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Calling in retirement: A mixed methods study

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ABSTRACT

This mixed methods study aimed to examine the experiences of a calling in retirement with a sample of 196 retired adults. First, a qualitative analysis explored the types of activities participants experienced as a calling as well as the types of barriers that participants perceived as keeping them from living their calling. 'Helping Others' emerged as the largest category of calling that participants endorsed and 'No Resources to Live Calling' emerged as the most frequently endorsed barrier. Building on our qualitative findings, we conducted a quantitative analysis to examine the relation of perceiving a calling with well-being. Consistent with prior research with working adult populations and in support of our hypotheses, perceiving a calling related to life meaning and life satisfaction, and structural equation modeling demonstrated that life meaning and living a calling (via life meaning) fully mediated the perceiving calling–life satisfaction relation. Implications for research and practice are discussed.

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life meaning; living calling;
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Introduction

A burgeoning body of research has begun to explore the effects of feeling and living a career calling among adults (Duffy & Dik, 2013). Typically defined as a career that is highly meaningful and prosocial in nature, feeling and living a calling have been linked with a greater sense of overall life meaning and satisfaction (Allan & Duffy, 2014; Duffy, Allan, Autin, & Bott, 2013; Duffy & Dik, 2013; Hagmaier & Abele, 2012). However, a major limitation of this research is its narrow focus on employed adults, given the typical connection between calling and paid employment. As such, little is known about other populations for whom these constructs may still be relevant, including individuals who have left the workforce and entered retirement. Evaluating these constructs within this population could provide insight into how a calling may still be an important and relevant factor to consider for positive psychologists who often work with retired adults or adults who are beginning the transition into retirement.

Retirement

Conceptualization

Given that the term 'retirement' is culturally bound, it is not easy to identify one objective definition of the term. However, according to Western views, retirement is an opportunity to achieve freedom, individuality, and

independence (Luborsky & LeBlanc, 2003). Though one clear definition of retirement does not exist for research purposes, one review of studies defined retirement in the following ways: a separation from a career, a substantial decrease in work activity, a retrieval of social security or pension, and a retirees' self-definition of their status (Ekerdt & DeViney, 1990). For the purposes of this study, components of this definition were extracted and retirement was defined as the point at which persons have transitioned out of the labor force, are no longer employed full-time, and describe themselves as 'retired' (Doshi, Cen, & Polsky, 2008).

Retirement and well-being

A sizeable research literature exists on the experience of well-being in retirement, often focusing on how individuals adjust to this new stage of life (Wang, Henkens, & van Solinge, 2011). For example, longitudinal data collected over eight years of retirement found that around 70% of retirees reported minimal changes in well-being, 25% reported negative changes initially but later experienced improvements, and 5% reported positive changes (Wang, 2007). Investigations into the factors promoting retirement adjustment include five categories: individual attributes, preretirement job-related variables, family-related variables, retirement transition-related variables, and postretirement activities (Wang & Shultz, 2010). These categories

reflect resource availability during retirement adjustment, so it is important to emphasize that resource change in these categories may be linked to the differing experiences in retirement which in turn impact well-being.

Different theoretical perspectives exist attempting to explain how entering into retirement affects well-being, specifically focusing on the role of engagement. The disengagement theory of aging (Cumming & Henry, 1961) argues that individuals anticipate a withdrawal from society through retirement and eventual death and thus begin to release themselves from their previous productive societal roles by engaging in fewer work responsibilities, relationships, and activities as a natural process of aging. Consequently, research has shown that many retirees struggle with attaining high levels of psychological well-being. In fact, many retired persons report feeling a sense of emptiness and loss of meaning in this phase of life (Jonsson, Borell, & Sadlo, 2012). For example, one study found that women in retirement have reported feeling less challenged when leaving their professional identities and experienced a yearning for a sense of accomplishment (Price, 2000). Another study demonstrated that as length of retirement increases, the probability of experiencing depression also increases (Alpass, Neville, & Flett, 2000).

Conversely, activity theory posits that rather than withdrawing from activity, older adults seek out activity engagement as they age (Havighurst, 1961). Research suggests that if older adults are engaged in meaningful activities such as part-time work and hobbies, positive well-being may be maintained. For example, studies show that retirees who engage in work, volunteer activities, and caregiving responsibilities for a small percentage of the week (approximately 30%) are able to combat 'emptiness,' are less likely to become depressed, have lower mortality rates, and experience higher subjective well-being and life meaning (e.g. Pilkington, Windsor, & Crisp, 2012; Wahrendorf, von Dem Knesebeck, & Siegrist, 2006).

Each of these perspectives highlights ends of a continuum that tie well with Erikson's Ego Integrity vs. Despair Stage of Psychosocial Development. Some individuals may experience despair in late adulthood resulting from feelings of regret when contemplating unfulfilled accomplishments and life decisions (Erikson, 1963). With these feelings of regret and despair, individuals may experience depression and withdraw from society. Other individuals may experience ego integrity at this stage, reflecting on their lives with feelings of contentment and fulfillment (Erikson, 1963). These individuals may in turn be more likely to engage vs. withdraw in their new stage of life. Tying to core principles of activity theory and Erikson's Ego vs. Despair Stage, in the current study, we position a calling as an activity that individuals can pursue to increase engagement during retirement and suspect that for many

individuals, this calling is an extension of previous paid, full-time employment which brought fulfillment.

Calling

Conceptualization

The most recent, integrated definition of calling was provided by Duffy and Dik (2013), conceptualizing the construct as 'an approach to work that reflects the belief that one's career is a central part of a broader sense of purpose and meaning in life and is used to help others or advance the greater good in some fashion' (p. 429). This definition was constructed by integrating several overlapping conceptualizations (Dik & Duffy, 2009; Dobrow & Tosti-Kharas, 2011; Elangovan, Pinder, & McLean, 2010; Hagmaier & Abele, 2012; Hall & Chandler, 2005) and building off the vast majority of studies on calling in the work domain. However, numerous scholars have suggested that a calling can occur in other life domains, such as leisure activities, volunteering, and parenthood (Berg, Grant, & Johnson, 2010; Coulson, Oades, & Stoyles, 2010; Oates, Hall, & Anderson, 2005). Results from this study will demonstrate if the experience of a calling can also be extended beyond work to retirement.

An additional distinction in the calling literature is the difference between perceiving a calling and living a calling. That is, some people may perceive a calling but may not be able to live their calling or engage in meaningful activities where their calling can be fulfilled. For example, people may experience barriers, such as poverty, economic changes, workplace discrimination, job loss, and familial expectations that prevent them from being able to live their calling (Duffy & Autin, 2013; Duffy, Blustein, Diemer, & Autin, 2016; Duffy & Dik, 2013). The notion that perceiving a calling is a related though distinct construct to living a calling has also been demonstrated empirically, with numerous studies finding these variables to correlate around the .50 level (e.g. Duffy, Allan, Autin, & Douglass, 2014; Duffy, Allan, & Bott, 2012; Duffy, Bott, Allan, Torrey, & Dik, 2012; Duffy & Autin, 2013). As such, in the current study, we will also examine the extent to which retired adults both feel and are living out a calling and how this links to well-being.

Calling and well-being

Feeling and living out a calling postretirement fits into the core principles of activity theory, which suggests that engaging in meaningful and prosocial activities may promote greater well-being (Havighurst, 1961). Findings from the work domain suggest that simply viewing one's career as a calling has been significantly linked with life meaning, zest for life, and life satisfaction (Duffy et al., 2014; Duffy & Dik, 2013; Peterson, Park, Hall, & Seligman, 2009; Torrey & Duffy, 2012; Wrzesniewski, McCauley, Rozin, & Schwartz,

1997). These relations are even more robust when people are living out a calling (e.g. Allan, Tebbe, Duffy, & Autin, 2015; Duffy et al., 2013; Gazica & Spector, 2015), and qualitative studies have demonstrated how individuals who live out a calling inside and outside of paid employment tend to feel very fulfilled (Bunderson & Thompson, 2009; Duffy, Bott et al., 2012; Oates et al., 2005; Sellers, Thomas, Batt, & Ostman, 2005).

Several studies have also examined more complex mediator models, attempting to explain the linear relations between feeling a calling, living a calling, and life satisfaction. For example, Duffy, Allan, et al. (2012) surveyed 472 undergraduate students and found that the relation of perceiving a calling with life satisfaction was fully mediated by life meaning and academic satisfaction. A similar study by Steger, Pickering, Shin, and Dik (2010) surveyed 242 college students and found that life meaning mediated the association of perceiving a calling with life satisfaction. Therefore, among undergraduate students, studies suggest that life meaning may mediate the associations of perceiving a calling with life satisfaction.

In addition to life meaning, living a calling has been examined as a second variable explaining the feeling a calling and life satisfaction link – feeling a calling may boost satisfaction because people are living it out. Specifically, Duffy et al. (2013) examined the relations of perceiving a calling, living a calling, and life satisfaction among 553 working adults and found living a calling to fully mediate the link of perceiving a calling with life satisfaction. In the one study to test living a calling and life meaning as joint mediator variables, Duffy, Autin, and Douglass (2016) found that each variable was a significant mediator and fully mediated the perceiving calling–life satisfaction link. As such, results from these studies suggest that the reason why feeling a calling may relate to greater life satisfaction for non-retired populations is due to increased life meaning and increased levels of living out one's calling.

Calling in retirement

Considering that no research to date has examined how calling functions in retirement, we draw from the retirement adjustment literature and lifespan theories to speculate how calling may affect well-being in this life stage. One analogous construct is generativity, which is grounded in Erikson's Generativity vs. Stagnation Stage of Psychosocial Development. Erikson conceptualizes generativity as the need to have prosocial effects on others and the world, passing skills and resources onto others in a generative manner (Erikson, 1963), often involving parenting, teaching, and/or mentoring (McAdams, Diamond, de St. Aubin, & Mansfield, 1997). Research has shown that generativity is associated with positive outcomes, such as life satisfaction, work satisfaction, and positive affectivity (Ackerman,

Zuroff, & Moskowitz, 2000). Generativity also serves as a source of meaning in life (de St. Aubin, 2013; Hamby, Thomas, Banyard, de St. Aubin, & Grych, 2015; Schnell, 2009) and was found to be the strongest predictor of meaningfulness among 26 sources of meaning included in the Sources of Meaning and Meaning in Life Questionnaire (SoMe; Schnell, 2011). In fact, generativity predicts ego integrity (Torges, Stewart, & Duncan, 2008), and this predictive ability persists longitudinally in documenting the development of ego integrity in late adulthood (Miranda-Chan & Nakamura, 2016). Stagnation, on the other hand, results from a lack of contribution in helping others and is associated with increased experience of emptiness and decreased experience of happiness and fulfillment (Erikson, 1982). Considering the parallels between the constructs of calling and generativity and generativity's predictive ability toward ego integrity, comparable positive associations between calling and meaning in life, and in turn life satisfaction, may be mirrored in the population of retired adults.

In addition to a potential increase in life meaning, feeling a calling may boost a sense of satisfaction due to the mere fact that one is living out that calling. This is because living out a calling naturally involves engaging in an activity, and activity engagement was deemed as one of the key factors in promoting retirement adjustment (Wang & Shultz, 2010). In this sense, a calling may promote well-being not only because it builds life meaning, but also because individuals are living an active and engaged life. Combining Erikson's ideas of generativity, findings from the retirement adjustment literature, and findings from the calling literature with working adults, we hypothesize that among retired adults, feeling a calling will promote greater life satisfaction due to an increased sense of life meaning and heightened levels of living out that that calling. In particular, feeling and living out a calling in retirement may function as a substitute meaning and activity source that full-time work once provided.

The present study

To date, the calling construct has not been addressed within a retired population. As such, the goal of this study was to evaluate how calling functions in retirement using a mixed methods approach based on core ideas of activity theory and Erikson's lifespan theory. Specifically, qualitative methodology was used to: (a) identify what kinds of callings retirees endorse and (b) examine the specific barriers that some retirees perceive as preventing them from living their calling. Additionally, guided by previous research on calling with a variety of populations, quantitative methodology was used to examine (c) whether perceiving a calling links to increased levels of living a calling,

life meaning, and life satisfaction and (d) whether the link of perceiving a calling to life satisfaction is mediated by life meaning and living a calling in a sample of retired adults.

The present study comprised of participants aged 51 years or older who have been retired from full-time work for at least one year and who described themselves as 'retired.' To analyze participants' qualitative responses to open-ended questions, we used conventional content analysis (Hsieh & Shannon, 2005). For the quantitative analysis, structural equation modeling (SEM) was used to explore the calling and life satisfaction link. Based on previous research documenting these links in non-retired populations (e.g. Duffy et al., 2013; Duffy, Bott, et al., 2012), we hypothesized that perceiving a calling would be positively associated with life satisfaction (1), life meaning (2), and living a calling (3), and life meaning (4) and living a calling (5) would be positively associated with life satisfaction. We also hypothesized that life meaning (6) and living a calling (7) would mediate the association of perceiving a calling with life satisfaction. Bootstrapping procedures were used to test hypothesized indirect effects.

Method

Participants

Participants were 196 retired persons aged 51–93 living in the United States ($M = 69$, $SD = 5.99$) who had been retired for at least one year. In this sample, 49% identified as male and 51% identified as female. Regarding race/ethnicity, a majority identified as white/European American (91.3%), and the remaining participants identified as African/African-American (5.1%), Asian/Asian American (2.6%), American Indian/Eskimo (1%), Cape Veridian (1%), and less than 1% as Central American, Mexican, Cuban, or as another race/ethnicity. Regarding current relationship status, a majority of this sample reported being married (60.2%), while the rest of the sample reported being divorced (18.9%), widowed (13.8%), living with a partner (6.1%), being single (6.6%), or separated (1%). Regarding highest level of education completed, 44.4% reported having completed graduate/professional school, 24.5% completed an undergraduate degree, 17.3% completed some college, 8.7% reported having earned their high school diploma, 3.1% completed vocational school, 1% reported having completed some high school, and 1% having completed grade school.

Participants were asked, 'on average, what is your household income' in order to capture the variety of ways participants may generate income (e.g. pensions, social security and/or spousal income) on a yearly basis. 18.4% of the sample reported an income less than \$25,000, 18.9% had an income between \$25,000 and \$50,000, 25% had an income between \$51,000 and \$75,000, 16.3% had

an income between \$76,000 and \$100,000, 10.2% had an income between \$100,000 and \$125,000, 3.6% had an income between \$126,000 and \$150,000, 2% had an income between \$151,000 and \$175,000, less than 1% had an income between \$176,000 and \$200,000, and 1.5% had an income greater than \$200,000 (1.5%). A small number of individuals did not report their annual income (3.5%). For participants who answered the item ($n = 101$), the average number of years since retirement was 9.06 ($Mdn = 7.00$, $SD = 10.40$). Years in retirement was not associated with life satisfaction ($r = .04$, $p = .75$), the criterion variable in the present study. Though all of our participants identified themselves as retired, 12.2% of participants reported that they became re-employed in part-time work after retirement, and 7.7% stated that they were planning on becoming re-employed. There were no significant differences in perceiving calling, living a calling, life meaning, and life satisfaction among those employed part-time vs. not employed. Finally, participants were deemed 'retired' if they indicated that they have exited the full-time labor force, were no longer employed full-time, and described themselves as 'retired' (Doshi et al., 2008).

Qualitative instrument

Open-ended questions

In order to capture what types of callings retirees endorse and the types of barriers that keep retirees from living their calling, open-ended questions were provided on the questionnaire. First, participants were asked the following: 'If you feel you currently have a calling, describe that calling.' Participants were also asked, 'If you are NOT currently living your calling, why not?' No word or character limits were put in place for these questions, so participants were not limited in their responses. All responses were analyzed using conventional content analysis procedures (Hsieh & Shannon, 2005) as described in the Procedure section.

Quantitative instruments

Perceiving a calling

The degree to which participants endorsed having a calling was measured with the Brief Calling Scale (BCS; Dik, Eldridge, Steger, & Duffy, 2012). The BCS is a four-item measure that contains two subscales. The subscales separately measure whether an individual perceives that they have a calling and the extent to which an individual is seeking a calling (Dik et al., 2012). This study used the Presence of a Calling subscale, and the two items were summed to provide a total score for presence of a calling. An example item is 'I have a calling to a particular kind of work.' However, because the Presence of a Calling subscale assesses calling presence in a career, the language

was altered to assess calling presence in retirement; for example, 'I have a calling for a particular kind of work and/or activity.' Participants rated their responses to items along a five-point scale ranging from 1 (*not at all true of me*) to 5 (*totally true of me*). Regarding validity, scores on the Presence of a Calling subscale have been positively correlated with other measures of calling presence (Duffy, Autin, Allan, & Douglass, 2015; Hagmaier & Abele, 2012) and measures of well-being (Dik et al., 2012). Scores on the Presence of a Calling subscale have yielded good reliability, KR-20 = .89 (Dik et al., 2012). KR-20 (equivalent to Cronbach's alphas for dichotomous items) in the present study was .78.

Living a calling

The extent to which participants felt they were currently living their calling was measured with six items on the Living One's Calling scale (LOCS; Duffy, Bott, et al., 2012). An example item is, 'I have regular opportunities to live out my calling.' Participants rated their responses to items along a seven-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), and responses were summed to create total scores. Items on the scale were adapted to fit a retired population where appropriate. For example, the item, 'I am living out my calling right now in my job' was changed to 'I am living out my calling right now in retirement.' Regarding validity, scores on the LOCS have been positively correlated with the BCS Presence of a Calling subscale in a sample of employed adults (Duffy, Bott, et al., 2012; Duffy et al., 2015). Regarding reliability, items on the LOCS have yielded good reliability, with Cronbach's alphas ranging from .94 to .95 in samples of working adults (Duffy & Autin, 2013; Duffy, Bott, et al., 2012; Duffy et al., 2015). The estimated internal consistency reliability of the present study was .95.

Life meaning

The degree to which participants currently experience meaning in their lives was measured using the five-item Presence of Meaning subscale of the Meaning in Life Questionnaire (MLQ; Steger, Frazier, Oishi, & Kaler, 2006). An example item includes, 'My life has a clear sense of purpose.' Each of the five items was rated via a seven-point scale ranging from 1 (*absolutely untrue*) to 7 (*absolutely true*). Regarding validity, scores on the Presence of Life Meaning subscale of the MLQ were positively correlated with life satisfaction (Steger et al., 2006), presence of a calling (Duffy & Sedlacek, 2010), and other measures of well-being (Steger et al., 2006). Regarding reliability, item scores on the Presence subscale of the MLQ have yielded good internal consistency reliability in a variety of studies focusing on career calling (e.g. Allan et al., 2015; Bott &

Duffy, 2015; Duffy et al., 2013). In the present study, the estimated internal consistency reliability was .91.

Life satisfaction

The degree to which participants were currently satisfied with their lives was measured with the widely used Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). This is a five-item questionnaire measured with a Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). An example item is, 'The conditions of my life are excellent.' Regarding validity, scores on the Satisfaction with Life Scale have been positively correlated with life meaning and perceiving a calling in samples of college students and employed adults (Duffy et al., 2013; Duffy & Sedlacek, 2010). In a sample of older adults (average age of 79), life satisfaction was found to be correlated positively with self-reported and peer-reported measures of well-being (Pavot, Diener, & Suh, 2010). The Satisfaction with Life Scale has demonstrated strong internal consistency reliability (Diener et al., 1985; Pavot et al., 2010), and in the current study, the estimated internal consistency reliability was .90.

Procedure

In order to capture a variety of perspectives, participants were recruited through Amazon.com's Mechanical Turk (MTurk) online survey system (49.5%); in-person community recruitment from retirement communities, local libraries, and farmers markets who completed paper surveys (17.9%); and persons who received an electronic link via online snowball sampling (32.7%). For MTurk recruitment, a study participant recruitment post called for participants who had been retired for at least one year. Participants were able to follow a link to the online study, hosted by Qualtrics, an external electronic survey website. Here, electronic versions of the consent form and survey were administered to participants. Participants recruited from MTurk were provided \$.50 as compensation for their participation in the survey. Researchers evaluating MTurk suggest this recruitment method provides diverse, reliable, and valid samples (Buhrmester, Kwang, & Gosling, 2011).

To recruit retired participants who may be less active online, we also contacted activities directors and/or social services directors at a variety of residential retirement communities and senior activity centers, and upon directors' approval, study recruitment flyers were placed within approved community gathering areas. We also recruited participants directly from local libraries and local farmers markets. For all participants who were recruited from the local community, individuals who preferred to take the study online were sent a study recruitment email with

a link to Qualtrics to complete the study. Because prior research suggests that it takes approximately one year for most retirees to adjust to being in retirement (van Solinge & Henkens, 2008), and because we were interested in participants' experiences actively in retirement, rather than those who were in the transition process from work to retirement, after agreeing to the informed consent, only individuals who indicated a retirement date over one year from that date were eligible to participate.

Furthermore, because of this study's focus on factors related to barriers and ability to live one's calling in retirement, to test study hypotheses, all persons in the quantitative analyses who answered 'Not applicable – I don't have a calling' on any of the LOCS (Duffy, Bott, et al., 2012) items and/or responded 'Not at all true of me' to any items on the BCS (Dik et al., 2012) that related to perceiving a calling were removed from analyses. These procedures are consistent with those used in previous studies of calling in working adults (e.g. Duffy et al., 2013, 2014; Duffy & Autin, 2013; Duffy, Bott, et al., 2012). Participants who did not report demographic information (income or education level) were also removed from the data-set. Thus, the final data-set for quantitative analyses included 138 participants.

Conventional content analysis (Hsieh & Shannon, 2005) procedures were used to analyze qualitative responses. This method of analyzing qualitative data allows researchers to create categories from responses given by participants. Conventional content analysis allows for the grouping of items into relevant categories from participants' written responses rather than a development of meaning from participants' answers as is done with other forms of qualitative data analysis, such as consensual qualitative research and grounded theory methodologies (Hsieh & Shannon, 2005). For this study, a doctoral student in counseling psychology first surveyed responses. Responses were reviewed according to themes and subsequently grouped into overarching categories. Next, a faculty member at a large southeastern university audited these data and analyses, suggesting changes to several categories and placement of items within the categories. These discrepancies were resolved by way of consensus following discussion between the doctoral student and faculty member.

Results

Qualitative analyses

Calling in retirement

Among the total sample of 196 participants used for these analyses, 156 participants (78.8%) reported a perceived calling to a particular kind of work and/or activity. Of these 156 participants who reported perceiving a calling, 102

Table 1. Descriptive information for calling description qualitative analyses.

Category title	Number of responses	% of Sample
1. Helping Others	41	39.4
2. Family/Caretaking	12	11.5
3. Investment in Self	12	11.5
4. Arts	9	8.5
5. Teaching	8	7.7
6. Civic Engagement	4	3.8
7. Entrepreneurship	4	3.8
8. Religion	4	3.8
9. Investment in Previous Career	4	3.8
10. Travel	3	2.8
11. Nature	3	2.8

further described their perceived calling. Therefore, qualitative analyses contained 102 responses. Conventional content analysis procedures, as described previously, were used to analyze these responses. Following these procedures, 13 categories were created. However, two categories contained only one response and neither response fit the theme for the analysis. Therefore, these two categories were dropped, yielding 11 final categories (see Table 1).

The largest category in the analysis included 40 responses (39.2% of responses) and was titled *Helping Others*. All responses in this category expressed individuals' perceived calling to help others; most indicated a perceived calling related to volunteer work with adults and children in the community. For example, one participant wrote, 'Even after retirement and no longer holding a formal job, I still feel that I have an effect upon people that is healing, soothing, calming, reassuring. I still feel that I have a gift and responsibility of helping others.' Another stated, 'I am fortunate to have the opportunity to volunteer at a hospital and work with the new moms and newborns.'

The second largest category that emerged was *Investment in Self*, which contained responses from 12 participants (11.8% of responses). This theme encompassed participants' need to concentrate on self-development and relaxation during retirement. For example, when asked to describe her/his perceived calling, one participant wrote that their perceived calling was 'To find and be at peace with myself.' The third largest category, *Family/Caretaking*, included responses from 11 participants (10.8% of responses). This category embodied participants' commitment to providing familial support, particularly in relation to babysitting grandchildren. One participant described her/his perceived calling in the following way: 'I am now centered on my husband, the needs of children and grandchildren, and how I can support them in their lives.' Another stated, 'I've had a calling that I need to invest more time in loving family and caring for those that I love.'

The fourth largest category, *Arts*, described participants' perceived callings that were related to enriching themselves or others through creative ventures. Nine responses

(8.8% of responses) were placed within this category. For example, when asked to describe her/his perceived calling, one participant wrote, 'Enjoying the life of a Science-fiction fan and writing a book about my life in fandom,' while other participants described their artistic calling as 'blogging,' 'writing a novel,' and 'acting and creative writing.' The fifth largest category was labeled *Teaching*, which contained eight responses (7.8% of responses). Responses in this category differed from those in the *Helping People* category because participants indicated a desire to offer skills or abilities in teaching in relation to helping others. Therefore, all responses in this category contained some explicit reference to teaching, though a range of topics were represented. For example, one participant expressed a perceived calling to 'Instruct others to see their world more clearly,' while another stated, 'I am currently working part time in teacher development and education.'

The next several categories contained four responses each (combined 15.6% of responses): *Civic Engagement*, *Entrepreneurship*, *Religion*, and *Investment in Previous Career*. Participants' responses that were categorized by *Civic Engagement* displayed a need to be engaged with politics. For example, one participant's perceived calling was described as, 'Criticizing government, marketing, corporations and the media.' As for the category of *Entrepreneurship*, all responses alluded to a desire or active attempt to engage in independent business. For example, one person wrote, 'I am searching for ways to use my skills on the Internet as a freelance worker.' Further, the *Religion* category encompassed persons' spiritual connections; for example, 'I am called to be a prayer warrior at my church.' Finally, statements falling into the *Investment in Previous Career* category embodied perceived callings related to maintaining engagement in previous professions. One retired medical practitioner wrote, 'My calling is, I believe, medical practice. In retirement, I cannot help people in the same ways, though I thoroughly enjoy keeping up with medical news and seeing the faces of people whom I know I have helped.'

Finally, the last two categories to emerge from the data were *Travel* and *Nature*, which represented the fewest number of responses with three responses included in each category (5.9% of responses). *Travel* represented participants' perceived calling for exploration, 'The call to experience people from other countries in their own environment,' while *Nature* embodied retirees' perceived callings in connection with the living environment,

I work with dogs, raising puppies and grooming dogs – I really enjoy it and I am my own boss – this has been more fulfilling than my previous career. I help the puppy buyers with the training of their new pup and I enjoy that as well.

Table 2. Descriptive information for reasons why calling is not lived, qualitative analyses.

Category title	Number of responses	% of Sample
1. No Resources to Live My Calling	15	35.7
2. Age and Health Issues	8	19
3. Still Searching	6	14.3
4. Retired	5	11.9
5. Care for Others/Responsibilities	4	9.5
6. Need Time for Self	4	9.5

Barriers to living a calling

For those participants who indicated they perceived a calling, some also indicated that they did not feel that they were able to live their calling ($n = 42$). As we were interested to learn more about participants' perceived barriers to living a calling, we asked participants to describe the reasons for which they felt they were not able to live their calling. Therefore, the same conventional content analysis procedures were used for analysis of responses to this question. This analysis yielded six categories (see Table 2). The largest category, *No Resources to Live My Calling*, contained 15 responses (35.7% of responses). Responses included in this category described a lack of resources (e.g. money, time, job openings, and/or mental energy) as being the reason for which participants were not able to live their calling. Example responses in this category are 'I'm burned out,' 'Can't find it around here,' and 'There are two issues. One of needing to supplement my retirement to cover my family's expenses. That requires me to keep doing what I'm doing, as it does provide some income. To delve into what I'd like to explore, I'd have to quit spending the time on what makes a little money, foregoing the extra money.'

The next largest category, *Age and Health Issues*, contained eight responses (19% of responses). This category captured responses related to age discrimination and/or the struggle to feel physically well enough to engage in one's perceived calling. For age, a few respondents wrote, 'Too old' and 'No one looks to an old man to fix their computer.' In terms of health issues, one retiree wrote 'health issues have delayed this matter.' The third largest theme, *Still Searching*, contained six responses (14.3% of responses). The category suggested a determination to live a calling rather than a dismissal of or sense of hopelessness about having or finding a calling. One response that illustrates this perceived barrier includes,

I have not, as yet, reinvented myself. My career was a big part of my identity and I have not figured out how to replace the work I did prior to my retirement into my life. I am looking now for a purpose to my life.

The next category that emerged from the data was *Retired*, which contained five responses (11.9% of responses). These participants seemed to feel that retirement was the major impediment to their living a calling. Several responses simply contained the response, 'Retired,' and one participant wrote, 'I worked hard for many years. Retirement is the time to enjoy life with less stress.' The final categories, *Care for Others/Responsibilities* and *Need Time for Self*, contained four responses each (9.5% of responses each). The responses placed within the *Care for Others/Responsibilities* category illustrated the lack of time to pursue a perceived calling due to caretaking for young or ill family members. For example, one caregiver wrote, 'I can't put my full focus on it right now due to grandchildren.' Paradoxically, responses within the *Need Time for Self* category suggested a lack of time due to a need for self-care, suggesting living a calling produces stress and neglect of self. One particular response that illustrates this category is, 'I feel like it is time to take a vacation for myself.'

Quantitative analyses

Group differences, descriptive statistics, and correlations

Prior to testing study hypotheses, we assessed for group and individual differences among study variables. These analyses were conducted with the 138 participants who met criteria for inclusion in the quantitative portion of this study. Using independent samples *t*-tests, women, as compared to men, expressed greater life meaning ($M = 27.23$, $SD = 5.95$; $M = 24.63$, $SD = 6.85$, respectively, $p < .05$) and life satisfaction ($M = 26.29$, $SD = 6.63$, $M = 23.82$, $SD = 6.33$, respectively, $p < .05$). Both women and men endorsed equal levels of perceiving and living a calling. Participants who were recruited via MTurk ($n = 68$) compared to other methodologies (e.g. farmers markets and snowball sampling; $n = 70$) endorsed lower levels of all four variables: perceiving calling ($M = 6.47$, $SD = 1.90$, $M = 7.45$, $SD = 1.87$, respectively, $p < .01$), living a calling ($M = 28.10$, $SD = 10.32$; $M = 33.83$, $SD = 9.25$, respectively, $p < .01$), life meaning ($M = 23.91$, $SD = 7.11$; $M = 27.93$, $SD = 5.21$, $p < .01$), and

life satisfaction ($M = 23.10$, $SD = 7.22$; $M = 26.99$, $SD = 5.27$, respectively, $p < .01$). However, these groups did not differ by age, years since retirement, income, or education. In addition to group differences, we examined whether these demographic variables correlated with the four main study variables across the entire sample used for the quantitative analyses. Only income was significantly associated with meaning in life ($r = .20$, $p < .01$) and life satisfaction $r = .39$, $p < .001$. Given these significant group differences, income, gender, and recruitment method (i.e. MTurk, non-MTurk) were included as covariates in the primary analyses, the structural mediation model.

Descriptive statistics, Cronbach's alphas, and intercorrelations among study variables are presented in Table 3. Confirming hypotheses 1–5, perceiving a calling significantly correlated with living a calling (.43), life meaning (.61), and life satisfaction (.35); life meaning (.68) and living calling (.37) each significantly correlated with life satisfaction.

Structural equation modeling

To test relations among study predictors and criterion variables, we performed a SEM analysis (see Figure 1) using MPlus 7.02 (Muthén & Muthén, 1998–2010). Fit was assessed using chi-square (χ^2), the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean residual (SRMR) goodness of fit indices. Criteria for acceptable fit have ranged from less conservative (RMSEA $\leq .10$, CFI $\geq .90$) to more conservative (RMSEA $\leq .08$, CFI $\geq .95$; Hu & Bentler, 1999; Quintana & Maxwell, 1999; Weston & Gore, 2006). However, scholars have cautioned against using these guidelines as strict cut-offs without taking into account other considerations as well, such as model complexity and sample size.

To model the latent variables, we used scale items as observed indicators for perceiving a calling, life meaning, and life satisfaction. For living a calling, we created item parcels from the measure's six items. To create item parcels, we conducted an exploratory factor analysis of the LCS's six items and rank-ordered the items from highest to lowest factor loading. We then assigned items to item

Table 3. Correlations of perceiving a calling, meaning in life, living a calling, life satisfaction, income level, and education level.

	1	2	3	4	5	6
1. Perceiving a calling	–					
2. Meaning in life	.61**	–				
3. Living calling	.43**	.48**	–			
4. Life satisfaction	.35**	.68**	.37**	–		
5. Income level	–.01	.20*	.01	.39**	–	
6. Education level	–.03	–.06	.03	.13	.34**	–
7. <i>M</i>	6.97	25.94	31.01	25.07	3.25	5.98
8. <i>SD</i>	1.94	6.51	10.16	6.58	1.73	1.24

* $p < .01$.

** $p < .01$.

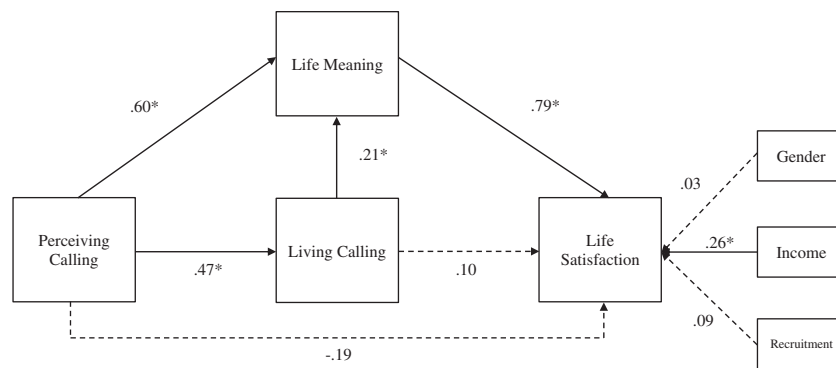


Figure 1. Final structural model with standardized path coefficients. Notes: Dashed lines indicate non-significant parameters, p^* significant at $< .05$.

parcels in countervailing order in order to maximize equality of factor loadings (Velez & Moradi, 2012). Thus, the final model consisted of 4 latent constructs, and 15 indicators. In addition to the hypothesized paths, we also included a path from living a calling to life meaning, given the .48 correlation found in the bivariate analyses.

All data met guidelines for univariate normality (i.e. skewness values ≤ 3 , kurtosis values ≤ 10 ; Kline, 2005; Weston & Gore, 2006). We followed a two-step procedure for testing the hypothesized relations among study variables, per recommendations (Kline, 2005; Weston & Gore, 2006). First, we tested the adequacy of our observed variables in measuring their latent constructs by testing the fit of the measurement model. Next, we tested the structural model, using bootstrap procedures to test our hypothesized mediated relations.

Measurement model

Fit index values for the measurement model were, $\chi^2 (84, N = 138) = 150.24, p < .001$; CFI = .96; RMSEA = .08 (90% CI: .06, .10); SRMR = .04. These values fell within the range of acceptable criteria for model fit as discussed above. Additionally, all indicators loaded positively and significantly on their associated latent variable.

Structural mediation model

Due to significant differences among study variables in the preliminary analyses, we also included gender, income, and recruitment method (e.g. MTurk vs. non-MTurk) as covariates in the structural mediation model. Only income was significantly associated with life satisfaction, $\beta = .26, p < .001$, while gender and recruitment method were not ($\beta = .03, p = .68, \beta = .09, p = .22$, respectively). Fit statistics for the structural mediation model were, $\chi^2 (84, N = 138) = 232.80, p < .001$; CFI = .94; RMSEA = .08 (90% CI: .06, .10), SRMR = .10. These values fell within the range of acceptable criteria for model fit and factor loadings are presented in Table 4. Perceiving a calling was positively

Table 4. Indicator factor loadings of latent constructs in the measurement model.

	Factor loadings	
Perceiving a calling		
Item 1	.67	
Item 2	.95	
Life meaning		
Item 1	.79	
Item 2	.91	
Item 3	.85	
Item 4	.87	
Item 5	.79	
Living calling		
Parcel 1		.93
Parcel 2		.94
Parcel 3		.96
Life satisfaction		
Item 1		.85
Item 2		.87
Item 3		.89
Item 4		.77
Item 5		.65

Notes: $\chi^2 (84, N = 138) = 150.24, p < .001$; CFI = .96; RMSEA = .08 (90% CI: .06, .10), SRMR = .04.

associated with living a calling, $\beta = .47, p < .001$, and life meaning, $\beta = .60, p < .001$. Life meaning was positively associated with life satisfaction, $\beta = .79, p < .001$. However, perceiving a calling and living a calling were not associated with life satisfaction in the full model, $\beta = -.18, p = .24, \beta = .10, p = .34$, respectively.

Indirect effects

To test the significance of hypothesized indirect relations, we used bootstrap procedures to conduct the model with 5,000 bootstrap samples (see Mallinckrodt, Abraham, Wei, & Russell, 2006). Indirect relations are determined to be significant and indicate significant mediation if their 95% confidence intervals (CI) do not include zero (Mallinckrodt et al., 2006; Shrout & Bolger, 2002). Consistent with hypotheses, life meaning mediated the relations of perceiving a calling with life satisfaction (CI [.31, 1.06], $B = .56, SE = .20$). However, living a calling did not mediate the relations of

perceiving a calling with life satisfaction (CI [-.05, .18], $B = .05$, $SE = .06$). Finally, given our post hoc decision to add the path from living a calling to life meaning, the effect of living a calling to life satisfaction as mediated by life meaning was significant (CI [.02, .15], $B = .08$, $SE = .04$). This model accounted for 53% of the variance in life meaning, 22% of the variance in living a calling, and 60% of the variance in life satisfaction.

Discussion

The primary aim of the present study was to provide a mixed methods analysis of how calling functions in retirement. To reach that goal, three questions were asked: (a) What does one's perceived calling look like in retirement?, (b) What barriers exist that prevent some retirees from living out a calling in retirement?, and (c) Matching previous studies with working adult samples, is the link of perceiving a calling to life satisfaction mediated by life meaning and living a calling? In this study, results suggest that a majority of the sample perceived a calling, which implies that the construct may be relevant even after leaving the workforce. Further, the fact that most retirees in this study identified with a calling supports the multidimensional definition of calling proposed by Dik and Duffy (2009), suggesting this construct may encompass both work and non-work activities. In our quantitative assessment, analogous to previous studies, perceiving a calling was positively related to living a calling, life meaning, and life satisfaction. Finally, life meaning was a significant, full mediator in the perceiving a calling and life satisfaction relation.

Qualitative findings

Calling in retirement

Given that this is the first study to examine the calling construct among this population, little is known about the nature of retirees' callings. It appeared that most retirees described their calling as 'Helping Others' in non-work-related ways such as volunteering. This finding is similar to qualitative findings by Allan and Duffy (2014) who reported that most working adults from high and low social classes reported that helping others, particularly non-family members, provided the most meaning to their work. Further, describing calling in such prosocial terms is supported by qualitative research related to calling perceptions among counseling psychologists (Duffy, Foley, et al., 2012). Specifically, most persons in Duffy, Foley, et al.'s (2012) sample reported that their calling was also to help others. Many persons may also adapt to the changes brought on by retirement by engaging in volunteer work to maintain continuity (Li & Ferraro, 2005; Musick, Herzog,

& House, 1999; Wahrendorf & Siegrist, 2010), a pattern that appears to be present in the current study as well. Thus, helping others may be one of the most common ways persons of all ages and work statuses conceptualize their calling and one way that retirees may maintain continuity. This is important because it proposes retirees may want to be impactful upon others in a positive way and potentially need outlets for this mission.

Other categories capturing the nature of retirees' perceived callings in order of importance were 'Investment in Self,' 'Family/Caretaking,' 'Teaching,' and 'Arts.' 'Investment in Self' may align with Erikson's Psychosocial Stages of Development. Retirees may feel a sense of regret over not feeling fulfilled from life, and are thus investing in new personal activities and endeavors to avoid a sense of disappointment (Erikson, 1963). Intriguingly, this category does not align with any of the traditional definitions of calling in the work domain, which almost always focus on investment in others vs. an investment in oneself (Duffy & Dik, 2013). It is possible that when considering a calling, this group of participants (12 in total) may have viewed the construct as aligning with individual, meaningful activities vs. those that have the added component of helping others. Understanding the process of individuals who view a calling in this fashion may be an important area for future research. In contrast to 'Investment in Self,' 'Family/Caretaking' and 'Teaching' may echo the motivation behind the 'Helping Others' category and closely match traditional calling definitions, where these persons also encounter a need for generativity and are called to share themselves in an effort to improve others' lives (Mor-Barak, 1995).

Finally, the categories with fewer responses also provided insight into the nature of retirees' callings. Specifically, engagement in artistic activities may speak to retirees' desire to forge ahead and create a new identity where new levels of meaning can emerge (Dutton, Roberts, & Bednar, 2010). Further, the category 'Nature' is supported in research, as older adults tend to seek a connection with nature because of the meaning gained from bettering the environment for themselves and for future generations (Carman, 2011). Lastly, in terms of the 'Travel' category, research points to traveling as a top pursuit among retirees as they finally have the time to explore new regions and experiences (Nimrod, 2008). The responses in these categories generally articulated callings that no longer involve previous career aspirations, but instead suggested interests in new endeavors. Perhaps for these individuals, retirement is a new beginning where a calling can be created and generativity within new avenues can be relayed. This fits with findings from a qualitative study in which retirees felt that retirement was an opportunity to reinvent the self, tend to personal needs, experience the freedom from responsibilities, or use previous career

skills in new ways (Sargent, Bataille, Vough, & Lee, 2011). Either way, it seems that a large number of respondents felt called toward connection with community, adventure, creative ventures, or self-care activities that are based on their own volition and not on previous career identities.

Barriers to living a calling

Given that a sizeable portion of the sample with a calling in this study also indicated that they were currently not living their calling, there is a need to better understand the barriers to living a calling when retired. The second qualitative component included an evaluation of approximately one-fifth of the total sample who provided a reason why they felt they were currently unable to live their calling. The most reported barriers found in the qualitative analyses were 'No Resources to Live My Calling' and 'Age/Health Issues.' These barriers coincide with other research suggesting that retirees struggle to engage with desired activities due to health concerns (Mountain & Craig, 2011). However, they are also distinct from one another. Whereas age/health issues is closely linked to the retirement stage of life as individuals are aging and may be unique to this sample, the resources theme is a barrier that all individuals may encounter in attempting to live out their calling. It may be beneficial for future research to examine whether the reasons for limited resources differ among retired and non-retired individuals. The third largest category captured the experience of retirees who were still searching for their calling. This category suggests that the concept of a calling maintains its relevancy for some people who have left the workforce, and that many retirees are actively engaged in finding a meaningful activity. This echoes a study of Australian retirees who reported seeking meaningful activities upon retirement to maintain well-being (Pepin & Deutscher, 2011).

Quantitative findings

Prior to discussing the specific hypotheses examined in the current study, it is important to address the variety of group differences that existed among the study variables. Men and women did not differ with regard to the calling variables, but women did express higher levels of life meaning and life satisfaction. This result differs from the meta-analytic findings of Pinguat and Sorensen (2001), who found men to be happier than women in older age. Though the reasons behind the gender differences in this study are merely speculative, it may be that those women who chose to participate in this study self-selected given the topic of calling and as such viewed their lives as more satisfying and meaningful.

A similar selection bias may have existed regarding differences among the study variables by MTurk and

non-MTurk participants. Despite both groups having similar ages, years since retirement, income, and education, non-MTurk participants endorsed greater levels of perceiving a calling, living a calling, life meaning, and life satisfaction. This may be due to the fact that participants voluntarily completing a survey on retirement without compensation were more likely to be satisfied overall with their current life circumstances and were intrinsically motivated to participate. In contrast, MTurk participants are individuals completing online surveys for compensation, often small amounts of compensation (e.g. in this case \$.50). Research has demonstrated that MTurk participants may be more socially anxious than average Americans and less emotionally stable (Goodman, Cryder, & Cheema, 2013; Shapiro, Chandler, & Mueller, 2013). As such, in the current study, the retired MTurk participants may represent a group of individuals less satisfied than average Americans. This may have widened the gap between the MTurk and non-MTurk participants on each of the four main variables assessed. However, as with gender, these explanations are speculative.

In considering the current study's pattern of findings for the total sample used in the quantitative analyses, results suggest that perceiving a calling had significant, positive correlations with life satisfaction, life meaning, and living a calling as hypothesized. These results suggest that these constructs operate similarly among a retired population in comparison to undergraduate students, working adults, and unemployed adults (Bunderson & Thompson, 2009; Coulson et al., 2010; Duffy & Sedlacek, 2010; Duffy et al., 2016; Peterson et al., 2009; Steger et al., 2010; Torrey & Duffy, 2012). It appears that perceiving a calling is related to one's level of well-being whether one is a student, has lost his/her job, is working, or has decided to leave the workforce through retirement. Further, this study reiterates previous findings that perceiving a calling and living a calling are related but distinct constructs (Duffy & Autin, 2013; Duffy, Bott, et al., 2012; Duffy, Foley, et al., 2012).

Considering the significant structural model results, where gender, income, and recruitment type were added as covariates, when predicting life satisfaction, life meaning was the most important predictor. One explanation for life meaning mediating the perceiving a calling and life satisfaction link is through the inherent meaning that perceiving a calling brings. This is reflected in the qualitative findings where participants perceived their callings such as, 'To write a novel' and 'Still wish to make music.' As illustrated by these comments, perceiving a calling alone can provide life meaning, which as the results suggest, may lead to life satisfaction.

Analogously, living a calling linked to life satisfaction indirectly via life meaning in the qualitative findings. One retiree described a sense of continuity through life

meaning by living her/his perceived calling. Specifically, she/he wrote, 'I am still called to be a teacher. I have been volunteering as a tutor in the last eight years of my retirement.' This idea is much like the concept of Ego Integrity vs. Despair in Erik Erikson's Psychosocial Stages of development, where those over 65 years old may either feel fulfillment from the life they lived or have regret over the paths they chose (Erikson, 1963). In this case, retirees in this sample could be displaying a sense of Ego Integrity, or a feeling of satisfaction with their perceived calling's fulfillment.

In sum, this is the first study to examine the concept of a calling in retired adults. A qualitative analysis provided a sense of what a calling is for retirees and the barriers that keep retirees from living their calling. Further, the quantitative findings suggest that overall, whether retirees perceive a calling and/or live their calling, it is critical that life meaning is present in order to achieve greater life satisfaction.

Limitations

A number of limitations should be taken into account when considering the results of this study. First, participants from this survey were recruited via a variety of sampling methods including online snowball sampling, MTurk, and in-person data collection. Though these methods provided a variety of participants in terms of age and demographic characteristics, the fact that participants did not come from one particular source may decrease the reliability of these findings. This was particularly concerning in the current study as these groups significantly differed on all of the main quantitative variables assessed. Additionally, as only a small percentage of participants took paper survey, it was impossible to compare the effects of online vs. in-person survey collection. In the future, studies should evaluate which sampling method works best for recruiting a diverse sample of retired adults. Second, the sample size for this study was small, particularly once persons without a perceived calling and/or who indicated they were not living a calling were removed from the quantitative analyses. The sample size may have affected the power of the analyses, potentially weakening the validity of the conclusions.

Third, given the sample size and sampling methods of this study, a majority of the participants represented in this study were ethnically/racially homogenous. This lack of ethnic/racial diversity may affect the generalizability of the findings. Finally, given that the qualitative analyses in the present study were exploratory, future studies should evaluate these constructs further to draw more statistically supported conclusions about what a calling is for retired persons and the types of barriers to living a calling that

exist in retirement. Despite these limitations, however, the findings of this study provide a starting point for future investigations of how perceiving a calling operates among a retired population.

Future directions and practical implications

In terms of future directions, it may be beneficial for future studies to explore these constructs longitudinally among a retired sample. For example, some retirees may develop a calling after retiring from work. More free time and/or freedom to do new activities may create an opportunity for personal fulfillment beyond what they felt or could obtain in their work life. Alternatively, the nature of one's perceived calling could significantly change after one retires from work, with more opportunities to explore new activities and purposes. Further, exploration of how callings change from pre to postretirement would also lead to a better understanding about continuity and how it can be maintained into retirement.

The findings of this study suggest the importance of retirees who indicate perceiving a calling to live out their calling in retirement in order to experience life meaning and thus life satisfaction. An intervention to help retirees engage in her or his calling, similar to one facilitated by Mountain and Craig (2011), could be tested in future studies to assess how to help retirees live out that calling. The intervention by Mountain and Craig (2011) found that persons who participated in the intervention engaged with new or re-engaged with previous occupations, despite previously identified barriers to these activities. Once engaged in these activities, participants also experienced greater well-being (Mountain & Craig, 2011). Thus, interventions that help retirees overcome the barriers to living a calling may provide an opportunity for this population to engage in meaningful activities that sustain a sense of continuity and well-being.

Finally, our findings have several practical implications to consider for practitioners working one on one with the retired population. In considering the largest category participants experienced as a calling, 'Helping Others,' practitioners could promote involvement in helping activities that may both fulfill retirees' experience of a calling and increase retirees' well-being stemming from reaching ego integrity (Erikson, 1963). Additionally, the largest endorsed barrier, 'No Resources to Live Calling,' calls for more advocacy in helping retirees find resources and opportunities to pursue their calling. In further support, this study's results emphasize the importance of retirees perceiving and living a calling in predicting life meaning and life satisfaction. For this population, in particular, who have left the full-time workforce, using counseling to help identify and enact meaningful, prosocial activities may be especially impactful.

Disclosure statement

No potential conflict of interest was reported by the authors.

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