University of Mississippi

eGrove

Honors Theses

Honors College (Sally McDonnell Barksdale Honors College)

Spring 5-9-2020

A Validation of the Claremont Purpose Scale (CPS) within an Emerging Adult Population

Lillie Grace Veazey University of Mississippi

Follow this and additional works at: https://egrove.olemiss.edu/hon_thesis

Part of the Other Psychology Commons

Recommended Citation

Veazey, Lillie Grace, "A Validation of the Claremont Purpose Scale (CPS) within an Emerging Adult Population" (2020). *Honors Theses*. 1465. https://egrove.olemiss.edu/hon_thesis/1465

This Undergraduate Thesis is brought to you for free and open access by the Honors College (Sally McDonnell Barksdale Honors College) at eGrove. It has been accepted for inclusion in Honors Theses by an authorized administrator of eGrove. For more information, please contact egrove@olemiss.edu.

CLAREMONT PURPOSE SCALE PSYCHOMETRIC VALIDATION

A VALIDATION OF THE CLAREMONT PURPOSE SCALE (CPS) WITHIN AN EMERGING ADULT POPULATION

By: Lillie Grace Veazey

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

Oxford May 2020

Approved by:

Advisor: Dr. Stefan E. Schulenberg

Reader: Dr. Stephanie Miller

Reader: Dr. Carrie Smith

CLAREMONT PURPOSE SCALE PSYCHOMETRIC VALIDATION

© 2020 Lillie Grace Veazey ALL RIGHTS RESERVED

Acknowledgements

First, I would like to thank Dr. Stefan Schulenberg for his unwavering support and the opportunity to perform research in his lab over the past year. I am especially thankful for the amount of guidance he has shown me throughout my research and writing of this thesis. You have inspired me since walking into your classroom during my junior year, and I am honored that you have been part of a number of pivotal experiences during my time in Oxford. I would also like to thank my readers, Dr. Stephanie Miller and Dr. Carrie Smith, for their willingness to give their time to serve on my thesis committee. I appreciate you both.

To Marci Weber and the rest of the Clinical-Disaster Research Center, this project would not have been possible without you. I cannot express how much I appreciate your patience, encouragement, and assistance in bringing this project to fruition. The camaraderie in this lab is something I will miss greatly as I continue on my journey from Ole Miss.

To the Sally McDonnell Barksdale Honors College, thank you for taking a chance and letting me explore the endless opportunities you have provided me with. I have been challenged, motivated, and inspired to go out and make my mark on the world. I cannot begin to express all of my gratitude.

Finally, to my family and friends, thank you for your love, your willingness to listen, and your confidence in me over the past four years. None of my accomplishments would have been possible without you being there.

Abstract

Having a strong sense of purpose in life leads individuals to have a better overall sense of wellbeing. Better physical, mental, and emotional outcomes are seen when purpose in life is acknowledged, sought after, and achieved. The Claremont Purpose Scale (CPS) was developed to measure three dimensions of purpose with adolescents. The aim of the present study was to examine the validity of the CPS for use with emerging adults, a population that has not been included in the previous study validating the CPS. It was hypothesized that (1) the CPS will have a three-factor structure, (2) all three factors (and thus all 12 items) will load onto one latent factor, (3) the items in each subscale and for the total score will demonstrate good internal consistency, (4) CPS total and subscale scores will be positively associated with another measure of general meaning in life (the Meaning in Life Questionnaire, Presence scale, or MLQ-P), and (5) CPS total and subscale scores will be negatively correlated with searching for meaning (the Meaning in Life Questionnaire, Search scale, or MLQ-S). A sample of emerging adults (N = 627university students) was used. Overall, this emerging adult sample had a strong sense of purpose based on the overall scale score, M = 44.8, SD = 7.48. A confirmatory factor analysis revealed that three dimensions of general meaning, goal-directedness, and beyond-the-self orientation were three distinct factors, and all three factors contributed significantly to the construct of purpose. The Claremont Purpose Scale total score and subscale scores had excellent internal consistency, α 's ranging from .85 to .92. A positive correlation was observed between the MLQ-P and both the total and subscale scores of the CPS, Pearson's rs ranging from .25 to .85, all $ps \le 1$.05. Correlations between the MLQ-S and the CPS differed by CPS subscale, ranging from -.31 to .12. The implications of these findings are discussed, along with limitations and directions for research.

Table of Contents

ACKNOWLEDGEMENTSiii
ABSTRACT1
INTRODUCTION
METHOD16
RESULTS21
DISCUSSION23
REFERENCES
TABLES
FIGURE43
APPENDICES44

1.1 Purpose in Life

Introduction

Seeking to find purpose in life is a common human experience, especially among adolescents and young adults (Bodner, Bergman, & Cohen-Fridel, 2014). A purpose in life represents a stable and generalized intention to accomplish something that is at once meaningful to the self and leads to productive engagement with the world beyond the self (Bronk, Finch, & Talib, 2010; Yeager & Bundick, 2009). Research has linked having a sense of purpose in life to human flourishing (Seligman, 2002), positive youth development (Bronk, Damon, & Menon, 2003; Larson, Orson, & Bowers, 2017), a stable sense of well-being (Ryff, 1989), and endurance of stressful or traumatic life events (Park, 2010). An important distinction when discussing purpose in life needs to be made in regards to pursuing one's purpose in life, they have successfully found a purpose that they intend to commit to and pursue. Individuals searching for their purpose in life are exploring potential meaningful goals and have not yet committed to a specific meaningful aim (Cohen & Cairns, 2012).

According to Bronk's theoretical model (Bronk et al., 2010), there are three important aspects of purpose in life: (1) the intention to progress forward, (2) active engagement in general meaning, and (3) contribution to a broader world. The intention to progress forward is an individual's motivation towards pursuing a long-term goal. Active engagement is when an individual commits time, energy, and other resources to achieving purpose through meaningful activity. Finally, contribution to a broader world shows purpose as motivation for individuals to act in pursuit of a larger cause. While it is shown that these aspects can develop and appear during the emerging adult stage of life, there is not much empirical data about the benefits of goal-directedness and beyond-the-self orientation in this particular age group. Additionally, the

extent to which an individual's purpose involves each of these aspects may differ on an individual basis, by age, or by culture (e.g., Matud, López-Curbelo, & Fortes, 2019, see below).

1.1.1. Purpose in emerging adulthood. Emerging adulthood can be described as the development from the late teens through the twenties, with focus on ages 18-25 (Arnett, 2000). This time period involves change, as individuals start exploring various kinds of love, work, and worldviews (Erikson, 1968). During emerging adulthood, individuals are mainly concerned with optimizing the future and exploration (Delle Fave, Brdar, Wissing, & Vella-Brodrick, 2013). They have considerable room for personal growth and are occupied with constructing meaning. Furthermore, young adults start to develop more complex cognitive abilities, appreciation of family, peer, and social relationships, and a deeper biographical understanding (Webster, 2010). These all contribute to an individual's ability to use wisdom as a means to find purpose during this stage of life. Those that engage in these behaviors, as well as discussing their values and life goals, benefit in terms of their goal-directedness and life satisfaction (Joseph, 2011).

1.1.2. Differences in purpose in life by developmental stage. There are, however, some aspects that differ between age groups. Aspects of purpose and well-being such as autonomy and environmental mastery increase with age (Morgan & Farsides, 2009), while aspects such as personal growth decrease with age (Ryff & Singer, 2008). Furthermore, the search for purpose is positively related to life satisfaction during adolescence and emerging adulthood particularly (Delle Fave et al., 2013; Krok, 2016). Youth with purpose are psychologically healthier than their peers, and the same holds true for adults (Bronk, Hill, Lapsley, Talib, & Finch, 2009).

Compared to older adults, young adults are less likely to have reported finding meaning in life (Steger, Oishi, & Kashdan, 2009). Older adults continue to seek out the complexity of their life experience, using meaning as a resource more often than other age populations. Presence of meaning is found to be associated with positive aspects of life in adults, such as emotional well-being, purpose in life, autonomy, morale, and happiness (Bodner, Bergman, & Cohen-Fridel, 2014). This can be seen through the finding that older adults have higher presence of meaning in life compared to young and middle-aged adults, whereas young adults have a higher search for meaning in life compared to middle-aged and older adults (Bodner et al., 2014). Another finding is that the ability to maintain autobiographical memory decreases across adulthood (Habermas, Diel, & Welzer, 2013). These once episodic memories become more semantic in nature. In this study, life event interpretation and integration were measured between various age groups including adolescence, young adulthood, and older adulthood. Compared to older adults, the young adulthood population showed a greater inclination for life story integration. This could possibly be due to the acquisition of internal reasoning during this stage of life (Habermas et al., 2013).

Compared to adolescents, who typically do not have a strong sense of meaning in life (Krok, 2017), young adults have a greater presence of meaning in life than adults (Webster, 2010). Children generally lack the hypothetical-deductive reasoning skills required to seriously consider their purpose, but from adolescence onward, individuals can be inspired to pursue a meaningful direction in life (Hill & Burrow, 2012). Young adults are also more likely to have learned valuable lessons about themselves compared to adolescents (Webster, 2010). An important future direction for the research is to examine whether self-transcendent purpose becomes more prevalent in emerging adulthood than it is in adolescence. In order to answer this question, a measure of self-transcendent purpose, or beyond-the-self orientation, must be validated for emerging adults.

1.1.3. Goal-Directedness. Increasing purpose in life includes a stage where individuals choose goals and values that promote higher aims such as creativity, morality, and spirituality (Bronk et al., 2003). During the emerging adult stage of life, goals often involve partaking in a broad range of life experiences rather than pursuing ideal adult roles (Arnett, 2000). One study showed that in a group of young adult men in contemporary Japan, quitting their jobs actually led them to find meaning and discover new goals. It was described as a time of re-finding one's self, rebuilding one's sense of self, and planning for the future (Cook, 2016). One individual, age 26, stated that they spent their time making networks and doing small pieces of work instead of longer hours at their job. During young adulthood and into adulthood, individuals start to know who they are and what they want and subsequently try to achieve it (Cook, 2016). Attaining meaningful goals typically requires effort and a sense of discipline, even if this leads to shortterm unhappiness (Ryff, 1989). Even so, emerging adults are typically highly optimistic about achieving their life goals (Arnett, 2000). High levels of goal seeking is a characteristic of emerging adults specifically, compared to later stages of life (Peacock, Reker, & Wong, 1987). This desire to achieve new goals and look forward to the future differentiates emerging adults from both middle adults and older adults (Peacock et al., 1987). Therefore, goal-directedness can be seen as a central point to developing a strong sense of purpose in not only the emerging adult population, but anyone who is attempting to attain psychological well-being. Despite recognizing this, there is not much known about goal-directedness specifically.

1.1.4. Engagement in Meaning-Making. Meaning in life as a psychological construct was originally introduced by Viktor Frankl (Frankl, 1959; Morgan et al., 2009), the first theorist to propose that having a high-level belief system enabled people to endure life's hardships (Bronk et al., 2009). Based on his theories, Frankl developed logotherapy, which stresses the

importance of perceived meaning and purpose of life to alleviate psychological distress and improve psychological well-being (Melton & Schulenberg, 2008). If they do not fulfill this motivation, adverse psychological effects may result (Thompson, Coker, Krause, & Henry, 2003). Purpose in life as a psychological construct stems from the theories and writings of Frankl and humanistic psychology (Barnes, Bennett, Boyle, & Buchman, 2009). Frankl successfully discovered that having this sense of purpose is essential to maintaining psychological health and wellness (Barnes et al., 2009). Individuals can make meaning in a variety of ways, particularly in stressful situations. People attempt to change how they view stressors to make them less aversive, then change their goals to accommodate their views and experiences (Park, 2016). Meaning making may also be as straightforward as individuals changing their sense of life (i.e., their worldview) to be meaningful or purposeful. One example of this shift in perspective is observed when examining meaning-making post disaster. Many individuals report coping through meaning-making, as meaning-making is one of the most effective options for recovery after intense damage or loss (Park, 2016). An illustration of this includes individuals performing active problem solving, regulating emotions, and seeking social support in times of adversity. People attempt to comprehend what has happened to them, why it has happened, and what it means in terms of their values, perceived significance, and worldview. Therefore, meaningmaking is an important tool not only in everyday life, but also in times of need. The review of the literature in this paper focuses on this dimension of purpose more than others due to the availability of research on this topic. While engagement in meaning-making is only one feature of the overall construct of purpose, there is research lacking on the beyond-the-self orientation dimension.

1.1.5. Beyond-the-Self Purpose. Frankl also theorized that an individual's search to find meaning is based around an expanded discovery beyond rational purpose, which he called self-transcendence (Frankl, 1959/2006; von Devivere, 2018). This beyond-the-self purpose is synonymous to intentionality in discovering purpose. It is inspired by an aim to make a difference in the "broader world" (Bronk, Riches, & Mangan, 2018). However, by theory, the beyond-the-self dimension differentiates purpose from meaning (Bronk et al., 2003). Furthermore, individuals who have developed the beyond-the-self orientation differ in motivation from individuals who are self-focused (Bronk et al., 2018). Individuals that are primed with the self-transcendence orientation tend to suppress negative emotions easier, leading to lower levels of anger-related emotions (Kao, Su, Crocker, & Chang, 2016). It also leads to better intrapersonal and interpersonal outcomes. This can be visualized through persistence on outside tasks, deep learning, enhanced performance in school, increased cooperation with others, and prosocial behavior (Kao et al., 2016). Despite these findings, research has not adequately examined this critical dimension of self-transcendence, focusing more on general meaningfulness and goal-orientation. Due to the critical importance of this dimension of purpose and the lack of available measures since it has been conceptualized, new and promising measures such as the Claremont Purpose Scale are needed to evaluate it throughout different contexts and stages of life.

1.2 Benefits of Living a Life of Purpose

Purpose in life has been linked to subjective well-being (Bronk et al., 2009), and there are physical and mental health benefits to purpose that individuals experience throughout the lifespan. Studies show that compared to others, individuals high in purpose in life are less likely to suffer from depression, boredom, loneliness, and anxiety (Bigler, Neimeyer, & Brown, 2001). Even for survivors of stressful or traumatic life events, purpose is a protective factor against symptoms of posttraumatic stress (Weber, Pavlacic, Gawlik, Schulenberg, & Buchanan, 2019). Having identified a purpose in life is associated with greater life satisfaction in adolescence, emerging adulthood, and adulthood (Bronk et al., 2009). One study examined the role of purpose in life protecting against suicidal thoughts in a clinical sample. The results showed that purpose in life and life satisfaction protected against suicidal thoughts even with concurrent symptoms such as depression and hopelessness (Heisel & Flett, 2004). A study conducted in a population of volunteers that were former heart patients yielded results that showed living a purposeful life mediates the positive influence of role-identity on mental health (Thoits, 2012). Holding these types of roles and finding meaning in them was found to greatly reduce distress. Adolescents and young adults into their 30's who have purpose in life are more likely to show the quality of hope (Bronk et al., 2009; Liberto, Johnson, & Schulenberg, 2020). Clearly, psychological benefits are gained from living a life of purpose over one's lifespan and emerging adulthood is no exception.

Positive physical health is also linked to living a life of purpose. Individuals who score with a high level of purpose generally have better health indicators (Ryff, Singer, & Dienberg Love, 2004; Thoits, 2012). For a group of young adults facing the chronic illness of multiple sclerosis, there was seen to be a heightened level of resilience and focus on positive outcomes (Rainone, Chiodi, Lanzillo, Magri, Napolitano, Morra, Valerio, & Freda, 2016). Studies on the relationship of purpose in life and recovery following a surgery such as a knee-replacement show that purpose in life is directly related to mental health and indirectly related to physical health through coping (Thompson et al., 2003). As another example, lower levels of the biological stress hormone cortisol during the daytime is directly linked to worsened physical and mental health outcomes (Adam, Quinn, Tavernier, Mcquillan, Dahlke, & Gilbert, 2017). In addition to

this, a study showed that in a community of older persons, greater purpose in life was associated with a significantly reduced risk of death (Barnes et al., 2009). Likewise, in a population of young adults, it has been shown that presence of meaning of life is negatively associated with fear of dying or death (Lyke, 2013). A separate study also found that there is a significant correlation between diabetes control, coping, and spirituality (Parsian & Dunning, 2009). Spirituality, in this case, helps young adults with diabetes to cope with stressful life situations and manage their disease appropriately (Parsian et al., 2009). These findings suggest a positive correlation between purpose and physical health. Generally, it can be concluded that purpose in life is positively correlated with better health outcomes – both physical health outcomes and mental health outcomes. Nevertheless, the roles of goal-directedness and beyond-the-self orientation in enhancing physical and mental health have been less often studied in favor of purpose or presence of meaning.

1.3 Claremont Purpose Scale (CPS)

Taken together, the research suggesting the utility of different aspects of purpose and their importance across the lifespan points to the need for improved quantitative measures as a means of investigating each aspect of purpose in different contexts and age groups. Because the Claremont Purpose Scale (CPS; Bronk et al., 2018), developed for adolescents, includes subscales for three essential aspects of purpose, an appropriate next step to this endeavor is to consider different contexts and age groups, such as adults, emerging adults being one specific example. Therefore, the current study's aim is to examine the psychometric properties of the Claremont Purpose Scale and its utility for use with emerging adults. The CPS is a 12-item scale with three subscales that each assess an essential aspect of purpose: (1) directedness of meaningful goals and progress towards them (i.e., goal-directedness), (2) engagement in meaning-making and current perceived sense of meaning (i.e., general meaning), and (3) a beyond-the-self or self-transcendent orientation to one's purpose (i.e., beyond-the-self). Goaldirectedness refers to a long-term aim that provides an individual with an enduring sense of direction. General meaning encompasses the time, resources, and energy that an individual commits to the goal. Beyond-the-self orientation refers to looking at the "broader world". Individuals higher in beyond-the-self orientation are more open, report greater life satisfaction, are more humanistic, and have well-integrated personality dispositions (Bronk et al., 2018).

The CPS was developed from interviews and case studies that contributed to the theoretical basis of the CPS (Bronk et al., 2018). It was created from existing measures that assess the three aspects of purpose theorized by Bronk. Items from the Meaning in Life Questionnaire, Identified Purpose subscale, Ryff's Scales of Psychological Well-Being: Purpose in Life subscale, and Schwartz's Value Survey: Self-transcendence subscale were used (Bronk et al., 2018). Prior to the development of the CPS, research measures failed to accurately distinguish between self-focused and self-transcendent meaning (Bronk et al., 2003). Previous scales also had not effectively distinguished between goal-directedness and presence of meaning (Bronk et al., 2003). In other words, meaning, purpose, and goal-directed behavior were often used as interchangeable terminology. A measure such as the CPS was developed to better differentiate between concepts such as goal-directedness and general meaning. Moreover, the CPS shows promise in terms of its consideration of the beyond-the-self orientation, a concept that is central to human health and well-being (Frankl, 1959/2006) but one that has been largely neglected in the measurement literature. Not only do current assessments not differentiate between self-focused and self-transcendent meaning, but there is a need to validate such concepts in emerging adult populations, a period of development that has received specific attention in its

own right in recent years (Arnett, 2000; Bronk et al., 2018). With limited consideration of this literature as to specific developmental periods such as adolescence and emerging adulthood, the theory of purpose being an essential part of proper youth development and identity formation is therefore significantly restricted.

There are many ways that researchers are currently examining how purpose, particularly beyond-the-self purpose, could be a part of positive youth development and psychological wellbeing. Qualitative studies of diaries and journal entries (Mariano & Vaillant, 2012), as well as more structured interviews (Bronk, 2011), are two ways that the development of purpose has been documented. Interviews can potentially provide intricate descriptions of an individual's search for purpose or their development of purpose. Case studies are also used within specific contexts (Tirri & Quinn, 2010). These studies are more in-depth and descriptive of the purpose-finding process. They consist of multiple interviews over time. One of the last methods used are surveys, which can be administered individually or in conjunction with interviews and case studies. Besides surveys, these methods are time consuming and deal with small sample sizes but can still yield quality research.

Among adolescents, the CPS shows strong convergent and discriminant validity in its original developmental work (Bronk et al., 2018). Supporting its discriminant validity, high scores of purpose on the CPS were significantly and inversely related to depression. Demonstrating convergent validity, scores on the CPS and the Purpose in Life test (an alternative measure of perceived presence of meaning) were positively correlated. When validated with adolescents, the three factors of the CPS were correlated with one another, with meaning and goal-directedness showing an r value of .73. Meaning and beyond-the-self orientation were correlated at r = .50, and goal-directedness and beyond-the-self orientation showed a significant

correlation at r = .56. All correlations showed ps < .01. Based on these data, as well as the use of rigorous factor-analytic methodology, each factor was considered a respective subscale of overall purpose, together functioning as a single, global measure of purpose (Bronk et al., 2018). In order to validate the CPS with an emerging adult sample, expanding the utility of the measure, it is vital to confirm this factor structure, report reliability coefficients, and examine the intercorrelations of its respective subscales. Moreover, it is important to investigate and document convergent and discriminant validity support in similar fashion to those data reported in the initial developmental work focusing on adolescents.

As mentioned, pre-existing measures of purpose or meaning in life tended to consider other aspects of purpose, such as perceived meaning in life and/or goal making. Before the CPS was developed, the Purpose in Life test was the primary measure of these concepts (PIL; Crumbaugh & Maholick, 1964/1969), using items such as, "In achieving life goals, I've" 1 (made no progress whatsoever) to 7 (progressed to complete fulfillment) and "If I could choose, I would" 1 (prefer never to have been born) to 7 (want 9 more lives just like this one). Drawbacks to the PIL include a lack of assessment of the beyond-the-self orientation, as well as some items either possessing too much overlap with other concepts (e.g., depression, locus of control) or not being applicable across the lifespan. For instance, items such as "In achieving life goals, I've" 1 (made no progress whatsoever) to 7 (progressed to complete fulfillment) and "After retiring, I would" 1 (loaf completely the rest of my life) to 7 (do some of the exciting things I've always wanted to) address later developmental periods of a person's life, which may represent points in time that many young adults have not yet thought about. Despite these evident flaws, the measure had demonstrated utility in samples of college students. Clearly, emerging adults can have a sense of purpose. They can perceive general meaning and develop a long-term goal in

which they are pursuing. Due to the positive correlation between identity formation and development of purpose, it is important to have a measure that accounts for these factors. A recent iteration of the PIL, the Purpose in Life Test-Short Form (PIL-SF) was developed using rigorous factor-analytic methodology, and is comprised of four items from the original 20-item Purpose in Life test. The goal was to narrow the item pool in order to make the measure brief and remove items from the parent scale that had validity-related issues (Schulenberg, Schnetzer, & Buchanan, 2010; Schulenberg, Strack, & Buchanan, 2011).While the PIL-SF is psychometrically a sound measure, having been used in a number of studies, its assessment is limited to a single score typically interpreted as perceived presence of meaning in life.

Subsequent to the PIL, the Meaning in Life Questionnaire (MLQ) has become a recent and popular assessment, particularly of one's perceived personal significance in life. Meaning in life was defined when the questionnaire was being formed as the sense made of, and significance felt regarding, the nature of one's being and existence (Steger, Frazier, Oishi, & Kaler, 2006). This allows the definition of meaning to be open to interpretation to the individuals being assessed. The Meaning in Life Questionnaire uses items such as "My life has a clear sense of purpose" and "I am always searching for something that makes my life feel significant." It is comprised of two subscales, Presence, or one's perceived presence of meaning, and Search, or one's motivation to discover meaning. The MLQ is regarded as being psychometrically sound and has been used in many different research studies over the last 15 years.

Another example of a meaning-related assessment is Ryff's (1989) scales of Psychological Well-Being, which contains a Purpose in Life subscale. The Purpose in Life subscale (Abbott, Ploubidis, Huppert, Kuh, & Croudace, 2010; Ryff, 1989) assesses goals regarding the development of purpose, using reverse scoring on items such as "My daily activities often seem trivial and unimportant to me" and "I tend to focus on the present, because the future nearly always brings me problems." It was developed to measure facets of psychological functioning that were not being accurately assessed in previous assessments (Morgan et al., 2009; Ryff, 1989). The scales of Psychological Well-Being assess such concepts as self-acceptance, positive relations with others, autonomy, environmental mastery, and personal growth, in addition to perceived purpose in life.

In summary, meaning-related assessments such as the Purpose in Life test (Crumbaugh & Maholick, 1964/1969), the Purpose in Life test – Short Form (Schulenberg et al., 2010; Schulenberg et al., 2011), the Meaning in Life Questionnaire (Steger et al., 2006), and the Purpose in Life subscale of the scales of Psychological Well-Being (Ryff, 1989) tend to lack an efficient measurement of the beyond-the-self orientation, focusing mainly on meaning and goaldirectedness as constructs of purpose. While these questionnaires are relatively easy to use for research, a significant gap in the literature remains, because the different aspects of purpose and meaning remain challenging to measure quantitatively. As the CPS was initially developed to assess purpose, meaning, goal-directedness, and beyond-the-self orientation with adolescents, there is a need to validate this measure with emerging adults.

1.4 The Present Study

Due to the lack of a valid measure of beyond-the-self purpose for emerging adults, the present study aims to validate such a measure with an emerging adult college student sample. For the present study, it was hypothesized that the demonstrated psychometric support for the CPS with adolescents would be replicated with a sample of emerging adults.

H1: The CPS will have a three-factor structure for which the items load onto the same factors as they did with the original adolescent developmental sample (Bronk, 2018).

H2: Each of the three factors (and thus all 12 items) will load onto a latent factor, the overall purpose score, as they did with the original adolescent developmental sample (Bronk, 2018).
H3: Each factor score, as well as the overall 12-item measure, will demonstrate good internal consistency reliability (according to interpretive guidelines offered by DeVellis, 2003).
H4: CPS total and subscale scores will be significantly and positively associated with perceived presence of meaning in life (as assessed by the Meaning in Life Questionnaire – Presence subscale).

H5: CPS total and subscale scores will be significantly and negatively correlated with search for meaning (as assessed by the Meaning in Life Questionnaire – Search subscale).

Method

2.1 Participants

Participants identified themselves as undergraduate students at The University of Mississippi (N = 627). Of the 627 participants, the majority identified as female (71.6%, n = 429) while 27.9 percent identified as male (n = 167). One person identified as non-binary (.17%, n = 1). The majority of the sample identified as White (76.9%, n = 459) while 14.6 percent (n = 87) identified as African American/Black, 4.4 percent identified as Asian American (n = 26), 3.82 percent identified as Hispanic/Latino/a/x (n = 24), 1.75 percent identified as Native American Indian/First Nations/Alaska or Hawai'i Native (n = 11), and 3.50 percent identified as other (n = 22). The mean age was M = 19.07 years (SD = 2.18). In terms of student classification, the majority of the sample identified as freshmen (71.4%, n = 426), followed by sophomores (17.9%, n = 107), juniors (7.71%, n = 46), and seniors (3.02%, n = 18).

2.2 Procedure

This study was approved by the Institutional Review Board (IRB) of the university where the researchers are located. The present study was part of a larger investigation designed to assess coping and resilience among college students who have dealt with a wide range of traumatic events. Participants were recruited from undergraduate psychology courses using an online research participation scheduling software, SONA. Generally, undergraduate students are recruited through the database to complete surveys for extra credit, or up to 6% of their overall course grade. As a course of the larger investigation, the measures were set up in-person on the participant's own mobile device, their laptop, or a desktop computer in a research laboratory setting.

2.3 Measures

Demographics. Participants were asked demographic questions including age, gender, sex, race/ethnicity, nationality, sexual orientation, religious affiliation, employment status, and class year.

Claremont Purpose Scale. The Claremont Purpose Scale (CPS; Bronk et al., 2018; Appendix A) is a 12-item self-report measure designed initially for adolescents to assess various concepts from the purpose/meaning in life literature, specifically presence of general meaning, goal-directedness, and beyond-the-self orientation. The first subscale, general meaning, assesses the extent to which an individual perceives their life as having meaning or a purpose. An example item from this subscale is "How confident are you that you have discovered a satisfying purpose for your life?". The second subscale, goal-directedness, measures the extent to which a person has long-term objectives that provide for a sense of values-oriented motivation. An example question from this subscale is "How much effort are you putting into making your longterm aims a reality?" The third subscale, beyond-the-self orientation, measures the extent to which the individual impacts or desires to impact others and the larger world. An example item from this subscale is "How often do you hope to leave the world better than you found it?" Each subscale is comprised of four items, or questions. Response options are based on a 5-point Likert-type scale, with responses ranging from 1 - anchor phrase to 5 - anchor phrase. Response ranges are 1 to 5 for all items, but response phrases vary by item (see Appendix A).

For the adolescent samples upon which the CPS was originally developed (Bronk et al., 2018), Cronbach's alpha was used to compute internal consistency for the CPS total and subscale scores. Internal consistency reliabilities were excellent (based on the interpretive guidelines suggested by DeVellis, 2003) for the total scale score (α 's ranging from .916 to .935). Coefficient alphas ranged from good to excellent for the general meaning subscale score (α 's = .837 to .919), questionable to good for the goal-directedness subscale score (α 's = .670 to .830), and acceptable to good for the beyond-the-self subscale score (α 's = .793 to .834). As for structural validity support, Bronk et al. (2018) conducted exploratory (EFA) and confirmatory factor analyses (CFA), each of which supported the three-factor structure corresponding to the three subscales, which in turn loaded onto an overall purpose factor. Supporting its convergent validity, total CPS scores were positively and significantly correlated with Purpose in Life test scores (an alternative measure of purpose and meaning; r = .799, p < .001) and Satisfaction with Life Scale scores (SWLS; Diener, Emmons, Larsen, & Griffin, 1985; r = .646, p < .001). In terms of discriminant validity support, CPS scores were negatively and significantly correlated with a measure of depression (r = -.339, p < .001). The CPS yields a total score as well as three subscale scores. Sum scores are computed, with overall scores ranging from 12 to 60. Subscale scores range from 4 to 20. Higher scores indicate greater overall perceived purpose, general

meaning, goal-directedness, and beyond-the-self orientation, respectively. Because the measure is newly developed, normative data are not available for the CPS beyond this initial developmental work.

Meaning in Life Questionnaire. The Meaning in Life Questionnaire (MLQ; Steger et al., 2006; Appendix B) measures perceived personal significance and meaning in individuals' lives. The MLQ is a 10-item questionnaire comprised of two five-item subscales termed Presence and Search (Steger et al., 2006). Presence assesses perceived meaning, while Search assesses perceived need to search for meaning. Response options for MLQ items compose a 7point Likert-type scale, with responses ranging from 1 - absolutely untrue to 7 - absolutely true. An example item from the MLQ Presence subscale (MLQ-P) is "I understand my life's meaning." An example item from the MLQ Search subscale (MLQ-S) is "I am always searching for something that makes my life feel significant." Scores for each subscale are summed, with higher scores on the Presence subscale indicating greater perceived sense of meaning and purpose in life. Higher scores on the Search subscale indicate greater search for meaning and purpose in life. The two subscales are often inversely related, such that, for example, the more meaning one reports, the less perceived need there is to find additional meaning (Dezutter, Casalin, Wachholtz, Luyckx, Hekking, & Vandewiele, 2013). Sum scores for each subscale range from 5 to 35, with average scores on the scale typically in the low to mid 20's. Mean scores in the original study for the Presence and Search subscales were 24.0 and 22.5, respectively. In a study of individuals with serious mental illness, mean scores for the Presence and Search subscales were 28.2 and 26.6, respectively (Schulenberg et al., 2011).

The MLQ shows good and excellent internal consistency for the MLQ-P subscale ($\alpha =$.81) and for the MLQ-S subscale ($\alpha =$.90; Schulenberg et al., 2011). The MLQ also has garnered

convergent validity support. For example, in one study presence of meaning in life was seen to be positively and significantly correlated with well-being and life satisfaction, as well as selfesteem and the desire to achieve (Ho, Cheung, & Cheung, 2010). The MLQ also shows divergent validity with constructs such as depression and fatigue. In a separate study, it was seen that a higher level of meaning in life in cancer patients led to lower levels of these constructs (Yanez, Edmondson, Stanton, Park, Kwan, Ganz, & Blank, 2009). Thus, the MLQ demonstrates excellent psychometric properties for measuring the overall construct of perceived meaning in life.

2.4 Data Analysis

Descriptive statistics were calculated for the total CPS scores, as well as the three subscale scores of general meaning, goal-directedness, and beyond-the-self orientation. The means, standard deviations, skewness, and kurtosis of each of these scales and subscales were computed. Reliability statistics were calculated using Cronbach's alpha as the measure of internal consistency, interpreted using DeVellis' (2003) guidelines. To provide additional detail and a better understanding of each of the CPS subscales and the overall scale, internal consistency reliability coefficients were also calculated considering what the data would look like were an item to be deleted. The aforementioned analyses were conducted using SPSS 25 software.

To assess structural validity support for the CPS in this sample of emerging adults, a confirmatory factor analysis (CFA) was conducted using the same structure as originally identified in Bronk et al.'s initial developmental work with adolescents (i.e., three factors with four items each, generating a total score and three subscale scores). Mundfrom, Shaw, and Ke (2005) recommend that a sample size of 260 is sufficient for CFA with four items per factor and three factors, if there is high communality. A sample size of 450 is sufficient for factor analysis

with four items per factor and three factors if there is low communality. Therefore, the present sample of N = 627 was more than sufficient for the analysis. The CFA also examined how well the three factors loaded onto an overall purpose factor (one factor). Finally, the Comparative Fit Index (CFI), the Tucker-Lewis Fit Index (TLI), and the Root Mean Square Error of Approximation (RMSEA) were used to analyze the fit of the three-factor model. The CFA and fit indices were calculated using R Studio software version 3.4.1 with the *lavaan* package.

Results

3.1 Data Screening

Survey responses were downloaded from Qualtrics to a .csv file and then uploaded to SPSS as a dataset. After screening for accuracy issues and missing data, the final sample size was N = 628, with n = 627 participants providing responses to all 12 CPS items. Individuals who responded "happened to me" to questions regarding traumatic events were coded as trauma survivors for descriptive analysis of this subsample, n = 317.

3.2 Means, Internal Consistency Coefficients, and Pearson Correlations

The mean score for the CPS in this sample was M = 44.80 (SD = 7.48). To test Hypothesis 3, internal consistency was computed using Cronbach's alpha and interpreted via guidelines based on DeVellis (2003). The total CPS sum score demonstrated good internal consistency reliability, $\alpha = .878$. The general meaning subscale had excellent internal consistency reliability ($\alpha = .917$), the goal-directedness subscale showed good internal consistency reliability ($\alpha = .853$), and the beyond-the-self orientation subscale showed good internal consistency reliability ($\alpha = .862$). These data are reported in Tables 1, 2, and 3, along with minimum and maximum scores, skewness, and kurtosis.

To test Hypotheses 4 and 5, Pearson correlations were calculated to determine the relationship between total CPS scores, the three subscale scores of the CPS, and the two subscale scores of the MLO (see Table 4). The CPS subscales exhibited small to moderate positive correlations with each other, Pearson's rs ranging from .29 to .50, all ps < .001 (cutoffs from Cohen, 1998; Meyers, Gamst, & Guarino, 2006). All CPS subscales showed strong, positive correlations to the CPS total, Pearson's rs ranging from .70 to .82, all $ps \le .001$. MLQ Presence of meaning scores were strongly and positively correlated with the CPS general meaning subscale, r = .85, $p \le .001$. The two MLQ subscales exhibited a small to moderate negative correlation, r = -.27, $p \le .001$. MLQ Search scores were moderately and negatively correlated with the CPS general meaning scale, r = -.31, $p \le .001$. The MLQ Search and CPS goaldirectedness scales had a weak negative correlation, r = -.04, p > .05. All other scales showed positive correlations ranging from r = .12 to r = .85, including the MLQ-S and CPS beyond-theself subscales and the MLQ-P and CPS general meaning subscales, respectively. CPS total scores and MLQ-P scores were strongly, positively correlated, r = .72, $p \le .005$. CPS total scores and MLQ-S scores had a weak, negative correlation, r = -.12, $p \le .005$.

3.3 Model Fit

Model fit was examined for the three-factor model in which all three factors loaded onto one overall factor (see Figure 1). As indicated in the figure, each of the 12 CPS items load onto the three factors of general meaning, goal-directedness, and beyond-the-self orientation. Each factor was associated with four items. Furthermore, these three factors load onto an overall factor of purpose as conceptualized by Bronk et al. (2018) in their initial developmental factor-analytic work with adolescents. With specific regard for fit indices in the current sample, the Comparative Fit Index (Bentler, 1990) was CFI = 0.988, showing overall acceptable model fit (over .95; Hooper, Caughlan, & Mullen, 2008). The Tucker-Lewis Index (Bentler, 1990) was calculated to be TLI = 0.985, exceeding the threshold for acceptability (over .90; Hooper et al., 2008). The Root Mean Square of Approximation (Steiger, 1990) indicated a close fit at *RMSEA* = 0.0443 (90% *CI* = 0.033 to 0.055), within the threshold of acceptability (cutoff = 0.05; Hooper et al., 2008). Although the higher confidence interval of the RMSEA value exceeds the recommended cutoff, such a value is not unusual with smaller samples. RMSEA is regarded as suggesting acceptable model fit with the current data. Finally, the Chi-Square statistic was significant, χ_2 (51) = 113.803, p < .001, showing that the items are dependent upon each other and are correlated. Despite the significant Chi-Square value, CFI, TFI, and RMSEA each indicate acceptable model fit.

3.4 Trauma Survivors

The trauma survivor subsample was roughly half of the total sample (n = 317). The mean score for the CPS in the subsample of trauma survivors was M = 45.12 (SD = 7.28). Beyond-the-self orientation was the subscale with the highest mean score, M = 16.21 (SD = 3.08). The goal-directedness subscale had a mean value M = 15.65 (SD = 2.60). The general meaning subscale had a mean M = 13.26 (SD = 3.88).

Discussion

4.1 The Current Study

Current literature defines purpose as a sense of core goals, aims and direction in life; it involves aims and direction towards deeply meaningful goals in life (Martela & Steger, 2016). Purpose is distinct from meaning in that it involves goal-directedness, self-transcendence, and intention towards living a meaningful life. The Claremont Purpose Scale (Bronk et al., 2018) was recently developed to measure purpose in adolescents. In the initial developmental research, the CPS garnered strong validity and reliability support with adolescents. Because it was designed with adolescents in mind, there are no data available examining the CPS' psychometric properties in samples of adults, and specifically samples of emerging adults. The data from the present study support the psychometric utility of the CPS in a sample of emerging adults (i.e., university students). CPS scores have good internal consistency reliability, a replicable three-factor structure to assess general meaning, goal-directedness, and beyond-the-self orientation, as well as purpose broadly speaking as conceptualized by Bronk et al. (2018). Support for the measure's factor structure, as well as significant correlations with other measures of meaning, are promising as to the measure's construct validity.

The factor structure of the CPS. In this sample of emerging adults, the 12 CPS items loaded onto the same three, respective factors as they did for Bronk et al.'s (2018) original factor-analytic work with adolescents (Figure 1). These three factors were given the same three labels as described in the initial developmental work, namely general meaning, goal-directedness, and beyond-the-self orientation. These three factors then loaded onto the overall factor of purpose. Thus, this study corroborates Bronk et al.'s initial developmental work with adolescents. Moreover, the CPS appears to measure the three factors of purpose as theorized by Bronk (2003). Based on these data, there is psychometric support for use of the CPS with emerging adults. The CPS total score appears to be an appropriate measure of overall purpose. In addition, it appears that each of the three subscales measure the three theorized dimensions of purpose.

Convergent and Discriminant Validity. Pearson product correlations showed that the CPS total scores and MLQ-Presence subscale scores were positively and significantly associated with one another (Table 4). Likewise, all three CPS subscale scores were positively and significantly correlated with MLQ-Presence subscale scores. Thus, Hypothesis 4 was supported, for the CPS showed convergent validity with another measure of meaning and purpose. The MLQ-Search subscale and the CPS total score showed a weak, negative correlation (Table 4). Thus, Hypothesis 5 was partially supported, because the CPS total score was negatively correlated with the MLQ-Search subscale. However, Hypothesis 5 was not supported for the beyond-the-self orientation subscale, as these scores were positively correlated with MLQ-S scores. This finding, that self-transcendence is related to search for meaning in a different way than general presence of meaning in life and goal-directedness, highlights the need for increased research on these specific components of purpose. The need for increased research can also be attributed to the complexity of these concepts, particularly search for meaning (Schulenberg, Baczwaski, & Buchanan, 2014). In this way, the unexpected correlation between search for meaning and self-transcendence demonstrates the utility of the CPS subscales in furthering the literature on meaning and purpose. Theoretically, however, there are reasons why these constructs showed a positive correlation. In the emerging adult population specifically, individuals could have long-term goals that have been instilled in them from an outside source, such as parental figures or school. As a person matures, they may begin searching for meaning as they realize that they have their own goals in life.

The third hypothesis stated that the CPS would show adequate internal consistency reliability, with the 12-items of the scale being closely related, which is an important feature for self-report questionnaires measuring an abstract construct such as purpose (Streiner, 2003). As

hypothesized, the items comprising the CPS total score demonstrated good internal consistency, as did the three subscales of general meaning, goal-directedness, and beyond-the-self orientation. Specifically, general meaning showed excellent internal consistency reliability, with goal-directedness and beyond-the-self orientation demonstrating good internal consistency reliability. In other words, the 12 items of the CPS are highly intercorrelated, and the four items of each subscale are highly intercorrelated. This pattern of relationships is congruent with the idea that these items fit well together, at the subscale level and as an overall measure. Therefore, the CPS appears to have more than sufficient internal consistency reliability for measuring purpose and its conceptualized dimensions with emerging adults.

4.2 Limitations

Several limitations of this study must be noted. First, the sample was not representative of the emerging adult population as a whole. The sample was entirely comprised of university students and predominantly White and female. The sample was also heavily skewed towards the freshman class, as most first-year students are provided ample opportunities to participate in research studies for extra credit. These demographic characteristics of the sample potentially limit the generalizability of the findings. A larger, more diverse sample would be useful for establishing norms and detecting differences in scores by such variables as gender, race, ethnicity, and socioeconomic status. Nevertheless, these results are promising with regard to future research.

Lastly, the descriptive statistics for the original adolescent sample were not reported in the original psychometric article (Bronk et al., 2018). Purpose is also a construct that changes as an individual grows and matures, so the value that constitutes a "high" score might change as individuals develop across the lifespan. Moreover, perceived purpose could wax and wane as people discover more about themselves, their values, and seek new ways to express themselves. For such reasons, it remains unclear what a "good" or "high" score on the measure should be. Since the maximum score for each subscale of the CPS is 20, a score of 15 or higher may be a rough benchmark for having a great degree of purpose in each given subscale.

4.3 Implications for Research

First, the findings provide additional evidence for the reliability and validity, and thereby for the psychometric utility and potential necessity, of the CPS. With the three-factor structure, this measure could be used to assess purpose globally, and component-wise via its three dimensions. The measure has utility with adolescents and emerging adults, and likely has applicability and utility for populations outside of these developmental periods. For example, in the adolescent and emerging adult populations especially, current research is lacking on how beyond-the-self orientation is related to the other two dimensions of purpose. There is little doubt that such a concept is highly applicable to adults older than 25 or 29 (see for instance, Frankl, 1959/2006), ages that have been used to mark the end of emerging adulthood in this area of the literature (Arnett, Žukauskienė, & Sugimura, 2014). The research conducted on this population has generally relied on measuring meaning and purpose as broad topics. Due to the extensive amount of research examining how crucial purpose is to well-being and its capacity for cultivation and development during this stage of life, examination of these dimensions in emerging adulthood represent significant additions to this literature.

Second, scores on the CPS for a specific population could be examined over time, considering many different kinds of events and contexts. Test-retest reliability should be established, with the idea of examining variations in purpose in the short term and the long term. Longer-term longitudinal methods may give further insight into how purpose develops, particularly from adolescence into emerging adulthood and beyond.

Third, the present study established convergent validity support for CPS scores with another measure of meaning and purpose, and discriminant validity of general meaning and overall purpose in relation to searching for meaning; however, associations as to convergent and discriminant validity support should also be examined between CPS scores and measures of anxiety, depression, and various aspects of psychological well-being. Greater perceived meaning and purpose in life have been linked to psychological well-being in many different studies over the years and employing many different approaches (Ishida & Okada, 2006; Melton et al., 2008). Yet, convergent and discriminant validity support are needed presently to continue the psychometric validation of this new measure of meaning and purpose, as well as to examine the relationship between forms of psychological distress and components of purpose such as beyondthe-self orientation.

4.4 Future Directions

Prior studies have found that life without purpose and meaning is significantly associated with a range of psychological and physical health problems. Examples include symptoms of anxiety, depression, hopelessness, and physical decline, to name a few (Bigler et al., 2001; Heisel et al., 2004; Melton et al., 2008). Future research should examine how each of the dimensions of general meaning, goal-directedness, and beyond-the-self orientation serve as a protective factor in relation to such psychological and physical health problems.

There are a number of other populations for whom the CPS should be validated. Beyond studies of psychological and physical health problems, some of these populations include the elderly, the middle-aged, and pre-teen children. Studies should take great care to consider

context and culture. Furthermore, given the recent proliferation of interest in the concepts of meaning and purpose in samples of trauma survivors (Schulenberg, 2020), the trauma survivor subsample in this study should be examined in further detail, including means, standard deviations, reliability coefficients, correlations, and mean comparisons between those that reported one or more traumatic experiences versus those who did not. Such research represents a crucial next step in understanding the dimensions of purpose and how they are linked to well-being and forms of psychological distress.

Another important finding and future implication for this measure is that the dimension of beyond-the-self orientation showed a different relationship to search for meaning than did the CPS total score, the general meaning subscale, and the goal-directedness subscale. While there are theoretical possibilities as to why these statistical relationships differed, new research will better illuminate them. The CPS represents an advancement in the literature as to the assessment of purpose and meaning, which will no doubt stimulate growth in the literature for years to come.

References

- Abbott, R. A., Ploubidis, G. B., Huppert, F. A., Kuh, D., & Croudace, T. J. (2010). An evaluation of the precision of measurement of Ryff's Psychological Well-being scales in a population sample. *Social Indicators Research*, *97*(3), 357–373. doi: 10.1007/s11205-009-9506-x
- Adam, E., Quinn, M., Tavernier, R., Mcquillan, M., Dahlke, K., & Gilbert, K. (2017). Diurnal cortisol slopes and mental and physical health outcomes: A systematic review and metaanalysis. *Psychoneuroendocrinology*, 83, 25–41. doi: 10.1016/j.psyneuen.2017.05.018
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469–480. doi: 10.1037/0003-066X.55.5.469
- Arnett, J. J., Žukauskienė, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18-29 years: Implications for mental health. *The Lancet Psychiatry*, 1(7), 569-576. doi: 10.1016/S2215-0366(14)00080-7
- Barnes, L., Bennett, D., Boyle, P., & Buchman, A. (2009). Purpose in life is associated with mortality among community-dwelling older persons. *Psychosomatic Medicine*, *71*, 574– 579. doi: 10.1097/PSY.0b013e3181a5a7c0
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238–246. doi: 10.1037/0033-2909.107.2.238
- Bigler, M., Neimeyer, G. J., & Brown, E. (2001). The divided self-revisited: Effects of selfconcept clarity and self-concept differentiation on psychological adjustment. *Journal of Social and Clinical Psychology*, 20(3), 396–415. doi: 10.1521/jscp.20.3.396.22302
- Bodner, E., Bergman, Y. S., & Cohen-Fridel, S. (2014). Do attachment styles affect the presence and search for meaning in life? *Journal of Happiness Studies*, 15(5), 1041–1059. doi: 10.1007/s10902-013-9462-7

- Bronk, K. C. (2011). Portraits of purpose: The role of purpose in identity formation. *New Directions for Youth Development, 132,* 31–44. doi: 10.1002/yd.426
- Bronk, K. C., Damon, W., & Menon, J. (2003). The development of purpose during adolescence. *Applied Developmental Science*, *7*(3), 119–128.
- Bronk, K. C., Finch, W. H., & Talib, T. L. (2010). Purpose in life among high ability adolescents. *High Ability Studies*, *21*, 133–145. doi: 10.1080/13598139.2010.525339
- Bronk, K. C., Hill, P. L., Lapsley, D. K., Talib, T. L., & Finch, H. (2009). Purpose, hope, and life satisfaction in three age groups. *The Journal of Positive Psychology*, 4(6), 500–510, doi: 10.1080/17439760903271439
- Bronk, K. C., Riches, B. R., & Mangan, S. A. (2018). Claremont Purpose Scale: A measure that assesses the three dimensions of purpose among adolescents. *Research in Human Development*, 15(2), 101–117, doi: 10.1080/15427609.2018.1441577
- Bundick, M. J., & Yeager, D. S. (2009). The role of purposeful work goals in promoting meaning in life and in schoolwork during adolescence. *Journal of Adolescent Research*, 24(4), 423–452, doi:10.1177/0743558409336749
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohen, K., & Cairns, D. (2012). Is searching for meaning in life associated with reduced subjective well-being? Confirmation and possible moderators. *Journal of Happiness Studies*, *13*(2), 313–331.
- Cook, E. (2016). Adulthood as action: Changing meanings of adulthood for male part-time workers in contemporary Japan.

- Crumbaugh, J. C., & Maholick, L. T. (1964). An experimental study in existentialism: The psychometric approach to Frankl's concept of noogenic neurosis. *Journal of Clinical Psychology*, 20(2), 200–207. doi: 10.1002/1097-4679(196404)20:2<200::AID-JCLP2270200203>3.0.CO;2-U
- Crumbaugh, J. C., & Maholick, L. T. (1969). *Manual of instructions for the Purpose-in-Life-Test.* Munster: Psychometric Affiliates.
- Delle Fave, A., Brdar, I., Wissing, M., & Vella-Brodrick, D. (2013). Sources and motives for personal meaning in adulthood. *The Journal of Positive Psychology*, *8*, 517–529. doi: 10.1080/17439760.2013.830761
- DeVellis, R. F. (2003). *Scale development: Theory and applications* (2nd ed.). Thousand Oaks, CA: Sage.
- Dezutter, J., Casalin, S., Wachholtz, A., Luyckx, K., Hekking, J., & Vandewiele, W. (2013).
 Meaning in life: an important factor for the psychological well-being of chronically ill patients?. *Rehabilitation psychology*, 58(4), 334–341. doi: 10.1037/a0034393
- Diener, E., Emmons, R., Larsen, R., & Griffin, S. (1985). The Satisfaction With Life Scale. Journal of Personality Assessment, 49, 71–75. doi: 10.1207/s15327752jpa4901_13
- Erikson, E. H. (1968). Identity: Youth and crisis. Norton & Co.
- Frankl, V. E. (1959/2006). Man's search for meaning. Boston, MA: Beacon Press.
- Heisel, M. J., & Flett, G. L. (2004). Purpose in life, satisfaction with life, and suicide ideation in a clinical sample. *Journal of Psychopathology and Behavioral Assessment*, 26(2), 127–135. doi: 10.1023/B:JOBA.0000013660.22413.e0

- Hill, P. L., & Burrow, A. L. (2012). Viewing purpose through an Eriksonian lens. *Identity: An International Journal of Theory and Research*, *12*, 74–91. doi: 10.1080/15283488.2012.632394
- Ho, M. Y., Cheung, F. M., & Cheung, S. F. (2010). The role of meaning in life and optimism in promoting well-being. *Personality and Individual Differences*, 48(5), 658–663. doi: 10.1016/j.paid.2010.01.008
- Hooper, D., Coughlan, J., & Mullen, M. (2007). Structural equation modeling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, 6, 53–60.
- Ishida, R., & Okada, M. (2006). Effects of a firm purpose in life on anxiety and sympathetic nervous activity caused by emotional stress: Assessment by psycho-physiological method. *Stress Health*, 22, 275–281.
- Joseph, M. (2011). The benefits of reflecting on and discussing purpose in life in emerging adulthood. *New Directions for Youth Development*, 89–103. doi: 10. 10.1002/yd.430
- Krok, D. (2016). Can meaning buffer work pressure? An exploratory study on styles of meaning in life and burnout in firefighters. *Archives of Psychiatry and Psychotherapy*, *1*, 31–42.
- Krok, D. (2017). When is meaning in life most beneficial to young people? Styles of meaning in life and well-being among late adolescents. *Journal of Adult Development*, 25(2), 96–106. doi: 10.1007/s10804-017-9280-y
- Larson, R. W., Orson, C., & Bowers, J. (2017). Positive Youth Development: How intrinsic motivation amplifies adolescents' social-emotional learning. In M. Warren & S. Donaldson (Eds.), *Scientific advances in positive psychology* (pp. 165-194). Santa Barbara, CA: Praeger.

- Liberto, A. K., Johnson, E. T., & Schulenberg, S. E. (2020). Responding to adolescents following natural and technological disasters: The essential nature of hope. In S. E. Schulenberg (Ed.), *Positive psychological approaches to disaster: Meaning, resilience, and posttraumatic growth* (pp. 115-135). Springer, Cham.
- Lyke, J. (2013). Associations among aspects of meaning in life and death anxiety in young adults. *Death Studies*, *37*, 471–482.
- Martela, F., & Steger, M. F. (2016). The three meanings of meaning in life: Distinguishing coherence, purpose, and significance. *The Journal of Positive Psychology*, *11*(5), 531–545. doi: 10.1080/17439760.2015.1137623
- Matud, M. P., López-Curbelo, M., & Fortes, D. (2019). Gender and psychological well-being.
 International Journal of Environmental Research and Public Health, 16(19), 3531.
 doi:10.3390/ijerph16193531
- Melton, A. M. A., & Schulenberg, S. E. (2008). On the measurement of meaning: Logotherapy's empirical contributions to humanistic psychology. *The Humanistic Psychologist*, 36(1), 31–44. doi: 10.1080/08873260701828870
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research: Design and interpretation* (1st ed.). Thousand Oaks, CA: Sage.
- Morgan, J., & Farsides, T. (2009). Measuring meaning in life. *Journal of Happiness Studies*, *10*, 197–294. doi: 10.1007/s10902-007-9075-0
- Mundfrom, D. J., Shaw, D. G., & Ke, T. L. (2005). Minimum sample size recommendations for conducting factor analyses. *International Journal of Testing*, 5(2), 159–168. doi: 10.1207/s15327574ijt0502_4

- Park, C. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, 136, 257–301. doi: 10.1037/a0018301
- Park, C. (2016). Meaning making in the context of disasters. *Journal of Clinical Psychology*, 72(12), 1234–1246. doi: 10.1002/jclp.22270
- Parsian, N., & Dunning, T. (2009). Spirituality and coping in young adults with diabetes: A cross-sectional study. *European Diabetes Nursing*, 6, 100–104. doi: 10.1002/edn.144
- Rainone, N., Chiodi, A., Lanzillo, R., Magri, V., Napolitano, A., Morra, V., Valerio, P., & Freda, M. (2016). Affective disorders and Health-Related Quality of Life (HRQoL) in adolescents and young adults with Multiple Sclerosis (MS): The moderating role of resilience. *Quality of Life Research*, 26(3), 727–736. doi: 10.1007/s11136-016-1466-4
- Peacock, E., Reker, G., & Wong, P. (1987). Meaning and purpose in life and well-being: A lifespan perspective. *Journal of Gerontology*, *42*, 44–49. doi: 10.1093/geronj/42.1.44
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069–1081. doi: 10.1037/0022-3514.57.6.1069
- Ryff, C. D. & Singer, B. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9, 13–39. doi: 10.1007/s10902-006-9019-0
- Ryff, C. D., Singer, B. H., & Dienberg Love, G. (2004). Positive health: Connecting well-being with biology. *Philosophical Transactions of the Royal Society of London. Series B*, *Biological Sciences*, 359(1449), 1383–1394. doi:10.1098/rstb.2004.1521

- Schulenberg, S. E. (2020). Positive psychological approaches to disaster: Meaning, resilience, and posttraumatic growth. Cham, Switzerland: Springer International Publishing.
- Schulenberg, S. E., Baczwaski, B. J., & Buchanan, E. M. (2014). Measuring Search for Meaning:
 A Factor-Analytic Evaluation of the Seeking of Noetic Goals Test (SONG). *Journal of Happiness Studies*, 15(3), 693-715. doi: 10.1007/s10902-013-9446-7
- Schulenberg, S. E., Schnetzer, L. W., & Buchanan, E. M. (2010). The Purpose in Life Test-Short
 Form: Development and Psychometric Support. *Journal of Happiness Studies*, *12*(5), 861–876. doi:10.1007/s10902-010-9231-9
- Schulenberg, S. E., Strack, K., & Buchanan, E. M. (2011). The Meaning in Life Questionnaire:
 Psychometric properties with individuals with serious mental illness in an inpatient
 setting. *Journal of Clinical Psychology*, 67, 1210–1219. doi: 10.1002/jclp.20841
- Seligman, M. E. P. (2002). Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment. New York: Free Press.
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire:
 Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80–93. doi: 10.1037/0022-0167.53.1.80
- Steger, M. F., Oishi, S., & Kashdan, T. B. (2009). Meaning in life across the life span: Levels and correlates of meaning in life from emerging adulthood to older adulthood. *The Journal of Positive Psychology*, 4(1), 43–52. doi:10.1080/17439760802303127
- Steiger, J. H. (1990). Structural model evaluation and modification. *Multivariate Behavioral Research*, 25(2), 173–180. doi: 10.1207/s15327906mbr2502_4

- Streiner, D. L. (2003). Starting at the beginning: An introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment*, 80, 99–103. doi: 10.1207/S15327752JPA8001_18
- Thoits, P. A. (2012). Role-identity salience, purpose and meaning in life, and well-being among volunteers. *Social Psychology Quarterly*, 75(4), 360–384. doi: 10.1177/0190272512459662
- Thompson, N. J., Coker, J., Krause, J. S., & Henry, E. (2003). Purpose in life as a mediator of adjustment after spinal cord injury. *Rehabilitation Psychology*, 48(2), 100–108. doi: 10.1037/0090-5550.48.2.100
- Tirri, K. & Quinn, B. (2010). Exploring the role of religion and spirituality in the development of purpose: Case studies of purposeful youth. *British Journal of Religious Education*, 32(3), 201–214. doi: 10.1080/01416200.2010.498607
- von Devivere, B. (2018). *Meaningful work: Viktor Frankl's legacy for the 21st Century*. Cham, Switzerland: Springer Nature Switzerland AG.
- Weber, M. C., Pavlacic, J. M., Gawlik, E. A., Schulenberg, S. E., & Buchanan, E. M. (2019).
 Modeling resilience, meaning in life, posttraumatic growth, and disaster preparedness with two samples of tornado survivors. *Traumatology*. Advance online publication. doi: 10.1037/trm0000210
- Webster, J. D. (2010). Wisdom and positive psychosocial values in young adulthood. *Journal of Adult Development*, *17*(2), 70–80. doi: 10.1007/s10804-009-9081-z

Yanez, B., Edmondson, D., Stanton, A. L., Park, C. L., Kwan, L., Ganz, P. A., & Blank, T. O. (2009). Facets of spirituality as predictors of adjustment to cancer: Relative contributions of having faith and finding meaning. *Journal of Consulting and Clinical Psychology*, 77(4), 730–741. doi: 10.1037/a0015820

Tables

Table 1.

	Minimum	Maximum	М	SD	Skewness	SE	Kurtosis	SE
CPS Beyond-the-self sum score	4.00	20.00	16.01	3.19	-0.55	0.10	-0.17	0.19
CPS Goal-directedness sum score	4.00	20.00	15.58	2.74	-0.64	0.10	0.52	0.19
CPS General meaning sum score	4.00	20.00	13.19	3.86	-0.12	0.10	-0.52	0.19
CPS Total	13.00	60.00	44.80	7.48	-0.33	0.10	0.23	0.19

Notes. CPS = Claremont Purpose Scale.

Table 2.

Descriptive	statistics.	for trai	ıma surv	ivors (.	N = 317)
				-	-	

	Minimum	Maximum	М	SD	Skewness	SE	Kurtosis	SE
	< 00	20.00	16.01	2.00	0.62	0.10	0.07	0.27
CPS Beyond-the-self sum score	6.00	20.00	16.21	3.08	-0.62	0.10	-0.07	0.27
CPS Goal-directedness sum score	7.00	20.00	15.65	2.60	-0.45	0.10	-0.06	0.27
CPS General meaning sum score	4.00	20.00	13.26	3.88	-0.07	0.10	-0.63	0.27
CPS Total	27.00	60.00	45.12	7.28	-0.19	0.10	-0.40	0.27

Notes. CPS = Claremont Purpose Scale.

CLAREMONT PURPOSE SCALE PSYCHOMETRIC VALIDATION

Table 3.

	Number of items in scale	Cronbach's α	Internal consistency	α of scale if item deleted (min. to max.)	Internal consistency for α of scale if item deleted
CPS Beyond-the-self sum score	4	.862	Good	.806 to .858	Good
CPS Goal-directedness sum score	4	.853	Good	.780 to .856	Acceptable
CPS General meaning sum score	4	.917	Excellent	.885 to .899	Good
CPS Total	12	.878	Good	.861 to .873	Good

Reliability statistics for the sample of emerging adults (N = 628)

Notes. Interpretation of internal consistency reliability coefficients based on DeVellis (2003). CPS = Claremont Purpose Scale.

CLAREMONT PURPOSE SCALE PSYCHOMETRIC VALIDATION

Table 4.

	1	2	3	4	5	6
	<i>r</i> (<i>p</i>)	r (p)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	r (p)	r (p)
I. CPS	1	.819	.766	.698	.723	122
Гotal		(.000)	(.000)	(.000)	(.000)	(.000)
2. CPS	.819	1	.498	.288	.848	308
General meaning	(.000)		(.000)	(.000)	(.000)	(.000)
3. CPS	.766	.498	1	.341	.486	040
Goal-directedness	(.000)	(.000)		(.000)	(.000)	(.314)
. CPS	.698	.288	.341	1	.254	.122
Beyond-the-self	(.000)	(.000)	(.000)		(.000)	(.002)
5. MLQ	.723	.848	.486	.254	1	266
Presence	(.000)	(.000)	(.000)	(.000)		(.000)
5. MLQ	122	308	040	.122	266	1
Search	(.000)	(.000)	(.314)	(.002)	(.000)	

Note. CPS = Claremont Purpose Scale. MLQ = Meaning in Life Questionnaire.

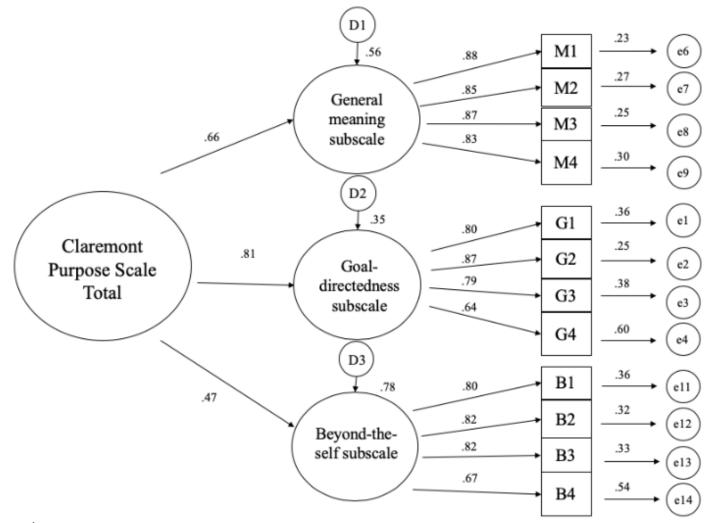


Figure 1. *Final confirmatory factor analysis model*

Appendix A

Claremont Purpose Scale (CPS)

Indicate your answers by selecting a-e.

1. How clear is your sense of purpose in your life?

- a. Not at all clear.
- b. A little bit clear.
- c. Somewhat clear.
- d. Quite clear.
- e. Extremely clear.

2. How well do you understand what gives your life meaning?

- a. Do not understand at all.
- b. Understand a little bit.
- c. Understand somewhat.
- d. Understand quite well.
- e. Understand extremely well.

3. How confident are you that you have discovered a satisfying purpose for your life?

- a. Not at all confident.
- b. Slightly confident.
- c. Somewhat confident.
- d. Quite confident.
- e. Extremely confident.

4. How clearly do you understand what it is that makes your life feel worthwhile?

- a. Not at all clearly.
- b. A little bit clearly.
- c. Somewhat clearly.
- d. Quite clearly.
- e. Extremely clearly.

5. How hard are you working to make your long-term aims a reality?

- a. Not at all hard.
- b. Slightly hard.
- c. Somewhat hard.
- d. Quite hard.
- e. Extremely hard.

6. How much effort are you putting into making your goals a reality?

- a. Almost no effort.
- b. A little bit of effort.
- c. Some effort.
- d. Quite a bit of effort.
- e. A tremendous amount of effort.

7. How engaged are you in carrying out the plans that you set for yourself?

- a. Not at all engaged.
- b. Slightly engaged.
- c. Somewhat engaged.
- d. Quite engaged.
- e. Extremely engaged.
- 8. What portion of your daily activities move you closer to your long-term aims?
- a. None of my daily activities.
- b. A few of my daily activities.
- c. Some of my daily activities.
- d. Most of my daily activities.
- e. All of my daily activities.
- 9. How often do you hope to leave the world better than you found it?
- a. Almost never.
- b. Once in a while.
- c. Sometimes.
- d. Frequently.
- e. Almost all the time.

10. How often do you find yourself hoping that you will make a meaningful contribution to the broader world?

- a. Almost never.
- b. Once in a while.
- c. Sometimes.
- d. Frequently.
- e. Almost all the time.

CLAREMONT PURPOSE SCALE PSYCHOMETRIC VALIDATION

11. How important is it for you to make the world a better place in some way?

- a. Not at all important.
- b. Slightly important.
- c. Somewhat important.
- d. Quite important.
- e. Extremely important.

12. How often do you hope that the work that you do positively influences others?

- a. Almost never.
- b. Once in a while.
- c. Sometimes.
- d. Frequently.
- e. Almost all the time.

Notes. General meaning subscale = Items 1-4. Goal-directedness subscale = Items 5-8. Beyond-the-self subscale = Items 9-12.

Reference

Bronk, K. C., Riches, B. R., & Mangan, S. A. (2018). Claremont Purpose Scale: A measure that assesses the three dimensions of purpose among adolescents. *Research in Human Development*, 15(2), 101–117, doi: 10.1080/15427609.2018.1441577

Appendix B

Meaning in Life Questionnaire (MLQ)

Please indicate the degree to which you agree or disagree with each statement below by using the following scale.

1 = Absolutely untrue, 2 = Mostly untrue, 3 = Somewhat untrue, 4 = Can't say true or false,

5 = Somewhat true, 6 = Mostly true, 7 = Absolutely true

- 1. I understand my life's meaning.
- 2. I am looking for something that makes my life meaningful.
- 3. I am always looking to find my life's purpose.
- 4. My life has a clear sense of purpose.
- 5. I have a good sense of what makes my life meaningful.
- 6. I have discovered a satisfying life purpose.
- 7. I am always searching for something that makes my life feel significant.
- 8. I am seeking a purpose or mission for my life.
- 9. My life has no clear purpose.
- 10. I am searching for meaning in my life.

Notes. Presence of meaning subscale = Items 1, 4, 5, 6, & 9. Item 9 is reverse scored. Search for meaning subscale = Items 2, 3, 7, 8, & 10.

Reference

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire:

Assessing the presence of and search for meaning in life. Journal of Counseling

Psychology, 53(1), 80-93. doi: 10.1037/0022-0167.53.1.80