Published in final edited form as:

Int J Aging Hum Dev. 2016 July ; 83(2): 91–107. doi:10.1177/0091415016648705.

Emotional Intelligence Mediates the Relationship between Age and Subjective Well-Being

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Abstract

Individuals' Subjective Well-being (SWB) increases as they grow older. Past literature suggests that emotional intelligence may increase with age and lead to higher levels of SWB in older adults. The primary purpose of the present study was to test whether emotional intelligence would mediate the relationship between age and SWB. A total of 360 Chinese adults (age range: 20 to 79 years old) participated in this study. They filled out questionnaires that assessed their age, life satisfaction (The Satisfaction with Life Scale), affective well-being (The Positive and Negative Affect Schedule), and emotional intelligence (The Wong and Law Emotional Intelligence Scale). Using Structural Equation Modeling, the mediation model was supported, $\chi^2(75) = 194.21, p < .01$; RMSEA = .07; CFI = .91. Emotional intelligence partially mediated the relationship between age and life satisfaction, and fully mediated the relationship between age and affective well-being. The findings suggest that older adults may use their increased emotional intelligence to enhance their SWB.

Keywords

age; subjective well-being; emotional intelligence; life satisfaction; affective well-being

With increasing life expectancy around the world, age differences in Subjective Well-being (SWB) became a focus of research interests in recent decades. Past researchers operationalized SWB in a number of different ways, including life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985), depressive symptoms (Brink et al., 1982), psychological well-being (Ryff, 1989), and affective well-being (Diener, Scollon, & Lucas, 2003). In addition to the “golden standard” of global life satisfaction, Kahneman, Krueger, Schkade, Schwarz, and Stone (2004) argued that well-being should also take into account individuals' emotional experience. Thus, the present study adopted Diener's (1984) definition of SWB: a global assessment of a person's satisfaction with life and a preponderance of positive over negative affect.

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Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

With regards to the relationship between age and SWB, the general findings in the literature are that SWB remains quite stable or improves as individuals grow older, despite age-related decline in a number of life circumstances including physical health, income, and cognitive capacities (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000; Charles, 2010; Kunzmann, Little, & Smith, 2000; Mather, 2012). For example, recent research using both cross-sectional and longitudinal designs reported that adults' life satisfaction either increased or remained stable until age 70 or older, after controlling for marital status and physical health (Angelini, Cavapozzi, Corazzini, & Paccagnella, 2012; Gana, Bailly, Saada, Joulain, & Alaphilippe, 2013). For adults' daily emotional experience, Carstensen and colleagues (Carstensen et al., 2000, 2011; Charles et al., 2010) found that negative emotions became less frequent as people age, whereas positive emotions increased from early adulthood to middle adulthood and remained stable until people reach age 70s or middle 80 s.

In contrast to the volume of research on age and SWB (i.e., life satisfaction and affective well-being), few studies have directly examined the factors that can explain the age–SWB relationship. To fill this gap, the present study tested a mediation model of emotional intelligence. It was hypothesized that emotional intelligence would mediate the relationship between age, life satisfaction, and affective well-being (see Figure 1).

Salovey and Mayer (1990) defined emotional intelligence as “the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions” (p. 189). Mayer, Caruso, and Salovey (2000) further suggested that emotional intelligence was a set of intercorrelated abilities relating to but distinct from traditional intelligence, including emotional identification, assimilating emotions, understanding emotions, and managing emotions. In addition, emotional intelligence meets a developmental criterion: It develops with age and experience, from childhood to early adulthood. Recent research on emotional intelligence extended the adult age range to include middle-aged and older adults. Using several different measures of emotional intelligence, these studies reported consistently that older adults had significantly higher scores than young adults in emotional intelligence (Chapman & Hayslip, 2006; Gardner & Qualter, 2011; Mayer et al., 2000; Tsaousis & Kazi, 2013). It was argued that the positive relationship between age and emotional intelligence can be explained by lifelong learning and accumulated knowledge (Kaufman, Johnson, & Liu, 2008). Most types of intelligence can be improved through practice (Hausknecht, Halpert, Di Paolo, & Gerrard, 2007), so can emotional intelligence. Older adults have more opportunities than young adults to practice emotional intelligence throughout their lives. Consequently, older adults have better understanding of emotions (e.g., Blanchard-Fields, 2007; Blanchard-Fields, Chen, & Norris, 1997) and use better emotional regulation strategies than younger adults (e.g., Gross & John, 2003; John & Gross, 2004).

Emotional intelligence has gathered increasing attention in developmental, clinical, educational, and industrial and organizational psychology due to its power in predicting a variety of psychological and behavioral outcomes (Mayer, Roberts, & Barsade, 2008). Previous research has found that emotional intelligence is positively related to life satisfaction (e.g., Bhullar, Schutte, & Malouff, 2012; Gallagher & Vella-Brodrick, 2008; James, Bore, & Zito, 2012; Koydemir, İmrek, Schütz, & Tipandjan, 2013). Recent research

also revealed positive relationship between emotional intelligence and affective well-being (e.g., Kong, Zhao, & You, 2012; Koydemira & Schütz, 2012; Liu, Wang, & Lu, 2013). For example, Koydemira and Schütz (2012) found that emotional intelligence predicted SWB above and beyond personality factors. Wong and Law (2002) developed the Wong and Law Emotional Intelligence Scale (WLEIS) to assess the four components of emotional intelligence suggested by Mayer and Salovey (1997): individuals' abilities to understand their own emotions, to perceive others' emotions, to regulate their own emotions, and to use emotion to enhance performance. Using this scale, Sliter, Chen, Withrow, and Sliter (2013) found that older service employees had higher emotional intelligence than younger service employees. More importantly, employees' emotional intelligence partially mediated the relationship between age and employee's well-being.

In the present study, it was hypothesized that emotional intelligence would mediate the relationship between age and SWB (i.e., life satisfaction and affective well-being). Structure Equation Modeling (SEM) techniques were used to test the mediation model because of the better assessment of the latent constructs. So what is the rationale of this mediation model? First, age is positively related to emotional intelligence (Chapman & Hayslip, 2006; Gardner & Qualter, 2011; Mayer et al., 2000; Tsaousis & Kazi, 2013). As individuals grow older, they may be more likely to understand their own and others' emotions due to lifelong practice and learning (Kaufman et al., 2008). Second, emotional intelligence is positively associated with SWB (Bhullar et al., 2012; Koydemira & Schütz, 2012; Mayer et al., 2008). It is suggested that individuals with higher emotional intelligence are better able to monitor and regulate their emotions and thus experience higher levels of life satisfaction and affective well-being (Goleman, 1995; Salovey, Bedell, Detweiler, & Mayer, 2000; Salovey & Mayer, 1990). According to Goleman (1995), emotional intelligence can influence the life goals individuals choose to pursue when they adapt to change and emotional regulation strategies individuals use to manage relationships and facilitate performance. Although many life circumstances such as physical health and income may decline in later adulthood, older adults who are higher in emotional intelligence may adjust their life goals and use more effective emotion regulation strategies, such as cognitive reappraisal, to enhance their life satisfaction and their affective well-being (John & Gross, 2004; Lok, Yeung, & Wong, 2011). This rationale is also consistent with the Selection, Optimization, and Compensation (SOC) theory (Baltes & Baltes, 1990), which suggests that older adults select the important life goals and use optimization and compensation strategies to maximize their SWB. Thus, older adults may obtain higher emotional intelligence through lifelong learning, and subsequently, they may be more likely than young adults to use the emotional intelligence to regulate their emotions and increase their life satisfaction and affective well-being.

Control Variables

Gender was found to relate to both emotional intelligence (e.g., Kafetsios, 2004; Kong et al., 2012; Mikolajczak, Luminet, Leroy, & Roy, 2007; Shi & Wang, 2007; Van Rooy, Alonso, & Viswesvaran, 2005) and SWB (e.g., Hansson, Hillerås, Forsell, & Sophiahemmet, 2005; Lucas & Gohm, 2000). In addition, marital status was correlated with life satisfaction and affective well-being (e.g., Carr, Freedman, Cornman, & Schwarz, 2014; Mroczek & Kolarz, 1998). Finally, self-rated health was associated with age, life satisfaction, and affective well-

being (e.g., Caudroit, Chalabaev, & Stephan, 2011; Kunzmann et al., 2000; Mroczek & Spiro, 2005). Thus, these variables were controlled when the mediation model was tested.

Method

Participants

A total of 360 Chinese adults participated in the present study. Participants were recruited with the assistance of the community recreation center located in Beijing, China. The office of residential life first sent out a letter of support for the present study to its residents. Then, participants were sent hard-copy surveys by the researcher, which consisted of the measures used in this study. A total of 360 surveys were distributed and 347 were returned (with a response rate of 96.4%). Participants received a small gift for participation (worth about \$1). The mean age of the sample is 48.01 years ($SD = 18.32$, range from 20 to 79 years). Of them, 237 were women (68.3%). Participants were distributed evenly in the following age ranges: 103 young adults from 20 to 39 years (68 women), 128 middle-aged adults from 40 to 59 years (89 women), and 106 older adults from 60 to 79 years (68 women). Table 1 shows the background characteristics by age group.

Measures

All measures were translated into Chinese using the standard translation and back translation procedure (Brislin, 1980). The authors discussed and solved any discrepancies in translation. The questionnaires included a demographic questionnaire (e.g., age, gender, marital status, and self-rated health status), followed by the scales assessing life satisfaction, affective well-being, and emotional intelligence.

Life satisfaction—The Satisfaction with Life Scale (SWLS) consisted of five statements assessing an individual's global life satisfaction according to his or her self-chosen criteria. Participants responded on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*). Diener et al. (1985) reported evidence of discriminant and convergent validity for the SWLS as well as high internal consistency (Cronbach's $\alpha = 0.87$). The SWLS has been found to assess global life satisfaction without tapping into related constructs like positive affect or loneliness. Sample items: "In most ways my life is close to my ideal" and "So far I have gotten the important things I want in life." The α coefficient for this measure was .80.

Affective well-being—The Positive and Negative Affect Schedule (PANAS) consisted of 20 adjectives reflecting characteristics of positive (10 items, e.g., "excited," "inspired") and negative (10 items, e.g., "distressed," "upset") emotions. Participants reported how frequently they felt the corresponding emotion in the past month, on a 5-point scale ranging from 1 (*rarely*) to 5 (*very frequently*). Both positive affect and negative affect subscales of the PANAS have demonstrated high reliability and good psychometric properties (Watson, Clark, & Tellegen, 1988). The α coefficient for this measure was .82. Affective well-being was computed by subtracting the frequency of negative affect from positive affect.

Emotional intelligence—The Wong and Law Emotional Intelligence Scale (WLEIS, Wong & Law, 2002) was used to assess individuals' emotional intelligence. The scale had 16

items with four subscales corresponding to the four components of emotional intelligence, as suggested by Mayer and Salovey (1997). The WLEIS had both predictive and discriminant validity (Law, Wong, & Song, 2004). The Self-emotion Appraisal (SEA) subscale measures individuals' self-perceived ability to understand their own emotions (e.g., "I have a good sense of why I have certain feelings"). The Appraisal of Others' Emotion (AOE) subscale measures a person's ability to perceive others' emotions (e.g., "I always know my friends' emotions from their behavior"). The Use of Emotion (UOE) subscale measures the self-perceived tendency to motivate oneself to enhance performance (e.g., "I would always encourage myself to try my best"). The Regulation of Emotion (ROE) subscale measures individuals' ability to regulate their own emotions (e.g., "I am able to control my temper and handle difficulties rationally"). The α coefficient for the measure was .89.

Control variables—Gender was dummy coded as 0 = *male* and 1 = *female*. Participants also indicated whether they were currently married (coded as 0) or not married (coded as 1). A single item was used to ask participants to rate their general health status as 1 = *poor*, 2 = *fair*, 3 = *good*, or 4 = *excellent*. A further check of responses to this question revealed that only five participants indicated poor health (1.5%) and 22 reported excellent health situation (6.5%). The majority of participants reported a fair (103 participants; 30.6%) and good (189 participants; 56.1%) health status. Due to this uneven distribution, the response to this item was recoded with 0 representing *poor to fair health* and 1 representing *good and excellent health*.

Results

Preliminary Analyses

One participant did not indicate gender and was removed from further analysis. Four participants were excluded due to a lot of missing responses. Inspection of the data revealed a small number of randomly distributed missing responses (0.7%). Overall, about 86% of the participants had complete data. Of the cases with missing data, the majority (88.24%) had missing information on only one or two items. Little's Missing Completely At Random (MCAR) test revealed a nonsignificant result ($\chi^2 = 2,455.45$, $df = 2,463$, $p = .54$). The Full Information Maximum Likelihood (FIML) method was used to deal with missing data in the program Mplus (Muthén & Muthén, 2010). This allows a robust analysis when data on some measures are missing (Byrne, 2001). Prior to testing the mediation model, the data were screened for univariate and multivariate outliers. Outliers can be detected if extreme scores fall out of three standard deviations of the mean (Tabachnick & Fidell, 2001). Five additional participants were excluded due to the violation of univariate normality assumption, thus leaving a final sample of 337 adults.

Statistical Procedure

Structural Equation Modeling techniques were used to test the mediation model. A two-step procedure is recommended by Anderson and Gerbing (1988) to analyze the mediation effect. First, a measurement model is tested to assess the extent to which each of the latent variables is represented by its indicators. If the measurement model is accepted, then the structural model can be tested. The following indices are typically used to evaluate the acceptable fit of

the model (Byrne, 2001; Hu & Bentler, 1999): (a) Chi-square statistics; (b) root-mean-square error of approximation (RMSEA) of .08 or less; (c) comparative fit index (CFI) of .90 or above; (d) standardized root-mean-square residual (SRMR) of .08 or less; (e) the Tucker–Lewis Index (TLI, similar to Bentler–Bonett Nonnormed Fit Index) of .90 or above; and (f) the Chi-square ratio (χ^2/df) between 1 and 3 (Arbuckle & Wothke, 1999). This Chi-square ratio adjusts for the Chi-square statistic's sensitivity to sample size and model complexity (Byrne, 2001).

The Measurement Model

The measurement model (Figure 2) consisted of three latent factors: Emotional Intelligence (EI), Affective Well-Being (AWB), and Life Satisfaction (LS), and 11 indicators. In the measurement model, the EI latent variable was created using its four dimensions: SEA, OEA, UOE, and ROE. The LS latent variable used the items of the SWLS as indicators. According to the recommendation by Hall, Snell, and Foust (1999), parcels were formed by grouping items within each subscale to serve as indicators of the latent variable. Thus, two parcels were created for the AWB latent variable. An initial test of the measurement model revealed a good fit to the data: $\chi^2(41) = 110.52$, $p < .01$; RMSEA = .07; CFI = .94; SRMR = .06; TLI = .93; and $\chi^2/df = 2.70$. However, based on the modification indices and also in line with the previous research (Liu et al., 2013), the error terms of two observed variables for emotional intelligence (SEA and AOE) were allowed to correlate and the model was retested. Results showed improved fit to the data: $\chi^2(40) = 93.01$, $p < .01$; RMSEA = .06; CFI = .96; SRMR = .05; TLI = .94; and $\chi^2/df = 2.33$. Compared with the original measurement model, the Chi-square difference test, $\chi^2(1) = 17.51$, $p < .001$, and other model fit indexes indicated this revised model was better. All the factor loadings for the indicators on the latent variables were significant ($p < .01$), indicating that all the latent factors were well represented by their respective indicators.

The descriptive statistics and correlations among all variables are presented in Table 2. The four variables of interests were significantly correlated ($p < .01$) in the predicted direction, providing initial support to the hypothesized mediation model.

The Structural Model

The hypothesized mediation model (Figure 1) was first tested with the mediator, emotional intelligence, and direct paths from age to affective well-being and life satisfaction. Age was used as a continuous variable to test the mediation model. The three binary control variables (i.e., gender, marital status, and self-related health; all dummy coded) were also included in this model. Based on prior research, the effects of participants' gender, self-rated health, and marital status were accounted for in the model by allowing correlations among participants' gender, self-rated health, marital status, and age, and allowing paths from them to life satisfaction and affective well-being. In addition, a path from participants' gender to emotional intelligence was included. The covariance between life satisfaction and affective well-being was also estimated. The results suggest an adequate fit to the data: $\chi^2(74) = 192.61$, $p < .01$; RMSEA = .07; CFI = .91; SRMR = .07; TLI = .88; and $\chi^2/df = 2.60$. However, the coefficient of the direct path from age to affective well-being was insignificant, suggesting an alternative way to improve the model.

After eliminating the direct path from age to affective well-being (all others being the same as in Figure 1), an alternative structural model was tested. The model results again revealed an adequate fit to the data: $\chi^2(75) = 194.21$, $p < .01$; RMSEA = .07; CFI = .91; SRMR = .07; TLI = .88; and $\chi^2/df = 2.59$. Compared with the hypothesized mediation model (Figure 1), the Chi-square difference test was insignificant: $\chi^2(1) = 1.60$, ns , suggesting the alternative structural model was more parsimonious and satisfactory (see Figure 3 for the final structural model). Using emotional intelligence as the mediator, the direct effect of age on affective well-being was no longer significant (changed from $\beta = .29$, $p < .01$, without EI to $\beta = .11$, ns , with EI), whereas the direct effect of age on life satisfaction was significantly decreased (changed from $\beta = .51$, $p < .01$ to $\beta = .33$, $p < .01$).

To further test the hypothesized mediation effects, the magnitudes of the indirect effects were assessed through bootstrapping ($N = 1,000$; Cheung & Lau, 2008). Bias-corrected bootstrap confidence intervals (CIs) were also estimated for each indirect effect. The 95% bias-corrected bootstrap CI indicated that the mediation effect of emotional intelligence between age and affective well-being was significant ($M = .172$, 95% CI = .077 to .267). The mediation effect of emotional intelligence between age and life satisfaction was also significant ($M = .136$, 95% CI = .055 to .216).

Discussion

The primary purpose of the present study was to test a mediation model: whether EI would mediate the relationship between age and SWB (operationalized by life satisfaction and affective well-being). Using SEM techniques, it was found that emotional intelligence partially mediated the relationship between age and life satisfaction, and fully mediated the relationship between age and affective well-being. The present study makes important contributions to the current literature on age and SWB by examining emotional intelligence as a psychological mechanism underlying the age–SWB relationship.

Although past research has documented the positive relationship between age and SWB (Angelini et al., 2012; Baltes & Mayer, 1999; Carstensen et al., 2011; Gana et al., 2013), few studies have examined the potential psychological mechanisms underlying the relationship between age and SWB. The present study filled this gap and tested a mediation model of emotional intelligence underlying the relationship between age and SWB. As Chapman and Hayslip (2006) pointed out: “Since its introduction by Salovey and Mayer (1990) and popularization by Goleman (1995), emotional intelligence has been a heavily researched individual differences construct.” (p. 411). Although there are still debates about emotional intelligence as an ability or a trait, recent research by both approaches reached consensus that emotional intelligence increases with age, especially for the components of understanding and regulating emotions (Gardner & Qualter, 2011; Tsaousis & Kazi, 2013). Using SEM techniques, the present study also found positive relationship between age and emotional intelligence. It is suggested that older adults may obtain higher emotional intelligence due to lifelong learning and accumulating knowledge (Sliter et al., 2013).

Consistent with previous research on the relationship between emotional intelligence and SWB (Bhullar et al., 2012; Koydemira & Schütz, 2012; Mayer et al., 2008), the present

study found that emotional intelligence had a positive relationship with both life satisfaction and affective well-being. Individuals who have higher emotional intelligence are also more likely to have higher life satisfaction and experience more frequent positive relative to negative affect. Goleman (1995) has suggested that individuals who have higher emotional intelligence are better able to monitor and regulate their emotions. Thus, the individuals with higher emotional intelligence are more likely than those with lower emotional intelligence to experience higher levels of life satisfaction and affective well-being.

The present study was the first to find out the important role of emotional intelligence in explaining the relationship between age and SWB. Specifically, emotional intelligence partially mediated the relationship between age and life satisfaction, and fully mediated the relationship between age and affective well-being. The central aspects of emotional intelligence concern understanding and regulating emotions (Mayer et al., 2000). Individuals develop these emotion abilities in concert with other cognitive and social skills (Mayer, Salovey, Caruso, & Sitarenios, 2001). Supporting the developmental prediction, Kafetsios (2004) found that older adults scored higher than young adults on understanding, facilitation, and management of emotions. John and Gross (2004) also suggested that older adults were more likely than young adults to use effective emotional regulation strategies such as cognitive reappraisal (i.e., positive construal of emotion-eliciting events). Because life satisfaction is a very global assessment (Diener et al., 1985), it is reasonable that emotional intelligence only partially mediated the relationship between age and life satisfaction. In contrast, emotional intelligence is essential in individuals' emotional experience, and thus it completely mediated the relationship between age and affective well-being.

There are many ways that older adults with higher emotional intelligence could enhance their life satisfaction and experience more frequently positive emotions relative to negative emotions when they face age-related changes in life circumstances such as physical health, income, and social support. For example, older adults can adjust their goals selectively and use optimization and compensation strategies to feel better about their lives (Baltes & Baltes, 1990). The present study added to the current literature by pointing out the important role of emotional intelligence. Like other intelligence, emotional intelligence can be learned and is trainable (Mayer et al., 2000). In order to improve individuals' life satisfaction and affective well-being, the present study suggests that educators and health professionals may focus on helping individuals improve understanding of their own and others' emotions and use effective emotional regulation strategies (e.g., cognitive reappraisal) to regulate their emotions. Future research are needed to find out exactly how older adults with higher emotional intelligence cope with the changing life circumstances to maximize their well-being.

Limitations and Future Directions

Despite strengths, there were several limitations of the present study. First, the present study used a cross-sectional design. A cross-sectional study cannot separate age effects from cohort effects. In order to best test psychological mechanisms underlying the relationship

between age and SWB, a longitudinal design is necessary. It would allow us to examine the psychological mechanisms from a true developmental perspective.

Second, although the sample had a wide age range, it was a convenient sample and might not be representative of the entire population. In addition, only a Chinese sample was tested. It was not clear whether specific features of Chinese culture might influence the results. Researchers need to be cautious when generalizing the results to other cultures.

Finally, the data were collected through self-reports from the same source. Thus, it may have concerns of common method bias. It is recommended that future studies should use multiple methods (e.g., self-reports, proxy reports, and clinical interviews) and collect data from multiple sources (e.g., peers, family members, and doctors).

Acknowledgments

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Biography

Yiwei Chen, PhD, is currently a full Professor of Developmental Psychology at Bowling Green State University. Dr. Chen received her PhD in Psychology of Adult Development and Aging from Georgia Institute of Technology. Her research focuses on age differences in social judgment, emotional process, and decision-making.

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References

- Anderson JC, Gerbing DW. Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*. 1988; 103(3):411–423. DOI: 10.1037/0033-2909.103.3.411
- Angelini V, Cavapozzi D, Corazzini L, Paccagnella O. Age, health and life satisfaction among older Europeans. *Social Indicators Research*. 2012; 105(2):293–308. DOI: 10.1007/s11205-011-9882-x [PubMed: 22207782]
- Arbuckle, JL., Wothke, W. *Amos users' guide: Version 4.0*. Chicago, IL: SmallWaters Corporation; 1999.
- Baltes, PB., Baltes, MM. Psychological perspectives on successful aging: The model of selective optimization with compensation. In: Baltes, PB., Baltes, MM., editors. *Successful aging: Perspectives from the behavioral sciences*. New York, NY: Cambridge University Press; 1990. p. 1-34.
- Baltes, PB., Mayer, KU. *The Berlin aging study: Aging from 70 to 100*. Cambridge, UK: Cambridge University Press; 1999.

- Bhullar N, Schutte NS, Malouff JM. Trait emotional intelligence as a moderator of the relationship between psychological distress and satisfaction with life. *Individual Differences Research*. 2012; 10(1):19–26.
- Blanchard-Fields F. Everyday problem solving and emotion—An adult developmental perspective. *Current Directions in Psychological Science*. 2007; 16(1):26–31. DOI: 10.1111/j.1467-8721.2007.00469.x
- Blanchard-Fields F, Chen Y, Norris L. Everyday problem solving across the adult life span: Influence of domain specificity and cognitive appraisal. *Psychology and Aging*. 1997; 12(4):684–693. DOI: 10.1037/0882-7974.12.4.684 [PubMed: 9416636]
- Brink TL, Yesavage JA, Lum O, Heersema PH, Adey M, Rose TL. Screening tests for geriatric depression. *Clinical Gerontologist*. 1982; 1(1):37–43. DOI: 10.1300/J018v01n01_06
- Brislin, RW. Translation and content analysis of oral and written materials. In: Triandis, HC., Berry, JW., editors. *Handbook of cross-cultural psychology*. Boston, MA: Allyn and Bacon; 1980. p. 137-164.
- Byrne, BM. *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Lawrence Erlbaum Associates; 2001.
- Carr D, Freedman VA, Cornman JC, Schwarz N. Happy marriage, happy life? Marital quality and subjective well-being in later life. *Journal of Marriage and Family*. 2014; 76(5):930–948. DOI: 10.1111/jomf.12133 [PubMed: 25221351]
- Carstensen LL, Pasupathi M, Mayr U, Nesselroade JR. Emotional experience in everyday life across the adult life span. *Journal of Personality and Social Psychology*. 2000; 79(4):644–655. DOI: 10.1037/0022-3514.79.4.644 [PubMed: 11045744]
- Carstensen LL, Turan B, Scheibe S, Ram N, Ersner-Hershfield H, Samanez-Larkin GR, Nesselroade JR. Emotional experience improves with age: Evidence based on over 10 years of experience sampling. *Psychology and Aging*. 2011; 26(1):21–33. DOI: 10.1037/A0021285 [PubMed: 20973600]
- Caudroit J, Chalabaev A, Stephan Y. Subjective health and memory self-efficacy as mediators in the relation between subjective age and life satisfaction among older adults. *Aging and Mental Health*. 2011; 15(4):428–436. DOI: 10.1080/13607863.2010.536138 [PubMed: 21500009]
- Chapman BP, Hayslip B. Emotional intelligence in young and middle adulthood: Cross-sectional analysis of latent structure and means. *Psychology and Aging*. 2006; 21(2):411. doi: 10.1037/0882-7974.21.2.411 [PubMed: 16768586]
- Charles ST. Strength and vulnerability integration: A model of emotional well-being across adulthood. *Psychology Bulletin*. 2010; 136(6):1068–1091. DOI: 10.1037/a0021232
- Charles ST, Luong G, Almeida DM, Ryff C, Sturm M, Love G. Fewer ups and downs: Daily stressors mediate age differences in negative affect. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*. 2010; 65B(3):279–286. DOI: 10.1093/geronb/gbq002
- Cheung GW, Lau RS. Testing mediation and suppression effects of latent variables—Bootstrapping with structural equation models. *Organizational Research Methods*. 2008; 11(2):296–325. DOI: 10.1177/104428107300343
- Diener E. Subjective well-being. *Psychological Bulletin*. 1984; 95(3):542–575. DOI: 10.1037/0033-2909.95.3.542 [PubMed: 6399758]
- Diener E, Emmons RA, Larsen RJ, Griffin S. The satisfaction with life scale. *Journal of Personality Assessment*. 1985; 49(1):71–75. DOI: 10.1207/s15327752jpa4901_13 [PubMed: 16367493]
- Diener E, Scollon CN, Lucas RE. The evolving concept of subjective well-being: The multifaceted nature of happiness. *Advances in Cell Aging and Gerontology*. 2003; 15:187–219. DOI: 10.1016/S1566-3124(03)15007-9
- Gallagher EN, Vella-Brodrick DA. Social support and emotional intelligence as predictors of subjective well-being. *Personality and Individual Differences*. 2008; 44(7):1551–1561. DOI: 10.1016/j.paid.2008.01.011
- Gana K, Bailly N, Saada Y, Joulain M, Alaphilippe D. Does life satisfaction change in old age: Results from an 8-year longitudinal study. *The Journals of Gerontology Series B, Psychological Sciences and Social Sciences*. 2013; 68(4):540–552. DOI: 10.1093/geronb/gbs093

- Gardner KJ, Qualter P. Factor structure, measurement invariance and structural invariance of the MSCEIT V2.0. *Personality and Individual Differences*. 2011; 51(4):492–496. DOI: 10.1016/j.paid.2011.05.004
- Goleman, D. *Emotional intelligence*. New York, NY: Bantam Books; 1995.
- Gross JJ, John OP. Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*. 2003; 85(2):348–362. DOI: 10.1037/0022-3514.85.2.348 [PubMed: 12916575]
- Hall RJ, Snell AF, Foust MS. Item parceling strategies in SEM: Investigating the subtle effects of unmodeled secondary constructs. *Organizational Research Methods*. 1999; 2(3):233–256. DOI: 10.1177/109442819923002
- Hansson A, Hillerås P, Forsell Y, Sophiahemmet H. Well-being in an adult Swedish population. *Social Indicators Research*. 2005; 74(2):313–325. DOI: 10.1007/s11205-004-6168-6
- Hausknecht JP, Halpert JA, Di Paolo NT, Gerrard MOM. Retesting in selection: A meta-analysis of coaching and practice effects for tests of cognitive ability. *Journal of Applied Psychology*. 2007; 92(2):373–385. DOI: 10.1037/0021-9010.92.2.373 [PubMed: 17371085]
- Hu LT, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*. 1999; 6(1):1–55. DOI: 10.1080/10705519909540118
- James C, Bore M, Zito S. Emotional intelligence and personality as predictors of psychological well-being. *Journal of Psychoeducational Assessment*. 2012; 30(4):425–438. DOI: 10.1177/0734282912449448
- John OP, Gross JJ. Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality*. 2004; 72(6):1301–1333. DOI: 10.1111/j.1467-6494.2004.00298.x [PubMed: 15509284]
- Kafetsios K. Attachment and emotional intelligence abilities across the life course. *Personality and Individual Differences*. 2004; 37(1):129–145. DOI: 10.1016/j.paid.2003.08.006
- Kahneman D, Krueger AB, Schkade DA, Schwarz N, Stone AA. A survey method for characterizing daily life experience: The day reconstruction method. *Science*. 2004; 306(5702):1776–1780. DOI: 10.1126/science.1103572 [PubMed: 15576620]
- Kaufman AS, Johnson CK, Liu X. A CHC theory-based analysis of age differences on cognitive abilities and academic skills at ages 22 to 90 years. *Journal of Psychoeducational Assessment*. 2008; 26(4):350–381. DOI: 10.1177/0734282908314108
- Kong F, Zhao JJ, You XQ. Social support mediates the impact of emotional intelligence on mental distress and life satisfaction in Chinese young adults. *Personality and Individual Differences*. 2012; 53(4):513–517. DOI: 10.1016/j.paid.2012.04.021
- Koydemir S, İmrek ÖF, Schütz A, Tipandjan A. Differences in how trait emotional intelligence predicts life satisfaction: The role of affect balance versus social support in India and Germany. *Journal of Happiness Studies*. 2013; 14(1):51–66. DOI: 10.1007/s10902-011-9315-1
- Koydemir S, Schütz A. Emotional intelligence predicts components of subjective well-being beyond personality: A two-country study using self- and informant reports. *The Journal of Positive Psychology*. 2012; 7(2):107–118. DOI: 10.1080/17439760.2011.647050
- Kunzmann U, Little TD, Smith J. Is age-related stability of subjective well-being a paradox? Cross-sectional and longitudinal evidence from the Berlin aging study. *Psychology and Aging*. 2000; 15(3):511–526. DOI: 10.1037/0882-7974.15.3.511 [PubMed: 11014714]
- Law KS, Wong CS, Song LJ. The construct and criterion validity of emotional intelligence and its potential utility for management studies. *Journal of applied Psychology*. 2004; 89(3):483–496. <http://dx.doi.org/10.1037/0021-9010.89.3.483>. [PubMed: 15161407]
- Liu Y, Wang ZH, Lu W. Resilience and affect balance as mediators between trait emotional intelligence and life satisfaction. *Personality and Individual Differences*. 2013; 54(7):850–855. DOI: 10.1016/j.paid.2012.12.010
- Lok DPP, Yeung DY, Wong CKM. Emotion regulation mediates age differences in emotions. *Aging and Mental Health*. 2011; 15(3):414–418. DOI: 10.1080/13607863.2010.536136 [PubMed: 21491227]

- Lucas, RE., Gohm, CL. Age and sex differences in subjective well-being across cultures. In: Diener, E., Suh, E., editors. *Culture and subjective well-being*. Cambridge, MA: The MIT Press; 2000. p. 291-317.
- Mather M. The emotion paradox in the aging brain. *Annals of the New York Academy of Sciences*. 2012; 1251(1):33–49. DOI: 10.1111/j.1749-6632.2012.06471.x [PubMed: 22409159]
- Mayer, JD., Caruso, DR., Salovey, P. Selecting a measure of emotional intelligence: The case for ability scales. In: Bar-On, R., Parker, JDA., editors. *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace*. San Francisco, CA: Jossey-Bass; 2000. p. 320-342.
- Mayer JD, Roberts RD, Barsade SG. Human abilities: Emotional intelligence. *Annual Review of Psychology*. 2008; 59(1):507–536. DOI: 10.1146/annurev.psych.59.103006.093646
- Mayer, JD., Salovey, P. What is emotional intelligence?. In: Salovey, P., Sluyter, D., editors. *Emotional development and emotional intelligence: Educational implications*. New York, NY: Basic Books; 1997. p. 3-31.
- Mayer JD, Salovey P, Caruso DR, Sitarenios G. Emotional intelligence as a standard intelligence. *Emotion*. 2001; 1(3):232–242. DOI: 10.1037/1528-3542.1.3.232 [PubMed: 12934682]
- Mikolajczak M, Luminet O, Leroy C, Roy E. Psychometric properties of the trait emotional intelligence questionnaire: Factor structure, reliability, construct, and incremental validity in a French-speaking population. *Journal of Personality Assessment*. 2007; 88(3):338–353. DOI: 10.1080/00223890701333431 [PubMed: 17518555]
- Mroczek DK, Kolarz CM. The effect of age on positive and negative affect: A developmental perspective on happiness. *Journal of Personality and Social Psychology*. 1998; 75(5):1333–1349. DOI: 10.1037/0022-3514.75.5.1333 [PubMed: 9866191]
- Mroczek DK, Spiro A. Change in life satisfaction during adulthood: Findings from the veterans affairs normative aging study. *Journal of Personality and Social Psychology*. 2005; 88(1):189–202. DOI: 10.1037/0022-3514.88.1.189 [PubMed: 15631584]
- Muthén, LK., Muthén, BO. *Mplus user's guide*. Los Angeles, CA: Muthén & Muthén; 2010.
- Ryff CD. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*. 1989; 57(6):1069–1081. DOI: 10.1037/0022-3514.57.6.1069
- Salovey, P., Bedell, BT., Detweiler, JB., Mayer, JD. Current directions in emotional intelligence research. In: Lewis, M., Haviland, JM., editors. *Handbook of emotions*. 2nd. Vol. 2. New York, NY: Guilford Press; 2000. p. 504-520.
- Salovey P, Mayer JD. Emotional intelligence. *Imagination, Cognition, and Personality*. 1990; 9:185–211.
- Shi J, Wang L. Validation of emotional intelligence scale in Chinese university students. *Personality and Individual Differences*. 2007; 43(2):377–387. DOI: 10.1016/j.paid.2006.12.012
- Sliter M, Chen YW, Withrow S, Sliter K. Older and (emotionally) smarter? Emotional intelligence as a mediator in the relationship between age and emotional labor strategies in service employees. *Experimental Aging Research*. 2013; 39(4):466–479. DOI: 10.1080/0361073X.2013.808105 [PubMed: 23875841]
- Tabachnick, BG., Fidell, LS. *Using multivariate statistics*. 4th. Boston, MA: Allyn and Bacon; 2001.
- Tsaousis I, Kazi S. Factorial invariance and latent mean differences of scores on trait emotional intelligence across gender and age. *Personality and Individual Differences*. 2013; 54(2):169–173. DOI: 10.1016/j.paid.2012.08.016
- Van Rooy DL, Alonso A, Viswesvaran C. Group differences in emotional intelligence scores: Theoretical and practical implications. *Personality and Individual Differences*. 2005; 38(3):689–700. DOI: 10.1016/j.paid.2004.05.023
- Watson D, Clark LA, Tellegen A. Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*. 1988; 54(6):1063–1070. DOI: 10.1037/0022-3514.54.6.1063 [PubMed: 3397865]
- Wong CS, Law KS. The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *Leadership Quarterly*. 2002; 13(3):243–274. DOI: 10.1016/S1048-9843(02)00099-1.

Figure 1.
The hypothesized mediation model.

Figure 2.

The measurement model. $N=337$; Factor loadings are standardized. AWB1, AWB2 = two parcels of affective well-being; LS1–LS5 = five items of life satisfaction. SEA, AOE, UOE, and ROE are the subscales of the Wong Law Emotional Intelligence Scale. All the path coefficients are significant at the .001 level.

Figure 3.
The final structural model.

Table 1

Background Characteristics by Age Groups.

Background variables	20 to 39 years (N = 103)	40 to 59 years (N = 128)	60 to 79 years (N = 106)
Gender ratio (male/female)	35/68	39/89	38/68
Marital status (married/nonmarried)	7/96	119/7	89/17
Self-rated health (fair/good)	11/88	41/77	56/46
Average age (SD)	23.79 (3.94)	51.08 (5.96)	67.84 (5.68)

Note. Two participants did not report their marital status and 18 participants did not report their self-rated health status.

Table 2

Descriptive Statistics, Zero-Order Correlations, and Cronbach's α s for All Measures.

Measure	M	SD	1	2	3	4	5	6	7
1. Gender	—	—	—						
2. Marital status	—	—	.04	—					
3. Self-rated health	—	—	-.09	.23**	—				
4. Age	48.01	18.32	-.00	-.68**	-.39**	—			
5. Emotional intelligence	81.54	12.05	.11*	-.12*	-.08	.23**	.89		
6. Life satisfaction	23.01	5.69	.16**	-.09	.02	.26**	.41**	.80	
7. Affective well-being	11.03	8.40	-.05	-.17**	.13*	.19**	.41**	.43**	.82

Note. $N=337$. Two tailed. Gender: 0 = *male*, 1 = *female*. Marital status: 0 = *married*, 1 = *nonmarried*. Self-rated health: 0 = *poor to fair* health 1 = *good to excellent health*. Diagonal values represent internal consistency for each scale when applicable.

* $p < .05$.

** $p < .01$.