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Life challenges and resilience: the role of perceived personality continuity

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ABSTRACT

Objectives: Self-functioning, one aspect of mental health, is positive in later life. Although experiencing challenges may disrupt mental health, internal resources can foster resilience. This study examines how the frequency of recent challenges relates to current self-functioning. Perceived personality continuity, one's sense of maintaining their trait personality, is investigated as an internal resource.

Method: Participants ($N = 99$ young adults, 88 older adults) reported all challenging events experienced in the last six years. Perceived personality continuity over the same time was assessed. Multi-measurement of current self-functioning included self-concept clarity, self-esteem, and self-acceptance.

Results: Older adults reported higher self-concept clarity and self-esteem; young adults reported higher self-acceptance. Experiencing more challenges related to lower self-concept clarity and self-esteem across age groups, with a stronger negative link to self-esteem for young adults. Perceived personality continuity partially mediated relations between: (i) challenges and self-concept clarity, and (ii) challenges and self-esteem. Perceived personality continuity mediated positive self-functioning for older adults only.

Conclusion: A late life strength, older adults report higher self-functioning overall. Challenges negatively relate to self-functioning across age groups, but younger adults' self-esteem is more vulnerable. When having faced challenges, older adults' perceived personality continuity is critical to positive current self-functioning.

Introduction

Holding a clear and positive sense of self and accepting who one is are important indicators of mental health. The number of challenging events individuals experience, however, can disrupt their sense of self (Orth & Luciano, 2015). Research on resilience indicates that internal resources explain why individuals can sometimes maintain their mental health despite challenges (Luthar, Cicchetti, & Becker, 2000; Masten, 2001). This study is grounded in the resilient aging framework, which delineates how individuals of all ages can use internal resources to adapt or thrive even when experiencing adversity (Fry & Keyes, 2010; Masten, 2001). Compared to traditional views of older adulthood as a time of decline, the resilient aging framework argues that older adults can capitalize on their existing resources and skills in order to overcome the challenges of old age (Fry & Keyes, 2010). This study investigates how the frequency of *recent challenging life events* relates to young and older adults' multidimensional *current self-functioning*. It investigates whether *perceived personality continuity*, the feeling that one is still themselves despite challenges, is a critical internal resource in older adulthood.

Positive self-functioning in young and older adults

We define self-functioning as multidimensional: though self-concept clarity, self-esteem, and self-acceptance are interrelated, they fulfill different needs (Dweck, 2017) and refer to diverse components of self-structure (Bigler, Neimeyer, & Brown, 2001). Self-concept clarity refers to the sharpness of self-definition (Campbell et al., 1996). Self-esteem involves evaluations of self-worth (Crocker & Park, 2004). Self-acceptance connotes a non-judgmental self-attitude (Ryff & Keyes, 1995). These aspects of self-functioning relate to mental health. A clear self-concept relates to psychological well-being (Diehl & Hay, 2011). Positive self-esteem relates to better interpersonal relations (Trzesniewski et al., 2006). Self-acceptance relates to lower stress (Rodriguez, Xu, Wang, & Liu, 2015). As self-functioning spans multiple perceptions of one's self, we argue that using a multidimensional approach to measure it is a necessary next step. Previous work has not taken this multi-measure approach to fully explore self-functioning in relation to challenge.

Older adulthood is often associated with loss with one exception (Baltes, Lindenberger, & Staudinger, 2006): older adults report better self-functioning than the young. Self-concept clarity is higher in older than younger adults (Bluck & Alea, 2008) and self-esteem increases with age (Orth & Robins, 2014). Age findings on self-acceptance are inconclusive (Springer, Pudrovska, & Hauser, 2011). To fully conceptualize the aging self, we examine differences across these aspects of self-functioning.

Relation of frequency of recent challenging life events to self-functioning

We suggest that maintaining positive self-functioning after multiple negative challenges is indicative of a resilient self.

Challenging events often involve transitions, including shifts in roles and life pursuits, changes in interpersonal relations, and loss of personal identity. One's self-coherence and self-identity can be impacted long after a challenging event has occurred (Sutin, Costa, Wethington, & Eaton, 2010). Depending on one's life phase, individuals reflect on a different part of their recent past. Young adults' recent pasts include challenges from their adolescent years, whereas older adults' recent challenges likely involve their early retirement years. Regardless of the type of event, the sheer number of challenging events can surpass individuals' coping ability and impair their self-functioning (Seery, Leo, Lupien, Kondrak, & Almonte, 2013; Whitbourne & Connolly, 1999). There is limited research examining the relation between experiencing challenges and multidimensional self-functioning. We argue, however, that self-functioning is an understudied critical marker of adult mental health that may be disrupted by experiencing multiple challenges (Orth & Luciano, 2015). Previous literature examining mental health in general has found that, reporting a greater frequency of stressful events relates to higher depression and anxiety (Pomerleau, Pargament, Krause, Ironson, & Hill, 2019). Older adults who report a higher frequency of challenging events have more post-traumatic stress symptoms: this relation is stronger than when predicting symptoms from any single event (Ogle, Rubin, & Siegler, 2013). The disruption felt when experiencing multiple challenges can prompt re-evaluation of the self (Ritchie, Sedikides, Wildschut, Arndt, & Gidron, 2011). Building on this literature, we examine how the frequency of recent challenges relates to current self-functioning.

Effects of life challenges in younger and older adults

Life challenges may particularly affect young adults' mental health. They struggle with leaving home and becoming independent, may need to balance college and employment, and their life phase involves developing a clear, adult identity (Chung et al., 2014; Morsunbul, Crocetti, Cok, & Meeus, 2016). Their understanding of the self may thus be particularly vulnerable when challenges occur.

Though older adults also experience the effects of challenges, they may not show the same degree of negative impact on self-functioning. Compared to younger people, older adults focus more on positive than negative information (Mather & Carstensen, 2005), showing better emotion regulation. Older adults experience challenges (e.g. Lodi-Smith & Crocetti, 2018) but often show psychological resilience (O'Rourke, 2004). Despite age-related losses, older adults' subjective well-being does not necessarily decrease (Mroczek & Kolarz, 1998). This may be due to their use of internal resources.

Perceived personality continuity as an internal resource: life phase specificity

This study's central contribution is to investigate whether perceiving trait personality as continuous (i.e. feeling one is still the same person) despite having weathered recent challenges is one internal resource for resilience. Internal resources vary intrapersonally and they can change across situations. Internal resources contribute to the process of resilience and explain why some individuals show positive

outcomes despite experiencing challenges (Luthar et al., 2000; Taylor & Conger, 2017). We posit that the perception of personality as continuous is an internal resource that varies by individual, explaining why only some show resilience. As personality is a major and relatively stable organizer of the self, feeling that this structure has changed could contribute to experiencing the self as shaken or discoherent (Zepinic, 2016). Conversely, feeling that one's personality has remained relatively continuous, despite facing multiple challenges, may be protective for one's self-functioning. In support of this, global self-continuity is linked with adaptive coping responses to challenging events (Sadeh & Karniol, 2012), whereas poor global self-continuity is related to psychopathology (Fuchs, 2007). We therefore examine variation in perceived trait personality continuity over a period in which challenging events occurred.

We propose perceived personality continuity may act differentially as an internal resource by life phase based on classic lifespan development theory (e.g. Baltes, 1987, 1997) and trait theories of personality development in adulthood (e.g. McCrae & Costa, 2003). Young adults' developmental trajectory involves change (Baltes, 1987). Their life phase involves establishing an identity, including developing views of their adult personality while facing many events for the first time (Roberts, Walton, & Viechtbauer, 2006). The developmental focus in young adulthood is on growth, not stability. Perceived personality continuity may thus play a limited role in bolstering their self-functioning.

Older adulthood is a phase emphasizing maintenance (Baltes, Staudinger, & Lindenberger, 1999). In describing expected lifespan changes, older adults expect stability (Heckhausen & Krueger, 1993) and experience greater temporal continuity than the young (e.g. Löckenhoff & Rutt, 2017). This emphasis on stability (Timmer, Steverink, Stevens, & Dittmann-Kohli, 2003) aligns with the adaptive value of self-continuity in older adulthood (Brandtstadter, 1999). Facing challenges in late life, however, is incongruent with maintaining stability: challenges may be experienced as unexpected as they threaten to disrupt one's well-established sense of 'being me.' Perceiving continuity in personality, over a time of experiencing challenges, may thereby be a more critical resource for older adults.

The current study

We measure perceived personality continuity as an internal resource and assess present-focused self-functioning variables as indicators of mental health. Perceived personality continuity is a *retrospective temporal* construct. We conceptualize the process of resilience as occurring when individuals draw on perceived personality continuity, during a period of multiple challenges, and show more positive *current* self-functioning.

Note that we examine *perception*. Actual trait personality remains relatively stable in adulthood (Graham & Lachman, 2012) despite some individual differences (Mroczek & Spiro, 2003), sometimes in relation to life challenges (Lüdtke, Roberts, Trautwein, & Nagy, 2011). We argue that perception of one's personality over time may play a role in actual development (Heckhausen & Baltes, 1991) as individuals construct evolving life stories that represent both personality change and coherence (McAdams, 2001). There is large

variability in perceived personality continuity when people of different ages consider how they might change across the lifespan (e.g. Fleeson & Heckhausen, 1997). Such perceptions of one's personality can remain stable or shift over time, and how life events are woven together in one's life story has real implications for mental health and psychological well-being (Baerger & McAdams, 1999). The current study focuses on perceptions of personality continuity: these can vary widely and are thus a good candidate for acting as an internal resource.

The study has three aims. A preliminary aim is to assess age differences in multidimensional current self-functioning. Older adults are expected to score higher overall on self-functioning, specifically self-concept clarity and self-esteem.

The second aim is to determine whether frequency of recent challenging events experienced relates to one's current self-functioning. Experiencing a greater frequency of recent challenges is hypothesized to be associated with lower scores on self-functioning measures. These relations are expected to be stronger for young than older adults.

The third aim, and this study's central focus, is to examine perceived personality continuity as a moderated-mediator of expected relations between frequency of challenging life events and current self-functioning. The extent to which older, but not younger, adults perceive personality as continuous over the period in which challenges occurred is expected to mediate associations between frequency of challenges and positive self-functioning. This use of perceived personality continuity as an internal resource is not expected for younger persons, given their life phase focus on change. Based on conceptualizations that move beyond viewing resilience as a trait (Masten, 2001; Wild, Wiles, & Allen, 2013), we focus on how internal resources operate as part of a process of resilience. This enhances understanding of why the classically expected link between increased risk and more negative outcome sometimes does not occur, or occurs at varying levels (e.g. Masten, 2001; Taylor & Conger, 2017). We thus investigate perceived personality continuity as a mediating pathway between life challenges and self-functioning.

Method

Participants

Participants were 99 young ($M_{age} = 19.42$, $SD = 1.25$; 51 women) and 88 older adults ($M_{age} = 71.73$, $SD = 6.79$; 48 women). Young adults were college students at the University of Florida and received course credit. They reported ethnicity as Caucasian (53.3%), Hispanic (20.2%), African-American (15.2%), Asian (7.1%), or Other (4%). Older adults were recruited from announcements made in community locations and local retirement communities and received $15. They were also well-educated (i.e. 90% Bachelor's degree). Older adults were Caucasian (92%), Hispanic (1.1%), African-American (1.1%), Asian (2.3%), or reported Other (3.4%). Young and older participants both rated their health, on average, as 'good' on a 1–5 scale (young adults: $M = 1.87$, $SD = 0.82$; older adults: $M = 1.68$, $SD = 0.79$).

Procedure

The study was IRB-approved as part of a larger data collection. Older adults were screened for dementia (Orientation–Memory–Concentration Test; Katzman et al., 1983). The six-item test was administered by phone and older adults who met the cut-off (Carpenter et al., 2011) were invited to participate. Nine were excluded. Participants provided consent and then completed demographics, cognitive functioning and health assessments, and the perceived personality continuity and self-functioning measures. Finally, they completed a survey of recent challenging events.

Measures

Perceived personality continuity

The short version of the Big Five Inventory (BFI-10; Rammstedt & John, 2007) was modified based on classic work assessing personality continuity (Herbst, McCrae, Costa, Feaganes, & Siegler, 2000). Before completing ratings, participants briefly thought back to their lives six years ago (i.e. where they lived, who they spent time with, activities they engaged in, how they felt). The 10 BFI adjectives were then presented. Participants rated how much they felt they had changed on each trait over six years (e.g. Compared to how you were in 2013, how generally *trusting* are you now?), from 1 (*changed a great deal*) to 3 (*stayed pretty much the same*). Higher scores indicate greater perceived continuity in trait personality, $M = 2.27$, $SD = 0.44$, Cronbach's $\alpha = .77$.

Self-concept clarity

On the 9-item Self-Concept Clarity Scale (Campbell et al., 1996) participants rated from 1 (*strongly disagree*) to 5 (*strongly agree*) to indicate clarity of their self-view (e.g. I have a clear sense of who I am and what I am). Higher scores indicate clearer self-concept, $M = 3.55$, $SD = 0.90$, $\alpha = .87$.

Self-esteem

Participants rated 10 items on Rosenberg's (1965) Self-Esteem Scale from 1 (*strongly disagree*) to 5 (*strongly agree*; e.g. I am able to do things as well as most other people) indicating feelings of self-worth. Higher scores indicate greater self-esteem, $M = 4.01$, $SD = 0.73$, $\alpha = .92$.

Self-acceptance

Participants responded to 14 items on the Self-Acceptance subscale (Psychological Well-being Scale; Ryff, 1989) from 1 (*strongly disagree*) to 6 (*strongly agree*; e.g. For the most part, I am proud of who I am and the life I lead). Higher scores indicate greater self-acceptance, $M = 4.68$, $SD = 0.98$, $\alpha = .94$.

Frequency of challenging life events

The Life Experiences Survey (Sarason, Johnson, & Siegel, 1978) assesses negative and positive events experienced. The current study used only the 45 negative events. Participants indicated which events occurred in the last six years. This time-frame was chosen, instead of the entire life, so that both age groups drew events from an equal time period. Six years also ensured young adults were not

Table 1. Bivariate correlations for major study variables.

Variable	Frequency of challenging life events	Perceived personality continuity	Self-concept clarity	Self-esteem	Self-acceptance	Age
Frequency of challenging life events						
Perceived personality continuity	−0.32***					
Self-concept clarity	−0.37***	0.46***				
Self-esteem	−0.38***	0.38***	0.71***			
Self-acceptance	0.09	−0.10	0.06	0.00		
Age	−0.38***	0.56***	0.42***	0.31***	−0.22**	
Sex	−0.04	−0.06	0.03	−0.07	−0.03	

Note. Age: 0 = young adults, 1 = older adults. Sex: 0 = male, 1 = female.
**$p < .01$; ***$p < .001$.

Table 2. Summary of hierarchical regression analyses for variables predicting self-functioning measures.

	Measures of self-functioning					
	Self-concept clarity		Self-esteem		Self-acceptance	
Predictor	ΔR^2	B	ΔR^2	B	ΔR^2	B
Step 1	0.29***		0.22***		0.05*	
Age group		0.32*		0.09		−0.46*
Challenging life event frequency		−0.04**		−0.04***		0.00
Perceived personality continuity		0.62***		0.43**		0.03
Step 2	0.01		0.02*		0	
Challenging life event freq × Age		0.03		0.05*		0.08
Total R^2	0.30		0.24*		0.05	
N	187		187		187	

Note. Age group: 0 = young adults, 1 = older adults.
*$p < .05$; **$p < .01$; ***$p < .001$.

recalling events from childhood. Based on the mean age of each age group, young adults' challenging events occurred when they were between ages 13 and 19 and older adults between ages 65 and 71. Young adults reported ($M = 11.11$, $SD = 4.73$) slightly more life challenges than older adults ($M = 7.28$, $SD = 4.57$), $t(185) = 5.61$, $p < .001$. Participants also rated the extent to which each event challenged their sense of self from 1 (*not at all*) to 5 (*extremely*). There was no difference between the severity of the challenges reported by young ($M = 3.49$, $SD = 0.11$) and older adults ($M = 3.93$, $SD = 0.13$), $t(183) = 0.63$, $p = .95$.

We provide a sense of the type of events experienced for descriptive purposes. Young adults' most frequently reported challenges were: major conflicts with friends (75% of sample), falling out with a close other (73%), breaking up with a boyfriend or girlfriend (72%). Older adults' most frequently reported challenges were: death of a close friend (55%), major negative change in sleeping habits (45%), serious illness or injury of a close friend (43%). The challenges reported for each age group reflect what would be expected given the developmental context of each life phase (Baltes, 1987).

Results

Preliminary analyses

Aims were tested using SPSS 22.0 (IBM Corporation) for multivariate analysis of variance (Aim 1; MANOVA), hierarchical regression analysis (Aim 2) and moderated-mediation analysis (Aim 3). To maintain conceptual differences, the three self-functioning measures were tested in independent models. Table 1 shows bivariate correlations of major variables. Self-concept clarity and self-esteem were interrelated. Higher frequency of challenges was related to lower self-concept clarity, self-esteem, and perceived personality continuity. Greater perceived personality continuity was related

to higher self-concept clarity and self-esteem. Sex was unrelated to major variables and not further analyzed.

Aim 1: age group differences in current self-functioning

A one-factor, between-subjects MANOVA examined each self-functioning variable as a dependent variable with age group as the independent variable. The age group effect for self-functioning was significant, $F(3, 183) = 19.10$, $p < .001$; Wilks' $\lambda = 0.76$, partial $\eta^2 = 0.24$. Self-concept clarity, $F(1, 185) = 29.95$, $p < .001$, self-esteem, $F(1, 185) = 9.34$, $p < .001$, and self-acceptance, $F(1, 185) = 8.60$, $p < .01$, differed by age. *Post hoc* analyses showed older adults reported higher self-concept clarity, $p < .001$, and higher self-esteem than young adults, $p < .001$. Young adults reported higher self-acceptance than older adults, $p < .01$.

Aim 2: recent challenging life events and current self-functioning

Three hierarchical linear regression models tested self-concept clarity, self-esteem, and self-acceptance as criterion variables (see Table 2). All variables were mean centered. In each model, Step 1 included frequency of challenging life events and covariates including age group and perceived personality continuity shown to correlate with self-functioning. To test the hypothesized age difference in lower self-functioning in relation to experiencing challenges, Step 2 included frequency of challenging life events by age group interaction.

Self-functioning: self-concept clarity, self-esteem, and self-acceptance

As expected, experiencing a higher frequency of recent challenging life events was related to lower current self-

concept clarity, $B = -0.04$, $t(183) = -3.10$, $p < .01$, with no age interaction, $B = 0.03$, $t(182) = 1.30$, $p = .195$.

As hypothesized, a higher frequency of recent challenges was related to lower self-esteem, $B = -0.04$, $t(183) = -3.89$, $p < .001$, and was moderated by age group, $B = 0.05$, $t(182) = 2.32$, $p < .05$. Deconstructing the interaction showed the relation between experiencing more recent challenges to lower self-esteem was stronger for young ($r = .34$, $p < .01$**) than older adults ($r = .24$, $p < .05$*), see Figure 1. Contrary to expectations, experiencing a higher frequency of recent challenges was unrelated to self-acceptance, $B = 0.00$, $t(183) = 0.08$, $p = .94$, with no age interaction, $B = 0.08$, $t(182) = 0.24$, $p = .81$.
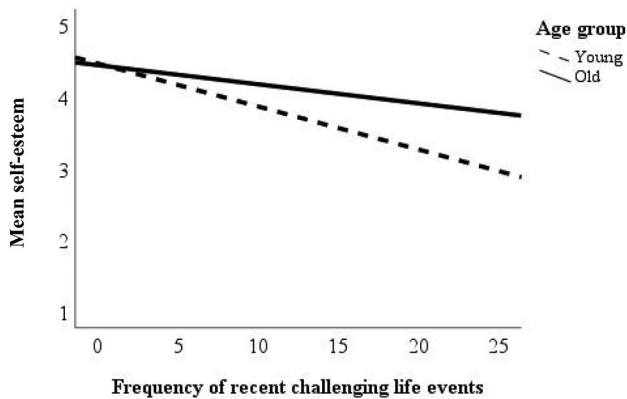

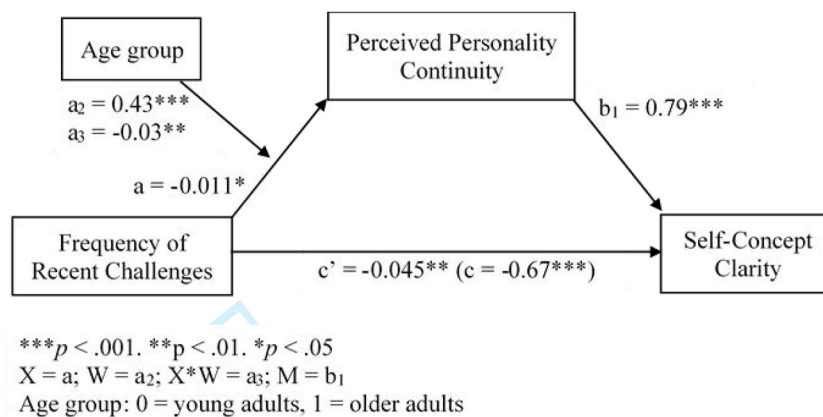**Figure 1.** Relation of frequency of challenging life events in past six years to current self-esteem by age group.

Aim 3: perceived personality continuity as an internal resource

The moderated-mediation models were tested using the SPSS PROCESS macro (Hayes, 2013) with 5000 bias-corrected bootstrap resamples. Following standard procedures for testing indirect effects, when the 95% confidence interval did not include 0, the indirect effect was significant at $p = .05$. Moderated-mediation models tested the frequency of challenging life events as the independent variable and perceived personality continuity as the mediator. Each self-functioning variable was a criterion variable. Age group was tested as the moderator between frequency of challenges and perceived personality continuity.

Self-concept clarity

Perceived personality continuity was related to self-concept clarity, $B = 0.79$, $SE = 0.14$, $t(183) = 5.76$, $p < .001$. As hypothesized, perceiving continuity in one's personality partially explained the association between experiencing a higher frequency of recent challenges and lower self-concept clarity, $B = -0.05$, $SE = 0.01$, $t(184) = -3.78$, $p < .01$, see Figure 2. This indirect effect was moderated by age group: the index of moderated mediation was significant and indicated a negative relation, $B = -0.02$; 95% bootstrapped CI [-0.045, -0.0056], see Table 3. The indirect effect was significant for older adults, $B = -0.02$, 95% CI [-0.04, -0.01] but not young adults, $B = 0.002$, 95% CI [-0.01, 0.02].

Figure 2. Moderated-mediation model for self-concept clarity.

Table 3. Summary of moderated-mediation model for self-concept clarity.

Variable	B	SE B	T	95% CI
Mediator variable model (DV = Perceived personality continuity)				
Challenging life event frequency	−0.01*	0.01	−2.00	[−0.02, −0.01]
Age group	0.43***	0.06	7.72	[0.32, 0.55]
Challenging life event freq × Age	−0.03**	0.01	−2.70	[−0.05, −0.01]
Dependent variable model (DV = Self-concept clarity)				
Challenging life event frequency	−0.05**	0.01	−3.78	[−0.07, −0.02]
Perceived personality continuity	0.79***	0.14	5.76	[0.52, 1.06]
Conditional indirect effect by age group				
	Effect	Bootstrapped SE		95% Bootstrapped CI
Young adults	0.00	0.01		[−0.01, 0.02]
Older adults	−0.02*	0.01		[−0.04, −0.01]
Index of moderated mediation	−0.02*	0.01		[−0.05, −0.01]

Note. Age group: 0 = young adults, 1 = older adults. Bootstrap resamples = 5000, Unstandardized coefficients are reported.
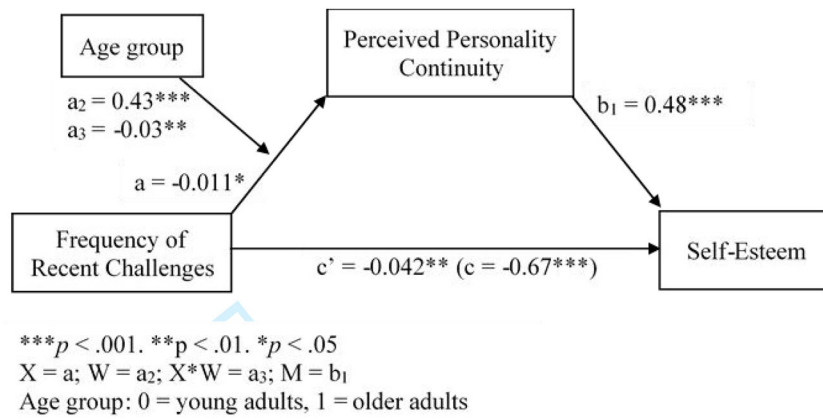*$p < .05$; **$p < .01$; ***$p < .001$.

Figure 3. Moderated-mediation model for self-esteem.

Table 4. Summary of moderated-mediation model for self-esteem.

Variable	B	SE B	T	95% CI
Mediator variable model (DV = Perceived personality continuity)				
Challenging life event frequency	−0.01*	0.01	−2.00	[−0.02, −0.0002]
Age group	0.43***	0.06	7.72	[0.32, 0.55]
Challenging life event freq × Age	−0.03**	0.01	−2.70	[−0.05, −0.01]
Dependent variable model (DV = Self-esteem)				
Challenging life event frequency	−0.04***	0.01	−4.23	[−0.06, −0.02]
Perceived personality continuity	0.48***	0.12	4.13	[0.25, 0.71]
Conditional indirect effect by age group				
	Effect	Bootstrapped SE		95% Bootstrapped CI
Young adults	0.00	0.00		[−0.01, 0.01]
Older adults	−0.10*	0.01		[−0.03, −0.004]
Index of moderated mediation	−0.01*	0.01		[−0.03, −0.003]

Note. Age group: 0 = young adults, 1 = older adults. Bootstrap resamples = 5000, Unstandardized coefficients are reported.
*$p < .05$; **$p < .01$; ***$p < .001$.

Table 5. Summary of moderated-mediation model for self-acceptance.

Variable	B	SE B	t	95% CI
Mediator variable model (DV = Perceived personality continuity)				
Challenging life event frequency	−0.01*	0.01	−2.00	[0.022, −0.0002]
Age group	0.43***	0.06	7.72	[0.32, 0.55]
Challenging life event freq × Age	−0.03**	0.01	−2.70	[−0.05, −0.01]
Dependent variable model (DV = Self-acceptance)				
Challenging life event frequency	0.01	0.02	0.78	[−0.02, 0.04]
Perceived personality continuity	−0.18	0.17	−1.04	[−0.53, 0.16]
Conditional indirect effect by age group				
	Effect	Bootstrapped SE		95% Bootstrapped CI
Young adults	−0.001	0.002		[−0.01, 0.003]
Older adults	0.005	0.005		[−0.01, 0.02]
Index of moderated mediation	0.006	0.006		[−0.01, −0.02]

Note. Age group: 0 = young adults, 1 = older adults. Bootstrap resamples = 5000, Unstandardized coefficients are reported.
*$p < .05$; **$p < .01$; ***$p < .001$.

Self-esteem

Perceived personality continuity was positively related to self-esteem, $B = 0.48$, $SE = 0.12$, $t(184) = 4.13$, $p < .001$. As hypothesized, the association between experiencing a high frequency of recent challenges and lower self-esteem was partially mediated by perceived personality continuity, $B = -0.04$, $SE = 0.01$, $t(184) = -4.23$, $p < .001$, see Figure 3. The moderated-mediation index, $B = -0.01$; 95% CI [−0.028, −0.003], showed a conditional indirect effect of perceived personality continuity, see Table 4. The indirect effect was significant for older adults, $B = -0.10$, 95% CI [−0.025, −0.0042], not young adults, $B = 0.0014$, 95% CI [−0.0070, 0.0086].

Self-acceptance

Perceived personality continuity was unrelated to self-acceptance, $B = -0.18$, $SE = 0.17$, $t(184) = -1.04$, $p = .30$.

There was no indirect effect of personality continuity on the relation between recent challenges and self-acceptance, $B = 0.01$, $SE = 0.02$, $t(184) = 0.78$, $p = .44$. The index of moderated mediation was not significant: $B = 0.0055$; 95% bootstrapped CI [−0.0053, 0.017] (see Table 5).

Discussion

At any age, experiencing multiple challenges within a few years can relate to poorer mental health. In this study, young and older adults showed lower self-concept clarity and self-esteem commensurate with the frequency of recently endured challenges. Compared to older adults, young adults' self-esteem was more strongly related to having experienced frequent challenges.

Our central focus was to examine the process of resilience after experiencing recent challenges. Masten (2001) theorized that resilience is comprised of 'ordinary magic'.

This process is not extraordinary but arises from individuals' adaptive responding that occurs in daily life. Past research suggests use of internal resources varies across individuals (Wild et al., 2013). Our findings suggest that perceiving continuity in one's personality over a recent period of multiple challenges is an internal resource for older adults. Maintaining feelings of personality continuity after multiple challenges partially explained older adults' level of positive self-functioning (i.e. self-concept clarity, self-esteem), contributing to the ordinary magic of their resilience. Young adults, in contrast, showed a classic risk model pattern (Fergus & Zimmerman, 2005): greater frequency of recent challenges was related to poorer self-functioning, with no role for perceived personality continuity as an internal resource.

Beyond decline: older adults report greater self-concept clarity and self-esteem

As expected, and in line with previous research, older adults reported greater self-concept clarity (Bluck & Alea, 2008) and self-esteem (Orth & Robins, 2014). Such findings remind researchers to look 'beyond decline' when examining later life. Although physical and cognitive decline occurs to some extent in older adulthood, this does not always occur in the self-domain (Baltes et al., 2006). Our finding contributes to the growing literature on resilient aging that suggests older adulthood is more than just a period of avoiding disease and ill-health (Wild et al., 2013). Young adults showed lower levels of these aspects of self-functioning, in line with being in a life phase characterized by transition (Arnett, 2000) and emergent identity (Lodi-Smith & Roberts, 2010). As such, our findings likely reflect normative life-phase development.

Young adults, however, showed greater self-acceptance than older adults. Previous research has been inconsistent, finding small declines (Springer et al., 2011) or stability in self-acceptance with age (e.g. Wettstein, Schilling, Reidick, & Wahl, 2015). A common measure of self-acceptance cues individuals to express acceptance of good and bad self-aspects (e.g. I feel pleased with how things have turned out; Ryff, 1989). As older people have lived longer and have been more responsible for their life's trajectory (i.e. not dependent on parents), self-acceptance may be more emotionally complex for them than the young.

Frequency of recent life challenges is related to self-concept clarity and self-esteem

In contrast to assessing more common markers of mental health, this research took a new approach to study how challenges relate to an understudied aspect of mental health: self-functioning. Our multidimensional approach to operationalizing self-functioning sheds light on which components of self-functioning are related to experiencing multiple life challenges. Our findings show that, regardless of age, simply experiencing a greater frequency of recent challenges is related to lower self-concept clarity and self-esteem. Previous research has shown certain major events, such as divorce or job loss, are negatively related to self-concept clarity (Crocetti & Van Dijk, 2016). These events incite changes to one's routine, disrupting one's worldview (Ritchie et al., 2011), and can thus create self-concept

confusion (Campbell, Assanand, & Di Paula, 2003). Though less research exists, studies have related some challenging events to lower self-esteem (Orth & Luciano, 2015; Orth, Robins, & Meier, 2009; Pettit & Joiner, 2001) as also found in our study. As individuals attempt to integrate challenging events, they may engage in negative reflection on the past that can lower self-regard (Nolen-Hoeksema, 2000; Zepinic, 2016). They are pushed to examine their own role in the challenges that have unfolded, sometimes disrupting self-esteem through prompting uncertainty about their capabilities in managing multiple stressors (e.g. 'What if I can't pull myself together?'; Lyubomirsky, Tucker, Caldwell, & Berg, 1999).

Both young and older adults showed lower self-esteem in relation to the frequency of recent life challenges. Young adults, however, showed greater vulnerability: they may have not yet achieved the ballast that comes in later life (Lodi-Smith & Crocetti, 2018). Instead, in this phase of identity exploration (Erikson, 1968), they may evaluate self-worth in relation to ideals. In facing multiple challenges, they may perceive themselves as falling short, with commensurate lowering of self-esteem (Wagner, Lüdtke, Jonkmann, & Trautwein, 2013).

Perceived personality continuity as an internal resource for older adults

This study's central focus was to understand perceived personality continuity as an internal resource for showing positive current self-functioning after recent challenges. Our findings suggest that perceiving continuity in personality is an internal resource for older adults only. Normative for their life phase, older adults' perceived personality continuity was higher than that of young adults'. Experiencing multiple challenges, however, was also more strongly related to older adults' perceived personality continuity. To the extent older persons perceived personality continuity over a recent period of multiple challenges, they showed more positive self-concept clarity and self-esteem. This finding may help explain, in part, their process of negotiating late-life challenges and showing resilience. In line with the resilient aging framework, not only in spite of, but as a result of experiencing multiple challenges, some older adults gain skills that help them to cope through periods of challenge (Richardson, 2002).

Our findings also align with lifespan theory: later adulthood is a time when individuals focus on maintenance (Baltes et al., 1999). Prior research using a representative sample of older adults showed that personality stability is more beneficial than showing change, even change in a socially-desirable direction (i.e. lower neuroticism; Graham & Lachman, 2012). Our identification of the age-differential relations of perceived personality continuity contributes to the limited research on the adaptive value of continuity in late life (Löckenhoff & Rutt, 2017). Perceiving personality continuity may allow older adults to feel that they have maintained a sense of control over challenging situations, minimizing the negative effects of age-related losses on the self (Lachman & Firth, 2004). This is also in line with the resilient aging framework which highlights the resources that people can use to adapt when challenges occur rather than emphasizing the avoidance of vulnerability.

Internal resources can be used as everyday strategies that contribute to older adults' capacity to show resilience through balancing both vulnerabilities and strengths (Wiles et al., 2019).

Understanding the mechanism by which older adults maintain perceived personality continuity is of interest for improving mental health. One mechanism for future exploration is how older adults retrospectively interpret recent events. That is, how they remember challenges and integrate them into their life story (Habermas & Bluck, 2000). Indeed, reminiscence is linked with both positive and negative aspects of mental health in older adults (Cappeliez, O'Rourke, & Chaudhury, 2005). Older adults who interpret recent challenges in the context of their whole, long life (Erikson, 1950) may experience continued learning of new skills and gaining insights that facilitate their long-term resilience (Wild et al., 2013). This may be a mechanism through which older adults draw on perceived personality continuity as an internal resource for resilience.

Young adults' life phase provides a different context for experiencing life events. Young adults' perceived personality continuity was unrelated to the frequency of recent challenges. Feelings of personality continuity did not serve as an internal resource for self-functioning. Rather, experiencing multiple recent challenges was directly related to poorer self-functioning, following a classic risk pattern (Fergus & Zimmerman, 2005). In contrast to older adults' focus on maintenance, young adults' developmental trajectory involves growth (Baltes, 1987). To some extent, change and challenge in their life phase is normative, so their goal in dealing with life challenges may not be to maintain perceived personality continuity. Rather, perceiving some change and maturation in their personality may help prepare them for further life transitions, including new adult roles (Erikson, Erikson, & Kivnick, 1986). Future research may assess whether younger adults' mental health is better supported by directly guiding them to navigate through challenges.

Limitations

Using the resilience model, we acknowledge that internal resources may have limited benefits when individuals have insufficient external resources (e.g. financial support; Ryff, 2014). Although our sample included men and women in two adult age groups, they were privileged in terms of race and educational status and thereby likely also in terms of external resources such as finances.

Another limitation is that the cross-sectional design does not allow causal interpretations. It is unclear if higher self-concept clarity and self-esteem were the result of greater perceived personality continuity, rather than the reverse. The personality continuity measure, however, assessed perceived temporal continuity over the period during which recent challenges occurred. The three self-functioning variables, in contrast, reflected current self-functioning. This lends support for our speculative interpretation of perceived personality continuity as an internal resource for older adults, though it does not rule out reciprocal relations.

Finally, although we measured perceived trait personality change, that measure may have partially represented actual personality change. This cannot be disentangled because actual trait personality was not a measure of interest in the current research. We argue that the extent to which one perceives continuity is important. People identify themselves not just by their current personality, but also by their personality in the past and future: as such, that perceived personality over time plays a role in actual development (e.g. Heckhausen & Baltes, 1991). Particularly within a resilience framework, perception is of utmost importance: it is malleable and can act as an internal resource that allows accommodation to challenges (Laird et al., 2019).

Conclusion

Life presents multiple challenges, sometimes over a period of just a few years. This study showed that the sheer number of challenges experienced is related to mental health in terms of one's self-concept clarity and self-esteem. The findings also, however, highlighted resilience in the wake of inevitable life challenges, particularly for older adults. Older adults' clearer self-concept and more positive self-esteem may provide a foundation for their resilience. Further, older adults who feel continuity in their personality after undergoing multiple life challenges are harnessing an important internal resource. Young adults showed less positive self-concept clarity and self-esteem. Their self-esteem was particularly vulnerable when experiencing multiple recent challenges. Identifying life-phase specific internal resources that adults of different ages can use to foster resilience is an important direction for lifespan developmental research.

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