently, there is a need to continue to study positive psychology so consensus about definitions can be derived and advances can be maintained.

Self-report Measures

Self-reports are one of the most commonly used techniques in research with adults, but they have advantages and disadvantages (Belsky, 2013). Advantages are their ease in administration and providing data quickly (Belsky, 2013). However, self-reports can be biased when the participants are responding on undesirable aspects of themselves (Belsky, 2013). Northrup (1997) concludes that accurately measuring constructs can be difficult when using self-reports through questionnaires and surveys. Northrup (1997) explained that there is always bias in self-reports because individuals can be dishonest. However, self-reports and survey research are valuable research tools in spite of some of the problems with self-reports (Northrup, 1997).

On the other hand, there is agreement in the research that a valuable way to measure subjective well-being is through the use of self-reports (van Hoorn, 2007). Additionally, subjective well-being measurement has been found to be reliable and to

have good internal consistency when comparing many different measures (Diener, 1984).

An individual's level of happiness or satisfaction with life has been found through

research to be relatively stable (Diener, 2009b). The present study will rely on a survey

method with self-reports to study constructs associated with positive psychology.

Major Predictors of Well-Being

Several factors can predict high subjective well-being. These include self-esteem,

having a sense of control, being extraverted, optimism, having positive and emotionally

close relationships, and feeling one's life has meaning and purpose (Compton &

Hoffman, 2013). In addition, genetics appears to have a significant influence on long-

term well-being.

Genetics. Specific genetic factors related to temperament appear to promote

subject well-being. Tellegen, Lykken, Bouchard, Wilcox, Segal, and Rich (1988) studied

monozygotic and dizygotic twins raised together or separately. The study found that

genetics contributed to 40% of the variance for positive emotions and 55% for negative

emotions while family influences contributed 22% and 2% (Tellegen et al., 1988).

Various researchers in the field have stated that that about 50% of the variance in

measuring happiness is explained by genetics (Shimizu & Belic, 2011). While 40% of the

variance, is explained by factors people have control over such as adding variety to one's

life. Diener (2008) calculated that 45% of the variance of happiness is explained by

inborn temperament. Demographics explain around 12% of the variance, and activities

and attitude explain the rest of the variance (Diener, 2008). Studies have also suggested

that genetics may determine a set point for long-term emotionality, which is a point

people return to after reactions to life circumstances either raise or lower happiness

(Lykken & Tellegen, 1996). However, recent research has suggested that a set point for

emotionality may be alterable and can be either raised or lowered over time (Headey,

Muffels, & Wagner, 2010).

Genetics may impact well-being by influencing temperament. In particular,

extraversion has been associated with higher subjective well-being (Diener, 1984).

Interestingly, this relationship has been found in international studies suggesting that

extraversion may be cross-cultural predictor of well-being (Diener, 2009c).

Positive cognitions. Positive and negative thoughts are both important in positive

psychology (Huta & Hawley, 2010). Positive cognitions help us become satisfied and

fulfilled in our lives because they can help combat negative life experiences. However,

negative cognitions are also important to survival; for example, feeling fear or anxiety

can be helpful. Nonetheless, numerous studies have found that positive cognitions are a

significant factor in the promotion of greater well-being and better physical health

(Lyubomirsky, Diener, & King, 2005). Numerous studies have found that the following

cognitive factors can be significant predictors of greater well-being: higher self-esteem,

greater optimism, and a sense of perceived control, which includes an internal locus of

control (Compton & Hoffman, 2013).

Positive relationships. As previously stated, Ryff (1985, 1995) believes having

positive social relationships is an important aspect related to psychological well-being.

Coan (1974, 1977) additionally states that one way people can achieve happiness is

through close personal relationships and love. Positive psychology recognizes the

importance that positive social relationships have in regards to well-being (Peterson, 2006). Thus, positive relationships are related to an essential part of happiness. Furthermore, an individual's character, virtues, and values are related to well-being (Peterson & Seligman, 2004; Seligman, Steen, Park, & Peterson, 2005). Primarily, these relate to how a person responds to other people.

Religiosity and a sense of meaning and purpose. Religion is positively correlated with subjective well-being, but it is difficult to determine cause and effect (Vaillant, 2003). Christianity, Islam, Hinduism, Judaism, and Buddhism all teach their followers to learn how to live a life with happiness and meaning in spite of difficult times (Wolin et al., 2009). However, in the documentary, *Happy*, religion was described as potentially increasing or decreasing happiness. The documentary presented the view point that religious groups that promote hate and violence could have a negative impact on happiness (Shimizu & Belic, 2011). Myers (2008) also wrote about the potential for religion to have a negative impact. Religious individuals can be more prejudiced than non-religions individuals, but overall religious people seem to report more happiness (Myers, 2008). Therefore, the relationship of religion and happiness appears to be partially dependent on the specific religious teachings and practices of the individual.

When studying happiness and religion, it is important to consider the culture and society as well. Mookerjee and Beron (2003) studied happiness and religion in 60 countries. They found that countries containing a variety of religions had less happy citizens than countries with fewer religions (Mookerjee & Beron, 2003). Lun and Bond (2013) studied happiness, spirituality, and religion in 57 countries. The majority of their

research findings supported a positive correlation between happiness and religion; however, culture impacts this correlation. People who live in a culture that promotes religion will have a positive correlation between religion and happiness, but if the culture does not promote religion there will be a negative correlation (Lun & Bond, 2013). Diener, Tay, and Myers (2011) studied religion and happiness in over 154 nations through a poll. They concluded there is a positive correlation between religion and happiness because it provides social supports, feelings of being respected, and meaning in life (Diener, Tay, & Myers, 2011). However, this was far more important in countries where life conditions are difficult (Diener, Tay, & Myers, 2011). Therefore, the social and cultural contexts determine how meaningful the relationship is between happiness and religiosity.

Demographic Factors Related to Well-being

Income and money. Research has concluded that, in general, living in a more wealthy country and having more wealth enhances happiness (Biswas-Diener, 2008). For example, international research has found that Gross Domestic Product has a correlation of .50 with life satisfaction (Diener, Diener, & Diener, 1995). Yang (2008) discovered in an American longitudinal study that people who have an income in the lower quarter have less odds of achieving happiness, while individuals in the upper quarter had increased odds. Diener, Horowitz, and Emmons (1985) found the wealthiest Americans to be happier than other Americans, but this may be only true if the wealth leads to increases in social standing (Boyce, Brown, & Moore, 2010).

Kasser and Gilbert (Shimizu & Belic, 2011) stated that people often equate money with happiness, but found that money only has a significant impact on someone's happiness if they are living in poverty and cannot meet their basic needs. A curvilinear relationship exists between income and subjective well-being (Biswas-Diener, 2008). This means that having money impacts peoples' happiness at lower levels of financial standing more so than people who are better off financially. Once one's basic needs are met, the amount of money they have and its relationship to happiness becomes stable (Shimizu & Belic, 2011). Diener (1984) similarly concluded that people who have a better financial standing report more happiness, but that as income continues to rise happiness does not continue to rise with it. The specific dollar amount that this shift occurs in the United States is at around an annual income of $75,000 (Kahneman & Deaton, 2010). That is, after this point increases in income have a decreasing impact on well-being. Some research has concluded that when people's goals focus on money, fame, or physical attractiveness, they experience decreased well-being (Niemiec, Ryan, & Deci, 2009). What people use their money for may be more important to their happiness than simply having money. For example, Van Boven and Gilovich (2003) found that spending money on experiential purchases that foster personal growth is more positively related to happiness than purchasing materialistic objects. Thus, financial status is thought to be related to happiness, but the relationship is complex.

Another contributing factor to happiness is that people may compare themselves with others in order to determine how their lives compare to their peers. These comparisons can lead to more or less happiness (Diener, 1984). Furthermore,

unemployment has a negative impact on subjective well-being (Diener, 1984).

Therefore, the literature concludes that income negatively impacts happiness if one's

basic needs cannot be met. This is because income is only strongly related to happiness

for individuals living in poverty (Diener, 1984). Lastly, in the United States the level of

happiness has remained mainly constant since 1946 although disposable income has

increased (Stevenson & Wolfers, 2009).

Age. In research older people have been found consistently to be happier than

younger individuals (Diener & Suh, 2000; Yang, 2008). However, this is only true if the

older person is still relatively healthy. Furthermore, as we age we tend to experience less

negative emotions, which contributes to differences in happiness with age

(Csikszentmihslyi & Larson, 1984; Scheibe & Carstenson, 2010). Van Hoorn (2007)

explained that subjective well-being is higher in younger people, declines in middle

adulthood, but then rises again in older adulthood. Lyubomirsky (2013) published

additional information that added to the position put forward by van Hoorn explaining

that older individuals may report higher levels of happiness due to having more life

experience, maturity, and social skills allowing for an increase in well-being and more

control over emotions. As people age they become aware of the decreasing amount of

time they have left, which in turn makes them more grateful for life's experiences

(Lyubomirsky, 2013). The reason people become happier as they age is because their

perspective changes due to their new awareness about the amount of time they have left

allowing them to focus on things that really matter to them in their lives (Carstensen,

Isaacowitz & Charles, 1999).

Gender. Prior to 1990 most studies found that women were slightly happier than men (Wood, Rhodes, & Welan, 1989). Currently, women are reporting less happiness than men (Stevenson & Wolfers, 2009). Other research found that women are still happier than men before age 48, but after that men are happier than women (Plagnol & Easterlin, 2008; Yang, 2008). Therefore, gender is a complicated predictor of subjective well-being. However, gender differences may be related to changing roles for women around the world (Stevenson & Wolfers, 2009).

Race and ethnicity. Some research has supported the view that Caucasian Americans report more subjective well-being than African Americans (Diener, 1984). However, when examining race and ethnicity in regards to happiness, differing levels of education, neighborhoods, income level, and other important factors need to be taken into account as these may be the true reason for any observed differences (Diener, 1984). Argyle (1999) and Yang (2008) found that American Caucasians report more subjective well-being than Native Americans, African Americans, and Latinos. However, since 1995 differences in well-being between African Americans and Caucasians has been declining (Yang, 2008). Thus, additional research involving race and happiness needs to be conducted.

Cross-cultural factors. An individual's culture impacts how members view their own emotional states and happiness (Wong, 2010). Koo and Oishi (2008) found that cultures view happiness differently and varying viewpoints impact the citizens' happiness. The power societies have to meet citizens' basic needs is related to varying levels of satisfaction found throughout the world (Tay & Diener, 2011). People who live

in several countries have been found to be consistently happier, including Denmark and

Bhutan (Shimizu & Belic, 2011). Countries that promote the well-being of their citizens

as well as economic growth appear to have happier individuals (Shimizu & Belic, 2011).

Japan, a culture that focuses on economic growth and working long hours, has been

found to be extremely low in happiness and reports a comparatively high level of deaths

from extreme working conditions (Shimizu & Belic, 2011).

Ott (2011) studied self-reported happiness and quality of government in 130

nations. The study concluded that there is a positive correlation between quality of

governance and happiness of the citizens. This study also found Denmark to be the

happiest nation. In fact, numerous studies have found that the Scandinavian countries of

Europe are consistently the happiest in the world (Veehoven, 1999). Citizens of the

United States of America are not nearly as happy as those living in these countries but

people of the United States are often happier than those of many other nations. For

example, Ott (2011) used a scale of 1 to 10 with higher numbers indicating higher

happiness levels. The United States obtained a happiness score of 7.26 while Denmark

obtained an 8, and the lowest score 3.26 was in Togo. There may be differences in the

levels of United States and Asian countries happiness due to cultural view points with the

United States promoting personal happiness more than Asian societies (Koo & Oishi,

2008). Finally, climate has been shown to be related with happiness with warmer

climates improving moods during springtime (Keller et al., 2005).

The Resilience Pillar of Positive Psychology

One of the pillars of positive psychology according to Wong (2010) is resilience. Vaillant (2003) wrote that one way to view mental health is through resilience, which he defined as the use of coping strategies to overcome stressful life experiences. Additionally, Everly (2009) concluded that a central tenant of positive psychology is resilience. Resilience can be thought of as a person's ability to cope effectively with negative life experiences, and it can develop as a person experiences positive personal growth through negative events (Dunn, Uswatte & Elliot, 2009). A variety of protective factors inside the person, in the culture, and in the environment combine to foster resilience (Greve & Staudinger, 2006). Thus, resilience is a vital part of human flourishing.

Resilience. Burns and Anstey (2010) hypothesized that resilience may increase subjective well-being. A resilient person can be characterized as using coping strategies to adapt in stressful situations, having an internal locus of control, socializing well, constructing a good self-image, and being optimistic; all of which correlate with positive mental and physical health (Burns et al., 2011). Burns et al. (2011) studied subjective well-being and resilience in Australia with a sample of 3,989 people aged 20 to 44. The Burns et al. (2011) study used the CD-RISC to measure resilience along with other measures of subjective and psychological well-being. Results indicated that resilience was a significant predictor of subjective well-being in both young and middle-aged samples. The researchers recommended future research to examine the relationship between resilience and well-being constructs should include measures of both positive

and negative affect. This study attempted to fill part of this need in the research by measuring adverse childhood experiences as one type of negative affect.

Two conditions enhance resilience in people (Peters, Leadbeater & McMahon, 2005). First, adversity has impacted the person, and secondly, the person adapted and functioned well during or after the adversity (Peters et al., 2005). When people are able to adapt well to life's responsibilities, obstacles, and setbacks, they are resilient (Joseph, 1994). A resilient person uses effective coping strategies, attitudes, and personal attributes when dealing with stressful life events (Joseph, 1994). The majority of the research on resilience has been done with children (Masten, Cutuli, Herbers, & Reed, 2009). Therefore, research with older populations, such as college students, would be beneficial.

In Maslow's theory (Maslow, 1954) the basic needs such as food, clothing, and shelter need to be relatively met before humans' higher needs can be given significant attention. Higher needs include love and belongingness, self-esteem, and self-actualization (Maslow, 1968). This means that it is easier to meet higher needs when basic human needs are mostly met, but it is not impossible to meet advanced needs without basic needs being met. When a child grows up without basic needs being met and has a successful life, this is due to unusually high resilience including the ability to be resistant to stress and rebound from adversity (Everly, 2009).

According to Brown and Holt (2011), two important aspects of positive psychology are to promote and enhance positive factors such as positive emotions and traits and also to protect against and decrease the impact of undesired life events.

Protective factors that can assist an individual to be resilient can be found within the individual, family, community, culture, and society (Masten & Wright, 2005). Resilience results from a combination of factors including genetics, biology, environmental factors, and psychological coping skills (Campbell-Sills & Stein, 2007). Furthermore, both genetic and environmental factors impact how resilient an individual will be when combined with psychological factors such as temperament, personality, self-regulation skills, cognitive factors, and sociability (Deater-Deckard, Ivy, & Smith, 2005).

In some of the research on resilience, it is referred to as ego resilience. Ego resilience is important to both positive psychology and to the concept of resilience. The Cohn, Fredrickson, Brown, Mikels, and Conway (2009) study focused on the broaden and build theory by Fredrickson (2001) which proposes that positive emotions have evolved to create resources to help one attain long-term success. Cohn et al., (2009) studied the relationship between ego resilience and positive emotions. The sample consisted of 98 university students 18 years or older. The study measured daily emotions, ego resilience, and life satisfaction in a lab setting. They defined ego resilience as one's ability to adapt when there is an environmental change. Positive emotions were found to relate to higher ego resilience, but since the relationship was correlational it was not possible to determine which leads to the other. These authors were able to postulate a relationship between ego resilience and emotion. They stated that an individual with high ego resilience will have more positive emotions than a person lower on ego resilience; however, both individuals will experience similar negative emotions. Therefore, it is the positive emotions that define the difference between high and low ego resilience. The

study found that individuals who had more positive emotions daily had greater development of ego resilience. Furthermore, growth in ego resilience resulted in more life satisfaction. Therefore, positive emotions seem to play an important role in the development of resilience. Another component of resilience is hardiness, which is discussed next.

Hardiness as a component of resilience. People who are said to have a hardy personality cope better with stress (Kobasa, 1979). Hardiness can be defined as having the three characteristics of control, challenge, and commitment (Kobasa, 1979).   These characteristics can help separate resilient and nonresilient individuals.   Control is high when one can impact what happens to him or her.   A high internal locus of control is when an individual believes they have control over themselves and are responsible for their actions.   Challenge high when an individual is able to change her or his thinking about negative aspects of a situation and view it as a positive change.   Commitment refers to finding a sense of meaning or purpose in one's actions (Joseph, 1994; Kobasa, 1979).

Individuals who have the characteristics of hardiness take control when a change occurs and try to determine what course of action to take (Kobasa, 1979). Furthermore, the mental processes involved in creating subjective well-being are also potentially involved with fostering hardiness (Compton, Seeman, & Norris, 1991). Hardiness can be a protective factor for combat soldiers against the development of Post Traumatic Stress Disorder (PTSD; Connor & Davidson, 2003). Thus, there are important implications of hardiness being involved in both resilience and well-being.

Predictors of resilience. Sybil and Steven Wolin's work beginning in 1989 with resilience revealed seven traits of resilience including insight, independence, good relationships, initiative, creativity, humor, and good moral standards (Wolin, Desetta & Hefner, 2000; Wolin & Wolin, 1993). The Wolins' found the seven traits of resilience through clinically interviewing 25 resilient adults who had survived growing up in troubled families including abuse, divorce, mental illness, etc. (Wolin et al., 2000; Wolin & Wolin, 1993). Research has found other significant predictors of resilience as described below.

Social support. Increasing resilience has been linked to focusing on family and community factors for both children and adults (Greve & Staudinger, 2006). For adults it is imperative that they have a strong and supportive social support system in order to respond well to life's difficulties. This includes social support on instrumental, practical, and emotional levels. Adults who have positive social support from their family and friends and feel a part of the community tend to deal more effectively with life's difficulties. Therefore, having positive social contacts as well as meaning in one's life can help buffer negative impacts of stress and life's difficulties. The American Psychological Association (APA) recommends connecting with friends, family, and community as a way to increase resilience (APA, 2013).

Optimism and hope. The APA additionally recommends adopting a hopeful outlook on life plus having a positive view of oneself. Having a positive view of life has been linked with increased resilience (American Psychological Association, 2013). Seligman (2011) explained that an important part of fostering resilience is learning how

to be optimistic and how to change pessimistic thoughts into more adaptive and rational thought patterns. Therefore, having an optimistic and hopeful outlook is related to resilience.

Religiosity and faith differences. The religions of Christianity, Judaism, Hinduism, Islam, and Buddhism all recognize that people have the ability to be resilient even though times of sorrow are an inevitable experience of human life (Wolin et al., 2009). However, the way each religion approaches resilience is different.

There is a need for religion and resilience to become a central part of the field of mental health (Wolin, et al, 2009). Throughout the literature, there is support for individuals to use positive religious coping to help them deal with stress (Ano & Vasconcelles, 2005). However, Ano and Vasconcelles (2005) found in their meta-analysis that both positive and negative types of religious coping skills are associated with positive and negative responses to stress. In children, being a member of a religion, having a faith, and finding a sense of meaning in life, are all protective factors for being resilience to life's difficulties (Masten & Wright, 2005). Also, survivors of the holocaust who were religious have been found to be more successful in life psychologically, socially, and financially (Glicken, 2006). Ano and Vasconcelles (2005) concluded it is important in the future to study and recognize the important role religion plays in people's mental health. Thus, resilience appears to be an important concept in religion, and religion appears to correlate with an individual's resilience.

Intelligence and cognitive differences. Masten and Wright (2005) listed several protective factors related to cognitive abilities that can help children be resilient. These

factors include having good cognitive abilities, problem-solving skills, parental involvement in their education, attending a good school, and their culture promoting education (Masten & Wright, 2005). In children, a high IQ has been found to be a protective factor that correlates with resilience to stressful life events (Glicken, 2006). Furthermore, one study found that for both children and adolescents cognitive ability (e.g., IQ, reasoning skills, problem-solving, etc.) is the best predictor of their level of resilience (Deater-Deckard, Ivy & Smith, 2005).   The literature supports a link between higher cognitive abilities and a higher level of resilience. Therefore, the current study will measure cognitive ability through self-reported high school grade point averages.

Age differences. Portzky, Wagnild, De Bacquer, and Audenaert (2010) found evidence that resilience increases with age, most likely due to more life experiences and learning how to overcome obstacles. The researchers used the RS-nl, which is a Dutch version of the Wagnild and Young Resilience Scale, containing 25 items with a 4-point response scale (Portzky, Wagnild, DeBacquer & Audenaert, 2010). They obtained a sample of 3,265 individuals from age 17 to 65 through an online registration process. Age was the strongest predictor of resilience, with individuals higher in age having a higher level of resilience when considering all demographic variables. However, some literature questioned if there is a true association between age and resilience, and recommended future research to assess age and resilience (Demakakos, Netuveli, Cable & Blane, 2014)

Gender differences. Jordan (2005) explains that when researching resilience, gender roles must be taken into account in order to increase understanding. Throughout

the lifespan males are more likely than females to have negative health outcomes, including greater risk of dying in infancy and a shorter life span (Werner, 2005). In the United States, during childhood and adolescence, boys are more likely to have learning and behavioral problems than girls (Werner, 2005). Females, who had trouble in adolescence, tend to have a better outcome as adults than males who had a troubled past (Werner, 2005). Longitudinal research on resilience supports that gender and gender roles are associated with resilience (Werner, 2005).

In the majority of studies on resilience, females tend to be more resilient to stress and adversity than males both in childhood and adulthood (Peters, et al., 2005). Gifted females are able to overcome traditional gender roles by being more resilient (Kerr & Larson, 2008). Females' positive emotions can help them be resilient to society's expectations. Positive emotions help emotion regulation which, in turn, helps women deal with negative events quickly and find meaning in their lives (Kerr & Larson, 2008). Females are more likely to seek out social support and close relationships in times of distress, which buffers them from negative outcomes and increases positive outcomes (Jordan, 2005). However, women tend to feel and express both positive and negative emotions, such as joy and anxiety, at a deeper level than males (Fujita, Diener, & Sandvik, 1991).

Research has found that a male's emotional expression, life experiences, and comfort level with showing vulnerability are related to his level of resilience. However, the American culture rewards boys who are independent and tough, and shames them away from being vulnerable and open with others (Pollack, 2005). The gender roles that

are placed on males are negatively impacting young boys' ability to be resilient and happy. There is a need for additional research on males' emotions, social interactions, and struggles (Pollack, 2005). Overall, females tend to be more resilient than males for a variety of factors. More studies are needed to explore resilience in adult populations and gender differences (Peters, et al, 2005).

Socio-economic status (SES) differences. Several factors related to socio-economic status have been found to be protective factors that increase resilience in children. These include socio-economic advantages, higher levels of parental education, living in a safe neighborhood, good employment opportunities for the child and parent, access to good health care, good schools, and living in an area where there are child protective laws and policies (Masten & Wright, 2005). However, Flouri, Tzavidis, and Kallis (2009) found that the effect of family history and child psychopathology were more important than one's social class or genetic vulnerabilities in a study with young children. Their study contained 9,736 children from Europe with a variety of social classes. They measured social deprivation, adverse life events, child psychopathology, family structure, maternal psychological distress, family's SES, developmental milestones, temperament, parenting attitudes, and verbal and nonverbal ability.

Chen and Miller (2012) discussed a number of reasons why individuals from low SES backgrounds often maintain good health in spite of adverse experiences. They describe the "Shift-and-Persist" model that proposes individuals from low SES backgrounds are able to find resources in their environment to help them cope with their stressful life events which allows them to accept the existence of the stress, find ways to

cope, and focus on improving their future. Again, Davis, Cook, and Cohen (2005)

explained that ethnic and racial minorities have a worse outcome than Whites due to

lower SES being a risk factor for developing resilience. Therefore, there is variability in

the effect SES has on resilience. Having a higher SES seems to be a protective factor,

but being from lower SES does not necessarily harm resilience. As the present study

included participants from a variety of SES groups, some of this dispute can be

addressed.

      Racial differences. Many protective factors are culturally based and impact the

way we live and view our lives (Masten & Wright, 2005). Burt, Simons, and Gibbons

(2012) studied race, crime, and resilience in 897 African American families in the United

States. The researchers measured delinquency, experiences with racial discrimination,

ethnic-racial socialization, hostile views of relationships, disengagement from

conventional norms, and depression (Burt et al., 2012). They found that exposure to

racial discrimination correlates with increased participation in crimes, but that the cultural

resources commonly found in African American families, such as ethnic-racial

socialization, provided resilience against crime and racial discrimination (Burt et al.,

2012). The cultural resources that ethnic-racial socialization provide include

communication to children about race and ethnicity and being a part of a racial or ethnic

group. These are thought to strengthen racial identify and give ethnic minorities a sense

of community (Burt et al., 2012).

      Davis, Cook, and Cohen (2005) explained that racial and ethnic minorities

experience more health problems than Whites partially due to their social, economic, and

living conditions having a negative impact on resilience. Therefore, the adverse life experiences ethnic and racial minorities are more likely to experience could potentially be buffered by their racial and ethnic communities, families, and sense of ethnic identity, especially for African Americans. There is a need for researchers to study different cultures, races, and ethnicities in relation to resilience (Masten & Wright, 2005). As the present study contained a variety of ethnic and racial backgrounds, racial differences in relation to resilience can be further evaluated.

Relationships among Resilience, Happiness, and Negative Life Experiences

A high level of well-being results from many factors including overcoming negative life experiences and developing resilience (Wong, 2010). Everly (2009) hypothesized that an individual's ability to have low or high resilience may be related to either being happy or regretful. To foster resilience one must be able to deal with stress effectively because adversity is bound to happen at some point in every person's life. Being resilient promotes health and happiness. To promote resilience one must create inner strength by using actions, beliefs, and principles. Actions include social support, making good decisions, taking responsibility, and living a healthy life style. Beliefs include being optimistic and having faith. One of Everly's (2009) principles of resilience is having moral guidelines and integrity. Everly argued this concept is important when relating happiness to resilience, because the American culture promotes happiness as attaining materialistic objects, but true happiness should be a journey of living a life of integrity which is important in being resilient. People can achieve happiness through

integrity by reflecting on what they accomplished and how they did it, which also leads to resilience (Everly, 2009).

In an article exploring factors related to well-being, Lyubomirsky (2001) wrote that happy individuals are more likely to view life events more positively and be able to better cope with stressful life events than unhappy individuals. Joseph (1994) similarly stated that that resilient individuals view negative life events in a positive and helpful manner. Dr. Viktor Frankl, who survived the holocaust, believed the cause of mental illness can stem from failing to find meaning in one's life and not taking responsibility for one's actions (Everly, 2009). Holocaust survivors who befriended others were more positive and optimistic about their lives (Glicken, 2006). Furthermore, resilient children who grew into resilient adults found meaning, control, and purpose in their lives starting at a young age and continuing through the life span (Joseph, 1994). Therefore, finding a sense of purpose and a reason to live were found to be important aspects of resilience (Everly, 2009).

How well a person copes with negative life experiences is positively related to their happiness (Wong, 2010). Diener (1984) explained the need for research to consider the length of time a person faces difficulties when conducting research on subjective well-being. The main determinant of happiness is being able to overcome adversity quickly (Shimizu & Belic, 2011). Lyubomirsky (2013) explains that most people have the capacity to be resilient to negative life experiences allowing them to be happy, but often people underestimate their ability to do so. However, after a significant amount of negative life events, mental health declines. Strumpfer (2003) hypothesizes that

subjective well-being along with other factors contribute to resilience which helps people avoid burnout. Additionally, Graham and Oswald (2010) believe individuals higher in well-being will be more resilient. Therefore, there is agreement in the research about negative events, happiness, and resilience all interact and impact one another. However, there is no consensus about cause and effect or about which factors come first. The present study provided further data that can be used to analyze these interactions.

Empirical research involving resilience, happiness, and negative life experiences. Past research has attempted to look at resilience, happiness, and negative life experiences. An older study sampled 48 undergraduate college students and found a significant positive correlation between resilience and purpose in life (Tryon & Radzin, 1972). Fredrickson, Tugade, Waugh, and Larkin (2003) used 47 college-age students to test the broaden and build theory which hypothesizes that having many positive emotions often helps develop resilience. The measures in the study included the Ego-Resiliency scale, NEO Five-Factor Inventory, Satisfaction with Life Scale, and Life Orientation Test (Fredrickson, Tugade, Waugh, & Larkin, 2003). The study found that resilience was positively correlated with finding positive meanings, positive moods, high number of positive emotions, and negatively correlated with depression.

Benetti and Kambouropoulos (2006) studied resilience, anxiety, self-esteem, and affect using 249 college students. They found that resilience correlated with positive affect and also correlated with better self-esteem (Benetti & Kambouropoulos, 2006). High school students from South Africa were participants in another study about social support, well-being, and resilience as measured by the Connor-Davidson Resilience Scale

(CD-RISC; Bruwer, Emsley, Kidd, Lochner & Seedat, 2008). Results indicated a positive correlation between perceived social support and resilience and a negative correlation between perceived social support and depression (Bruwer et al., 2008). Cohen and Hoberman (1983) studied positive events and social support in college students using the Interpersonal Support Evaluation List. More social support and more positive life events were found to protect one from stress and feeling depressed.

Denny and Hans (2009) used 140 college athletes to study the relationship between happiness and both internal (e.g., locus of control, mindfulness, self-restraint, self-esteem) and external factors (e.g., playing time, scholarship). The Subjective Happiness Scale (SHS) was used to measure part of the happiness component in the study. The authors found internal factors contributed more than external factors to the student's happiness including, higher self-esteem and lack of negative distress (Denny & Hans, 2009).

Lightsey (1994) studied 152 undergraduate students and found positive automatic thoughts predicted future happiness, but the combination of stressful events and positive automatic thoughts did not predict happiness or depression as hypothesized. Important implications of the Lightsey study are that positive automatic thoughts predict happiness and could increase resilience.

One of the few studies on the relationship between happiness and resilience was done with university students. The Cohn et al. (2009) study discussed previously, they measured daily emotions, ego resilience, and life satisfaction and found a positive correlation between positive emotions and resilience (see also Fredrickson & Tugade,

2003). The authors suggested a need for future research to examine the relationship between happiness and resilience in order to help develop intervention plans targeting positive emotions to increase resilience (Cohn, et al., 2009).

The need for research. The first focus of the present study was to measure happiness and related factors. Lyubomirsky (2001) cited a need for research in the area of happiness and related variables. Vaillant (2003) expressed the need for mental health to be measured with models of positive psychology, subjective well-being, and resilience. Sparks and Baumeister (2008) urge psychologists to study happiness, resilience, and stressful life events.   Research has found that when children are doing well personally and socially, it helps them achieve in their academics (Morrison, Brown, D'Incau, O'Farrell & Furlong, 2006). One way to help children do well academically, personally, and socially is for schools to focus on personal strengths of children and promote protective factors such as fostering resilience (Morrison et al., 2006). Similarly, Peters et al. (2005) have argued that scholars need to shift from focus on dangers to strengths.

The second focus of the present study was resilience, which has been found to correlate with how individuals respond to stress and trauma. Success dealing with stress and trauma can lead to better treatment and interventions (Campbell-Sills & Stein, 2007). However, several questions about subjective well-being and resilience remain unanswered. The current study examined happiness, resilience, adverse childhood experience, and demographics.

Summary

The positive psychology movement focuses primarily on positive aspects of human behavior including well-being (Sheldon & King, 2001). However, research needs to attend to how negative life experiences correlate with the development of positive factors like resilience (Wong, 2010). When studying resilience, negative factors like stress should be assessed as well as ways to promote well-being (Liebenberg & Ungar, 2009). Additionally, Burns et al. (2011) described the need for future research on happiness and resilience to include negative events and emotions related to subjective well-being (SWB). Research on resilience and happiness is needed due to the implications for developing interventions to promote both happiness and resilience (Cohn, et al., 2009). Thus, the literature supports the idea that resilience, happiness, and negative life experiences are related, but the exact nature of this relation is yet to be determined.

Purpose of current study. This study looked at the relationships between resilience, happiness, and adverse childhood experiences in undergraduate college students. Additionally, I measured the participants' age, gender, socio-economic status, faith, and race/ethnicity. By measuring all of these areas, one aim of this study was to suggest areas for future research on happiness and resilience.

Positive psychology is a growing field in which positive and adaptive human characteristics are researched (Snyder & Lopez, 2009). This study uses positive psychology as a theoretical model. Positive psychology is about studying positive aspects of life including emotions, engagement, meaning, achievement, and relationships.

The field strives to quantify, categorize, and fully understand those parts of human behavior. Positive psychology uses sound research practices to provide scientific data (Seligman, 2011). The current study is a part of the growing movement focusing on the positive aspects of human behavior. The results of this study provide further data to guide research and programs to promote resilience and happiness.

Hypotheses

      Hypothesis 1. The scale means found in this study for the following were not expected to significantly differ from the group means found in previous research: the Connor-Davidson Resilience Scale (CD-RISC), Subjective Happiness Scale (SHS), Life Orientation Test- Revised, Interpersonal Self-Evaluation List-12, and Daily Spiritual Experiences Scale (DSES). A one sample t test will determine this.

      Hypothesis 2. The study hypothesized that all measures would be reliable. Coefficient alphas determined reliability of each measure.

      Hypothesis 3. I expected resilience and happiness to be positively correlated (Pearson r) because people higher in resilience are thought to have higher subjective well-being (Burns et al, 2011; Cohn et al., 2009).

      Hypothesis 4. A moderate amount of adverse life experiences was expected to be positively associated with resilience because some amount of difficulty is necessary to create resilience (Peters et al., 2005; Wong, 2010). Participants were placed in three groups: minimal adversity, moderate adversity, and maximum adversity based on reported adverse childhood experiences. A 1 x 3 ANOVA was conducted using CD-RISC scores as the dependent variable.

Hypothesis 5. I expected a moderate amount of adverse life experiences to result in more happiness (Belsky, 2013). A 1 x 3 ANOVA with happiness as the dependent variable tested the hypothesis that the moderate group has more happiness than the minimal and maximum groups.

Hypothesis 6. Higher spirituality measures were expected to be positively correlated with happiness and resilience because having spirituality is a protective factor increasing both happiness (Shimizu & Belic, 2011; Vaillant, 2003) and resilience (Ano & Vasconcelles, 2005; Wolin et al., 2009). There is some disparity over the relationships of religion, happiness, and resilience, which the study hoped to further explain. Separate Pearson correlations were calculated.

Hypothesis 7. Older age was expected to be positively correlated with resilience (Portzky et al., 2010) and happiness due to the changing perspective of life as one ages (Carstensen, Isaacowitz & Charles, 1999, Lyubomirsky, 2013). Happiness is highest in young and older people and lower in the middle age group, which creates a U shape (van Hoorn, 2007). The researcher inspected the age of participants and divided the respondents into three groups: relatively young, middle, and relatively older while expecting more respondents to be in the young age group. Separate correlations were calculated.

Hypothesis 8. Females were expected to be higher in resilience than males (Peters et al, 2005; Pollack, 2005; Werner, 2005). A *t* test was calculated with resilience (CD-RISC) as the dependent variable and gender as the independent variable.

Hypothesis 9. This hypothesis was open ended. I was interested in determining what variables would best predict resilience including the following variables: age, sex, optimism, social support, happiness, perception of childhood events, and spirituality. A regression analysis was conducted to determine what variables would uniquely predict resilience.

CHAPTER II

Methods

Participants

This study used Middle Tennessee State University's online general psychology research pool through Sona Systems (Sona Systems, 2014). The goal of the current study was a minimum number of 200 participants due to the number of variables in the questionnaire. Qualtrics, a survey software program, was used to build the questionnaire which was imported onto Sona Systems (Qualtrics, 2014).

Materials

Resilience. The Connor-Davidson Resilience Scale can be used with adults and older adolescents to measure resilience through self-report with 25 items scored on a 5-point scale (Hall, 2010). The 25-item scale takes about 5 to 10 min for an individual to complete (CD-RISC: Connor-Davidson Resilience Scale, 2011). Scores from all the items are summed and a higher number represents higher resilience (Ahern, Kiehl, Sole, & Byers, 2006). It was developed to assist in treatment of individuals with posttraumatic stress disorder (PTSD; CD-RISC: Connor-Davidson Resilience Scale, 2011). The scale was developed to measure resilience (Connor & Davidson, 2003).

The CD-RISC was created to be used in adult populations, but has been successfully used in children and adolescent populations as well (CD-RISC: Connor-Davidson Resilience Scale, 2011). It can be used to measure resilience, treatment progress, potential to benefit from treatment, and as a screener for level of resilience (CD-RISC: Connor-Davidson Resilience Scale, 2011). Hall (2010) explained that the

scale is based on a factor analysis with five factors, it has good psychometric properties, good test- retest reliability, and good internal consistency. The CD-RISC has been found through analysis to have good internal consistency, test-retest reliability, and convergent and divergent validity (Campbell-Sills & Stein, 2007). A psychometric review in the United Kingdom of resilience scales concluded the CD-RISC to be in the top four (Hall, 2010). The scale assesses individual dispositional attitudes of resilience (Hall, 2010). The scale has been used with a variety of populations including diverse cultures and ethnicities and college students (CD-RISC: Connor-Davidson Resilience Scale, 2011).

Studies of the CD-RISC with the general population and clinical samples indicated that the scale exhibits sound psychometric properties including five factors found through factor analysis. The CD-RISC discriminated between individuals with more or less resilience (Connor & Davidson, 2003). The internal consistency of the CD-RISC is found through a Cronback's alpha to be 0.89 for the full scale (Connor & Davidson, 2003). During a study reviewing resilience measures, the CD-RISC was found to have item correlations from .30 to .70 test-retest reliability (Ahern et al., 2006). The Ahern et al. review was able to find convergent validity but not discriminate validity through correlations between the CD-RISC and other instruments (Ahern et al., 2006). Burns and Anstey (2010) found support that the CD-RISC has a one-factor model and a uni-dimensional structure.   The researchers explained that further factor analysis of the CD-RISC is warranted (Burns & Anstey, 2010). Ahern et al. (2006) reported that the CD-RISC factor analysis contained five subscales.

Potential problems with the CD-RISC are it does not assess how one develops resilience and no items are reversed scored, which could increase the risk of rating bias (Ahern et al., 2006). Overall, the CD-RISC was found to have sound psychometric properties and ability to differentiate between individuals with less or more resilience (Ahern et al., 2006). Therefore, the CD-RISC appears to be an adequate measure of resilience for the study's population of undergraduate college students. Permission to obtain and use the scale is in Appendix A.

Happiness (SWB). Happiness is typically studied through the use of questionnaires (Schwartz, 2004). Lyubomirsky and Lepper created the Subjective Happiness Scale (SHS) to measure an individual's stable level of happiness, (Lyubomirsky & Lepper, 1999). The four-item scale classifies people on the happy/unhappy dimension depending upon if they score above or below the median (Lyubomirsky, 2001). The SHS contains four items, two items ask participants to compare themselves to others, and the other two items ask participants how much they personally agree with a statement about happiness (Lyubomirsky, 2001). The SHS and other subjective well-being measures are based on the assumption that happiness can be translated onto a number scale, and that when people have the same number score they have a similar level of happiness. Permission to use the scale is in Appendix A.

Social support. I used the shortened Interpersonal Support Evaluation List 12-item version (ISEL-12) to assess social support (Cohen, Mermelstein, Kamarck, & Hoberman, 1985). The scale contains three dimensions including appraisal support, belonging support, and tangible support. The dimensions are measured by four questions

answered on a 4-point scale going from "definitely true" to "definitely false." The test

authors developed this scale to measure an individual's perception of how available each

type of support is to them. The scale contains six reversed items. When assessing for

reliability the scale has an alpha ranging from .88 to .90 for the general population while

with undergraduate students it ranges from .77 to .86. The validity of the scale has been

demonstrated through its positive correlation with other social support scales as well as

correlations with the number of positive relationships present in respondents' lives

(Cohen, Mermelstein, Kamarck, & Hoberman, 1985). Permission to use the ISEL-12 as

well as the scale can be found at the following website:

http://www.psy.cmu.edu/~scohen/scales.html

   Optimism. I used the Life Orientation Test- Revised (LOT-R) to assess

optimism (Carver, Scheier, & Segerstrom, 2010). The test authors created the LOT-R to

measure an individual's degree of optimism and pessimism. Researchers studied the

LOT-R in regards to behavior, affect, and health costs in relation to optimism and

pessimism. Its authors created the LOT-R to deal with problems the original version

contained such as lack of focus on future expectations. This measure is described as easy

to use and succinct (University of Miami, 2007). Glaesmer et al. (2012) evaluated the

psychometric properties of the   LOT-R and found the measure to assess the bi-

dimensional construct of optimism and pessimism. The researchers determined the

Chronbach's alpha to be 0.70 for optimism, 0.74 for pessimism, and 0.68 for the overall

total score. The study concluded that the LOT-R is an appropriate measure to use in

research studies. Chiesi, Galli, Primi, Borgi, and Bonacchi (2013) evaluated the accuracy

of the LOT-R through item response theory analyses with 484 university students. They

found that the LOT-R is able to accurately measure an individual's level of pessimism

and optimism. Further, every item and the global scale were found to significantly

distinguish between optimism and pessimism. Permission to use the LOT-R as well as the

actual scale can be found at this website:

http://www.psy.miami.edu/faculty/ccarver/sclLOT-R.html

      Negative life experiences. Due to the lack of an appropriate measure to

determine how respondents view the amount of negative life events in their lives, two

questions were developed for the current study. The items directly measured

respondents' perception of their past. This measure is referred to as the Perception of

Childhood Experiences (PCE). The first question asked the participants to reflect on their

lives up until the present point as to how many difficult life events they have had. The

first item was answered on a 7-point Likert scale ranging from a high score of "one

difficult event after another" to a low score of "a life completely absent of difficult

events." The second item allowed participants to compare their perception of their

personal negative life events to the experiences of others on a 7-point Likert scale. The

scale ranged from a high score containing "far more difficult life events than others" to a

low score of "far fewer difficult life events than others." This allowed for a direct

assessment of how the respondents viewed their lives in regards to negative life

experiences. The two questions are listed here.

      1. When I look back at my life up to this point, it has been: Responses are

      arranged in a Likert format from 1 (one difficult event after another for many

years) to 7 (completely free of difficulties the entire time).

2. When I look back at my life up to this point, it has been: Responses are arranged in a Likert format from 1(filled with far more difficult events than most people) to 7 (filled with far fewer difficulties than most people).

Faith. The Daily Spiritual Experiences Scale (DSES) measures ordinary spiritual experiences in daily life (Underwood, 2011). The scale contains 16 self-report items that measure awe, love, gratitude, mercy, sense of connection, inner peace, inspiration, and so forth. Other constructs measured include transcended sense of self, strength, comfort, divine help, divine guidance, divine love, and thankfulness (Underwood, 2006). Each item is written to measure a specific feature of spirituality/religiousness. Items are answered on a modified Likert scale in order to measure the timing or intensity of experiences (Underwood, 2006). The scale is designed to measure both religion and spirituality (Underwood, 2006). The scale was created to be used in health studies but has expanded to social science research with over 70 studies completed (Underwood, 2006).

Researchers have used the Daily Spiritual Experiences Scale (DSES) longitudinally in the United States. Researchers have evaluated its psychometric properties in many countries (Underwood, 2011). Women in the United States normally report more daily spiritual experiences than males do (Underwood, 2011). African Americans normally have a higher score on the scale as well (Underwood, 2011). Scores on the DSES are positively correlated with happiness (Underwood, 2011). The scale is considered a one-dimensional measure (Underwood, 2011). The scale is good to use with

a diverse groups of people due to it focusing on experiences rather than specific religious beliefs (Underwood, 2011).

Research findings support the use of the scale to measure daily spiritual experiences (Underwood & Teresi, 2002). The scale has good internal consistency reliability, construct validity, content validity, item distributions, and is one-dimensional (Underwood & Teresi, 2002). The majority of factor analyses of the scale have found that the scale loads on one factor except for the two items related to compassionate love which seem to load on another factor (Daily Spiritual Experience, 2013). The Chronbach's Alpha for the scale has consistently been .90 or above (Daily Spiritual Experience, 2013). As with all self-report measures, potential bias cannot be eliminated (Underwood & Teresi, 2002). I used this measure to assess faith in the study's participants. Permission to use the scale is in Appendix A.

Socio-economic status. The Duncan Socio-economic Index (DSI) was used to determine Socio-economic Status (SES; Mercer & Lewis, 1977). The DSI assessed socio-economic status by asking about the head of household's occupational level. The index contains nine choices describing various occupations where a higher score indicates higher SES. Dollinger and Malmquist (2009) found self-reported SES to have a test re-test reliability of .71 in college students. Therefore, this is viewed as a reliable means to measure socio-economic status in college students.

Race and sex. In order to determine a participant's race and sex, questions used similar wording and categories as the U.S. 2010 Census Bureau. Respondents selected the race they most closely identify with from: White, Black or African American,

American Indian or Alaska Native, Asian, Hispanic or Latino or Spanish, and Native

Hawaiian or Other Pacific Islander. The U.S. Census Bureau also asks for people to

identify their biological sex as either male or female (United State Census, 2013).

Procedure

The study first obtained Institutional Review Board (IRB) approval before

proceeding (see Appendix B). The researcher then obtained necessary approval to use

the selected measures from the appropriate representative. After approval was granted

from the IRB, the next step was to enter all selected questions from the measures into the

online survey software of Sona Systems. The researcher obtained permission to use Sona

Systems and agreed to abide by all guidelines. Three colleagues field tested the

questionnaire to ensure that it was working properly and producing meaningful results.

Participants viewed a brief introduction to the survey, including information about

consent and the right to withdraw at anytime. At the end of the survey, I showed a short

thank you message. All responses were stored on Qualtrics, and the identity of

participants was anonymous. Once the needed number of participants was received, the

researcher exported the data from Sona Systems to SPSS to perform statistical analyses.

CHAPTER III

Results

Descriptive Data

The data consisted of the responses to age, gender, race, socio-economic status,

and raw scores from the following scales: Life Orientation Test-Revised (LOT-R),

Interpersonal Support Evaluation List-12 (ISEL), Subjective Happiness Scale (SHS),

Connor-Davidson Resilience Scale (CD-RISC), and Daily Spiritual Experiences Scale

(DSES). In addition, scores on two questions were included that measured how

participants perceived their childhood, which were labeled Perception of Childhood

Experiences (PCE). Scores from individual items were summed to create raw scores with

the only exception being the Subjective Happiness Scale (SHS), which was averaged.

Socio-economic status was measured by participants selecting 1 out of 10 occupations as

most closely matching his or her head of household's current position. A lower number

indicated lower SES and higher numbers indicated higher SES. See Table 1 for

participant demographic characteristics.

Hypotheses

Hypothesis 1. This study hypothesized that participants would be similar to

previous groups of the Connor-Davidson Resilience Scale (CD-RISC), Subjective

Happiness Scale (SHS), and Daily Spiritual Experiences Scale (DSES). Individual one

samples *t* tests were used to determine this. The study's participants' CD-RISC mean

score 74 (*SD* = 14.9) was significantly lower than the previous published mean of 80.4

Table 1
Participant Descriptive Statistics

Characteristic		*n*	%
Gender			
	Male	76	25.4
	Female	223	74.6
Age			
	≤19	221	73.9
	20-25	59	19.7
	≥25	17	5.4
Race			
	White	186	62.2
	Black or African American	84	28.1
	American Indian or Alaska Native	3	1.0
	Asian	12	4.0
	Hispanic, Latino, or Spanish	13	4.3
	Native Hawaiian or Other Pacific Islander	0	0.0
Socio-economic Status			
	Lower (0-2)	58	19.4
	Middle (3-6)	114	38.1
	High (7-9)	122	40.8

$(SD = 12.8)$, $t298) = -7.5$, $p < .001$. The study's participants' mean SHS score 5.1 (SD = 1.3) was significantly higher than the published mean 4.9, t (298) = 2.8, $p = .005$. The study's participants mean Interpersonal Support Evaluation List (ISEL) score 30.9 (SD = 2.6) was significantly high than the comparison group's published mean score 28.8, t (298) = 13.8, $p < .001$. The 16 individual item scores from the DSES were compared to a prior sample since that is how the data were displayed in the previous study. All DSES items were found to be significantly lower than the previous sample's scores, $p \le .001$. The LOT-R individual items scores were compared against a previous published sample in a similar manner. All LOT-R items were found to be significantly lower than the prior sample's scores, $p < .001$. I concluded that the comparison published samples differed from the present sample. Thus, Hypothesis 1 was rejected.

Hypothesis 2. The study hypothesized that all of these measures would be reliable. Coefficient alphas were computed to determine reliability of each measure. Cronbach's Alpha for SHS, which contains 4 items, was .9. The 25-item CD-RISC had a Cronbach's Alpha of .9. The two items created to assess participants' perception of their childhood experiences (PCE) obtained a Cronbach's Alpha of .8. The 16-item DSES questionnaire obtained a Cronbach's Alpha of .9. The Cronbach's Alpha for ISEL-12 was -.6, and the Cronbach's Alpha for LOT-R was -.2. Glaesmer et al. (2012) evaluated the psychometric properties of the LOT-R and found Cronbach's alpha to be 0.7 for the overall total score. Pittsburgh Mind-Body Center (2008) found ISEL-12 to have a Cronbach's Alpha of .8 through their research. Thus, the measures in this study were considered to be reliable.

Hypothesis 3. The study hypothesized that resilience and happiness would be positively correlated because people higher in resilience are thought to have higher subjective well-being (Burn et al., 2011; Cohn et al., 2009). A Pearson Product-Moment correlation between CD-RISC and SHS was calculated and found to be statistically significant, $r = .68$, $p < .001$. Thus, Hypothesis 3 was supported.

Hypothesis 4. The study hypothesized that a moderate amount of adverse life experiences would be positively associated with resilience because some amount of difficulty is necessary to create resilience (Peters et al., 2005; Wong, 2010). Participants were placed in three groups: minimal adversity, moderate adversity, and maximum adversity based on reported adverse childhood experiences on the Perception of Childhood Experiences (PCE). A 1 x 3 ANOVA was conducted using CD-RISC scores as the dependent variable. A main effect of PCE scores was found for resilience, $F (2, 295) = 16.2$, $p < .001$. The Tukey HSD post hoc tests indicated that the maximum adversity group's CD-RISC mean score ($M = 81.4$, $SD = 11.1$) had statistically higher CD-RISC scores than the moderate group's mean CD-RISC score ($M = 74.4$, $SD = 15.2$), $p = .004$ and also had statistically higher CD-RISC scores compared to the minimal group's scores ($M = 68.6$, $SD = 14.4$), $p < .001$. In addition, the post hoc test found that the moderate group had statistically significantly higher CD-RISC mean scores than the minimal group, $p = .005$. Thus, Hypothesis 4 was partially supported.

Hypothesis 5. I predicted that a moderate amount of adverse life experiences would result in more happiness. A 1 x 3 ANOVA with happiness as the dependent variable tested the hypothesis that the moderate group has more happiness than the

minimal and maximum groups. A main effect of PCE scores was found for happiness as measured by SHS, $F(2,295) = 24.9$, $p < .001$. The Tukey HSD post hoc tests indicated that the maximum adversity group's SHS mean score ($M = 5.8$, $SD = 0.9$) was statistically higher than the moderate group's mean SHS score ($M = 5.3$, $SD = 1.2$), $p = .008$. Likewise the Tukey HSD post hoc tests indicated that the maximum adversity group's SHS mean score ($M = 5.8$, $SD = 0.9$) was statistically higher than the minimal group's SHS mean score ($M = 4.5$, $SD = 1.4$), $p < .001$. In addition, the post hoc test found that the moderate group had statistically significantly higher SHS mean scores than the minimal group, $p < .001$. Thus, Hypothesis 5 was partially supported when the moderate group was compared to the minimum group.

Hypothesis 6. I also hypothesized that higher spirituality measures would be positively correlated with happiness and resilience because having spirituality is a protective factor increasing both happiness (Shimizu & Belic, 2011; Vaillant, 2003) and resilience (Ano & Vasconcelles, 2005; Wolin et al., 2009). Separate Pearson correlations were calculated. A statistically significant negative correlation was found between SHS and DSES, $r = -.4$, $p < .001$. Another statically significant negative correlation was found between CD-RISC and DSES, $r = -.4$, $p < .001$. Thus Hypothesis 6 was rejected, and the study found the opposite to be true in this sample.

Hypothesis 7. Hypothesis 7 was that age would be related to resilience (Portzky et al., 2010) and happiness due to the changing perspective of life as one ages (Carstensen, Isaacowitz, & Charles, 1999, Lyubomirsky, 2013). Happiness is highest in young and older people and lower in the middle age group which creates a U shape (van

Hoorn, 2007). The researcher inspected the age of participants and divided the respondents into three groups: relatively young ($\leq$ 19), middle, (20-25) and relatively older ($\geq$ 26). A 1 x 3 ANOVA with resilience as the dependent variable and age groups as the independent variable tested this hypothesis. There was no main effect found for age and resilience, $p = .16$. Another 1 x 3 ANOVA was used with happiness as the dependent variable and age groups as the independent variable. There was no main effect found for age and happiness, $p = .15$.

Hypothesis 8. Hypothesis 8 was that females would report higher scores on resilience than males (Peters et al., 2005; Pollack, 2005; Werner, 2005). A *t* test was calculated between resilience (CD-RISC) and gender. The *t* test did not find a significant difference between male (75.4; $SD = 15.9$) and female (73.5; $SD = 14.5$) participants' means CD-RISC scores, $t (297) = .95, p = .65$. Thus hypothesis 8 was rejected.

Hypothesis 9. This hypothesis was open ended. A stepwise regression analysis was calculated in order to determine which variables best predicted resilience including the following variables: age, sex, SES, optimism, social support, happiness, perception of childhood events, and spirituality. The results of the regression indicated that two of the variables explained 48% of the variance ($R^2_{adj} = .5, F (1,287) = 135.3, p < .001$) in resilience. It was found that happiness significantly predicted resilience ($\beta = 6.6, p < .001$) as did spirituality ($\beta = -.2, p < .001$).

Supplementary Analyses

Upon examining the correlation table, statistical significance was found among SES and several other variables. A significant positive correlation was found between SES and LOT-R, $r = .1$, $p = .04$. Also, there was a significant positive relationship found between SES and SHS, $r = .1$, $p = .02$. Another significant positive correlation was found between SES and PCE, $r = .1$, $p = .05$. A significant negative correlation was found between DSES and SHS, $r = -.11$, $p = .05$. In addition, a statistically significant correlation was found between PCE and CD-RISC, $r = .3$, $p < .001$. All other correlations failed to reach significance.

CHAPTER IV

Discussion

Description of Participants

Participants in the current study were described using terms from the 2010 census (United State Census, 2013). The majority of the participants were female 74.6% while only 25.4% were male. All participants were from undergraduate introduction to psychology courses. As expected, the majority of participants were 18 or 19 years old (73.9%) while 19.7% were 20 to 25 and 5.4% were 25 or older. Most of the participants identified themselves as being White at 62.2%; the second highest group was Black or African American at 28.1%; then Hispanic, Latino, or Spanish was the third highest at 4.3%; Asian was similar at 4%; and only 1% of the sample was American Indian or Alaska Native. None of the participants identified themselves as Native Hawaiian or Other Pacific Islander. In terms of socio-economic status (SES), 40.8% of the sample identified themselves as having high SES; similarly 38.1% identified themselves as middle SES, and 19.4% as lower SES. Therefore, this sample was predominately female, White, 18 or 19 years old, and upper or middle SES. However, the sample did have some variability in gender, race, age, and SES.

Hypotheses

Hypothesis 1. This study hypothesized that participant scores would be similar to the scores from a previous study using the Connor-Davidson Resilience Scale (CD-RISC), Subjective Happiness Scale (SHS), Life Orientation Test-Revised (LOT-R),

Interpersonal Support Evaluation List (ISEL), and Daily Spiritual Experiences Scale (DSES). Each individual measure's results will now be discussed.

This study's participants had a significantly lower mean resilience score on the CD-RISC than the comparison group. Thus, this sample consisting of undergraduate students reported less resilience than the previous sample. Perhaps, the younger age of the current sample caused this difference. The comparison sample consisted of adults from the United States who were contacted through a random telephone survey (Conner & Davidson, 2003). Thus, the previous sample was more diverse in geographic location and age than the current sample.

The current study's participants' happiness mean on the SHS was significantly higher than the mean from a comparison study. The previous sample consisted of college students, high school students, working adults, and retired adults up to age 94. The majority of the sample was from the United States but some were from Russia (Lyubomirsky & Lepper, 1999). The comparison group consisted of a more diverse sample than the present group, possibly explaining the differences in results.

Additionally, the present sample had a higher social support score on the ISEL than the comparison group that contained women with breast cancer, women at risk for heart disease, older adults under treatment for osteoarthritis as well as some healthy individuals. Thus, the comparison group contained older adults and some individuals with health problems when compared to the current sample. Once again a more diverse sample offers a possible reason for the differences found.

The current study's sample had significantly lower scores on all the items on the DSES that measured daily spiritual experiences when compared to a comparison group. The earlier sample was a random sample of people from the United States with a variety of religions, ethnicities, ages, socio-economic statuses, and geographic locations (Underwood, 2006). The present study's sample contained only college students in one geographic location making it less diverse than the comparison sample which again is possibly why I found differences.

Similarly, compared to a previous sample, my participants had lower scores on all the items on the LOT-R measure of optimism. The comparison sample consisted of 484 university students from the University of Florence (Italy). The study's mean age was 22.79 and contained 62% female. The students were enrolled in psychology, medicine, nursing, and engineering courses (Chiesi et al., 2013). The geographic location and variety of courses could have caused the difference in LOT-R scores in this study.

As my study's sample was different from all comparison samples, the hypothesis that they would not differ on the dimensions measured was rejected. I concluded that the comparison samples differed from the present sample.

Hypothesis 2. I hypothesized that all of these measures would be reliable. The SHS, CD-RISC, PCE, and DSES all had high Cronbach's Alphas indicating that they produced reliable results that are consistent with previous research (Connor & Davidson, 2003; Cohen, Mermelstein, Kamarck, & Hoberman, 1985; Daily Spiritual Experience Scale, 2013; Glaesmer et al., 2012; Lyubomirsky, 2001).

However, the ISEL and LOT-R Cronbach's Alphas were surprisingly negative. Prior research reported ISEL alphas ranging from .77 to .86 and the LOT-R alpha was .68. Thus, both scales had previously shown adequate reliability (Glaesmer et al., 2012; Pittsburgh Mind-Body Center, 2008). Potential reasons for this surprising result include item-coding errors. However, item coding was carefully examined and determined to not be the cause. Another possible reason for negative alphas is reversed items not being coded correctly. That too was carefully checked and found not to be the cause. In cases with small sample sizes or small numbers of items, sampling error could cause negative coefficient alphas. However, the present study had a large sample size ($N = 299$). It is possible that participants ignored the reverse statement and selected high and low scores without carefully reading items. If so, that would explain the negative alphas. Lastly, it could be true that the present sample actually reported negative alphas. Beyond these explanation the reason remains unclear. Thus, contrary to the findings with the LOT-R (Glaesmer et al., 2012) and with the ISEL (Cohen, Mermelstein, Kamarck, & Hoberman, 1985) present alphas were negative (Hays, 1981; Lord & Novick, 1968). As that is the most reasonable conclusion, the LOT-R and ISEL scores are interpreted here with extreme caution.

Hypothesis 3. The study hypothesized that resilience (CD-RISC scores) and subjective well-being (SHS scores) would be positively correlated because people higher in resilience are thought to have higher subjective well-being (Burns et al., 2011; Cohn et al., 2009). The Pearson Product-Moment correlation was found to be positive and the hypothesis was confirmed. Thus, I conclude that in this sample with undergraduate

students, individuals higher in happiness were also higher in resilience. This indicates the important relationship between happiness and resilience as well as the importance of cultivating this in young populations. This finding is consistent with previous research (Burns et al., 2011; Cohn et al., 2009).

Hypothesis 4. The study hypothesized that a moderate amount of adverse life experiences (PCE scores) would be positively associated with resilience (CD-RISC scores) because some amount of difficulty is necessary to create resilience (Peters et al., 2005; Wong, 2010). The study found significance between perception of adversity in one's childhood and level of resilience. Participants who had maximum adversity had more resilience than participants with only both minimal and moderate adversity. The moderate group had more resilience than the minimal group providing partial support for this hypothesis. These findings support that adverse experiences likely play a role in increasing resilience. This is consistent with previous research in this area (Peters et al., 2005; Wong, 2010). My conclusion is that participants reporting moderate and maximum adversity adapted better to their adverse life experiences than those reporting less adversity.

Hypothesis 5. I predicted that a moderate amount of adverse life experiences (PCE scores) would result in more happiness (SHS scores). I found a significant relationship between adverse life experiences and levels of reported happiness. The maximum adversity group had more happiness than minimal and moderate adversity groups. Additionally, the moderate adversity group reported higher levels of happiness than the minimal group. These results partially support the hypothesis and were

consistent with previous research and literature (Huta & Hawley, 2010; Wong, 2010). This study adds support to the theory that individuals who experience adversity can have higher levels of happiness if they overcome the adversity. One potential reason for this is that growing through adversity can change one's perspective of life and she or he can become happier and more grateful for life's positive experiences.

Hypothesis 6. I also hypothesized that higher spirituality measures (DSES scores) would be positively correlated with happiness (SHS scores) and resilience (CD-RISC scores) because having spirituality is a protective factor increasing both happiness (Shimizu & Belic, 2011; Vaillant, 2003) and resilience (Ano & Vasconcelles, 2005; Wolin et al., 2009). This hypothesis was rejected when two negative Pearson correlations were found. These contradictory results are difficult to interpret. Perhaps the low spirituality scores of the present sample meant that this group lacked the protective features offered by spirituality. Other potential causes for the surprising results are lack of a representative sample, poor measurement instruments, or time span between the previous research and this study. These factors could have resulted in the unexpected results.

Hypothesis 7. I hypothesized that age would be related to resilience (CD-RISC scores; Portzky et al, 2010) and happiness (SHS scores) due to the changing perspective of life as one ages (Carstensen, Isaacowitzk & Charles, 1999; Lyubomirsky, 2013). No main effects were found for age in relation to resilience or happiness. A likely cause of this is due to the majority of the sample being 18 or 19 year of age; thus, the study did not contain a diverse enough sample across ages.

Hypothesis 8. I hypothesized that females would report higher scores on resilience (CD-RISC scores) than males (Peters et al., 2005; Pollack, 2005; Werner, 2005). This hypothesis was rejected when no significance different between male and female mean resilience scores was found. Negative results are difficult to interpret. The instrument may not have detected real differences. Also, the majority of the sample was female (74.6%), which could have impacted the results. This study needed more males to accurately represent that population. The sample was also young so it is likely there was not enough time for any difference to develop due to their young age.

Hypothesis 9. I wanted to look at all the variables (age, sex, SES, optimism, social support, happiness, perception of childhood events, and spiritually) to determine what best predicted resilience. I found that happiness and spirituality explained 48% of the variance and were the variables that best predicted resilience. I concluded that this relationship could potentially help in designing intervention programs to foster resilience among young adults. Previous research agrees that happiness (Burns & Anstey, 2010; Cohn, et al., 2009) and spirituality (Ano & Vasconcelles, 2005; Glicken, 2006; Masten & Wright, 2005; Wolin, et al., 2009) are related to resilience.

Supplementary Analyses

I examined a correlation table and found a positive correlation between social support and optimism. Intuitively, it makes sense that the more social support a person has, the more positive they are. Thus, having positive social relationships personally impacts a person's ability to be optimistic or it could be that optimistic people have an easier time finding social support. This finding is consistent with the subjective well-

being literature that has found a relationship between social support and optimism (Seligman, 2011).

A positive relationship was found between socio-economic status (SES) and happiness. The higher one's SES was, the more happiness was reported, which is consistent with results that found degree of financial stability impacts happiness. This is consistent with previous research finding that higher SES is associated with higher well-being (Biswas-Diener, 2008; Diener, Horowitz, & Emmons, 1985; Yang, 2008).

A second finding dealing with SES revealed the positive relationship with SES and perceptions of childhood experiences as measured by Perception of Childhood Experiences (PCE). This makes sense with the first finding that people with higher SES have more happiness, which is likely to play a role in how they perceive their childhood experiences. However, this study did not find a significant positive correlation between happiness and perception of childhood experiences. It is also possible that people with higher happiness scores emphasize the positive events from their past. Possibly, higher SES correlates with happiness, which in turn impacts how we perceive our childhoods. In addition, it could be that having higher SES is associated with a better childhood and that is why participants perceived their childhoods in a more positive manner than participants with lower SES.

Perception of childhood events had a positive relationship with resilience. This reveals that individuals who reported a more positive childhood also reported higher resilience. Possibly, individuals with higher resilience were able to more effectively cope with adversity in their childhoods, which made them perceive it as better. On the other

hand, respondents whose childhoods were truly filled with fewer negative events could view themselves as being more resilient due to not having to overcome as much adversity as other individuals. The literature has supported the finding that people who are more positive when faced with challenges are more resilient (Joseph, 1994; Shimizu & Belic 2011). Perhaps, these respondents viewed adversity in their childhoods as a positive challenge which lead to them being resilient and viewing their childhoods more positively.

Conclusion and Summary

My main purpose for this study was to explore how resilience related to happiness, age, sex, race, socio-economic status, spirituality, optimism, social support, and adverse childhood experiences in undergraduate college students. As expected, I found positive relationships between resilience and happiness; adverse life experience and moderate adverse life experiences; and happiness and moderate adverse life experiences. Interestingly, I found the opposite of what I expected for some relationships; there was a negative relationship between spirituality and resilience; no relationship between age and resilience; no relationship between age and happiness; and no relationship between sex and resilience. My most interesting finding was that happiness and spirituality were the best predictors of resilience in my sample. My conclusion is that further research needs to be conducted on these areas since some of my results were consistent with previous research while others were inconsistent.

Limitations of the Study

The study had several important limitations. This sample was mostly female, White, moderate or high SES, and 18 or 19 years of age. All respondents were enrolled in college. Thus, this sample is not representative of the entire population. Furthermore, 299 responses were able to be analyzed in this study, and a higher sample number would have increased reliability and validity of results. This study was an online questionnaire, which is different from the majority of previous research, so it is possible participants did not put forth their best effort or accurately portray themselves which is a common limitation with self-reports. As this study was not an experiment, the findings were based on correlations so the exact cause of certain relationships could not be investigated. Thus, an intervention study would have lead to more concrete findings. In addition, negative coefficient alphas were found for ISEL-12 and LOT-R which reflects a weakness in this study.

Recommendations for Future Research

Recommendations for future research relate to sample selection; i.e. finding a more representative sample across education level, SES, age, sex, race, and culture. Studies should attempt to find a larger sample size to ensure the reliability and validity of results. Research should be conducted with samples containing adequate numbers of males and females with different ages to determine how age and gender are related to happiness and resilience.

Due to this study's surprising results, future research should be done to determine the exact nature of LOT-R and ISEL coefficient alphas since this study found negative

coefficient alphas. Another surprising result was the negative correlation between spirituality and happiness as well as resilience. Both relationships need to be further investigated to determine if they persist with other samples.

This study was primarily correlational so no causation could be determined in relation to happiness, resilience, or adverse childhood experiences. Thus, future research should employ more sophisticated statistical techniques to determine the relationships and interactions between the constructs. For example, intervention studies should be utilized to determine the causal relationship between happiness and resilience and how to foster resilience.

Findings from this study need to be examined in future research to provide further support or to reject them. Future research should continue to look at negative childhood experiences to determine the relationship between adversity to both happiness and resilience. Future research should look at predictors of resilience to confirm or reject this study's finding that spirituality and happiness are the best predictors of resilience.

This study contained several interesting supplementary findings that future research should examine. In addition, previous research described the need for research to include negative aspects of difficult childhood experiences, and this study researched perception of childhood experiences (Sheldon, Kashdan, & Steger, 2011; Wong, 2010). The current study found positive relationships between social support and optimism, SES and happiness, SES and perception of childhood experiences, and perception of childhood experiences and resilience. Thus, future research should continue to investigate those relationships.

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APPENDICES

APPENDIX A

Permission to use the CD-RISC:
Dear Katie:

Thank you for returning the agreement. I am pleased to enclose the scale and manual for your project. If there's anything else you need, please let me know.

Best regards,

Jonathan Davidson

Dear Katherine:

Thank you for your inquiry. We would be pleased to send the CD-RISC for your project and I am enclosing an agreement for your signature and return. Once that is done, and arrangements made for payment of the user fee, we can then send the scale and manual right away.

With best wishes,

Jonathan Davidson

Dear Katherine:

Thank you for your interest in the Connor-Davidson Resilience Scale (CD-RISC). We are pleased to grant permission for use of the CD-RISC in the project you have described under the following terms of agreement:

1. You agree not to use the CD-RISC for any commercial purpose, or in research or other work performed for a third party, or provide the scale to a third party. If other off-site collaborators are involved with your project, their use of the scale is restricted to the project, and the signatory of this agreement is responsible for ensuring that all collaborators adhere to the terms of this agreement.

2. You may use the CD-RISC in written form, by telephone, or in secure electronic format whereby the scale is protected from unauthorized distribution or the possibility of modification.

3. Further information on the CD-RISC can be found at the www.cd-risc.com website. The scale's content may not be modified, although in some circumstances the formatting may be adapted with permission of either Dr. Connor or Dr. Davidson. If you wish to create a non-English language translation or culturally modified version of the CD-RISC, please let us know and we will provide details of the standard procedures.

4. Three forms of the scale exist: the original 25 item version and two shorter versions of 10 and 2 items respectively. When using the CD-RISC 25, CD-RISC 10 or CD-RISC 2, whether in English or other language, please include the full copyright statement and use restrictions as it appears on the scale.

5. A fee of $ 30 US is payable to Jonathan Davidson at 3068 Baywood Drive, Seabrook Island, SC 29455, USA, either by PayPal, cheque, bank draft, international money order or Western Union**.** (Please note: An additional $16 fee is charged for bank wire transfers).

6. Complete and return this form via email to mail@cd-risc.com.

7. In any publication or report resulting from use of the CD-RISC, you do not publish or partially reproduce the CD-RISC without first securing permission from the authors.

If you agree to the terms of this agreement, please email a signed copy to the above email address. Upon receipt of the signed agreement and of payment, we will email a copy of the scale.

For questions regarding use of the CD-RISC, please contact Jonathan Davidson at mail@cd-risc.com. We wish you well in pursuing your goals.

Sincerely yours,

Jonathan R. T. Davidson, M.D.

Kathryn M. Connor, M.D.

Agreed to by:

_____   _____

Signature   (printed)   Date

_____

Title

_____

Organization

Permission to use the DSES:

You have my permission to use the Daily Spiritual Experience Scale for non-profit use if:

1) You return the attached registration form to me.

2) You include: © Lynn G. Underwood and www.dsescale.org on any copies of the scale you print.

3) You keep me informed of results from your work and publications and presentations that come from your work using the scale. You cite Underwood 2006 or Underwood 2011 in your published or presented results.

The best source for information on the scale, which I try to keep updated is: www.dsescale.org

Best wishes to you in your life and in your work,

Lynn G. Underwood PhD

Graduate Faculty, Cleveland State University

Honorary Fellow, University of Liverpool, UK

President, Research Integration

www.researchintegration.org

Daily Spiritual Experience Scale

© Lynn Underwood

Registration Form

In affixing your name to this form you agree to include:

"© Lynn G. Underwood, permission and registration required to copy, see www.dsescale.org"

on any copies of the scale you print and appropriately cite the papers below in your results.

www.dsescale.org contains an accurate form of the scale and additional information.

In publications please cite: Underwood, L.G. (2006) Ordinary Spiritual Experience: Qualitative Research, Interpretive Guidelines, and Population Distribution for the Daily Spiritual Experience Scale. Archive for the Psychology of Religion 28:1, 181-218. And/or Underwood L.G. (2011) The Daily Spiritual Experience Scale: Overview and Results. Religions; 2(1): 29-50.

In affixing your name to this form you agree to keep Lynn Underwood informed of results from your work and publications and presentations that come from your work using the scale. lynnunderwood@researchintegration.org

Your full name and title: Katherine Lower, B.S. Student of School Psychology

Your email address(es): kel2z@mtmail.mtsu.edu

Full Address: 11443 New Zion Rd Christiana, TN 37037

College/University/Other Organization: Middle Tennessee State University

Date: July 29, 2013

Reason for use of the scale and/or study description. Give details of study.

Master's thesis requirement on understanding emerging resilience and happiness among college students including religiosity.

Work supported by a Research Grant or other support? N

Is your work for profit? N

How did you find the scale and my contact information? Google and www.dsescale.org

Which language version of the scale are you using? English

How many individuals do you expect to administer the scale to? 50

Why have you picked this particular scale (give details) ? Its availability and sound research behind the scale. We wanted a scale that could pick up on the level of religiosity/ spirituality rather than just having respondents select a religion.

Permission to use the SHS:

Hi Katie - you are welcome to use the Subjective Happiness Scale (SHS). (My website, which includes the SHS, states that anyone can use it for research purposes.) Just be sure to cite the scale validation paper, attached.

All the information is also included here: http://sonjalyubomirsky.com/subjective-happiness-scale-shs/

You may also be interested in my two books, The How of Happiness and The Myths of Happiness (translated into many languages too).
All best,
 --Sonja
_____
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My academic web site: www.faculty.ucr.edu/~sonja/
The How of Happiness: A Scientific Approach to Getting the Life You Want (Penguin Press, 2008)   Book web site: www.thehowofhappiness.com
The Myths of Happiness: What Should Make You Happy, but Doesn't, What Shouldn't Make You Happy, but Does (Penguin Press, forthcoming January 3, 2013)
My blog at Psychology Today: blogs.psychologytoday.com/blog/the-how-happiness

APPENDIX B: IRB Approval

September 19, 2013
Katherine Lower, James Rust
Department of Psychology
kel2z@mtmail.mtsu.edu, James.Rust@mtsu.edu
Protocol Title: "Understanding Resilience and Happiness among College Students"
Protocol Number: 14-075

Dear Investigator(s),

The exemption is pursuant to 45 CFR 46.101(b) (2). This is because the research being conducted involves the use interviews or survey materials. You will need to submit an end-of-project report to the Compliance Office upon completion of your research. Complete research means that you have finished collecting data and you are ready to submit your thesis and/or publish your findings. Should you not finish your research within the three (3) year period, you must submit a Progress Report and request a continuation prior to the expiration date. Please allow time for review and requested revisions. Your study expires on **September 19, 2016.**

Any change to the protocol must be submitted to the IRB before implementing this change. According to MTSU Policy, a researcher is defined as anyone who works with data or has contact with participants. Anyone meeting this definition needs to be listed on the protocol and needs to provide a certificate of training to the Office of Compliance. **If you add researchers to an approved project, please forward an updated list of researchers and their certificates of training to the Office of Compliance before they begin to work on the project.** Once your research is completed, please send us a copy of the final report questionnaire to the Office of Compliance. This form can be located at www.mtsu.edu/irb on the forms page.

Also, all research materials must be retained by the PI or **faculty advisor (if the PI is a student)** for at least three (3) years after study completion. Should you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,
Andrew W. Jones
Compliance Office
Graduate Assistant to:
Kellie Hilker
Compliance@mtsu.edu