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Attachment security and career adaptability as predictors of subjective well-being among career transitioners

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ABSTRACT

One's career adaptability can provide valuable information regarding the quality of their life satisfaction and life meaning during important career transitions. To date, however, few studies have examined the dispositional antecedents of career adaptability and no studies have specifically explored whether these relationships operate similarly or differently across distinct groups of adult career transitioners. To address this gap, we had 298 young adults (i.e., college seniors or recent graduates poised to enter the workforce) and 169 older adults (i.e., workers who were either contemplating retirement or recently retired) complete measures of adult attachment orientations, career adaptability, life satisfaction, and life meaning. Results demonstrated that attachment security and career adaptability were associated in expected directions with, and explained unique variance in, each of our indicators of subjective well-being, and that career adaptability scores mediated observed relations between adult attachment insecurity and transitioners' well-being. Exploratory analyses further showed that, for both groups of transitioners, career concern and control strategies emerged as significant mediators of these relationships. Future research directions and practical implications of our findings for counseling interventions with career transitioners are discussed.

1. Introduction

Over the years, vocational psychology research has advanced our understanding of career development processes. Theories and models of career transitions (Blustein, Phillips, Jobin-Davis, Finkelberg, & Roarke, 1997), of career development across the lifespan (Super, 1990), and of career construction (Savickas, 2002, 2005) have each highlighted how career development is either enhanced or constrained by the level of one's *career adaptability*. For instance, Donald Super's (1990) life-span, life-space approach theory viewed career development as a process whereby the occupational self-concept emerges and is progressively reformulated through mastery of distinct developmental tasks across several successive and major life/career stages. For Super, the optimal unfolding of this process was furthered by career adaptability, or one's readiness to engage and cope with the tasks associated each life/career stage. Viewing career adaptability as a central element in his theory of career construction, Savickas (1997) similarly defined this construct as:

The readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable

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adjustments prompted by changes in work and working conditions (p. 254).

Moreover, Savickas (2005) subsequently conceptualized career adaptability as reflecting a person's readiness to deploy four adaptive strategies: *concern*, *control*, *curiosity*, and *confidence*. He defined *concern* as a person's purposeful, proactive, and future-oriented consideration of their context of career-related decision-making. *Control* was defined as the belief that one is appropriately positioned and responsible for constructing a career, whereas *curiosity* embodied one's openness to exploring his or her identity and career options. Lastly, *confidence* was defined as a person's perceived efficacy in successfully implementing and executing a vocational plan. These strategies, both individually and collectively, are assumed to facilitate personal functioning and decision-making during normative career transitions by properly orienting one's attentional, motivational, and behavioral engagement with the process of updating occupational self-concepts to meet the adaptive requirements of career development. The Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012) was specifically designed to measure the level of one's confidence in deploying these strategies.

Since the construction and multi-national validation of the CAAS, researchers in different countries have linked higher CAAS scores to more favorable developmental and adjustment outcomes. Whereas career adaptability has been associated with positive psychological characteristics of optimism and resilience (Buyukgoze-Kavas, 2014), as well as with “proactive” personality traits (Cai et al., 2015; Johnston, 2016), CAAS scores have been shown to predict career adjustment and career engagement independent of global personality traits and core self-evaluations (Nilforooshan & Salimi, 2016; Zacher, 2014a) and to mediate the relationship between happiness orientations and work-related stress (Johnston, Luciano, Maggiori, Ruch, & Rossier, 2013).

In a recent review of the career adaptability literature, Johnston (2016) proposed that adaptability resources (i.e., career concern, control, curiosity, and confidence) serve as psychosocial resources that contribute to positive transitions across the life span for both young and older adult workers. Moreover, he suggested that these adaptability resources may serve as mediating variables between global (e.g., Big Five) personality characteristics and adaptability responses that would align well with the conceptualization that CAAS subscales act in a self-regulation capacity.

There is also evidence that career adaptability levels favorably affect work stress and job satisfaction by way of their indirect effects on workers' negative affect (Fiori, Bollmann, & Rossier, 2015) and self-exploratory attitudes (Guan et al., 2014), and that particular career adaptabilities (i.e., concern and control) enhance college students' life satisfaction by way of their indirect effects on students' experiences of work volition and life meaning (Buyukgoze-Kavas, Duffy, & Douglass, 2015). Taken together, these findings support the view that career adaptability likely functions as an important self-regulatory mechanism for managing stress and promoting well-being during periods of career transition.

Although still limited, our understanding of the dispositional underpinnings of career adaptability and of how these coping strategies affect life adjustment outcomes during particular career transitions is now receiving greater attention. In their recent meta-analysis of the career adaptability literature, Rudolph, Lavigne, and Zacher (2017) proposed a model wherein personality and motivational variables are viewed as indicators of “adaptive readiness” and whereas career adaptability is viewed as an “adaptive resource” that influences individuals' responses and outcomes. Specifically, their model suggests that adaptive readiness informs career adaptability, adaptive responses, and adaptation results. Of note, these researchers found that cognitive ability, global personality traits, and self-esteem shared low to moderate positive associations with career adaptability. However, despite proposing that older versus younger workers are likely to have more experience and thereby possess greater career adaptability, findings showed these competencies demonstrated positive albeit weak reliability-corrected correlations with participants' education and age. These researchers concluded that, while age-related factors such as agreeableness and conscientiousness may increase with age, reduction in cognitive ability may weaken adaptability and overall career adaptive effects may cancel each other out in the aggregate.

Elsewhere, Ambiel, de Francisco Carvalho, Martins, and Tofoli (2016) directly compared the CAAS scores of two developmentally distinct samples (i.e., adolescents and adult workers in Brazil). Although they found that adult workers had comparatively higher CAAS scores and that there was some evidence of group differences in the endorsement of particular CAAS items, they concluded that the CAAS was appropriate for use in both groups. In an earlier short-term longitudinal study of an age-diverse ($M_{\text{age}} = 48.17$ years; range 20–69) sample of full-time Australian workers, Zacher (2014b) found that age and future temporal focus positively related to changes in CAAS scores over six months, with age positively predicting changes in control, confidence, and overall career adaptability, and with future temporal focus positively predicting change in concern, control, curiosity, and overall career adaptability. In a study of older adult workers in Australia ($M_{\text{age}} = 59.6$ years; range 54–66), Zacher and Griffin (2015) found that, among participants whose age was one standard deviation above the mean, career adaptability was positively associated with job satisfaction whereas this relationship was non-significant for those whose age was one standard deviation below the mean.

Although Ambiel et al. (2016), Zacher (2014b), and Zacher and colleagues (2015) did not specifically address questions pertaining to career transitions within their samples, their findings suggest that career adaptability should be meaningfully related to subjective well-being outcomes among career transitioners, and that the patterning of CAAS score contributions to these outcomes may vary across distinct groups of these individuals. Finally, despite the above-mentioned studies and meta-analytic findings, we could not locate any studies that examined the relations of career adaptability to well-being outcomes among older adult workers facing retirement, or entry into Super's final stage of career development (i.e., Disengagement).

Given our review of the CAAS literature, we sought to examine the role of career adaptability in predicting subjective well-being within two groups of adult career transitioners: persons poised to enter the adult work world, and those preparing to exit the work force. Although it is likely that all adult career transitions share some common features, we viewed these two career transition periods as distinctive in that they (a) typically occur at very different phases of adult life (i.e., young adulthood vs. older adulthood); (b) are negotiated by individuals situated in different life and relational circumstances, and with considerably disparate levels of work experience; and (c) focus on developmental tasks and adjustment processes associated with contrasting work-life adaptations (i.e.,

full engagement with vs. disengagement from adult work roles).

Our primary interest, however, was in testing a model wherein dispositional adult attachment orientation could theoretically account for the emergence of career adaptability as an overall resource that enhanced the subjective well-being of our entire participant sample. As all persons undergoing significant career transition are in a unique position to make sense of, and ascribe meaning to, their life experience, we examined life satisfaction and life meaning as relevant indicators of our transitioners' subjective well-being, and as relevant adjustment outcomes of their attachment security and career adaptability. Meaning making has garnered growing attention in the vocational literature and been linked to career fulfillment (Dik et al., 2015), career decision-making (Cohen, 2003), and to career indecision (Miller & Rottinghaus, 2014), although the construct of life meaning has yet to be concurrently examined with adult attachment security and career adaptability during career transitions.

Lastly, given that the available literature was equivocal regarding age-related differences in the patterning of career adaptability competencies across young and older adults, we did not to advance a specific hypothesis about age or transition group differences. Rather, we opted to conduct some secondary analyses exploring whether our participants' career transition group moderated relations between their levels adult attachment security and their specific career adaptability competencies. We viewed such explorations as potentially useful in illuminating whether individuals' levels of adult attachment security oriented them to draw upon similar or different career adaptability competencies when experiencing the demands of career transitions occurring at different life periods.

1.1. Attachment security: the dispositional wellspring of career adaptability?

Attachment theory (Bowlby, 1969/1982, 1988) posits that, beginning in infancy, the quality of one's emotional bonds or “attachments” with intimate others serve as a powerful guide in shaping the course of lifespan development. Early and repeated infant-caregiver interactions around the former's experience of discomfort, fatigue, or distress are believed to establish relational patterns that the infant later represents cognitively as an “internal working model of self and other” (IWM). When early caregivers are reliably sensitive and responsive to the infant's distress, the child is assumed to form a favorable IWM that is relationally manifested as a *secure* attachment style or orientation. Conversely, when early caregivers are inconsistently responsive to, or consistently rejecting of, the infant's proximity-seeking needs, the child is likely to form an *insecure* attachment orientation characterized by either (a) emotional lability and excessive reassurance-seeking during experiences of stress and uncertainty, or by (b) the suppression of attachment-related emotions and thus a chronic unwillingness to seek support from others during similar life experiences.

Currently, adult attachment security is most often conceptualized and measured as a two-dimensional construct represented by a person's self-reported levels of *attachment anxiety*, or fears of rejection and abandonment by intimate others, and *attachment avoidance*, or chronic discomfort with the demands of intimacy and dependence on others (Brennan, Clark, & Shaver, 1998; Fraley, Waller, & Brennan, 2000). Adults with low scores on both dimensions are considered to have a secure attachment orientation, whereas those with high scores on one, the other, or both dimensions concurrently, are viewed as having insecure adult attachment orientations. Three decades of research has now generated a voluminous literature whose findings have supported theory-based predictions linking adult attachment security to a wide range of cognitive, affective, and relationship functioning indicators (for a contemporary review, see Mikulincer & Shaver, 2016). One particular thread in this literature that is especially relevant to the present study has been attachment theory-guided efforts to understand career development processes and outcomes.

1.1.1. Adult attachment and career development

In one of the earliest inquiries in this domain, Hazan and Shaver (1990) found that securely attached workers evidenced more favorable adjustment and fewer work-related difficulties than did their anxious and avoidant peers. In later studies comparing workers with secure and insecure attachment orientations, secure workers have been found to report less job stress and stronger perceptions of supervisor support (Schirmer & Lopez, 2001), lower levels of job burnout (Pines, 2004; Vanhuele & Declercq, 2009) and of dysfunctional career thoughts and decision-making confusion (van Eecke, 2007), and higher levels of work performance (Neustadt, Chamorro-Premuzic, & Furnham, 2011).

In career development studies involving college student samples, adult attachment orientations have been related in expected directions with vocational self-concept crystallization (Tokar, Withrow, Hall, & Moradi, 2003), career decision-making self-efficacy and fear of career commitment (Wolfe & Betz, 2004), and to career indecision (Keller & Brown, 2014). Regarding the latter parameter, adult attachment anxiety and avoidance were found elsewhere to predict career indecision through their indirect effects on students' level of self-criticism (Braunstein-Bercovitz, 2014) and their levels of self-exploration and identity confusion (Downing & Nauta, 2010).

Adult attachment orientations have also been shown to predict college students' life satisfaction by way of their intermediate impacts on students' social self-efficacy and career decision-making self-efficacy (Wright & Perrone, 2010), and to predict both academic and career self-efficacy by way of their indirect effects on students' perceptions of career supports and barriers (Wright, Perrone-McGovern, Boo, & White, 2014).

Of note, while Rudolph et al. (2017) offer a framework informed by Savickas's (2005) conceptualization of career adaptability, our proposed model differs in a few significant ways. First, our model was developed, designed, and tested prior to the publication of the published meta-analysis. Second, we contend that attachment security may serve as a relevant “adaptive readiness” variable. Furthermore, our model was not designed to differentiate between “adaptive responses” and “adaptation results” but rather to consider how indicators of well-being that include life satisfaction and life meaning may be indicators of how well transitioners adapt to their life circumstances. Lastly, although adaptivity and its link to adapting responses was not formally examined in the meta-analysis, attachment security may serve as a potential explanatory variable predictive of adaptive behaviors that influence career

planning, exploration, and beliefs. Though not proposed here, this is an area of future research.

1.2. Summary and research hypotheses

In sum, the burgeoning literature on career adaptability, along with the literature extending attachment theory to the study of adult career development, supports the view that adult attachment security should predict the subjective well-being of career transitioners by way of its indirect effect on their career adaptability. Specifically, one's adult attachment orientations should facilitate the emergence and deployment of those adaptive emotion self-regulation and self-exploration competencies manifested by career adaptability during significant life transitions. Therefore, to extend this line of inquiry, we tested our model of these inter-relationships by gathering data on these variables from (a) college seniors and recent university graduates who were about to enter, or had just entered the workforce, and (b) older adult workers who were anticipating retirement or had recently retired from the workforce. We hypothesized that, for the full sample, our indicators of adult attachment insecurity (i.e., attachment anxiety and attachment avoidance) would be negatively related to participants' career adaptability as well as to their subjective well-being. In addition, we hypothesized that career adaptability would contribute unique variance to these well-being indicators and that total CAAS scores would mediate the relationship between attachment security and well-being in the full sample.

Beyond testing the above hypotheses, we conducted a series of secondary moderated-mediation analyses that concurrently explored (a) whether the links between each dimension of adult attachment insecurity and each career adaptability competency was moderated by the nature of participants' career transition, and (b) whether all four career adaptability competencies contributed similarly to participants' scores on each indicator of transitional well-being.

2. Method

2.1. Participants

A sample of 476 young and older adults (316 women, 151 men) participated in a web-based online study described as a study focused on understanding personal perceptions and experiences with career transitions. Eligibility criteria for participation included young adults who had six months left to graduate or had graduated within the last six months, and older adults (ages 55 and over) who were either planning to retire within the next six months or had retired from work during the previous six months. Participant demographics and additional demographic information related to transition status and socioeconomic background for both samples are presented in Table 1.

2.1.1. Young adults

Participants who were still in college were awarded research credit in their respective university courses. Non-student young adults were offered a raffle drawing to win a \$10.00 gift card. A total of 298 young adults (234 women, 64 men) participated in this study. The participant's age ranged from 21 to 29 ($M_{\text{age}} = 23.36$ years, $SD_{\text{age}} = 2.25$).

Table 1
Demographics of young adults (N = 298) and older adults (N = 169).

Variable	Young adult graduates		Older adult retirees	
	Male (N = 64)	Female (N = 234)	Male (N = 87)	Female (N = 82)
Race				
Caucasian	9.4%	24.75%	46.1%	43.8%
African American	3.4%	13.4%	3.6%	2.4%
Hispanic/Latino(a)	5.4%	27.2%	0.6%	0%
Asian American	3.4%	12.8%	1.2%	2.4%
American Indian or Alaskan Native	0%	0.7%	0%	0%
Age				
M_{age}	25.11	22.88	63.69	65.52
SD_{age}	0.31	0.13	0.53	0.68
Transition status				
Pre six months	12.1%	70.5%	24.3%	18.9%
Post 6 months	9.4%	8.1%	27.2%	29.6%
SES				
Lower class	8.7%	51.7%	7.1%	8.9%
Lower to middle class	7.0%	16.4%	20.7%	20.7%
Middle to upper class	4.0%	9.1%	17.2%	14.8%
Upper class	1.7%	1.3%	6.7%	4.2%

Note. Total % of race in young adult sample: Caucasian (33.9%), African American (16.8%), Hispanic (32.6%), Asian American (16.1%), American Indian or Alaskan Native (0.6%). Total % of race in older adult sample: Caucasian (89.9%), African American (5.9%), Hispanic (0.6%), Asian American (3.6%), American Indian or Alaskan Native (0%). Overall Young Adult $M_{\text{age}} = 23.36$, $SD_{\text{age}} = 2.25$. Overall Older Adult $M_{\text{age}} = 64.58$, $SD_{\text{age}} = 5.62$.

2.1.2. Older adults

Older adult participants were primarily accessed via a well-established research panel that provides investigators with access to nationally representative samples that meet their research purposes. Participants who were not from the research panel were recruited via professional listservs, newsletters, and appropriate social media sites. As these alternative recruitment methods yielded only 2 participants who were both in pre-retirement phases, we could not assess differences in mean levels of outcome variables. A total of 169 older adults participated in this study (82 women, 87 males). The participant's age ranged from 55 to 81 ($M_{\text{age}} = 64.58$ years, $SD_{\text{age}} = 5.62$).

2.2. Measures

2.2.1. Demographic questionnaire

This measure gathered information regarding participants' age, gender, marital status, living situation, employment status, transition period, education level, and perceived social class level.

2.2.2. Adult attachment orientations

The Experience in Close Relationship Scale-Revised (ECR-R; Fraley et al., 2000) was used to assess participants' adult attachment orientations. The ECR-R is a 36-item measure wherein items are rated on a 7-point scale from 1 (strongly disagree) to 7 (strongly agree) and yield subscale scores on the Avoidance (e.g., "I prefer not to show a partner how I feel.") and Anxiety (e.g., "I worry a lot about my relationships.") dimensions of adult attachment security. These subscales demonstrated internal consistency reliabilities of $\alpha = 0.94$ and $\alpha = 0.95$, respectively (Fraley et al., 2000). The ECR-R has also demonstrated strong temporal stability across a 3- and 6-week assessment period (0.90–0.92) as well as good convergent validity ($r = 0.50$) with measures of diary ratings of anxiety and avoidance experiences in social interactions (Sibley, Fisher, & Liu, 2005).

2.2.3. Career adaptabilities

The Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012) is 24-item measure with subscales assessing participants' self-rated strengths in each the four career adaptive strategies of concern (e.g., "Planning for the future"), control (e.g., "Keeping up-beat"), curiosity (e.g., "Probing deeply into questions I have") and confidence (e.g., "Performing tasks efficiently") on a Likert scale ranging from (1) not strong to (5) strongest. Savickas and Porfeli (2012) reported the following Cronbach alpha reliabilities for CAAS total and subscales scores: total scale $\alpha = 0.92$; concern ($\alpha = 0.83$); control ($\alpha = 0.74$); curiosity ($\alpha = 0.79$); and confidence ($\alpha = 0.85$).

2.2.4. Subjective well-being

The subjective well-being of both young and older adult study participants was indexed by scales measuring life satisfaction and life meaning.

The *Satisfaction With Life Scale* (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) assesses perceptions of life satisfaction on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item includes "Am satisfied with life." Diener et al. (1985) reported that the SWLS demonstrated good psychometric properties with an overall scale reliability of 0.87 and a two-month test-retest correlation of 0.82; these investigators additionally found that SWLS scores were significantly correlated in expected directions with scores on independent measures of life satisfaction and subjective well-being, thus providing evidence of the SWLS's criterion-related validity.

The *Meaning in Life Questionnaire* (MLQ; Steger, Frazier, Oishi, & Kaler, 2006) is a 10-item measure assessing perceptions of life meaning. The 5-item Presence subscale (MLQ-P; e.g., "I understand my life's meaning") addresses the extent that people feel their lives are currently purposeful and meaningful, and the 5-item Search subscale (MLQ-S; e.g., "I am looking for something that makes my life feel meaningful") assesses the extent to which respondents are currently searching for meaning in their lives. All subscale items are rated on a Likert scale ranging from 1 (Absolutely untrue) to 7 (Absolutely true). Steger et al. (2006) reported that Presence and Search subscale scores demonstrated good internal consistencies (Cronbach alphas of 0.86 and 0.87., respectively) and adequate test-retest stability over a one-month period (test-retest correlations of 0.70 and 0.73, respectively). As these investigators also found that MLQ Presence and Search scores were negatively correlated ($r = -0.24$, $p < 0.05$), these subscale scores were respectively used in the present study as positive and negative indicators of career transition-related well-being.

2.3. Analyses

2.3.1. Primary analyses

Zero-order correlations were computed and multiple linear regressions were conducted to test hypotheses regarding (a) bivariate relations between our predictor and outcome variables, and (b) the unique and incremental contributions of adult attachment orientations and career adaptability in predicting scores on our measures of subjective well-being. Moreover, regression analysis was used to test the hypothesis that career adaptability would mediate the effect of attachment insecurity on measures of life meaning and life satisfaction. These analyses were performed using a bootstrapping method to generate 95% bias-corrected confidence intervals for evaluating these effects, with a confidence interval containing zero in its range indicating a non-significant effect.

Table 2
Correlations and descriptive statistics among key study variables of career transitioners ($N = 467$).

Variables	1	2	3	4	5	6
1. ECR Anxiety	(0.95)					
2. ECR Avoidance	0.45***	(0.95)				
3. Career Adaptability	- 0.21**	- 0.22**	(0.96)			
4. Satisfaction with Life	- 0.24**	- 0.33**	0.32**	(0.88)		
5. Presence	- 0.31**	- 0.31**	0.46**	0.53**	(0.89)	
6. Search	0.25**	0.11*	0.17**	- 0.11*	- 0.13**	(0.91)
<i>M</i>	3.00	2.86	86.26	23.86	26.11	23.60
	3.22 ^a	2.86 ^a	89.48 ^a	24.16 ^a	26.03 ^a	25.82 ^a
	2.61 ^b	2.87 ^b	80.70 ^b	23.33 ^b	26.24 ^b	19.77 ^b
<i>SD</i>	1.37	1.21	19.47	6.62	6.17	7.38
	1.34 ^a	1.14 ^a	18.59 ^a	6.58 ^a	6.21 ^a	6.50 ^a
	1.34 ^b	1.34 ^b	19.76 ^b	6.68 ^b	6.10 ^b	7.23 ^b
α	0.94 ^a	0.94 ^a	0.96 ^a	0.89 ^a	0.88 ^a	0.89 ^a
	0.95 ^b	0.96 ^b	0.96 ^b	0.88 ^b	0.91 ^b	0.90 ^b

Note. Alpha reliabilities of the overall sample are found along the main diagonal in parentheses.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

^a Young adult.

^b Older adult.

2.3.2. Secondary analyses

Several moderated-mediational models (via conditional process analysis) as outlined by Hayes (2013) were tested in our exploratory analyses. Conditional process analysis is a statistical procedure involving the simultaneous testing of moderation and mediation. Moderated-mediation analyses address the direct effects (relationship between the independent and dependent variables), indirect effects (mediation), and the conditional indirect effects (moderation) of the model in question. Specifically, our analyses explored whether the indirect effect of each career adaptability strategy was contingent on a moderator variable (e.g., career transition group), and whether the interaction between each adult attachment dimension with career transition group on each career adaptability competency also contributed to the prediction of each well-being outcome within our sample. For this study, moderated mediation models were tested (again using a bootstrapping method and 95% confidence interval) with each of the three subjective well-being outcome variables (i.e., life satisfaction, presence of life meaning, and search for life meaning).

3. Results

Descriptive statistics, scale reliabilities, and zero-order correlations among key study variables are presented in Table 2. Within the overall sample ($N = 467$), participants' scores on all measures exhibited strong internal consistencies (range of α s = 0.88–0.96).

3.1. Comparative data using research panel data

Mean scores within the research panel sample were compared to mean scores observed elsewhere in the literature to support their use in this study. This information is summarized below.

3.1.1. Adult attachment orientations

Mean scores of attachment anxiety for the full research panel sample was 2.61 ($SD = 1.34$) and attachment avoidance was 2.87 (1.34). These scores were lower compared to attachment anxiety reported in the general population between the ages of 50–70 ($M = 3.31$ – 3.23 , SD s = 1.40–1.42) (Chopik, Edelstein, & Fraley, 2013). This was also true for attachment avoidance scores in the same age group range ($M = 3.04$ – 3.06 , SD s = 1.30–1.31). These results suggest that our retirement sample exhibited slightly higher attachment security.

3.1.2. Career adaptabilities

Mean scores on the overall scale for the full research panel sample was 3.36 ($SD = 0.82$). Among the panel the pre-retirement mean was 3.49 ($SD = 0.72$), and the post-retirement mean was 3.31 ($SD = 0.86$). These results were comparable to mean scores reported in studies involving general working population samples between the ages of 18–70 years (range of means were 3.01 ($SD = 0.85$) - 3.26 ($SD = 0.69$)) (Zacher, 2014a, 2014b; Zacher & Griffin, 2015). Regarding mean scores for individual career adaptability scales we found that means for control ($M = 22.28$, $SD = 5.40$), curiosity ($M = 20.02$, $SD = 5.72$), and confidence ($M = 21.85$, $SD = 5.85$) in our sample were also comparable to data with an adult workforce between the ages of 18–65, with the exception of the career adaptability scale of concern that was lower in our sample ($M = 16.55$, $SD = 5.28$ vs. $M = 23.79$, $SD = 3.53$). This difference may be attributable to age-specific experiences with career concern. For example, the mean age of the sample in the Ambiel et al. (2016) study was 30.59 ($SD = 9.31$) whereas in our study our mean sample was 64.58 ($SD = 5.62$).

Table 3

Summary of hierarchical regression analysis for variables predicting career transitioners' subjective well-being (N = 467).

Variable	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Step 1									
ECR anxiety	-0.59	0.24	-0.12*	-0.97	0.22	-0.22**	1.39	0.28	0.26**
ECR avoidance	-1.53	0.27	-0.28**	-1.08	0.25	-0.21**	-0.04	0.31	-0.007
Step 2									
Career adaptability	0.08	0.02	0.24**	0.13	0.01	0.40**	0.09	0.02	0.23**
R ²	0.12**			0.13**			0.06**		
Adjusted ΔR^2	0.17**			0.28**			0.11**		
F for change in R ²	30.12			93.95			25.37		

Note: Model 1 represents satisfaction with life; model 2 represents meaning in life (presence); model 3 represents meaning in life (search).

* $p < 0.05$.

** $p < 0.01$.

3.1.3. Subjective well-being

Mean scores of life satisfaction for the full research panel sample ($M = 23.33$, $SD = 6.68$) was comparable to normative data ($M = 23.60$, $SD = 6.10$) for older adult Americans as reported by Pavot and Diener (1993). Regarding presence for life meaning, mean scores in our sample were slightly higher compared to means in a reported sample of 8154 participants (split between ages 18–24, 25–44, 45–64, and 65 and older) (MLQ-Presence: $M = 26.24$, $SD = 6.10$; vs. $M = 23.50$, $SD = 8.1$) (Steger, Oishi, & Kashdan, 2009). Of note, in the Steger et al. (2009) study, presence scores were higher in later life stages. Search for life meaning, however, was lower in our research panel (MLQ-Search: $M = 19.77$, $SD = 7.23$; vs. $M = 24.8$, $SD = 8.2$).

3.2. Primary analyses

Correlational findings (see Table 2) indicated that, within the full sample, each index of attachment insecurity (i.e., attachment anxiety and avoidance) was significantly and negatively associated with life satisfaction ($r_s = -0.24$, -0.33 , respectively) and with MLQ Presence scores (both $r_s = -0.31$). In addition, each index of attachment insecurity was significantly and positively associated with MLQ Search scores ($r_s = 0.11$ – 0.25 , respectively). CAAS total scores demonstrated moderately strong and significant positive associations with life satisfaction and with MLQ Presence scores ($r_s = 0.32$ and 0.46 , respectively) and significant, positive, albeit weaker associations with MLQ Search scores ($r = 0.17$).

A series of three multiple regression analyses was performed to assess whether, after controlling for participants' adult attachment orientations at the first step, career adaptability (entered at Step 2) explained significant incremental variance in the prediction of each of the three measures of subjective well-being within the full sample. Table 3 presents the results of this analysis. Overall, all three regression models were significant and confirmed that the inclusion of career adaptability accounted for significant incremental variance in participants' life satisfaction and life meaning scores. Career adaptability accounted for an additional 5% of the variance ($\beta = 0.24$, $p < 0.01$) in life satisfaction scores, 15% of incremental variance ($\beta = 0.40$, $p < 0.01$) in the presence of life meaning scores, and 5% of additional variance in the search for life meaning scores ($\beta = 0.23$, $p < 0.01$).

Results also supported our third and final hypothesis that CAAS total scores would mediate the relation between attachment insecurity and each of our indicators of subjective well-being. Specifically, results indicated that attachment anxiety and avoidance were significant predictors of career adaptability ($b = -2.99$, $SE = 0.66$, $p < 0.001$; $b = -3.68$, $SE = 0.74$, $p < 0.001$ respectively), and career adaptability was a significant predictor of life satisfaction (anxiety: $b = 0.09$, $SE = 0.02$, $p < 0.001$; avoidance: $b = 0.09$, $SE = 0.02$, $p < 0.001$). Attachment insecurity continued to be a significant predictor of life satisfaction after controlling for the mediator, career adaptability (anxiety: $b = -0.91$, $SE = 0.22$, $p < 0.05$; avoidance: $b = -1.5$, $SE = 0.24$, $p < 0.05$), consistent with partial mediation. Approximately 13.3% and 17.1% of the variance in life satisfaction was accounted for by attachment anxiety and avoidance respectively (R^2 anxiety = 0.133; R^2 avoidance = 0.171). The indirect effect was tested using a bootstrap estimation approach with 5000 samples (Preacher & Hayes, 2004). These results indicated the indirect coefficients were significant (anxiety: $b = -0.28$, $SE = 0.07$ [95% CI = -0.45 , -0.15]; avoidance: $b = -0.32$, $SE = 0.09$ [95% CI = -0.453 – 0.17]).

Attachment anxiety and avoidance were significant predictors of career adaptability ($b = -2.98$, $SE = 0.66$, $p < 0.001$; $b = -3.60$, $SE = 0.74$, $p < 0.001$ respectively), and career adaptability was a significant predictor of presence of life meaning (anxiety: $b = 0.13$, $SE = 0.01$, $p < 0.001$; avoidance: $b = 0.13$, $SE = 0.01$, $p < 0.001$). Attachment insecurity continued to be a significant predictor of presence of life meaning after controlling for the mediator, career adaptability (anxiety: $b = -0.99$, $SE = 0.19$, $p < 0.05$; avoidance: $b = -1.08$, $SE = 0.21$, $p < 0.05$), consistent with partial mediation. Approximately 26% of the variance in presence of life meaning was accounted for by the predictors (R^2 anxiety = 0.264; R^2 avoidance = 0.261). These results indicated that the indirect coefficients were significant (anxiety: $b = -0.40$, $SE = 0.10$ [95% CI = -0.62 , -0.21]; avoidance: $b = -0.48$, $SE = 0.12$ [95% CI = -0.74 , -0.26]).

Lastly, attachment anxiety and avoidance were significant predictors of career adaptability ($b = -2.98$, $SE = 0.66$, $p < 0.001$; $b = -3.59$, $SE = 0.74$, $p < 0.001$ respectively), and career adaptability was a significant predictor of search for life meaning

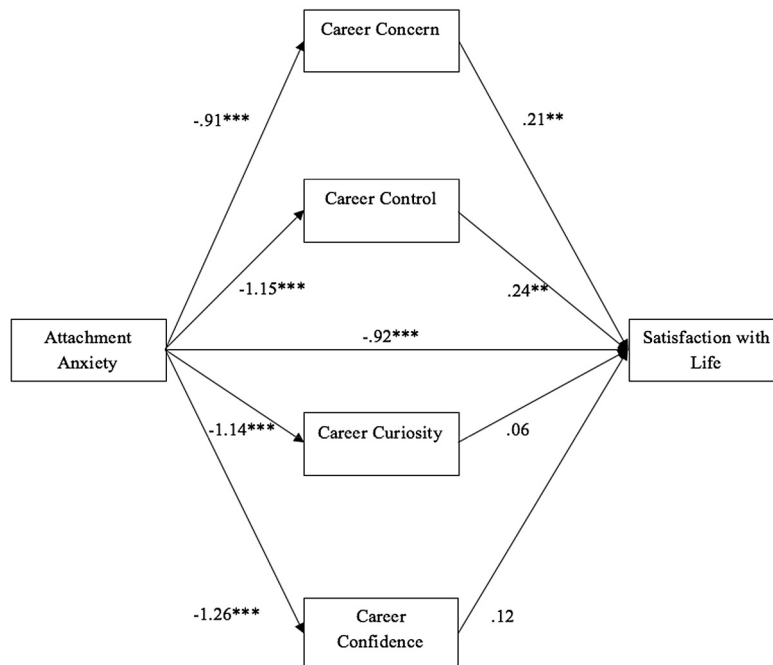


Fig. 1. Moderated mediation model of attachment anxiety, career adaptability and satisfaction with life. $N = 451$.
* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$. Note: Moderator has been removed to reduce complexity.

(anxiety: $b = 0.09$, $SE = 0.02$, $p < 0.001$; avoidance $b = 0.08$, $SE = 0.02$, $p < 0.001$). Attachment insecurity continued to be a significant predictor of searching for life meaning after controlling for the mediator, career adaptability (anxiety: $b = 1.63$, $SE = 0.25$, $p < 0.05$; avoidance: $b = 0.92$, $SE = 0.29$, $p < 0.05$), consistent with partial mediation. Approximately 11.4% and 4.9% of the variance in searching for life meaning was accounted for by the attachment anxiety and avoidance respectively (R^2 anxiety = 0.114; R^2 avoidance = 0.048). These results indicated that the indirect coefficients were significant (anxiety: $b = -0.26$, $SE = 0.08$ [95% CI = -0.44 , -0.11]; avoidance: $b = -0.27$, $SE = 0.09$ [95% CI = -0.49 , -0.12]).

3.3. Secondary analyses: moderated-mediational analyses of well-being outcomes

For our secondary analyses, we tested six moderated-mediation models. We examined the indirect effect of adult attachment security on well-being through career adaptability and whether the relationship between attachment insecurity and career adaptability was moderated by participants' career transition group. Results of the six models exhibited significant direct and indirect effects, however no interaction effects were found (see Figs. 1–6 for a detailed summary of path estimates in the stated models). More specifically, for each analysis, participants' career transition group did not emerge as significant moderators of CAAS subscale scores indicating that the effects of each dimension of attachment insecurity on each of the four career adaptive strategies did not differ across our two groups of transitioners. Therefore, below we summarize the direct and indirect effects of the variables of interest holding career transition group constant. Across these findings, effect sizes are denoted as “ES.”

3.3.1. Life Satisfaction

Attachment anxiety resulted in an unconditional direct effect on life satisfaction for both young and older adult transitioners (ES = -0.92 , $SE = 0.22$, $p < 0.001$, [CI -1.35 , -0.48]). Career concern (ES = 0.21, $SE = 0.07$, $p < 0.05$ [CI 0.07, 0.35] and control (ES = 0.24, $SE = 0.07$, $p < 0.01$ [CI 0.06, 0.42]) mediated the relationship between attachment anxiety and life satisfaction holding career transition group constant. Attachment avoidance resulted in an unconditional direct effect on life satisfaction for both young and older adults (ES = -1.51 , $SE = 0.24$, $p < 0.001$, [CI -1.99 , -1.04]). Career concern (ES = 0.15, $SE = 0.07$, $p < 0.05$ [CI 0.02, 0.29] and control (ES = 0.30, $SE = 0.09$, $p < 0.05$ [CI 0.13, 0.47]) mediated the relationship between attachment avoidance and life satisfaction.

3.3.2. Presence of meaning in life

Attachment anxiety resulted in an unconditional direct effect on the presence of life meaning for both young and older adults (ES = -0.98 , $SE = 0.19$, $p < 0.001$, [CI -1.35 , -0.61]). Career concern (ES = 0.19, $SE = 0.06$, $p < 0.05$ [CI 0.07, 0.31] and control (ES = 0.29, $SE = 0.08$, $p < 0.05$ [CI 0.13, 0.44]) mediated the relationship between attachment anxiety and presence scores. Attachment avoidance resulted in an unconditional direct effect on presence for both young and older adults (ES = -1.10 , $SE = 0.21$, $p < 0.001$, [CI -1.51 , -0.68]). Career concern (ES = 0.14, $SE = 0.05$, $p < 0.05$ [CI 0.02, 0.26] and control (ES = 0.35,

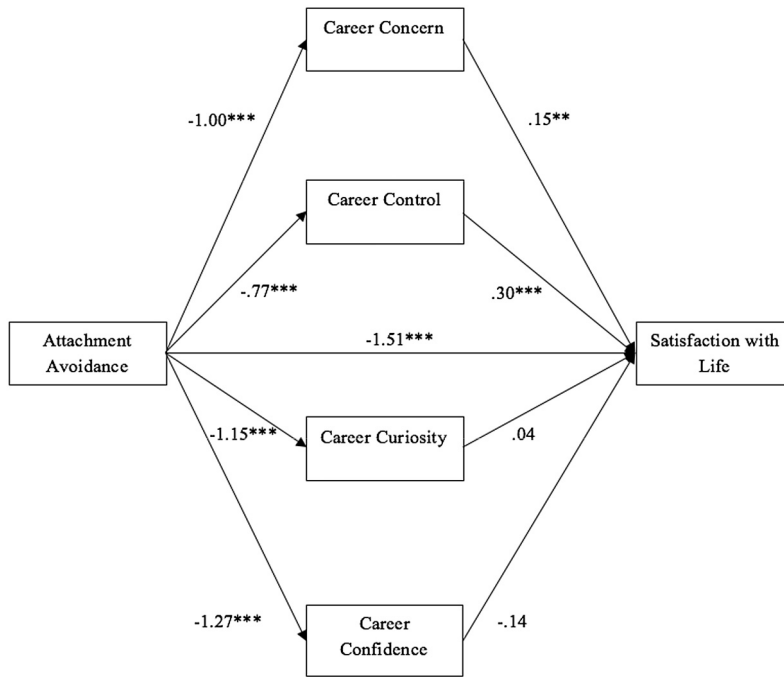


Fig. 2. Moderated mediation model of attachment avoidance, career adaptability and satisfaction with life. $N = 451$. $*p < 0.05$. $**p < 0.01$. $***p < 0.001$. Note: Moderator has been removed to reduce complexity.

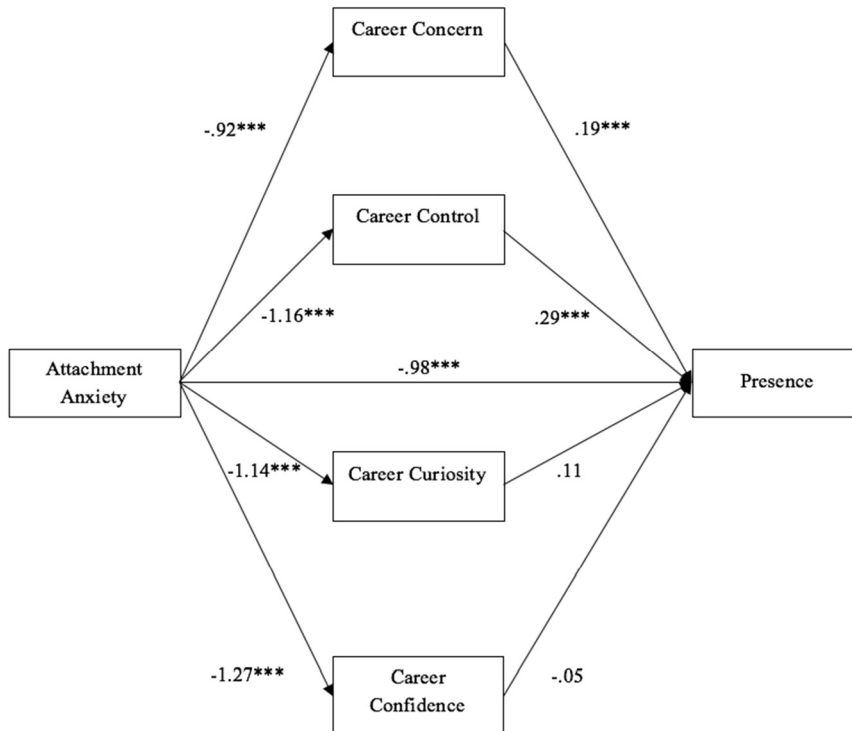


Fig. 3. Moderated mediation model of attachment anxiety, career adaptability and presence. $N = 454$. $*p < 0.05$. $**p < 0.01$. $***p < 0.001$. Note: Moderator has been removed to reduce complexity.

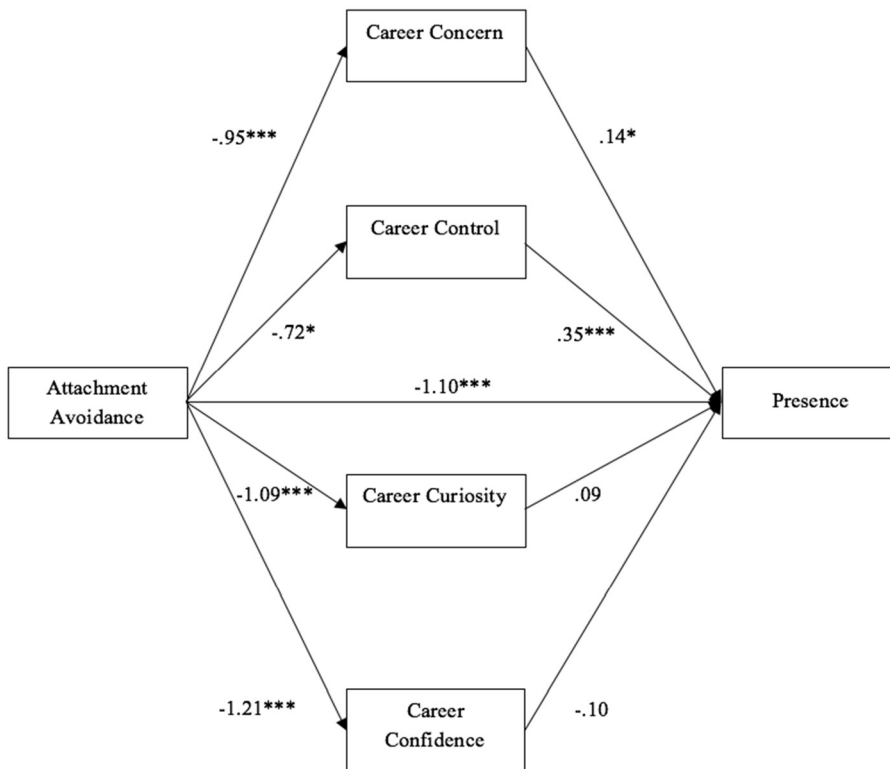


Fig. 4. Moderated mediation model of attachment avoidance, career adaptability and presence. N = 454. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$. Note: Moderator has been removed to reduce complexity.

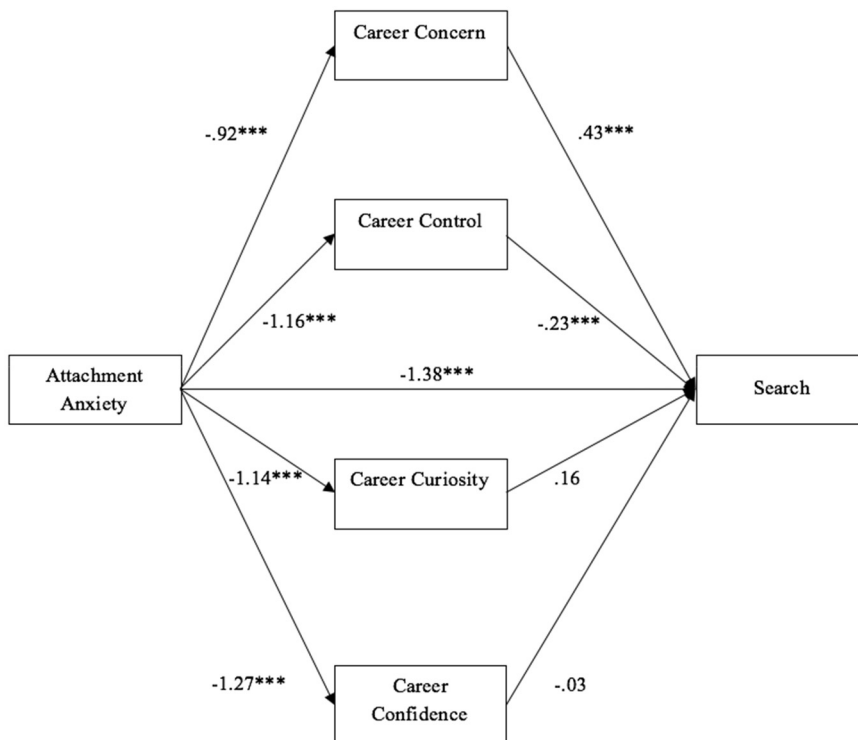


Fig. 5. Moderated mediation model of attachment anxiety, career adaptability and search. N = 454. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$. Note: Moderator has been removed to reduce complexity.

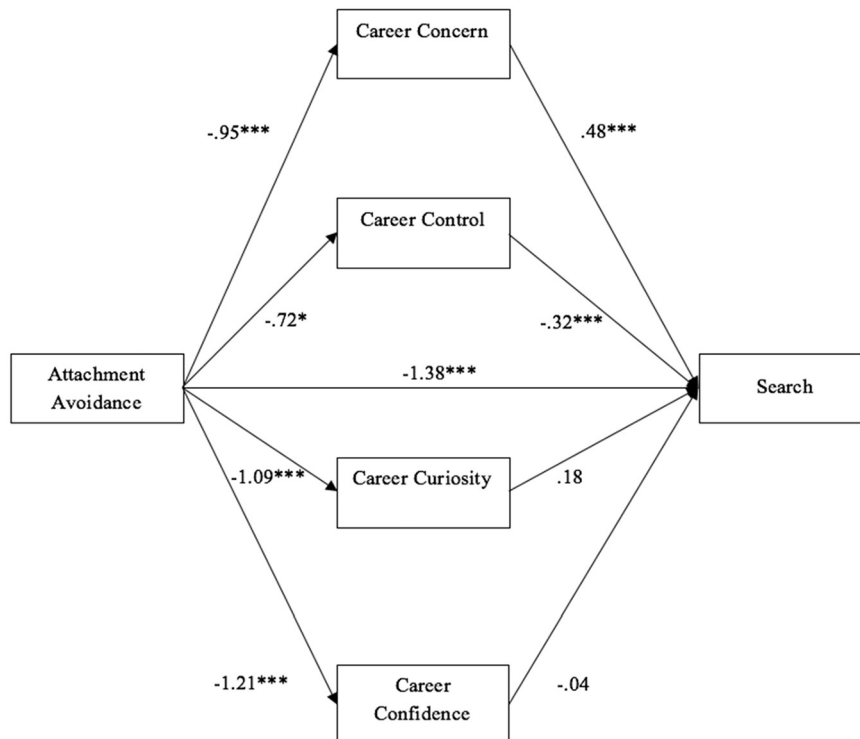


Fig. 6. Moderated mediation model of attachment avoidance, career adaptability and search. $N = 454$.

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$. Note: Moderator has been removed to reduce complexity.

$SE = 0.08$, $p < 0.05$ [CI 0.21, 0.50] mediated the relationship between attachment avoidance and presence.

3.3.3. Search for meaning in life

Attachment anxiety resulted in an unconditional direct effect on the search for life meaning ($ES = 1.38$, $SE = 0.24$, $p < 0.001$, [CI 0.90, 1.86]). Career concern ($ES = 0.43$, $SE = 0.08$, $p < 0.05$ [CI 0.28, 0.58]) and control ($ES = 0.23$, $SE = 0.10$, $p < 0.05$ [CI -0.42, -0.03]) mediated the relationship between attachment anxiety and search scores. Attachment avoidance resulted in an unconditional direct effect on search for both young and older adults ($ES = 0.99$, $SE = 0.27$, $p < 0.001$, [CI 0.45, 1.53]). Career concern ($ES = 0.48$, $SE = 0.08$, $p < 0.05$ [CI 0.33, 0.63]) and control ($ES = -0.32$, $SE = 0.10$, $p < 0.05$ [CI -0.52, -0.13]) mediated the relationship between attachment avoidance and search.

4. Discussion

Research on career adaptability has been reinvigorated by the recent development of the Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012) which identifies four basic competencies associated with this construct. Nonetheless, our understanding of the dispositional underpinnings of career adaptability and of its deployment during career transitions is limited. To address these inquiry goals, we administered the CAAS, along with measures of adult attachment security, life satisfaction, and life meaning to two distinct groups of transitioners: (a) young adult college students about to enter (or who had recently entered) the adult workforce, and (b) older adults who had recently retired from work (or who were preparing to do so). We hypothesized that, for the full sample, adult attachment orientations and career adaptability would each be uniquely associated with subjective well-being (i.e., life satisfaction, presence of life meaning, search for life meaning) during their career transitions, and that career adaptability would mediate expected relations between adult attachment security and these adjustment outcomes. In addition, we conducted a series of moderated-mediational analyses to explore whether one's career transition group (young adult vs. older adult transitioners) moderated relationships between participants' adult attachment orientations and their scores on each of the four career adaptability competencies while it concurrently examined the roles of each of these competencies in mediating relationships between each dimension of adult attachment insecurity and each indicator of transitional well-being.

Our correlational findings generally yielded support for the view that measures of adult attachment insecurity would demonstrate significant and theoretically-expected associations with participants' levels of adult attachment security and their career adaptability total scores as well as with their scores on each of the three measures of subjective well-being. These findings are aligned with previous research indicating that a secure adult attachment orientation was linked to more favorable career-related adjustment, decision-making, satisfaction, and vocational self-concept (Dahling & Librizzi, 2015; Hazan & Shaver, 1990; Tokar et al., 2003; van

Ecke, 2007). Thus, our findings offer initial support for the view that adult attachment security may serve as an important dispositional antecedent of career adaptability.

Although bivariate correlations among adult attachment orientations, career adaptability, and our indicators of subjective well-being were generally in expected directions, one exception was the positive association between career adaptability and the search for life meaning scores. As MLQ Search scores were previously found to be negatively associated with well-being (Steger et al., 2006), we expected them to be negatively correlated with career adaptability in the present study. However, MLQ Search scores were instead positively, albeit weakly, associated with CAAS total scores in our sample of transitioners. This unexpected finding raises the possibility that, among individuals undergoing significant life change, the search for life meaning may, at least initially, represent a healthy and positive reaction to the experience of uncertainty by heightening transitioners' concerns about their decisional context and of the importance in engaging in purposive action (Frankl, 1985).

As expected, our regression findings supported the hypothesis that adult attachment orientations and career adaptability scores would each account for unique incremental variance in the prediction of each well-being measure, and that career adaptability scores would function as a significant mediator of the observed relationships between adult attachment insecurity and well-being. The unique contributions of attachment and career adaptability to markers of well-being further reinforce the idea that an individual's dispositional orientations to close relationships play a critical role in shaping anticipatory behavior in managing a career transition. That is, being securely attached likely enhances an individual's access to internal coping resources for responding appropriately to periods of career disequilibrium, which, in turn, positively influences their well-being during important career transitions.

Given prior research findings (Ambiel et al., 2016; Zacher, 2014b; Zacher & Griffin, 2015) suggesting that transitioners' confidence in their career adaptabilities might also be affected by their age and psychosocial circumstances, we tested moderated-mediated models and found partial support for individual dimensions of career adaptability mediating the relationship between attachment insecurity and well-being. Specifically, of the four career adaptive strategies, only career concern and control emerged as significant mediators. However, these results were not moderated by career transition group. As expected, career concern and control were negatively related to attachment insecurity and positively related to life satisfaction and presence in life meaning. This implies that secure transitioners employ high levels of career concern and control, which, in turn, positively contributes to their transition-related well-being. Results from these analyses further suggest that the use of both adaptive strategies is generalizable to young and older adults who are undergoing theoretically distinctive career transition experiences. These findings are consistent with Savickas' (2005) contention that career concern and control are the two most important dimensions of career adaptability, as well with Buyukgoze-Kavas et al.'s (2015) finding that, of the four career adaptabilities, career concern and control were especially associated with experiences of work volition and personal meaning.

Lastly, our moderated-mediational analyses demonstrated that the relative valences of concern and control were uniquely implicated in predicting transitioners' search for life meaning. More specifically, in this final model test, *high* levels of concern and *low* levels of control were jointly predictive our transitioners' search for life meaning. As suggested earlier, it is possible that this combination of career adaptability levels may signal the experience of existential anxiety that orients the transitioner to actively search for purposeful steps in dealing with the uncertainty and confusion that are likely associated with his or her career decisional context. More time-sensitive studies examining career adaptability processes during actual career transitions will be needed to explore this possibility. Practical implications from our findings suggest that career concern and control are two key strategies that career counselors can use to help individuals feel more adaptive and efficacious in making transition-related changes. Furthermore, taking opportunities in the counseling experience to *process* existential angst among clients to normalize the experience of change, beyond just offering coping skills and strategies, can be both psychological impactful and beneficial.

Additional areas for future research include advancing understanding about the psychological and social determinants of adaptive individuals when undergoing a transition relative to non-transition periods. Such inquiries may illuminate other predictors of career adaptability and offer practical implications for career counselors in addressing modifiable behaviors that promote clients' positive transitional adjustment. Relatedly, they may also answer key questions about (innate or learned) protective factors that help individuals face adversity and motivate their use of career adaptive strategies (Bimrose & Hearne, 2012).

The limitations of the present study encourage such continued inquiry. In particular, our study's cross-sectional and correlational design precluded causal inferences regarding interrelationships among study variables. Longitudinal studies of career transitioners will be necessary to identify stable and fluctuating features of their adaptations and to examine mean-level changes in career adaptability and well-being over time. Also, women were overrepresented in our sample of young adult transitioners. Studies involving more gender-balanced samples are thus needed to sensitively explore gender-related variation in participants' transition experiences. Lastly, the older adult sample in this study was predominantly Caucasian, thus constraining the generalizability of our findings to older adult transitioners of color. Future research would do well to consider how other characteristics such as gender, race/ethnicity, health, and financial circumstances may influence adaptability during periods of career uncertainty.

Despite its limitations, our study represents the first effort to test a theory-guided model of the contributions of adult attachment security and career adaptability in predicting well-being within a sample of career transitioners. As such, our findings support the view that transitioners' dispositional levels of adult attachment security likely enhance the deployment of their career adaptability competencies which, in turn, function as self-regulatory mechanisms for constructively managing stress and promoting well-being during active periods of career transition.

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