



## The contours of purpose beyond the self in midlife and later life

Matthew J. Bundick , Kathleen Remington , Emily Morton & Anne Colby

To cite this article: Matthew J. Bundick , Kathleen Remington , Emily Morton & Anne Colby (2021) The contours of purpose beyond the self in midlife and later life, Applied Developmental Science, 25:1, 62-82, DOI: [10.1080/10888691.2018.1531718](https://doi.org/10.1080/10888691.2018.1531718)

To link to this article: <https://doi.org/10.1080/10888691.2018.1531718>



Published online: 31 Jul 2019.



Submit your article to this journal [↗](#)



Article views: 151



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 1 View citing articles [↗](#)



## The contours of purpose beyond the self in midlife and later life

Matthew J. Bundick<sup>a</sup>, Kathleen Remington<sup>b</sup>, Emily Morton<sup>b</sup> , and Anne Colby<sup>b</sup>

<sup>a</sup>Duquesne University; <sup>b</sup>Stanford University

### ABSTRACT

Purpose has been shown in adolescence and young adulthood to be an important component of positive development; however, little is known about its prevalence and function in later life. Surveys from a large ( $N = 1,198$ ), nationally representative sample of U.S. adults ages 50–92 were collected to explore the prevalence of purpose in midlife (ages 50–64) through later life (ages 65+), as well as demographic differences and associations with indicators of positive adaptation and development. Results showed 31% of all participants—midlife: 30%, later life: 33%—met our established criteria for purpose. Few demographic differences were found, though the prevalence of purpose was higher among people of color in both midlife and later life. Additionally, those who were purposeful were more likely to be higher on measures of positive adaptation and development across the sample. Suggestions for future research on purpose in later life are presented, and preliminary insights for practitioners in the fields of aging and later adult development are offered.

### KEYWORDS

Purpose; meaning; aging; positive development in adulthood

### The Contours of Purpose in Midlife and Later Life

Applied developmental scientists often, and importantly, focus their research on young people—children, adolescents, and young adults. These developmental phases mark unique ages of opportunity (Steinberg, 2014), but we often fail to appreciate that later life also provides ample prospect for positive developmental change (Baltes, 1987; Lerner, Overton, Lamb, & Freund, 2010). Indeed, understanding the potential for positive development in later adulthood has never been so important. Among United States residents, the population of those age 65 and older is currently the largest (47.8 million, or roughly 15% of the total population) and fastest-growing segment of the population (demonstrating a 30% increase between 2005 and 2015, with a projected doubling by 2060) (United States Census Bureau, 2017). As the numbers in this age group rise, so does the capacity of older people to engage more actively and meaningfully with life: On average, they are healthier, more likely to live independently, and less likely to be disabled than ever before (e.g., Costa, 2005; The Federal Interagency Forum on Aging-Related Statistics, 2016). This longevity bonus—accompanied by a greater likelihood of high quality of life and active engagement in the post-retirement years—allows for an age of

opportunity in which life goals, trajectory, and meaning may be reimagined, reinvigorated, and realized (Carstensen, 2009; Lawrence-Lightfoot, 2009; Leider & Webber, 2013).

One might think these findings on positive development in later life would go a long way toward dispelling antiquated societal views of aging as a time of physical and cognitive decline; nonetheless, a narrative that emphasizes deficits persists (Carstensen & Charles, 2003; Ryff & Singer, 1998). Moreover, negative views of aging are accompanied by a dominant cultural script suggesting an ideal later adulthood consists of leisure, travel, relaxation, and other self-focused endeavors. Many see later life as a much-deserved payoff for the toil and stress that typically accompany work- and family-related responsibilities in earlier adulthood (Dychtwald & Kadlec, 2010).

However, psychologists have presented substantial evidence that self-oriented, hedonic motives and pursuits purchase only limited personal fulfillment and life satisfaction (Kasser & Ryan, 2001). In contrast, the pursuit of goals and engagement in activities that connect to (and often benefit) others and the larger world are more likely to yield a sense of meaning, authenticity, and fulfillment—the hallmarks of eudaimonic well-being (Waterman, 1993; Weinstein, Ryan, & Deci, 2012). These eudaimonic motives and pursuits

are associated not only with psychological well-being but also improved physical health and greater longevity (Boyle, Barnes, Buchman, & Bennett, 2009; Hill & Turiano, 2014; Ryff, Radler, & Friedman, 2015). Theories of lifespan development suggest that generativity, the concern for and investment in future generations and the world beyond oneself, is a key to psychological health in later life (Erikson, 1968; McAdams & de St. Aubin, 1992; Vaillant, 2002).

The greater longevity and higher quality of life of older adults provide a ripe opportunity for them to rethink priorities and engage meaningfully and productively. Sadly, this opportunity is too often squandered in the unbalanced pursuit of hedonic ambitions or an exclusive focus on problems, hindering many older adults' personal well-being and their potential to positively affect the world. Acknowledging this lost potential, some commentators have called for a new vision of later adulthood focused on investing in eudaimonic pursuits rather than solely leisure-based activities. For example, Freedman (2007, 2011) advances the notion of "encore careers," characterized by work and volunteer activities that enable and energize older adults to benefit the world and future generations. Similarly, Leider and Webber (2013) have framed later adulthood as a time for self-discovery and the identification of new ways to actualize passions and commitments.

Despite these manifestos, scholars of positive development still grapple with how research can best support the realization of positive visions of aging. The study reported herein is an effort to do that by addressing a key construct in adaptation across life, *purpose in life* (Damon, 2008; Emmons, 1999), which is a key element in prominent theories of psychological well-being (e.g., Seligman, 2011; Ryff, 1989). Scholars and practitioners have shown growing interest in the role purpose plays as a developmental antidote to deficit-centered, decline-focused perspectives on aging, as well as a mechanism for creating a more generative and fulfilling later adult life.

## Background

**Defining purpose.** Following Damon and colleagues, we define purpose as a sustained commitment to an identity-relevant life goal that is *both* meaningful to the self and intended to contribute to the world beyond the self (Damon, Menon, & Bronk, 2003). As noted by Damon et al., in many prior psychological studies "purpose" was conflated with the closely associated concept of "meaning." But purpose requires its

own particular definition distinguishing it from meaning, in part to prevent confusions arising from the use of two different terms for the same concept. Both in common vernacular as well as in philosophical and theological discourse, purpose has a goal-directed component not captured by the term "meaning." Baumeister and Vohs (2002) proposed that purpose should be considered a subset of meaning, with its own special features. Accordingly, Damon (2008) defined purpose as the pursuit of a long-term goal not only meaningful to the self but also *actively engaged in the world beyond the self*. Such purposeful engagement may—or may not—be altruistic: Some purposes reflect a desire to serve other people, whereas other purposes may be driven by discovery, aesthetic, and other self-transcendent motives that are not intentionally prosocial.

In this formulation, which we adopt, purpose is a type of life goal—namely, a life goal to which one commits, that is both stable over time and generalized across life domains, and that reflects something meaningful to oneself while also intended to be of consequence to the world beyond oneself (rather than a general *sense* or experience of purpose). Importantly, this definition, unlike other conceptualizations (e.g., McKnight & Kashdan, 2009), explicitly requires a self-transcendent or "beyond-the-self" dimension, extending beyond one's immediate self-interest. Purpose, in this formulation, also includes a commitment dimension: It entails not only the presence of a life goal but evidence of an active pursuit of that goal. Thus, to be considered "purposeful," a person must: (a) have at least one personally meaningful life goal that extends beyond the self and (b) be actively working toward that goal.

This conceptualization of purpose has gained significant traction in the literature on youth development. Numerous studies have uncovered the benefits of having purpose in adolescence and emerging adulthood, such as greater life satisfaction and hopefulness about the future (Bronk, Hill, Lapsley, Talib, & Finch, 2009), a stronger sense of identity (Burrow, O'Dell, & Hill, 2010), greater psychological maturity (Hill & Burrow, 2012), and an increased sense that schoolwork is meaningful (Yeager & Bundick, 2009; see Bronk, 2013 for a review). Youth purpose can be fostered in many ways (Koshy & Mariano, 2011); for example, supportive family and friends (Moran, Bundick, Malin, & Reilly, 2013) and teachers (Damon, 2009; Bundick & Tirri, 2014) can promote purpose, and some more formal purpose-related interventions with young people have shown promise (Bundick,

2011; Dik, Steger, Gibson, & Peisner, 2011; Yeager et al., 2014). But, to date, few scholars have explored the present conceptualization of purpose in middle and later adulthood.

**Societal benefits of purpose.** The present conceptualization of purpose extends beyond this role of promoting individual development and well-being to implicate societal benefits as well. Whereas purpose need not require noble intent per se (that is, ignoble purposes do exist, such as those embodied by cult leaders and suicide bombers), the vast majority of those who commit to life goals intended to contribute to the world beyond themselves aspire to do good in the world (Damon, 2008). With that in mind, the investigation of purpose heeds a broader call to better understand mutually beneficial relations between self and context (Brandstädter & Lerner, 1999), and the importance to a thriving society of individuals' investment in the common good (Putnam, 2000; Wuthnow, 1991). That is, the positive development of individuals can and should be understood in the context of the positive development of societies.

**Purpose in later life.** An investigation into the prevalence and potential of purpose is thus timely and vital in its potential for individual and social benefits. The investigation of purpose in later life is particularly urgent because the literature on later life suggests that purpose may be in short supply among older adults, a situation with dire consequences for later adult development and a regrettable waste of human resources. Ryff and Keyes (1995), for example, asserted there is a “structural lag problem” in society, whereby older adults lose purpose in life because they have fewer opportunities for purposeful engagement. This claim has not been tested using a conceptualization of purpose as a commitment beyond the self, because Ryff's (1989) definition of purpose, focused on personal meaningfulness and goal-directedness, does not incorporate (or measure) active purposeful engagement as we define it.

Studies of *meaning* in later life yield a mixed picture. Some show evidence of negative trajectories for meaning in later life (Hill, Turiano, Spiro, & Mroczek, 2015; Ryff, Keyes, & Hughes, 2003; Springer, Pudrovskaya, & Hauser, 2011), whereas other cross-sectional studies report slightly higher levels of meaning in later life compared to midlife samples (Steger, Oishi, & Kashdan, 2009), and some longitudinal studies have found that levels of meaning are stable across later adulthood (e.g., Ko, Hooker, Geldhof, & McAdams, 2016). Overall, however, the preponderance of research suggests that the further people

progress from adulthood into old age the less likely they are to experience their lives as meaningful (see Bronk, 2013; Pinquart, 2002).

To the degree that such declines do exist, they may portend significant developmental and existential challenges. For example, the lack of meaning and absence of a purpose have been found to be important predictors of depression, stress, anxiety, and even suicidality in older adults (Heisel, Neufeld, & Flett, 2015; Steger, Frazier, Oishi, & Kaler, 2006; see also Wong, 2013). Given the sobering epidemiological data showing that suicide rates among the elderly are the highest of any age group in the United States—with notable increases among later adults in the last two decades (Curtin, Warner, & Hedegaard, 2016)—the import and urgency of addressing the development of both meaning and purpose in later life is clear and present.

Fortunately, there is encouraging evidence from the positive youth development literature that meaning and purpose can be promoted and a wealth of literature across the lifespan highlighting interventions and strategies for accomplishing this (Shin & Steger, 2014). For example, there is a growing body of literature showing that meaning in older adults is enhanced by stronger social integration and interpersonal relationships (Krause, 2007; Pinquart, 2002) and promising research in the domain of psychotherapy on fostering purpose through meaning-centered existential therapy in adulthood (Vos, Cooper, & Craig, 2015). These bodies of work suggest that a better understanding of the contours of purpose in later life might be fruitful toward addressing the developmental challenges of middle and later life and promoting overall flourishing across the lifespan.

### Present Study

Given the dearth of research investigating the construct of purpose (as herein defined) in middle and later adulthood, the present study is exploratory in nature. To this end, we included in our study not only older adults (65 and older), but also middle-aged respondents (ages 50–65) to investigate whether the prevalence of purpose increases, decreases, or remains stable from middle adulthood into older age, as well as whether purpose has different properties or associations in middle and late adulthood in relation to various demographic factors and other indicators of health and positive development. We chose 65 as the age that distinguished “middle-aged” from “older” sectors of our sample because it is commonly used to demark the qualitative shift to a later phase of life in the lifespan

development literature (e.g., Erikson, 1968) and as the typical age of retirement in the United States. Our three primary objectives were to investigate: (a) the prevalence of purpose in middle and later adulthood; (b) demographic and health-related differences between those who are purposeful and those who are not; and (c) the degree to which being purposeful is associated with other indicators of positive adaptation and development in middle and later adulthood.

Given our objectives and exploratory approach to understanding the prevalence of purpose and its correlates in mid- and later life, we employed a quantitative survey design with a large, nationally representative U.S. sample. Thus, our first challenge was to establish how best to properly operationalize purpose using a survey. As with terminology related to purpose, measurement of the construct has been fraught with confusion, conflation, and complications. While it is beyond the scope of this study to fully address the history of these measurement issues (see Bronk, 2013, for a thorough review), we recognized that the present multidimensional conceptualization of purpose does not lend itself to the typical form of unidimensional Likert-type survey measure that has been common in the literature (e.g., Hill, Edmonds, Peterson, Luyckx, & Andrews, 2016). For this reason, we created a new survey measure designed to identify the presence of purpose in its full dimensionality. We constructed and validated the measure through an iterative process employing mixed-method data, collected as part of the larger research project that included the survey data reported here as well as interviews with a subset of respondents. We describe this process briefly in the following section.

In addition to creating a valid measure of purpose in adulthood, we sought to examine possible variations in rates of purpose across various demographic characteristics. This paper reports on those findings as well as the relationship of purpose to self-reported health and a set of well-established indicators of positive adaptation and development in later adulthood. Regarding demographic characteristics, we chose to examine those that have been the focus of previous investigations of purpose and related constructs (such as meaning and generativity), as prior research indicates that purpose may vary across these demographic differences. For example, Pinquart's (2002) meta-analysis of studies investigating meaning in old age found associations with socioeconomic and marital status, and Ko et al. (2016) found that African Americans had higher levels of meaning in later life. Keyes and Ryff (1998) uncovered gender and education level effects for generativity in later life, and Newton's

(2016) review of the generativity literature catalogued gender and race differences (see also Hart, McAdams, Hirsch, & Bauer, 2001). In her thorough review of the literature on purpose and similar constructs in younger samples, Bronk (2013) highlighted relations between purpose and demographic factors including age, race/ethnicity, socioeconomic status, and educational attainment. The relationship of income and meaning in life has been the focus of many studies, with mixed results often depending on whether the level of analysis is the person (e.g., Kobau, Snizek, Zack, Lucas, & Burns, 2010) or country (e.g., Oishi & Diener, 2014). In studies focused at the person level, the evidence points to a small, positive relationship between income and meaning; however, this relationship may be bidirectional, and whatever effects flow from income to meaning may be mediated by other variables such as autonomy, competence, perceptions of control, or religiosity (see Ward & King, 2017).

Additionally, given the considerable interest in and practical implications of relations between purpose and physical health later in life (Musich, Wang, Kraemer, Hawkins, & Wicker (2018), an assessment of self-reported health status was included. Previous aging research has shown that a general *sense of purposefulness* (i.e., goal-directedness or meaning in life) is related to various positive health outcomes (Ryff et al., 2015), but the relationship between health and the present conceptualization of purpose has not yet been explored. Furthermore, regardless of whether purpose is a significant factor contributing to better health outcomes, most people are bound to face serious health-related challenges eventually. Therefore, it is important to learn whether these challenges, when they occur, portend the end of purpose. Accordingly, our research asked whether there are differences in the prevalence of purpose among respondents reporting different levels of overall health.

Our selection of indicators of positive development was informed by a review of the literature in the domains of adult and late adult psychological well-being (e.g., Ryff, 1989; Seligman, 2011), successful aging (e.g., Baltes & Baltes, 1990), and flourishing (e.g., Keyes, 2002). Such models generally include indicators of hedonic well-being (such as life satisfaction), eudaimonic well-being (such as personal growth), positive relations and capacities important to connecting with others and the world beyond the self (such as empathy and generativity), and some conceptualization of wisdom in the context of successfully navigating the normative changes associated with the aging process. The constraint of reasonable survey length (Krosnick &



Presser, 2010) precluded our including all components of these models, but the measures we selected capture representative elements across the various models in light of our particular objectives.

## Method

### Participants

All data reported in the present paper were collected as part of a larger, mixed-methods study investigating the development of purpose in later life. The larger study, like the present paper, included 1198 adults between the ages of 50 and 92 with a median age of 62. For comparative purposes, we operationally defined our midlife sample as comprising those age 50–64, and our later life sample as those age 65 and older. All participants completed an online survey including a battery of questionnaires; additionally, a subsample of 102 of the survey respondents (selected from the overall sample using stratified sampling to ensure representation across various configurations of life goals and levels of commitment) took part in one-hour telephone interviews. A reputable national survey software and research organization aided in selecting the overall sample to be broadly representative of older adults living in the United States.<sup>1</sup> The overall sample included participants from all 50 states and the District of Columbia. Half of the participants identified as female; 73% of participants identified as White, 9% as African American, 6% as Latinx, 4% as Asian, 1% as Native American and 7% as multiracial or multiethnic. The sample was socioeconomically diverse: Participants' average annual household income<sup>2</sup> was \$57,947, with a broad range from those reporting household incomes of less than \$20,000 to those greater than \$200,000. Just over half the sample (56%) was married or partnered. In terms of education level, 20% of the survey sample reported completing high school or less, 66% completed some or all of college, and 14% obtained a graduate degree (e.g., Master's, M.D., Ph.D.). The

sample was evenly split between those who identified as retired and those who did not.

These demographic breakdowns were similar in the midlife and later life subsamples, with two exceptions. The gender breakdown was significantly different across the subsamples ( $\chi^2 = 26.73$ ,  $p < .001$ ) in favor of males in the midlife sample and females in the later life sample. Also, not surprisingly, the proportion of retirees was significantly different across the subsamples ( $\chi^2 = 289.73$ ,  $p < .001$ ) in favor of non-retirees in the midlife sample and retirees in the later life sample.

### Procedure

Participants were selected by the survey research organization from online research panels to be representative of various demographic characteristics, including gender, race, and socioeconomic status, as well as representative of the population age distribution at age 50 and older. In line with the research firm's ongoing practices, survey participants were given a small remuneration (approximately \$1) by the survey research organization for participation in the present survey. Surveys were administered online over the course of a two-week span in November 2015. The median completion time for participants was 24 minutes.

### Measures

The larger study included approximately 60 questions about demographic characteristics, purpose, positive development, views on aging, work, retirement, future plans, caregiving, and volunteering. For the current investigation, we focused our analyses on measures related to demographic characteristics, self-reported health status, purpose, and positive psychological adaptation and development.

**Demographic characteristics.** Participants responded to questions about their age, gender, race/ethnicity, marital/partner status, highest level of education, location of residence, retirement status, and self-reported household income.

**Self-reported health status.** We used one item, adapted from the World Health Organization Health and Performance Questionnaire (Kessler et al., 2002), which read "Which of the following best describes your assessment of your health?" Response options included "Poor," "Fair," "Good," "Very Good," "Excellent," and "Don't know/Prefer not to answer." Single-item self-report measures of health status such have been found to be reliable and valid across

<sup>1</sup>Whereas there are challenges to obtaining a truly representative sample of older adults using online surveys and generalizability can be reduced relative to census tract approaches, in general the internet is considered to be a viable delivery system for collecting survey data (Remillard, Mazor, Cutrona, Gurwitz, & Tjia, 2014). The primary alternative, telephone surveys using random digit dialing, has become problematic in recent years due to widespread abandonment of land lines, along with prevalent use of various methods to screen out unwanted calls.

<sup>2</sup>Specifically, we asked participants to "indicate the approximate total combined income (i.e., combination of your income and, if applicable, that of your spouse/domestic partner) in the last year you were employed full-time." This information was treated as a general marker of socioeconomic status rather than an indicator of respondents' present financial condition.

numerous studies (Miilunpalo, Vuori, Oja, Pasanen, & Urponen, 1997; Wu et al., 2013).

**Purpose.** To assess our multidimensional conceptualization of purpose, we developed a new survey measure. To begin, we gave participants a list of ten broad life goals (e.g., “Teach what I’ve learned in life to others”) that were constructed based on a review of the literature on life goals (e.g., Damon, 2008; Emmons, 1999; Klinger, 1977). We asked them to rate each of the goals in terms of personal importance (on a Likert scale from 1 = *not important* to 5 = *extremely important*). Next, participants ranked their top three goals from the same list of 10. Based on our literature review and extensive pilot testing, five of the goals were predesignated to be more beyond-the-self-oriented in nature (e.g., “Contribute to building a good community”), and five were more self-oriented (e.g., “Continue or develop a successful career”).

Subsequently, we asked participants to respond to five statements about their broad commitment to their top three goals. To this end, participants answered questions about current engagement (“In any given month, I’m usually doing something to ...”), meaning (“This life goal reflects my life’s meaning and purpose”), future importance (“I expect this life goal to be important to me for the foreseeable future”), goal clarity (“I’m clear about how to work toward my life goal to ...”) and identity (“It’s part of who I am to ...”) on a Likert scale from 1 to 5 (e.g., 1 = *not at all true*, 5 = *entirely true*). We averaged the scores on these five follow-up questions about broad commitment to give each participant a “commitment” score toward their goals. Participants who selected at least one beyond-the-self goal as one of their top three<sup>3</sup>, rated it as at least *very important*, and had a commitment score toward their goal of 4 or more (out of 5) were categorized as having “purpose.” All other

participants who did not meet each of these criteria were categorized as “non-purpose.”

**Other purpose-related measure.** In addition to the new measure of purpose described above, we included another well-established measure related to a different conceptualization of purpose that incorporates some but not all of Damon et al.’s (2003) definitional dimensions; specifically, the Purpose in Life (PIL) subscale of Ryff’s (1989) Psychological Well Being scales. This measure of Ryff’s (1989) popular meaning-centered conceptualization of purpose was included, in part, so that we could use it as a covariate in analyses exploring the relations of our newly developed measure of purpose with indicators of positive development. We also used the PIL in separate analyses investigating whether it showed results similar to or different from those of our newly developed measure of purpose. The PIL subscale is a 9-item Likert-type scale (response options: 1 = *strongly disagree* to 7 = *strongly agree*) designed to capture the broad psychological experience of having a sense of meaning and direction in life. Sample items include “Some people wander aimlessly through life, but I am not one of them” and “I have a sense of direction and purpose in life.” This scale has a long history of demonstrating strong measurement properties (e.g., Ryff, 1989; Ryff & Keyes, 1995) and exhibited strong reliability in the present sample ( $\alpha = 0.84$ ).

**Indicators of positive adaptation and development.** We selected six measures for inclusion in the present study, broadly related to the following indicators of positive adaptation and development: empathy, generativity, gratitude, life satisfaction, personal growth, and wisdom.

**Empathy.** Empathy was measured using the Empathic Concern subscale of Davis’s (1980) Interpersonal Reactivity Index (IRI). To accommodate space constraints on the survey, four of the subscale’s seven statements were selected and adapted for the present study.<sup>4</sup> Participants rated statements such as “I often feel concerned for people who are less fortunate than me” on a scale from 1 = *not at all like me* to 5 = *very much like me*. The original 7-item version has demonstrated strong psychometric properties across many studies (e.g., Davis, 1983); internal

<sup>3</sup>If participants selected “Pursue my spiritual goals” as one of their top three life goals, this goal was treated as beyond-the-self in nature only if the participant *also* ranked another beyond-the-self life goal in his or her top three and rated it as *very important*. Pursuit of spiritual goals is not, in itself, clearly either beyond-the-self-oriented or self-oriented. Previous studies have revealed that some people may have beyond-the-self understandings of their religious or spiritual goals while others take a self-oriented approach, such as focusing the goal primarily on a desire to get into heaven/achieve a desirable afterlife (see Moran et al., 2010). Furthermore, in our own mixed methods analyses, we found that those interviewees who were coded as purposeful on the interview and also rated “pursue my spiritual goals” as their highest priority goal on the survey, ranked at least one other purposeful goal in their top 3 and rated it as very important or more. Though this aspect of our survey algorithm for purpose may have led to some purposeful participants being miscategorized as non-purposeful (false negatives), we felt it prudent in this exploratory work to take a conservative approach, protecting strongly against false positives, i.e., non-purposeful participants being miscategorized as purposeful. See Bundick, Remington, Morton, and Colby (2017) for a more detailed rationale.

<sup>4</sup>There is much precedent for using abbreviated versions of the IRI (e.g., Padilla-Walker & Nelson, 2015), for practical as well as psychometric reasons such as improved reliability and measurement invariance (see Braun, Rosseel, Kempnaers, Loas, & Linkowski, 2015). The three items that were removed due to awkward and confusing wording included “I am often quite touched by things that I see happen,” “Sometimes I don’t feel very sorry for other people when they are having problems,” and “Other people’s misfortunes do not usually disturb me a great deal.”

consistency of the shortened 4-item version in the present sample was strong ( $\alpha = 0.82$ ).

**Generativity.** We employed the Loyola Generativity Scale (McAdams & de St. Aubin, 1992), which is the most commonly used measure to assess generativity and has strong psychometric properties (Cheng, 2009). We used the 6-item version of this scale employed in the Mid-Life in the United States (MIDUS) study (Brim, Ryff, & Kessler, 2004), asking participants to respond to statements like “Many people come to you for advice” on a Likert-type scale from 1 = *not at all like me* to 5 = *very much like me*. The present sample demonstrated very strong reliability for this measure ( $\alpha = 0.89$ )

**Gratitude.** Gratitude was measured using the Gratitude Questionnaire-Six Item Form (GQ-6) designed and validated by McCullough, Emmons, and Tsang (2002). Participants responded from 1 = *strongly disagree* to 7 = *strongly agree* to statements like “I have so much in life to be thankful for.” The scale has been used extensively in the positive psychology field to measure gratitude and exhibited strong reliability in the present sample ( $\alpha = 0.90$ ).

**Life satisfaction.** Participants completed the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), a 5-item scale with Likert-type response options ranging from 1 = *strongly disagree* to 7 = *strongly agree*. A sample item is “In most ways my life is close to my ideal.” Numerous studies have demonstrated strong measurement properties across diverse samples (see Pavot & Diener, 2008). The scale exhibited strong reliability in the present sample ( $\alpha = 0.90$ ).

**Personal growth.** Personal growth was assessed using Robitschek’s (1998) Personal Growth Initiative Scale. The measure comprises 9 items that ask participants for their agreement (from 1 = *strongly disagree* to 7 = *strongly agree*) with statements like, “I know how to change specific things that I want to change in my life.” The scale has been validated across diverse samples (Robitschek, 1998, 1999) and demonstrated strong reliability in the present study ( $\alpha = 0.93$ ).

**Wisdom.** Wisdom has been defined and operationalized in numerous ways (Gluck et al., 2013). For the present study, we chose an assessment of wisdom designed to represent multiple established theories and measures of wisdom, in an attempt to capture its breadth and complexity. Gluck et al.’s (2013) Brief Wisdom Screening Scale (BWSS) is an amalgam of items from three measures of wisdom prominently used with older adults (e.g., Webster, 2003). Gluck et al. constructed their scale by selecting the 20 items

that most strongly correlated with the common factor across the measures. For the present study, we further reduced the number of items, selecting 6 for our shortened version of the BWSS. These items represent most prominently the measure’s self-transcendence subscale (4 items), given its relevance for our conceptualization of purpose; additionally, one item each from the openness as well as reminiscence and reflectiveness subscales were selected to ensure representation of the multiple dimensions of the three original wisdom measures represented in the scale. The survey asked participants to rate their agreement (from 1 = *strongly disagree* to 7 = *strongly agree*) with statements such as “I’ve learned valuable life lessons from others” and “I can accept the impermanence of things.” Internal consistency of this 6-item version was acceptable ( $\alpha = 0.76$ ). We did not calculate subscale scores.

## Analyses

We conducted our exploratory analyses in four steps. The first set of analyses involved establishing and reporting the prevalence of participants in our overall sample as well as midlife and later life subsamples who were categorized as purposeful using the method described above. Next, we conducted a series of univariate analyses—including chi-square tests of independence and *t*-tests—to explore which of the selected demographic variables and self-reported health status statistically differed in their proportions of purposeful respondents in the overall sample and the two subsamples. Third, we explored relations between purpose and the selected indicators of positive development in a series of one-way multivariate and univariate analyses of variance, separately for the overall sample and two subsamples. Finally, we reran these multivariate and univariate analyses of variance exploring the relations between purpose and the selected indicators of positive development, this time including the PIL scale as a covariate (again run separately for the overall sample and two subsamples). The aim of this final analytical step was to explore whether the purpose measure explains unique variance in the indicators of positive development above and beyond the variance explained by Ryff’s measure, which assesses a generalized sense of meaning/purposefulness.

## Results

Before running any analyses, we checked the standard univariate and multivariate assumptions, for the



overall sample and the midlife and later life subsamples. All assumptions were met, except the assumption of normality for each of the indicators of positive development for the overall sample and two subsamples, and for the PIL for the overall sample and later life subsample. Although *t*-tests and analyses of variance are generally robust to violations of the normality assumption, to ensure there were no substantive issues we ran each analysis considering the appropriate transformations, conversion to *z*-scores, and/or nonparametric equivalent tests (e.g., the Mann-Whitney *U* test in place of a *t*-test). The results of these checks showed no substantive differences from the results with the untransformed variables and parametric tests; therefore, we report only the latter to maximize interpretability.

### **Prevalence of and Demographic Differences in Purpose**

Using the present survey operationalization of purpose, we found that 30.97% ( $n = 371$  of 1198) of the overall study participants met the criteria for purpose, and 69.03% ( $n = 827$  of 1198) did not meet the criteria for purpose (a.k.a., the “non-purpose” group). For the two subgroups, we found that 29.79% ( $n = 238$  of 799) of the midlife subsample and 33.33% ( $n = 133$  of 399) of the later life subsample met the criteria for purpose; these proportions are not significantly different from each other ( $\chi^2 = 1.56$ ,  $p = .21$ ).

Next, we explored possible demographic differences between the purpose and non-purpose groups, in the overall sample as well as in the midlife and later life subsamples. Given the exploratory nature of the eight separate analyses investigating these demographic differences, we controlled for the familywise error rate using the Bonferroni correction, resulting in a Bonferroni-adjusted critical value of  $p \leq .006$ . Specifically, we tested for differences between the purpose and non-purpose groups with regard to age (*t*-tests comparing mean age differences), gender (chi-square tests of independence), race/ethnicity (chi-squares, with post hoc pairwise comparisons), marital/partnership status (chi-squares), highest level of education obtained (*t*-tests comparing mean education level differences), location of residence (chi-squares), self-reported retirement status (chi-squares), and self-reported household income (*t*-test comparing mean income differences). The results of these analyses are reported in Table 1.

In the overall sample, only three of these results were statistically significant at the Bonferroni-adjusted

$p \leq .006$  level: gender, race/ethnicity, and education level. Regarding gender, females were statistically more likely than males to be purposeful. To explore differences among races/ethnicities, adjusted standardized residuals were calculated to explore which cells deviated from independence, and post-hoc pairwise comparisons were conducted. Due to the low subsample size for Native Americans resulting in cross-tabulation cell sizes less than 5, comparisons were made only among White, Black, Latinx, Asian, and Multiracial/Multiethnic groups (with an additional Bonferroni adjustment resulting in a critical  $p$ -value of  $p \leq .0012$ ). Adjusted standardized residuals greater than 2 are generally considered to be evidence of deviation from independence (Agresti, 2007). With this guideline in mind, the results showed significant adjusted standardized residuals for purposeful White participants (-5.8), purposeful Black participants (3.2), purposeful Latinx participants (3.0), and purposeful Multiracial/Multiethnic participants (2.4). Post-hoc pairwise comparisons showed that White participants (26.24% purposeful) were statistically less likely to be purposeful compared to Black participants (44.25% purposeful;  $\chi^2 = 15.98$ ,  $p < .001$ ), Latinx participants (46.67% purposeful;  $\chi^2 = 14.34$ ,  $p < .001$ ), and Multiracial/Multiethnic participants (42.86% purposeful;  $\chi^2 = 10.56$ ,  $p = .001$ ). Additionally, mean levels of education were statistically significantly higher for those with purpose. Further investigation of this finding exploring education level as a categorical variable as well as binary groupings of participants by educational level (e.g., graduate degree versus no graduate degree) revealed no statistically significant post-hoc pairwise comparison results at the Bonferroni-adjusted  $p \leq .0012$  level.

In the midlife and later life subsamples, only the race/ethnicity variable was statistically significant at Bonferroni-adjusted  $p \leq .006$  level (though the reduced sample sizes may have limited the power to detect significant differences for the other demographic variables). In the midlife subsample, the results showed significant adjusted standardized residuals for purposeful White participants (-4.8), purposeful Black participants (2.1), and purposeful Latinx participants (4.0). Post-hoc pairwise comparisons showed that White participants (24.91% purposeful) were statistically less likely to be purposeful compared to Black participants (40.91%;  $\chi^2 = 7.76$ ,  $p = .005$ ), and Latinx participants (53.57%;  $\chi^2 = 21.04$ ,  $p < .001$ ). In the later life subsample, the non-White subgroups were too small to run post-hoc pairwise comparisons.

Table 1. Descriptive Statistics and Differences in Purpose for Demographic Variables.

Demographic variable	Sample characteristics			Prevalence of purpose (vs. non-purpose)			Effect size and <i>p</i> -value of group comparison		
	Overall sample	Midlife subsample	Later life subsample	Overall sample	Midlife subsample	Later life subsample	Overall sample	Midlife subsample	Later life subsample
Age	<i>M</i> = 61.88 ( <i>SD</i> = 7.55) Range: 50–92	<i>M</i> = 57.57 ( <i>SD</i> = 4.31) Range: 50–64	<i>M</i> = 70.50 ( <i>SD</i> = 4.76) Range: 65–92	Purpose: <i>M</i> = 62.18 ( <i>SD</i> = 7.75) Non-Purp: <i>M</i> = 61.74 ( <i>SD</i> = 7.46)	Purpose: <i>M</i> = 57.47 ( <i>SD</i> = 4.43) Non-Purp: <i>M</i> = 57.62 ( <i>SD</i> = 4.26)	Purpose: <i>M</i> = 70.63 ( <i>SD</i> = 4.58) Non-Purp: <i>M</i> = 70.43 ( <i>SD</i> = 4.85)	<i>t</i> = 0.95 ( <i>d</i> = 0.06) <i>p</i> = 0.34	<i>t</i> = 0.45 ( <i>d</i> = 0.03) <i>p</i> = 0.65	<i>t</i> = 0.40 ( <i>d</i> = 0.04) <i>p</i> = 0.69
Gender									
Female	50.08%	44.81%	60.65%	35.00%	33.80%	36.78%	$\chi^2 = 9.14$ ( <i>V</i> = 0.09) <i>p</i> = 0.003	$\chi^2 = 4.99$ ( <i>V</i> = 0.08) <i>p</i> = 0.03	$\chi^2 = 3.28$ ( <i>V</i> = 0.09) <i>p</i> = 0.07
Male	49.92%	55.19%	39.35%	26.92%	26.53%	28.03%			
Race/Ethnicity									
White	72.96%	72.11%	74.68%	26.24%	24.91%	28.81%			
African American	9.49%	8.29%	11.90%	44.25%	40.91%	48.94%	$\chi^2 = 34.55$ ( <i>V</i> = 0.17) <i>p</i> < .001	$\chi^2 = 29.01$ ( <i>V</i> = 0.19) <i>p</i> < .001	$\chi^2 = 18.51$ ( <i>V</i> = 0.19) <i>p</i> = .002
Latinx	6.30%	7.04%	4.81%	46.67%	53.57%	26.32%			
Asian	3.61%	4.56%	1.52%	39.53%	35.14%	—			
Native American	0.59%	0.63%	0.51%	42.86%	—	—			
Multiracial/Multiethnic	7.05%	7.29%	6.58%	42.86%	39.66%	50.00%			
Marital/Partnership status									
Single	17.86%	22.15%	9.27%	28.04%	25.42%	40.54%			
Married/in a civil union	51.09%	50.19%	52.88%	31.21%	30.92%	31.75%	$\chi^2 = 2.81$ ( <i>V</i> = 0.05) <i>p</i> = 0.73	$\chi^2 = 3.98$ ( <i>V</i> = 0.07) <i>p</i> = 0.05	$\chi^2 = 4.13$ ( <i>V</i> = 0.11) <i>p</i> = 0.04
Living with a partner	4.76%	6.25%	3.01%	26.32%	22.00%	50.00%			
Divorced	17.78%	16.65%	20.80%	34.27%	33.08%	34.94%			
Separated	1.00%	1.25%	0.75%	25.00%	30.00%	—			
Widowed	7.51%	4.63%	13.78%	32.22%	35.14%	30.91%	<i>t</i> = 2.80 ( <i>d</i> = 0.17) <i>p</i> = 0.005	<i>t</i> = 1.85 ( <i>d</i> = 0.15) <i>p</i> = 0.06	<i>t</i> = 2.24 ( <i>d</i> = 0.22) <i>p</i> = 0.03
Level of education									
High School/GED or less	18.88%	18.04%	20.57%	Purpose: <i>M</i> = 5.00 ( <i>SD</i> = 1.51) Non-Purp: <i>M</i> = 4.74 ( <i>SD</i> = 1.44)	Purpose: <i>M</i> = 4.99 ( <i>SD</i> = 1.45) Non-Purp: <i>M</i> = 4.79 ( <i>SD</i> = 1.41)	Purpose: <i>M</i> = 5.00 ( <i>SD</i> = 1.62) Non-Purp: <i>M</i> = 4.63 ( <i>SD</i> = 1.49)			
Some College	43.37%	44.22%	41.65%	27.48%	25.35%	31.25%			
4-year College Degree	23.72%	25.03%	21.08%	29.22%	29.69%	28.40%			
Graduate Degree	14.03%	12.71%	16.71%	32.26%	31.57%	34.15%	$\chi^2 = 7.90$ ( <i>V</i> = 0.08) <i>p</i> = 0.05	$\chi^2 = 9.75$ ( <i>V</i> = 0.11) <i>p</i> = 0.02	$\chi^2 = 2.88$ ( <i>V</i> = 0.08) <i>p</i> = 0.41
Location of residence									
City	24.79%	26.03%	22.31%	37.04%	37.02%	37.08%			
Suburb	41.32%	39.92%	44.11%	27.68%	24.45%	33.52%			
Small town	17.03%	16.65%	17.79%	29.41%	31.58%	25.35%			
Rural area	16.86%	17.40%	15.79%	31.68%	29.50%	36.51%	$\chi^2 = 0.74$ ( <i>V</i> = 0.02) <i>p</i> = 0.39	$\chi^2 = 0.42$ ( <i>V</i> = 0.02) <i>p</i> = 0.51	$\chi^2 = 0.35$ ( <i>V</i> = 0.03) <i>p</i> = 0.55
Retirement status									
Retired	50.17%	32.79%	84.96%	32.11%	31.30%	32.74%			
Not retired	49.83%	67.21%	15.04%	29.82%	29.05%	36.67%			

Household income	M = \$57,947 (SD = \$41,501)		M = \$59,455 (SD = \$44,416)		M = \$54,926 (SD = \$34,796)		Purpose: M = \$57,196 (SD = \$41,635) Non-Purpose: M = \$58,283 (SD = \$41,462)		Purpose: M = \$59,619 (SD = \$44,793) Non-Purpose: M = \$58,386 (SD = \$44,296)		Purpose: M = \$52,861 (SD = \$35,030) Non-Purpose: M = \$55,958 (SD = \$34,698)		t = 0.42 (d = 0.03) p = 0.68		t = 0.07 (d = 0.01) p = 0.95		t = 0.84 (d = 0.08) p = 0.40	
	M = \$57,947 (SD = \$41,501)		M = \$59,455 (SD = \$44,416)		M = \$54,926 (SD = \$34,796)		Purpose: M = \$57,196 (SD = \$41,635) Non-Purpose: M = \$58,283 (SD = \$41,462)		Purpose: M = \$59,619 (SD = \$44,793) Non-Purpose: M = \$58,386 (SD = \$44,296)		Purpose: M = \$52,861 (SD = \$35,030) Non-Purpose: M = \$55,958 (SD = \$34,698)		t = 0.42 (d = 0.03) p = 0.68		t = 0.07 (d = 0.01) p = 0.95		t = 0.84 (d = 0.08) p = 0.40	
≤\$20,000	14.52%	15.27%	13.03%	31.03%	29.51%	34.62%	30.77%	26.53%	25.45%	30.00%	42.11%	33.33%						
\$20,001–\$39,999	30.47%	30.91%	24.56%	34.25%	30.77%	41.53%	30.77%	26.53%	25.45%	30.00%	42.11%	33.33%						
\$40,000–\$59,999	20.37%	18.27%	13.78%	26.64%	26.71%	26.53%	30.67%	33.68%	27.42%	30.95%	29.41%							
\$60,000–\$79,999	12.52%	11.89%	7.52%	30.67%	33.68%	27.42%	30.95%	29.41%										
\$80,000–\$99,999	7.68%	7.76%	4.76%	34.43%	30.95%	29.41%												
\$100,000–\$119,999	5.09%	5.26%	6.77%	30.36%														
\$120,000+	9.35%	10.65%																

Note. Overall sample  $N = 1198$ , Midlife subsample  $n = 799$ , Later life subsample  $n = 399$ . Non-Purpose = Non-Purpose.  $d$  = Cohen's  $d$ .  $V$  = Cramer's  $V$ . Response options for mean comparison of level of education ranged from 1 (less than high school) to 8 (doctoral degree).

Whereas these statistically significant findings are noteworthy, given the large sample size of the overall sample and exploratory nature of the present work, we believe the findings most worthy of attention are those that meet Cohen's (1988) minimum criteria for practical significance. To interpret our results through this lens, for the chi-square analyses we calculated Cramer's  $V$  and for the  $t$ -tests we calculated Cohen's  $d$  (as reported in Table 1) for the overall sample. For gender (Cramer's  $V = 0.09$ ) and highest level of education (Cohen's  $d = 0.17$ ), the effect sizes were below the commonly accepted thresholds for even small practical significance of Cramer's  $V = 0.10$  and Cohen's  $d = 0.20$  (Cohen, 1988). However, for race/ethnicity (Cramer's  $V = 0.17$ ), as well as the statistically significant subgroup comparisons—White participants compared to Black participants (Cramer's  $V = 0.13$ ), Latinx participants (Cramer's  $V = 0.12$ ), and Multiracial/Multiethnic participants (Cramer's  $V = 0.11$ )—the effect sizes were considered to be of small albeit meaningful practical significance. Additionally, for the midlife subsample, the effect sizes for purpose vs. non-purpose comparisons on race/ethnicity (Cramer's  $V = 0.19$ ), and subgroup comparisons of White participants compared to Black participants (Cramer's  $V = 0.11$ ) and Latinx participants (Cramer's  $V = 0.18$ ) were similarly considered to be of small but meaningful practical significance.

Given the result showing no significant difference in purpose as a function of age—which runs counter to much of the existing literature in this domain—we ran an additional correlation analysis testing the relation between Ryff's (1989) PIL and age. Interestingly, the result showed a small but statistically significant (at the literature-informed critical  $p$ -level of .05) *positive* relationship between the Ryff PIL and age ( $r = .06$ ,  $p = .03$ ) across the overall sample. Notably, the scores on the Ryff PIL and age were not related in the midlife subsample ( $r = .01$ ,  $p = .68$ ), but trended toward significance in the smaller later life subsample ( $r = .08$ ,  $p = .09$ ).

### Relations between Purpose and Self-Reported Health Status

Relations between purpose and self-reported health status were investigated via independent samples  $t$ -tests, comparing mean levels of self-reported health between the purpose group and the non-purpose group. The three participants who responded "Don't know/Prefer not to answer" on self-reported health were dropped from this analysis. The results for the

**Table 2.** MANOVA and Follow-up ANOVA Results for Indicators of Positive Development.

Indicator of Positive Development	Overall sample ( $N = 1198$ )		Midlife subsample ( $n = 799$ )		Later life subsample ( $n = 399$ )	
	Multivariate $F = 53.24$ $\eta^2 = .21$		Multivariate $F = 37.83$ $\eta^2 = .22$		Multivariate $F = 17.59$ $\eta^2 = .21$	
	$F$	Effect size ( $\eta^2$ )	$F$	Effect size ( $\eta^2$ )	$F$	Effect size ( $\eta^2$ )
Life satisfaction	70.68	0.06	51.12	0.06	18.20	0.04
Generativity	228.48	0.16	169.41	0.18	60.52	0.13
Gratitude	124.82	0.09	78.14	0.09	46.76	0.10
Personal growth	150.51	0.11	94.85	0.11	56.37	0.12
Wisdom	129.58	0.10	108.38	0.12	24.06	0.06
Empathy	148.68	0.11	100.20	0.11	47.34	0.11

Note. All effects are significant at  $p < .001$ .

**Table 3.** Means, Standard Deviations, and 95% Confidence Intervals for Purpose vs. Non-Purpose for the Overall Sample.

Indicator of Positive Development	Purpose $M$ ( $SD$ )	Non-Purpose $M$ ( $SD$ )	Purpose 95% CI	Non-Purpose 95% CI
Life satisfaction	4.82 (1.34)	4.08 (1.42)	4.67-4.96	3.99-4.18
Generativity	3.87 (0.73)	3.11 (0.83)	3.79-3.95	3.06-3.17
Gratitude	6.04 (0.87)	5.32 (1.09)	5.93-6.14	5.25-5.39
Personal growth	5.44 (0.95)	4.60 (1.15)	5.32-5.55	4.52-4.67
Wisdom	5.69 (0.78)	5.05 (0.94)	5.60-5.78	4.99-5.11
Empathy	4.40 (0.61)	3.85 (0.77)	4.33-4.48	3.80-3.90

Note.  $N = 1198$ . Scale ranges for each variable were from 1 to 7. All mean differences are significant at  $p < .001$ .

overall sample showed no statistically significant difference in self-reported health for the purpose group ( $M = 3.17$ ,  $SD = 1.07$ ) compared to the non-purpose group ( $M = 3.06$ ,  $SD = .99$ );  $t(1193) = 1.68$ ,  $p = .09$ , Cohen's  $d = 0.10$ . Similarly, the results for the midlife and later life subsamples showed no statistically significant difference in self-reported health for the purpose group (midlife:  $M = 3.18$ ,  $SD = 1.11$ ; later life:  $M = 3.17$ ,  $SD = 1.02$ ) compared to the non-purpose group (midlife:  $M = 3.02$ ,  $SD = 1.04$ ; later life:  $M = 3.18$ ,  $SD = 0.92$ ); midlife:  $t(797) = 1.95$ ,  $p = .05$ , Cohen's  $d = 0.14$ ; later life:  $t(397) = 0.04$ ,  $p = .97$ , Cohen's  $d = 0.00$ .

### Relations between Purpose and Indicators of Positive Development

To address the third research objective, we explored relations between our operationalization of purpose and the selected indicators of positive development through a one-way multivariate analysis of variance (MANOVA), with purpose (versus non-purpose) as the independent variable and the six indicators of positive development as the dependent variables. We ran separate MANOVAs for the overall sample, and the midlife and later life subsamples.<sup>5</sup> As shown in

Table 2, the overall sample one-way MANOVAs revealed significant multivariate main effects for purpose for the overall sample (Wilks'  $\lambda = .79$ ,  $F(6, 1191) = 53.42$ ,  $p < .001$ ,  $\eta^2 = .21$ ), midlife subsample (Wilks'  $\lambda = .78$ ,  $F(6, 792) = 37.83$ ,  $p < .001$ ,  $\eta^2 = .22$ ), and later life subsample (Wilks'  $\lambda = .79$ ,  $F(6, 391) = 17.59$ ,  $p < .001$ ,  $\eta^2 = .21$ ).

Given the statistical significance of the overall tests, the univariate main effects were examined via follow-up one-way ANOVAs. As also shown in Table 2, the effects were statistically significant for each of the indicators of positive development. All partial eta squared statistics were in the .04-.13 range suggested by Cohen (1988) to be considered of medium practical significance, with the exception of the overall effects ( $\eta^2 \geq .21$ ) as well as the effects for generativity for the overall sample ( $\eta^2 = .16$ ) and midlife subsample ( $\eta^2 = .18$ ) which are considered large practical effect sizes (see also Vacha-Haase & Thompson, 2004). Additionally, we calculated the mean differences between the purpose and non-purpose groups for each indicator of positive development for the overall sample and two subsamples; these differences are reported in Tables 3-5.

To explore the potential unique contribution of purpose, as we have defined it, in explaining variation in the indicators of positive development beyond that explained by a traditional measure of a generalized sense of meaning/purposefulness (i.e., Ryff's (1989) Purpose in Life (PIL) scale), we reran the abovementioned MANOVAs as MANCOVAs that similarly explored the relations among purpose and the selected indicators of positive development, while including

<sup>5</sup>For the overall sample MANOVA and its accompanying MANCOVA, we also ran a MANCOVA controlling for the demographic variables found to be statistically significant in the preceding set of analyses (i.e., gender, race/ethnicity, and highest level of education); additionally, for the midlife subsample MANOVA and its accompanying MANCOVA, we ran a MANCOVA controlling for race/ethnicity. None of results of any of these MANCOVAs substantively or statistically changed the nature or interpretation of the results, so they are not reported.



**Table 4.** Means, Standard Deviations, and 95% Confidence Intervals for Purpose vs. Non-Purpose for the Midlife Subsample.

Indicator of Positive Development	Purpose <i>M</i> ( <i>SD</i> )	Non-Purpose <i>M</i> ( <i>SD</i> )	Purpose 95% CI	Non-Purpose 95% CI
Life satisfaction	4.70 (1.42)	3.92 (1.42)	4.52-4.88	3.80-4.04
Generativity	3.91 (0.73)	3.10 (0.84)	3.82-4.01	3.02-3.16
Gratitude	5.95 (0.96)	5.22 (1.12)	5.83-6.07	5.12-5.31
Personal growth	5.43 (1.01)	4.57 (1.19)	5.30-5.56	4.47-4.67
Wisdom	5.74 (0.78)	5.00 (0.96)	5.64-5.84	4.92-5.08
Empathy	4.39 (0.62)	3.83 (0.78)	4.32-4.47	3.76-3.89

Note. *n* = 799. Scale ranges for each variable were from 1 to 7. All mean differences are significant at  $p < .001$ .

**Table 5.** Means, Standard Deviations, and 95% Confidence Intervals for Purpose vs. Non-Purpose for the Later Life Subsample.

Indicator of Positive Development	Purpose <i>M</i> ( <i>SD</i> )	Non-Purpose <i>M</i> ( <i>SD</i> )	Purpose 95% CI	Non-Purpose 95% CI
Life satisfaction	5.02 (1.17)	4.43 (1.36)	4.82-5.22	4.26-4.59
Generativity	3.78 (0.73)	3.14 (0.80)	3.66-3.91	3.05-3.24
Gratitude	6.19 (0.66)	5.53 (1.01)	6.08-6.30	5.41-5.65
Personal growth	5.44 (0.84)	4.65 (1.06)	5.30-5.59	4.52-4.78
Wisdom	5.60 (0.77)	5.16 (0.89)	5.47-5.74	5.06-5.27
Empathy	4.42 (0.59)	3.90 (0.75)	4.31-4.52	3.81-3.99

Note. *n* = 399. Scale ranges for each variable were from 1 to 7. All mean differences are significant at  $p < .001$ .

**Table 6.** MANCOVA and Follow-up ANCOVA Results for Indicators of Positive Development, Controlling for Ryff (1989) Purpose in Life Subscale Scores.

Indicator of Positive Development	Overall sample ( <i>N</i> = 1198)		Midlife subsample ( <i>n</i> = 799)		Later life subsample ( <i>n</i> = 399)	
	Purpose multivariate $F = 39.50$ , $\eta^2 = .17$		Purpose multivariate $F = 30.70$ , $\eta^2 = .19$		Purpose multivariate $F = 10.93$ , $\eta^2 = .14$	
	<i>F</i>	Effect size ( $\eta^2$ )	<i>F</i>	Effect size ( $\eta^2$ )	<i>F</i>	Effect size ( $\eta^2$ )
Life satisfaction	27.39	0.02	24.83	0.03	3.11	0.01
Generativity	156.67	0.12	126.87	0.14	33.51	0.08
Gratitude	62.18	0.05	43.23	0.05	18.48	0.04
Personal growth	75.45	0.06	54.26	0.06	22.82	0.05
Wisdom	69.93	0.06	70.40	0.08	6.66	0.02
Empathy	109.10	0.08	75.89	0.09	33.15	0.08

Note. All effects significant at  $p < .001$ , except for wisdom ( $p = .01$ ) and life satisfaction ( $p = .08$ ) in the later life subsample.

the PIL scale scores as a covariate. The MANCOVA results, as presented in Table 6, showed significant contributions of the present operationalization of purpose to the indicators of positive development over and above that of the PIL for the overall sample and both subsamples. Follow-up one-way ANCOVAs exploring the univariate main effects showed that purpose explained significant unique variance, above and beyond the PIL scores, in each of the selected indicators of positive development as well for the overall sample and both subsamples, with two exceptions in the later life subsample (wisdom fell just short of the .006 critical  $p$ -level at  $p = .01$ , and life satisfaction was not significantly related to purpose).

## Discussion

The overarching objective of the present study was to explore how purpose—defined as the commitment to and pursuit of beyond-the-self-oriented life goals—operates in midlife and later life. Whereas purpose has been the focus of much investigation in adolescence and early adulthood, the development and function of the construct is poorly understood in later

adulthood. The present work explored a large, nationally representative survey sample to better understand the prevalence of purpose in mid- and later life and to provide preliminary evidence about how the prevalence of purpose differs as a function of various demographic characteristics as well as how it relates to a set of indicators of positive adaptation and development.

## Prevalence of Purpose

We found that purpose is present in 31% of our overall sample, including three in ten in the midlife subsample and one-third of the later life subsample. This figure is higher than the 20% prevalence found in research on adolescents (Damon, 2008; Bronk, 2013), though some previous research has shown a similar prevalence among young adults (Moran, 2009) suggesting the possibility of a developmental plateau in adulthood. Perhaps this is not surprising; with age—and the further development of one's self-knowledge and identity, as well as the greater maturity, wisdom, experience, and opportunity that accompany it—one is quite naturally more likely to identify, commit to,

and pursue one's life goals. The present study did not investigate the mechanisms through which participants arrived at their purposes or to what degree processes such as self-reflection or social cohesion may have led them to become more purposeful. For that reason, we can only speculate here about why some are meaningfully engaging in the pursuit of purposeful goals, while others are not. Certainly, this is an area ripe for future inquiry. That said, given the prevailing stereotypes of older people as not actively engaged in contributing to the world beyond themselves, along with the high bar we set for categorizing respondents as purposeful, it is encouraging that a substantial proportion of people aged 50 and over are meaningfully engaged in the pursuit of beyond-the-self-oriented life goals.

At the same time, given the centrality of purpose in positive adaptation, the fact that nearly 7 in 10 older people are *not* purposeful suggests there is still important work to do. There are numerous possible explanations for why most people in their later years are not actively pursuing a personally meaningful, self-transcendent life goal, including the pressures of a broader societal orientation that values a relaxing, self-focused retirement; individuals' lack of understanding of the developmental importance of generative pursuits in later life; limited knowledge of accessible opportunities for purposeful engagement; or psychological barriers such as the belief that it is "too late in life" to pursue what may be perceived as such a lofty aspiration.

### ***Purpose is Broadly Accessible in Later Life***

Our exploratory analyses provide evidence that, in general, purpose does not meaningfully vary as a function of health status or demographic characteristics, with the notable exception of the race/ethnicity analyses showing a higher prevalence of purpose for people of color relative to White participants. This general absence of practically significant differences in health status and on most demographic variables suggests purpose is widely accessible to people of all backgrounds, all ages across the spectrum of later life, the full range of socioeconomic statuses, and both men and women; and that being in poor health need not prevent purposeful pursuits. Moreover, one notable takeaway from the present findings is that, in most ways, purpose appears to function similarly in midlife and later life. These insights are important in the context of common (mis)conceptions that purpose development occurs solely in the younger years, and

that purpose is primarily in the purview of the privileged; or, conversely, that pursuing one's purpose provides a pathway to financial success (Corley, 2016). The present results suggest that purpose is no more common among the economically well-off than those of lesser means, and the opportunities afforded by higher education are unlikely to make much functional difference in the likelihood of finding and actualizing meaningful, stable, self-transcendent goals. Deepening our understanding of these striking findings is fertile ground for future research, in particular qualitative work through which to illuminate the roles of participants' intentions, rationales, and life experiences in shaping their purpose trajectories.

It is noteworthy that the relative absence of statistically or practically significant demographic differences in the prevalence of purpose does not align with findings of previous related research in which purpose is conceptualized as a broader, more subjective *sense* of how meaningful or purposeful one's life feels. Given the large size and high quality of our sample (i.e., nearly 1200 participants in a nationally representative sample) and the rigor with which the survey operationalization of purpose was constructed (i.e., with careful representation of the full dimensionality of the Damon et al. (2003) definition, and strong agreement with interview-based categorizations based on an established coding scheme for a subset of participants as described in Bundick, Remington, Morton, and Colby (2017), we believe our null results regarding demographic differences represent meaningful and important findings. That is, the differences in the conceptualization of purpose between previous work and the present study likely reflect meaningfully different understandings and experiences of purpose in the lives of the participants. To the extent that this is the case, the present findings should not necessarily be expected to align with previous findings that are based on different conceptualizations of purpose.

At the same time, we recognize there are other possible explanations for these non-significant findings. One explanation is statistical: In contrast to the operationalizations of purpose-like constructs in other research that typically involved continuous measures, the present study operationalized purpose dichotomously, which can reduce the likelihood of finding meaningful effects (MacCallum, Zhang, Preacher, & Rucker, 2002). We believe, however, that this approach was critical in allowing us to capture the multidimensionality of purpose in a single variable (i.e., requiring each of the criteria of purpose—presence of an important life goal, the beyond-the-self

nature of that goal, and commitment to that goal—in order to categorize a respondent as purposeful). This was necessary in order to investigate the construct in its full form. In this context, it is notable that the dichotomous nature of our purpose assessment did not prevent statistically significant associations with other constructs we measured, an indication that the absence of differences on the demographic and self-reported health variables is likely not an artifact of inadequate instrumentation or measurement error.

It is also important to note that, whereas the present analyses did not directly investigate the content of participants' life goals, another possible explanation for the absence of many demographic differences is that many beyond-the-self-oriented life aims are widely accessible, such as the commitment to contribute to one's community, to teach others the valuable life lessons one has learned, or to simply interact with others on a day-to-day basis with the intent to spread joy or intentionally reflect one's own spiritual or religious codes. Some paths toward actualizing *particular* self-transcendent life aims may be more readily pursued in the context of greater resources (such as aspirations related to certain career domains that require the means and time to pursue advanced degrees, such as pediatric medicine or early childhood education), but the underlying life aim itself (in this example, improving the lives of children) likely has myriad alternate paths toward its actualization (e.g., volunteering with kids through a church or other local community organization). Further study of the potential effects of demographic factors in relation to purpose is warranted. However, if the present results' lack of practical differences in purpose as a function of age (for those 50+), gender, marital/partnership status, level of education, location of residence, income, retirement status, and health status prove to be robust phenomena, we believe this constitutes one of the most potentially important findings of our investigation: that purpose is, generally speaking, accessible to people in their later years from the full variety of backgrounds and in a very wide array of circumstances. If this is so, it is incumbent upon researchers and practitioners of later life development to test and effectuate interventions that are similarly universally accessible.

### **Purpose and Race/Ethnicity**

The one demographic finding of the present work showing statistically and practically significant differences in purpose—the role of race/ethnicity—contributes to a small but growing body of research suggesting a higher prevalence of purpose and related

constructs for people of color, including older adults. For example, Hart et al. (2001) found levels of generativity were higher for African-American middle-to-late adults compared to Whites when controlling for education and income; and Ko et al. (2016) found that levels of purpose (as measured by Ryff's (1989) PIL subscale) were higher for older African American adults, relative to Whites. Ko et al. suggested, as one possible (though partial) explanation, that higher levels of purpose for African Americans in their study could be related to the fact that, on average, mean levels and the identity centrality of religiosity are higher among people of color (see Chatters, Nguyen, & Taylor, 2014), and religiosity has been shown to be related to purpose (see Krause, 2008). Whereas religiosity may play a mediating role, there are other possible explanations for a higher prevalence of purpose among people of color in later life. For example, people of color may be more likely to be invested in the well-being of their communities (Smith, 1994; cf. Wilson & Musick, 1997), which in turn may provide them more frequent, socially desirable avenues toward self-transcendent engagement as well as a general sense of purpose (Thoits, 1983). Another possibility is that older people of color may be more likely than Whites to feel a need and responsibility to pass on to their children and community youth what they have learned from their own life experience about how to successfully navigate the challenges presented by racial discrimination (Hughes, Rodriguez, Smith, Johnson, Stevenson, & Spicer, 2006). Whereas there is growing attention to these potential racial/ethnic differences in purpose, Bronk (2013) concluded in her thorough review of the literature on purpose that research on the experiences of purpose in diverse groups is sorely lacking. We join her in calling for a more robust research agenda among investigators of purpose to better understand the degree to which experiences and contexts related to race and ethnicity play a role in the development of purpose, in later life as well as earlier in the life span.

### **Purpose and Positive Development**

The results presented here strongly suggest important relations between purpose and positive adaptation and development in later life, as evidenced in the statistically significant findings (with medium-to-large effect sizes) regarding purpose and several indicators of positive development. Most of these relations were statistically significant even when controlling for a well-established measure of general sense of purpose,

Ryff's Purpose in Life subscale (1989), and most of their effect sizes remained in the medium-to-large range. Whereas common method bias may have come into play for some of the variables, the significant relations between purpose and indicators of positive development cannot be dismissed as mere artifacts of item overlap. The items used to assess purpose were designed to be specific to the construct and focused on the nature of each of the identified life goals in particular, whereas the indicators of positive development scales asked about experiences related specifically to those constructs (e.g., broad life evaluation, orientations toward growth or generative behaviors, and the like). None of the items for any of the positive adaptation and development measures match any of the aspects our measure of purpose.

We believe the relations between purpose and these indicators of positive development provide evidence of the potential adaptive power of having and pursuing a beyond-the-self purpose. Whereas the present study does not permit causal inferences, the directionality of many of the effects may be plausibly understood to flow, at least in part, from the presence of purpose to the increased likelihood of positive development in other areas. There is some evidence for this in the literature: One longitudinal study investigating the directionality of relations between generativity and purpose among older people failed to provide support for a generativity-to-purpose pathway, leaving open the possibility of a purpose-to-generativity pathway (Ko et al., 2016). In a purpose-to-generativity scenario, one who is actively engaged in the pursuit of one's purpose is likely to feel and understand oneself as generative as a result of witnessing the fruits of that action. For example, when a youth leader—whose purpose is to lead and inspire young people—organizes a group of adolescents at a community center to clean up a local neighborhood, she helps to improve the living conditions in the community and promotes positive developmental outcomes for the youth, thereby increasing her own sense of generativity.

At the same time, some of the effects investigated in the present paper may not a priori have as obvious a direction flowing from purpose. For example, people who are wise may be more likely to have the requisite self-knowledge for identifying a purpose, and the relations between purpose and life satisfaction are likely to be bidirectional (Steger & Kashdan, 2007). Since the present study wasn't designed to explore the directionality of effects, we heartily encourage future longitudinal and experimental research on purpose in later life to examine these critical developmental questions.

### **Study Limitations and Future Directions for Research**

As noted by other purpose scholars (e.g., Damon, 2008), quantitative studies in this domain cannot fully capture the complexities and multidimensionality of purpose. We acknowledge that the present survey operationalization of purpose can only approximate the presence or absence of the construct's components. We have noted the disadvantages of a dichotomous rather than continuous measure. At the same time, we believe our approach has greater fidelity to the multiple dimensions of our conceptualization of purpose than existing measures, resulting in a trade-off sacrificing some measurement precision for greater construct validity. Additionally, our method for assessing purpose relies on general categories of purposeful goals (e.g., "Teach what I've learned in life to others"), not more specific aspirations (e.g., "Educate the youth of my community about the importance of environmental sustainability"). Consequently, some respondents may have felt that a specific purpose to which they are committed was not represented in our categories, or might fit into multiple categories (though we did try to protect against this through extensive pilot testing of the purpose categories). A potentially fruitful, though more resource-intensive approach to assessing purpose in future research might involve a more qualitative approach, such as including open-ended survey questions that could be coded for the purpose dimensions (e.g., Bundick & Moran, 2016), in-depth semi-structured interviews (e.g., Colby, Bundick, Remington, & Morton, *in press*), or mixed-methods approaches (e.g., Yeager, Bundick, & Johnson, 2012). Aside from the potential benefits of increased validity of assessment, integrating qualitative data also would allow for a deeper understanding of the developmental underpinnings of individuals' purposeful orientations and aims, and further elucidate the contextual affordances and barriers related to their purposeful pursuits.

Future research would also benefit from integrating more robust indicators of positive later life development, such as those in Baltes and Baltes' (1990) and Rowe and Kahn's (1997) prominent models of successful aging, components of Ryff's (1989) and Seligman's (2011) models of adult psychological well-being, and the components of Carstensen's (2009; Carstensen, Isaacowitz, & Charles, 1999) Socioemotional Selectivity Theory of motivation and aging. Moreover, particular indicators—such as generativity and wisdom—could be conceptualized in more complex, multifaceted ways (Gluck et al., 2013; McAdams & de St. Aubin, 1992).



Given these various models of successful aging and conceptualizations of positive development later in life, further exploration of their relations with purpose is needed.

Of course, as with any developmental phenomenon, a single, point-in-time assessment only provides a snapshot, and analyses of such data do not warrant causal conclusions. The exploratory nature of the present study was not intended to provide a strong basis for developmental or causal claims; however, we hope that it provides a launching point for longitudinal studies across the later adult years that will shed further light on the development of purpose and the directionality of effects between purpose and other aspects of positive development.

In the future, person-centered analyses, rather than the more traditional variable-centered approach this paper employed, could contribute to a more nuanced understanding and measurement of the full dimensionality of purpose. For example, latent class and latent profile analytical approaches could enable researchers to identify meaningful purpose subgroups based on the presence or absence of purposeful goals, self-oriented goals, and degree of active pursuit of these goals. Examining these subgroups could then reveal the prominent characteristics of the group; for example, a subgroup could exist with members who have purposeful or self-oriented goals but are not actively pursuing them. Identifying the optimal number of subgroups based on the data would preclude researchers having to place participants in conceptually defined groups using cut-offs that, while well-reasoned, might not reflect the participants' experiences. These subgroups then could be included in analyses to better understand how the groups differ with regard to demographic characteristics, health status, relations with indicators of positive development, and the like.

Moreover, these types of mixture models might permit an even more nuanced understanding of how the various dimensions of purpose operate within individuals. It is likely that those we categorized as non-purposeful in the present study comprise meaningfully different subgroups, such as those who are actively pursuing self-oriented goals and those who are not pursuing any goals. It is also possible that those we categorized as purposeful may include subgroups of those pursuing *only* beyond-the-self life goals as well as those simultaneously pursuing purposeful- *and* self-oriented life goals. The more nuanced understanding that may come from such "purpose profiles" may in turn help us understand

how people with different profiles may be more or less receptive to different kinds of purpose-related interventions, which could be extremely valuable for practitioners working with older adults.

### **Implications for Practice**

The present study has a number of practical and clinical implications. At the broadest level, the finding that roughly one-third of older adults in our sample have identified and are actively pursuing meaningful, beyond-the-self-oriented purposes provides clear evidence that the stereotype of older adults as mired in decline or focused entirely on leisure and self-focused activities is not an accurate account for a significant portion of the population. Disabusing the public of this notion may go a long way toward reorienting societal views away from the still-prevalent negative views of aging and older people as a social and economic burden and toward a more strengths-based perspective focused on the myriad contributions older adults can make to society and their communities. This kind of societal reorientation would likely foster greater awareness of and engagement in prosocial activities among older people, with resulting benefits both to them and to society (Freedman, 2007). Prior research on these issues supports this expectation that a shift in perceptions of older people can be beneficial. For example, people who hold more positive views of aging are likely to live longer (Levy, Slade, Kunkel, & Kasl, 2002). Changing public perceptions toward a greater appreciation of older adults' real and potential contributions might also hold promise for reducing bias against older adults, which is widespread and well-documented (Nelson, 2017).

There are many programs in the United States designed to provide opportunities for older people to remain engaged and contribute to the world, such as the Corporation for National and Community Service's Senior Corps programs and Encore.org's Generation to Generation program. Experience Corps, an AARP-affiliated intergenerational program designed to provide older adults opportunities to volunteer in public elementary schools, has been found to confer both academic benefits to the elementary students it serves (Lee, Morrow-Howell, Jonson-Reid, & McCrary, 2012) and physical and mental health benefits to the adult participants (Fried et al., 2004).

Additionally, mental health professionals and those working in senior living facilities might take heed of the value in promoting purpose among older adults. Therapeutic approaches such as narrative therapy,

logotherapy, and meaning-centered therapies have been shown to promote purpose exploration and meaning development (Wong, 2012). Assisted living facilities have been shown to provide unique opportunities to engage their residents in intentional reflection on their life's meaning and contribution to their communities (Yamasaki & Sharf, 2011). Increasing the awareness of older adults, and those who support them, of these kinds of opportunities for reflection and engagement may be valuable for the actualization of their purposeful life goals already identified, as well as a means for exploring new paths.

## Conclusion

The present investigation extends the study of purpose—understood as the presence of beyond-the-self-oriented, actively pursued life goals—from its previous focus on adolescents and younger adults into midlife and later adulthood. The findings from this work about the prevalence of purpose among older adults, differences (or relative lack thereof) in demographic characteristics and health status in the prevalence of purpose in later life, and the relations among purpose and a host of indicators of positive adaptation and development in life's later years, lay a solid foundation upon which to build a research agenda for future investigation, as well as provide preliminary insights for practitioners in the fields of aging and later adult development.

## Funding

This research was supported in part by a grant from the John Templeton Foundation.

## ORCID

Emily Morton  <http://orcid.org/0000-0003-3662-8556>

## References

- Agresti, A. (2007). *An introduction to categorical data analysis* (2nd ed.). Hoboken, NJ: Wiley. doi:10.1002/9780470114759.ch11
- Baltes, P. B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental Psychology*, 23, 611–626. doi:10.1037//0012-1649.23.5.611
- Baltes, P. B., & Baltes, M. M. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 1–34). New York: Cambridge University Press. doi:10.1017/cbo9780511665684.003
- Baumeister, R. F., & Vohs, K. (2002). The pursuit of meaningfulness in life. In C. R. Snyder & S. Lopez (Eds.), *Handbook of positive psychology* (pp. 608–618). New York: Oxford.
- Boyle, P. A., Barnes, L. L., Buchman, A. S., & Bennett, D. A. (2009). Purpose in life is associated with mortality among community-dwelling older persons. *Psychosomatic Medicine*, 71, 574–579. doi:10.1097/PSY.0b013e3181a5a7c0
- Brandtstadter, J., & Lerner, R. M. (Eds.) (1999). *Action and self-development: Theory and research through the life span*. Thousand Oaks, CA: Sage. doi:10.4135/9781452204802
- Braun, S., Rosseel, Y., Kempenaers, C., Loas, G., & Linkowski, P. (2015). Self-report of empathy: a shortened French adaptation of the interpersonal reactivity index (IRI) using two large Belgian samples. *Psychological Reports*, 117(3), 735–753. doi:10.2466/08.02.PR0.117c23z6
- Brim, O. G., Ryff, C. D., & Kessler, R. C. (Eds.) (2004). *The MIDUS national survey: An overview*. Chicago, IL: University of Chicago Press. doi:10.4135/9781452204802
- Bronk, K. C. (2013). *Purpose in life: A critical component of optimal youth development*. New York: Springer. doi:10.1007/978-94-007-7491-9
- 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, 500–510. doi:10.1080/17439760903271439
- Bundick, M. J. (2011). The benefits of reflecting on and discussing purpose in life in emerging adulthood. *New Directions in Youth Development*, 132, 89–104. doi:10.1002/yd.430
- Bundick, M. J., & Moran, S. M. (2016, December). *Using Decision Trees to Create Multidimensional Profiles of Purpose*. Paper session presented at the Annual Meeting of the Association for Moral Education, Cambridge, MA.
- Bundick, M. J., & Tirri, K. (2014). Student perceptions of teacher support and competencies for fostering youth purpose and positive youth development: Perspectives from two countries. *Applied Developmental Science*, 18, 148–162. doi:10.1080/10888691.2014.924357
- Bundick, M. J., Remington, K., Morton, E., & Colby, A. (2017, November). A New Measure of Purpose in Adults: Capturing the Multidimensional Nature of Purpose. Paper session presented at the Annual Meeting of the Association for Moral Education, St. Louis, MO.
- Burrow, A. L., O'Dell, A. C., & Hill, P. L. (2010). Profiles of a developmental asset: Youth purpose as a context for hope and well-being. *Journal of Youth and Adolescence*, 39(11), 1265–1273. doi:10.1007/s10964-009-9481-1
- Carstensen, L. L. (2009). *A long bright future: An action plan for a lifetime of happiness, health, and financial security*. New York, NY: Harmony.
- Carstensen, L. L., & Charles, S. T. (2003). Human aging: Why is even good news taken as bad? In L. G. Aspinwall & U. M. Staudinger (Eds.), *A psychology of human strengths: Fundamental questions and future directions for a positive psychology* (pp. 75–86). Washington, DC: American Psychological Association. doi:10.1037/10566-006

- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, 54(3), 165–181. doi:10.1037//0003-066X.54.3.165
- Chatters, L. M., Nguyen, A. W., & Taylor, R. J. (2014). Religion and spirituality among older African Americans, Asians, and Hispanics. In K. Whitfield & T. Baker (Eds.), *Handbook of minority aging* (pp. 47–64). New York, NY: Springer.
- Cheng, S. T. (2009). Generativity in later life: Perceived respect from younger generations as a determinant of goal disengagement and psychological well-being. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 64(1), 45–54. doi:10.1093/geronb/gbn027
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum. [Mismatch] doi:10.4324/9780203771587
- Colby, A., Bundick, M. J., Remington, K., & Morton, E. (in press). Moral flourishing in later life through purpose beyond the self. In L. A. Jensen (Ed.), *The Oxford handbook of moral development: An interdisciplinary perspective*. New York, NY: Oxford University Press.
- Corley, T. (2016). *Change your habits, change your life: Strategies that transformed 177 average people into self-made millionaires*. Minneapolis, MN: North Loop Books.
- Costa, D. L. (2005). Causes of improving health and longevity at older ages: A review of the explanations. *Genus*, LXI(1), 21–38.
- Curtin, S. C., Warner, M., & Hedegaard, H. (2016). *Increase in suicide in the United States, 1999–2014*. (NCHS Data Brief No. 241). Hyattsville, MD: National Center for Health Statistics.
- Damon, W. (2008). *The path to purpose: How young people find their calling in life*. New York, NY: Free Press.
- Damon, W. (2009). The why question: Teachers can instill a sense of purpose. *Education Next*, 9(3), 84–85.
- Damon, W., Menon, J., & Bronk, K.C. (2003). The development of purpose during adolescence. *Applied Developmental Science*, 7(3), 119–128. doi:10.1207/S1532480XADS0703\_2
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology*, 10, 85. doi:10.1037//0022-3514.44.1.113
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126. doi:10.1037//0022-3514.44.1.113
- Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49(1), 71–75. doi:10.1207/s15327752jpa4901\_13
- Dik, B. J., Steger, M. F., Gibson, A., & Peisner, W. (2011). Make Your Work Matter: Development and pilot evaluation of a purpose-centered career education intervention. *New Directions for Student Leadership*, 2011(132), 59–73. doi:10.1002/yd.428
- Dychtwald, K., & Kadlec, D. J. (2010). *A new purpose: Redefining money, family, work, retirement, and success*. New York, NY: Harper Collins.
- Erikson, E.H. (1968). *Identity: Youth, and crisis*. New York, NY: Norton.
- Emmons, R. A. (1999). *The psychology of ultimate concerns: Motivation and spirituality in personality*. New York, NY: Guilford Press.
- The Federal Interagency Forum on Aging-Related Statistics. (2016). *Older Americans 2016: Key indicators of well-being*. Washington, DC: US Government Printing Office.
- Freedman, M. (2007). *Encore: Finding work that matters in the second half of life*. New York, NY: Public Affairs.
- Freedman, M. (2011). *The big shift: Navigating the new stage beyond midlife*. New York, NY: Public Affairs.
- Fried, L. P., Carlson, M. C., Freedman, M., Frick, K. D., Glass, T. A., Hill, J., ... & Wasik, B. A. (2004). A social model for health promotion for an aging population: Initial evidence on the Experience Corps model. *Journal of Urban Health*, 81(1), 64–78. doi:10.1093/jurban/jth094
- Glück, J., König, S., Naschenweng, K., Redzanowski, U., Dorner, L., Straßer, I., & Wiedermann, W. (2013). How to measure wisdom: Content, reliability, and validity of five measures. *Frontiers in Psychology*, 4, 1–13. doi:10.3389/fpsyg.2013.00405
- Hart, H. M., McAdams, D. P., Hirsch, B. J., & Bauer, J. J. (2001). Generativity and social involvement among African Americans and white adults. *Journal of Research in Personality*, 35(2), 208–230. doi:10.1006/jrpe.2001.2318
- Heisel, M. J., Neufeld, E., & Flett, G. L. (2016). Reasons for living, meaning in life, and suicide ideation: Investigating the roles of key positive psychological factors in reducing suicide risk in community-residing older adults. *Aging & Mental Health*, 20(2), 195–207. doi:10.1080/13607863.2015.1078279
- Hill, P. L., & Burrow, A. L. (2012). Viewing purpose through an Eriksonian lens. *Identity*, 12(1), 74–91. doi:10.1080/15283488.2012.632394
- Hill, P. L., Edmonds, G. W., Peterson, M., Luyckx, K., & Andrews, J. A. (2016). Purpose in life in emerging adulthood: Development and validation of a new brief measure. *The Journal of Positive Psychology*, 11(3), 237–245. doi:10.1080/17439760.2015.1048817
- Hill, P. L., & Turiano, N. A. (2014). Purpose in life as a predictor of mortality across adulthood. *Psychological Science*, 25, 1482–1486. doi:10.1177/0956797614531799
- Hill, P. L., Turiano, N. A., Spiro III, A., & Mroczek, D. K. (2015). Understanding inter-individual variability in purpose: Longitudinal findings from the VA Normative Aging Study. *Psychology and Aging*, 30, 529–533. doi:10.1037/pag0000020
- Hughes, D., Rodriguez, J., Smith, E. P., Johnson, D. J., Stevenson, H. C., & Spicer, P. (2006). Parents' ethnic-racial socialization practices: A review of research and directions for future study. *Developmental Psychology*, 42, 747–770. doi:10.1037/0012-1649.42.5.747
- Kasser, T., & Ryan, R. M. (2001). Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. In P. Schmuck & K. Sheldon (Eds.) *Life goals and well-being: Towards a positive psychology of human striving* (pp. 116–131). Gottingen, Germany: Hogrefe & Huber.
- Kessler, R. C., Barber, C., Beck, A., Berglund, P., Cleary, P. D., McKenas, D., ... & Wang, P. (2003). The world



- health organization health and work performance questionnaire (HPQ). *Journal of Occupational and Environmental Medicine*, 45(2), 156–174.
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, 43, 207–222. doi:10.2307/3090197
- Keyes, C. L. M., & Ryff, C. D. (1998). Generativity in adult lives: Social structural contours and quality of life consequences. In D. P. McAdams & E. de St. Aubin (Eds.), *Generativity and adult development: How and why we care for the next generation* (pp. 227–263). Washington, D.C.: American Psychological Association. doi:10.1037/10288-007
- Klinger, E. (1977). *Meaning and void: Inner experience and the incentives in people's lives*. Minneapolis, MN: University of Minnesota Press.
- Ko, H. J., Hooker, K., Geldhof, G. J., & McAdams, D. P. (2016). Longitudinal purpose in life trajectories: Examining predictors in late midlife. *Psychology and Aging*, 31, 693–698. doi:10.1037/pag0000093
- Kobau, R., Snizek, J., Zack, M. M., Lucas, R. E., & Burns, A. (2010). Well-being assessment: An evaluation of well-being scales for public health and population estimates of well-being among US adults. *Applied Psychology: Health and Well-Being*, 2(3), 272–297. doi:10.1111/j.1758-0854.2010.01035.x
- Koshy, S. I., & Mariano, J. M. (2011). Promoting youth purpose: A review of the literature. *New Directions for Student Leadership*, 2011(132), 13–29. doi:10.1002/yl.425
- Krause, N. (2007). Longitudinal study of social support and meaning in life. *Psychology and Aging*, 22(3), 456–469. doi:10.1037/0882-7974.22.3.456
- Krause, N. (2008). The social foundation of religious meaning in life. *Research on Aging*, 30, 395–427. doi:10.1177/0164027508316619
- Krosnick, J. A., & Presser, S. (2010). Questionnaire design. In J. D. Wright & P. V. Marsden (Eds.), *Handbook of survey research* (2nd ed). West Yorkshire, England: Emerald Group.
- Lawrence-Lightfoot, S. (2009). *The third chapter: Passion, risk and adventure in the 25 years after 50*. New York, NY: Farrar, Straus and Giroux.
- Leider, R. J., & Webber, A. M. (2013). *Life reimagined: Discovering your new life possibilities*. San Francisco, CA: Berrett-Koehler Publishers.
- Lee, Y. S., Morrow-Howell, N., Jonson-Reid, M., & McCrary, S. (2012). The effect of the Experience Corps<sup>®</sup> program on student reading outcomes. *Education and Urban Society*, 44(1), 97–118. doi:10.1177/0013124510381262
- Lerner, R. M., Overton, W. F., Lamb, M. E., & Freund, A. M. (2010). *Handbook of life-span development*. Hoboken, NJ: John Wiley & Sons. doi:10.1002/9780470880166
- Levy, B. R., Slade, M. D., Kunkel, S. R., & Kasl, S. V. (2002). Longevity increased by positive self-perceptions of aging. *Journal of Personality and Social Psychology*, 83, 261–270. doi:10.1037/0022-3514.83.2.261
- MacCallum, R. C., Zhang, S., Preacher, K. J., & Rucker, D. D. (2002). On the practice of dichotomization of quantitative variables. *Psychological Methods*, 7(1), 19–40. doi:10.1037/1082-989X.7.1.19
- McAdams, D. P., & de St Aubin, E. D. (1992). A theory of generativity and its assessment through self-report, behavioral acts, and narrative themes in autobiography. *Journal of Personality and Social Psychology*, 62, 1003–1015. doi:10.1037/0022-3514.62.6.1003
- McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82(1), 112–127. doi:10.1037/0022-3514.82.1.112
- McKnight, P. E. & Kashdan, T. B. (2009). Purpose in life as a system that creates and sustains health and well-being: An integrative, testable theory. *Review of General Psychology*, 13(3), 242–251. doi:10.1037/a0017152
- Miilunpalo, S., Vuori, I., Oja, P., Pasanen, M., & Urponen, H. (1997). Self-rated health status as a health measure: The predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. *Journal of Clinical Epidemiology*, 50, 517–528. doi:10.1016/S0895-4356(97)00045-0
- Moran, S. (2009). Purpose: Giftedness in intrapersonal intelligence. *High Ability Studies*, 20(2), 143–159. doi:10.1080/13598130903358501
- Moran, S., Bundick, M. J., Malin, H., & Reilly, T. S. (2013). How supportive of their specific purposes do youth believe their family and friends are? *Journal of Adolescent Research*, 28, 348–377. doi:10.1177/0743558412457816
- Musich, S., Wang, S. S., Kraemer, S., Hawkins, K., & Wicker, E. (2018). Purpose in life and positive health outcomes among older adults. *Population Health Management*, 21(2), 139–147. doi:10.1089/pop.2017.0063
- Nelson, T. D. (Ed.). (2017). *Ageism: Stereotyping and prejudice against older persons* (2nd ed.). Cambridge, MA: The MIT press.
- Newton, N. J. (2016). Generativity. In S. K. Whitbourne (Ed.), *The encyclopedia of adulthood and aging*. New York, NY: John Wiley & Sons. doi:10.1002/9781118521373.wbeaa055
- Oishi, S., & Diener, E. (2014). Residents of poor nations have a greater sense of meaning in life than residents of wealthy nations. *Psychological Science*, 25(2), 422–430. doi:10.1177/0956797613507286
- Padilla-Walker, L. M., & Nelson, L. J. (2015). Moral worldviews of religious emerging adults: Three patterns of negotiation between development and culture. In L. A. Jensen (Ed.), *Moral development in a global world: Research from a cultural-developmental perspective* (pp. 92–116). New York: Cambridge University Press. doi:10.1017/cbo9781139583787.006
- Pavot, W., & Diener, E. (2008). The satisfaction with life scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, 3(2), 137–152. doi:10.1080/17439760701756946
- Pinquart, M. (2002). Creating and maintaining purpose in life in old age: A meta-analysis. *Ageing International*, 27(2), 90–114. doi:10.1007/s12126-002-1004-2
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon and Schuster.



- Remillard, M. L., Mazor, K. M., Cutrona, S. L., Gurwitz, J. H., & Tjia, J. (2014). Systematic review of the use of online questionnaires of older adults. *Journal of the American Geriatrics Society*, 62(4), 696–705. doi:10.1111/jgs.12747
- Robitschek, C. (1998). Personal growth initiative: The construct and its measure. *Measurement and Evaluation in Counseling and Development*, 30, 183–198.
- Robitschek, C. (1999). Further validation of the Personal Growth Initiative Scale. *Measurement and Evaluation in Counseling and Development*, 31, 197–210.
- Rowe, J. W., & Kahn, R. L. (1997). Successful aging. *The Gerontologist*, 37, 433–440. doi:10.1093/geront/37.4.433
- 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, 1069–1081. doi:10.1037/0022-3514.57.6.1069
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719–727. doi:10.1037/0022-3514.69.4.719
- Ryff, C. D., Keyes, C. L., & Hughes, D. L. (2003). Status inequalities, perceived discrimination, and eudaimonic well-being: Do the challenges of minority life hone purpose and growth? *Journal of Health and Social Behavior*, 44(3), 275–291. doi:10.2307/1519779
- Ryff, C. D., Radler, B. T., & Friedman, E. M. (2015). Persistent psychological well-being predicts improved self-rated health over 9–10 years: Longitudinal evidence from MIDUS. *Health Psychology Open*, 2(2), 1–11. doi:10.1177/2055102915601582
- Ryff, C. D. & Singer, B. H. (1998). The role of purpose in life and personal growth in positive human health. In P. T. P. Wong and P. S. Fry (Eds.) *Human quest for meaning: A handbook of psychological research and clinical applications*, (pp. 213–235). Mahwah, NJ: Lawrence Erlbaum Associates.
- Seligman, M. E. (2011). *Learned optimism: How to change your mind and your life*. New York, NY: Vintage Books.
- Shin, J. Y., & Steger, M. F. (2014). Promoting meaning and purpose in life. In A. C. Parks & S. M. Schueller (Eds.), *The Wiley-Blackwell handbook of positive psychological interventions* (pp. 90–110). London, UK: Wiley-Blackwell. doi:10.1002/9781118315927.ch5
- Smith, D. H. (1994). Determinants of voluntary association participation and volunteering: A literature review. *Nonprofit and Voluntary Sector Quarterly* 23, 243–263. doi:10.1177/089976409402300305
- Springer, K. W., Pudrovskaya, T., & Hauser, R. M. (2011). Does psychological well-being change with age? Longitudinal tests of age variations and further exploration of the multidimensionality of Ryff's model of psychological well-being. *Social Science Research*, 40(1), 392–398. doi:10.1016/j.ssresearch.2010.05.008
- 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:10.1080/17439760802303127
- Steger, M. F., & Kashdan, T. B. (2007). Stability and specificity of meaning in life and life satisfaction over one year. *Journal of Happiness Studies*, 8(2), 161–179. doi:10.1007/s10902-006-9011-8
- 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
- Steinberg, L. (2014). *Age of opportunity: Lessons from the new science of adolescence*. New York, NY: Eamon Dolan/Houghton Mifflin Harcourt.
- Thoits, P. A. (1983). Multiple identities and psychological well-being: A reformulation and test of the social isolation hypothesis. *American Sociological Review*, 48, 174–187. doi:10.2307/2095103
- United States Census Bureau. (2017, March 27). *Profile America: Facts for features – Older Americans Month: May 2017*. Retrieved from <https://www.census.gov/newsroom/facts-for-features/2017/cb17-ff08.html>.
- Vacha-Haase, T., & Thompson, B. (2004). How to estimate and interpret various effect sizes. *Journal of Counseling Psychology*, 51(4), 473–481. doi:10.1037/0022-0167.51.4.473
- Vaillant, G. (2002) *Aging well*. Boston, MA: Little, Brown and Co.
- Ward, S. J., & King, L. A. (2017). Exploring the place of financial status in the good life: Income and meaning in life. *The Journal of Positive Psychology*.1402075 doi:10.1080/17439760.2017
- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, 64, 678–691. doi:10.1037/0022-3514.64.4.678
- Webster, J. D. (2003). An exploratory analysis of a self-assessed wisdom scale. *Journal of Adult Development*, 10, 13–22.[Mismatch] doi:10.1023/A:1020782619051
- Weinstein, N., Ryan, R. M., & Deci, E. L. (2012). Motivation, meaning, and wellness: A self-determination perspective on the creation and internalization of personal meanings and life goals. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd ed.) (pp. 81–106). New York: Routledge.
- Wilson, J., & Musick, M. (1997). Who cares? Toward an integrated theory of volunteer work. *American Sociological Review*, 694–713. doi:10.2307/2657355
- Wong, P. T. P. (2012). From logotherapy to meaning-centered counseling and therapy. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd ed.) (pp. 619–647). New York, NY: Routledge/Taylor & Francis. doi:10.4324/9780203146286
- Wong, P. T. P. (2013). Suicide risks among college students from diverse cultural backgrounds. *Directions in Psychiatry*, 33(4), 237–249.
- Vos, J., Craig, M., & Cooper, M. (2015). Existential therapies: A meta-analysis of their effects on psychological outcomes. *Journal of Consulting and Clinical Psychology*, 83(1), 115–128. doi:10.1037/a0037167
- Wu, S., Wang, R., Zhao, Y., Ma, X., Wu, M., Yan, X., & He, J. (2013). The relationship between self-rated health and objective health status: A population-based study. *BMC Public Health*, 13(1), 320–329. doi:10.1186/1471-2458-13-320

- Wuthnow, R. (1991). *Acts of compassion: Caring for others and helping ourselves*. Princeton, NJ: Princeton University Press.
- Yamasaki, J., & Sharf, B. F. (2011). Opting out while fitting in: How residents make sense of assisted living and cope with community life. *Journal of Aging Studies*, 25, 13–21. doi:[10.1016/j.jaging.2010.08.005](https://doi.org/10.1016/j.jaging.2010.08.005)
- Yeager, D. S., & Bundick, M. J. (2009). The role of purposeful work goals in promoting meaning in life and in schoolwork during adolescence. *Journal of Adolescent Research*, 24, 423–452. doi:[10.1177/0743558409336749](https://doi.org/10.1177/0743558409336749)
- Yeager, D. S., Bundick, M. J., & Johnson, R. (2012). The role of future work goal motives in adolescent identity development: A longitudinal mixed-methods investigation. *Contemporary Educational Psychology*, 37, 206–217. doi:[10.1016/j.cedpsych.2012.01.004](https://doi.org/10.1016/j.cedpsych.2012.01.004)
- Yeager, D. S., Henderson, M., D'Mello, S., Paunesku, D., Walton, G. M., Spitzer, B. J., & Duckworth, A. L. (2014). Boring but important: A self-transcendent purpose for learning fosters academic self-regulation. *Journal of Personality and Social Psychology*, 107, 559–580. doi:[10.1037/a0037637](https://doi.org/10.1037/a0037637)