4-28-2022

Age as a Moderator in the Relationship Between Coping Strategies and Well-Being During the COVID-19 Pandemic

Hailey Owens
Western Michigan University, hailey.owens99@gmail.com

Age as a Moderator in the Relationship Between Coping Strategies and Well-Being During the COVID-19 Pandemic

Hailey D. Owens

Western Michigan University

Thesis Chair

Brooke M. Smith, Ph.D., Department of Psychology

Thesis committee members

Lucie Romano, Clinical Psychology Doctoral Student

Callum Smith, Clinical Psychology Doctoral Student

Introduction

As of April 2022, the COVID-19 virus has infected over 500 million individuals worldwide with more than 6 million deaths (World Health Organization, 2022). Initial data was collected in April of 2020, during the early governmental response to the COVID-19 virus which involved stay-at-home orders, quarantine periods, shuttering of businesses, social distancing, and limitations on social gatherings (Smith et al., 2020). Due to these initial tactics used to slow the spread of the COVID-19 virus in the U.S., millions of individuals were unable to experience in-person social interaction.

Social isolation is known as a "lack of interactions with others or the wider community" (Leigh-Hunt et al., 2017, p. 158) and is associated with decreased overall well-being (Liao & Weng, 2018). At the time of writing, all mandatory stay-at-home orders in the United States have been lifted, with few restrictions (such as mask wearing) still in place in some venues, schools, and businesses (Centers for Disease Control and Prevention, 2022). Although preventative measures have been reduced or eliminated in most states, the potential adverse effects of such far-reaching measures on the well-being of affected individuals, as well as measures that can be taken to mitigate these effects, have not been fully explored. As such, the ongoing COVID-19 pandemic may still impact overall well-being.

Coping is defined as "cognitive and behavioral efforts made to master, tolerate, or reduce external and internal demands and conflicts among them" (Folkman & Lazarus, 1980, p. 223). The use of positive coping strategies has been shown to have mental health benefits. A 2021 study reported that Polish nursing students who utilized positive coping strategies such as acceptance, planning, and use of both instrumental and emotional support showed higher levels of self-efficacy and high or average levels of optimism (Bodys-Cupak et al., 2021). In a 2001

study of psychiatric inpatients, adaptive coping was found to have a positive correlation with psychological well-being (Meyer, 2001). Most compellingly, a study conducted by Lehane and colleagues on adults with sensory loss and their spouses found that "coping styles including active coping, avoidance, distraction, venting, and spouse support seeking" were positively associated with the psychological well-being of adults with sensory loss (Lehane et al., 2019, p. 797).

A study conducted by Williams and McGillicuddy-De Lisi found that older adolescents not only utilized coping strategies more frequently than younger adolescents, but that the coping strategies they utilized were different. Older teens relied more heavily on strategies involving problem solving and positive reframing compared to younger adolescents (Williams & McGillicuddy-De Lisi, 1999). These results suggest that coping skills change (and perhaps improve) with age. A 2011 study conducted on French adults that explored the relationship between age and coping skills found that the use of problem-focused coping styles increased with age, suggesting that "elders may keep the ability to actively solve stressful problems" (Trouillet et al., 2011, p. 546).

The present study aimed to investigate the relationship between well-being and the use of coping strategies with age as a moderating variable during the COVID-19 pandemic. It was hypothesized that the relationship between each of the various coping strategies and well-being would be dependent on age, with older participants being "better copers".

Method

Participants

The initial study was approved by Western Michigan University's (WMU) Institutional Review Board. A total of 349 participants were recruited either through their enrollment as

psychology undergraduate students at WMU or through recruitment via email and social media. To be eligible to participate, applicants were required to be at least 18 years of age with fluency in English and the ability to access the online survey. Thirty-one students elected to receive extra credit for their participation and all participants were given the opportunity to enter a drawing for a $25 Visa gift card. A total of seventy-one participants were excluded for failing to respond to any of the measures. Most participants self-identified as White (n = 249) and female (n = 224). Most participants reported having lived with other people during the pandemic. The average age of participants was 39.7 years (SD = 15.8). Demographic information including age, gender, and race/ethnicity, can be found in Table 1.

Measures

The World Health Organization Well-Being Index (WHO-5; Topp et al., 2015) is a 5-item measure of psychological well-being. Participants are asked to respond to five statements related to how they have felt over the past two weeks: “I have felt cheerful and in good spirits,” “I have felt calm and relaxed,” “I have felt active and vigorous,” “I woke up feeling fresh and rested,” and “my daily life has been filled with things that interest me.” The items are scored on a 6-point scale from 0 (“at no time”) to 5 (“all of the time”). Scores range from 0-100 (final scores are multiplied by 4), with higher scores indicating higher levels of well-being.

In 1989, Carver and colleagues created the Coping Orientation to Problems Experienced (COPE) Inventory to measure different coping strategies (Carver et al., 1989). In 1997, they modified the original COPE, creating the Brief Coping Orientation to Problems Experienced (COPE; Carver, 1997). This is a 28-item questionnaire that assesses 14 coping strategies with 2-item subscales. Participants are prompted to respond to what degree they have used each coping strategy, ranging from 1 (“I haven’t been doing this at all) to 4 (“I’ve been doing this a lot”).

Subscales include active coping, planning, positive reframing, acceptance, humor, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame.

In the current study, the internal consistency of each Brief COPE subscale was measured. Self-distraction had an unacceptable internal consistency of $\alpha < 0.50$ and therefore was not reported. Acceptance ($\alpha = 0.57$), self-blame ($\alpha = 0.58$), and venting ($\alpha = 0.59$) had poor internal consistency. Coping strategies with questionable internal consistency included active coping ($\alpha = 0.63$), denial ($\alpha = 0.67$), and planning ($\alpha = 0.68$). Coping strategies with poor or questionable internal consistency should be interpreted with caution. Use of instrumental support ($\alpha = 0.79$), behavioral disengagement ($\alpha = 0.72$), and positive reframing ($\alpha = 0.74$) had acceptable internal consistencies. Coping strategies with good internal consistency included humor ($\alpha = 0.80$), use of emotional support ($\alpha = 0.84$), and religion ($\alpha = 0.86$). Substance use had excellent internal consistency ($\alpha = 0.97$). Data collected from other measures were not included in the current analyses. (See Smith et al. (2020) for excluded measures).

Procedure

Data were collected during a three-week period beginning in April 2020. Participants provided informed consent and were asked to fill out online surveys via Qualtrics, which took an average of 20 minutes to complete.

Results

Missing Data

A total of 349 individuals responded to the survey. Prior to the publication of the initial study, 71 participants were excluded from analyses because they did not respond to any of the outcome measures. Therefore, 278 participants were included in the analyses. No demographic

data were missing. Cases were excluded from individual analyses if the participant failed to respond to any of the relevant variables included in the analysis (i.e., one participant may be included in the analysis for one subscale but not another).

Statistical Analyses

Statistical analyses were conducted using jamovi (The jamovi project, 2021). All variables were centered before being analyzed. Reliability analysis was conducted on each subscale to determine internal consistency, resulting in the omittance of the self-distraction subscale from all analyses.

A separate regression analysis was conducted for each subscale of the Brief COPE, with each subscale serving as the predictor variable, the total WHO score serving as the dependent variable, and age serving as the moderator variable. The Holm correction was used to adjust the *p*-values for all interactions, but this resulted in none of the interactions meeting the threshold of significance (Holm, 1979). Because of the exploratory nature of the study, statistics were reported without using corrected *p*-values. Therefore, an alpha level of .05 was used for statistical testing.

Coping Strategies, Well-Being, and Age

Age was shown to significantly moderate the relationship between well-being and active coping (est. = -0.130, SE = 0.0474, Z = -2.75, p = 0.006). Simple slopes analyses indicated that, for participants of average (est. = 2.820, SE = 0.750, Z = 3.759, $p < .001$) and younger (-1SD) age (est. = 4.870, SE = 1.008, Z = 4.830, $p < .001$), the relationship with well-being was significant. For older participants (+1SD), the relationship was not significant (est. = 0.771, SE = 1.111, Z = 0.693, p = 0.488). Age was also shown to significantly moderate the relationship between well-being and positive reframing (est. = -0.0952, SE = 0.0462, Z = -2.06, p = 0.039).

Simple slopes analyses indicated that for participants of average (est. = 2.230, *SE* = 0.751, *Z* = 2.969, *p* = 0.003) and younger (-1SD) age, the relationship with well-being was significant (est. = 3.729, *SE* = 0.978, *Z* = 3.812, *p* < .001). For older participants (+1SD), the relationship was not significant (est. = 0.732, *SE* = 1.113, *Z* = 0.658, *p* = 0.510). Denial was shown to be approaching significance (est. = 0.137, *SE* = 0.0702, *Z* = 1.95, *p* = 0.052). Age was not shown to significantly moderate the relationship between well-being and humor, venting, planning, religion, behavioral disengagement, acceptance, substance use, instrumental support, self-blame, or emotional support. Self-distraction was omitted from the analysis as it showed unacceptable internal consistency.

Coping Strategies and Well-Being

Subscales of the Brief COPE showing non-significant interactions were analyzed for their relationship to well-being without considering age. The use of acceptance as a coping strategy (est. = 2.48607, *SE* = 0.9281, *Z* = 2.679, *p* = 0.007) was shown to have a positive relationship with well-being. The use of denial (est. = -5.059, *SE* = 1.0649, *Z* = -4.75, *p* < .001), substance use (est. = -2.53615, *SE* = 0.6868, *Z* = -3.693, *p* < .001), behavioral disengagement (est. = -5.5086, *SE* = 0.7889, *Z* = -6.982, *p* < .001), and self-blame (est. = -6.59247, *SE* = 0.7510, *Z* = -8.778, *p* < .001) were shown to have a negative relationship with well-being. The relationship between well-being and the use of religion as a coping strategy was shown to be approaching significance (est. = 1.1277, *SE* = 0.5772, *Z* = 1.954, *p* = 0.051).

Discussion

The current study hypothesized that age would moderate the relationship between well-being and the use of the coping strategies active coping, denial, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive reframing,

planning, humor, acceptance, religion, and self-blame during the COVID-19 pandemic. Coping strategies for which the interaction with age was found to be statistically significant were active coping and positive reframing. For both strategies, younger participants were found to benefit more from practicing them, showing a greater increase in well-being compared to older participants. Coping strategies for which the interaction with age was not significant include denial, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, planning, humor, acceptance, religion, and self-blame, although the interaction with denial was approaching significance.

Although the relationship between coping style and well-being was only significant for participants of younger and average age, the use of active coping was associated with greater well-being overall. This finding aligns with previous research surrounding well-being and coping strategies (Diong & Bishop, 1999; García et al., 2018; Russell et al., 2022). The same is true of the use of positive reframing across age groups (Hamama-Raz et al., 2017). Interestingly, one study explored coping strategies used by Slovenian adults during the COVID-19 pandemic and found that participants who engaged in an "active profile" (which involved both active coping and positive reframing) showed the highest levels of well-being and the lowest levels of ill-being when compared with the rest of the sample (Kavčič et al., 2022).

Although interactions with age did not show statistical significance, denial, substance use, self-blame, and behavioral disengagement predicted lower well-being. This aligns with previous literature surrounding coping strategies and their effectiveness (Mackay et al., 2011). Previous literature has found self-blame in particular to be associated with decreased well-being (Li & Lambert, 2007).

Implications

Current findings seek to inform treatment surrounding the use of coping strategies for various age groups. Our results suggest that younger individuals may see greater benefit to their overall well-being, compared with older populations, when using active coping and positive reframing while navigating the COVID-19 pandemic. These findings also suggest that acceptance is positively correlated with well-being, while denial, substance use, behavioral disengagement, and self-blame are coping strategies that should be avoided. For this reason, treatment strategies could focus on skills like acceptance and the use of active coping and positive reframing with younger populations.

Limitations and Future Directions

The present study has several limitations. One limitation of note was that the study was cross-sectional and only analyzed data from a single timepoint. Future studies may opt for a longitudinal design that utilizes data from multiple timepoints. Also, it is important to consider that the survey method of data collection relies on self-report and is retrospective in nature. Therefore, this method may not accurately reflect participants' behavior. It is also important to note that stress has been found to impair memory retrieval processes (Kuhlmann et al., 2005). Considering these findings in relation to the taxing nature of the COVID-19 pandemic further emphasizes the idea that self-report may not be the most accurate method of data collection during times of widespread distress.

It should be noted that participants were not surveyed about their mental health history prior to the COVID-19 pandemic, although the degree to which symptoms of mental health disorders increased during the pandemic has been shown to be correlated with prior diagnoses (Pan et al., 2021). Due to this finding, future studies could focus on prior mental health diagnosis as a moderating variable in the relationship between well-being and the use of coping strategies.

It is also important to note that data was gathered early in the pandemic (April of 2020), and much has changed since then in terms of governmental restrictions, case numbers, and emerging variants of the COVID-19 virus. Any possible effects these changes may have on the variables of interest cannot be reported in this paper.

In terms of demographic variables, most participants self-identified as White and female. This is not representative of the larger U.S. population (Bureau of the Census, 2020), reducing the generalizability of our results. Future studies should target recruitment of a wider range of racial and ethnic groups as well as men and individuals who identify with another gender. The present study focused on age as a moderating variable; other possible moderators in the relationship between well-being and the use of coping strategies were not explored. Future studies may examine the impact of other demographic variables such as race, ethnicity, or gender on the relationship between coping strategies and well-being.

As this analysis was largely exploratory in nature, results were reported without corrected *p*-values for multiple tests, which increases the possibility of a Type 1 error (Holm, 1979). Further limitations include the poor and questionable internal consistency of some of the Brief COPE subscales used in the analyses. Results associated with these subscales should be interpreted with caution. The interaction between age, well-being, and the use of denial as a coping strategy was shown to be approaching significance, and the current study's population size and demographic makeup may have impacted this finding. Considering this, future studies may choose to explore the relationship between denial, age, and well-being.

Conclusion

The COVID-19 pandemic presents novel questions surrounding mental health and well-being. The ways in which age moderates the use of coping strategies during this global pandemic

was explored. Regression analyses showed that both the interactions between age and active coping and age and positive reframing were significant, with coping strategies having a larger impact on well-being for younger participants. Controlling for age, well-being was shown to increase when using acceptance as a coping skill and decrease when using denial, substance use, behavioral disengagement, and self-blame. These findings align with previous literature surrounding well-being and the use of coping strategies. Current findings emphasize the importance of the use of appropriate, effective coping strategies during times of distress. Future research should further explore the interaction between age, active coping, and well-being as well as age, positive reframing, and well-being during the COVID-19 pandemic.

Acknowledgements

This paper would not have been possible without the support of Dr. Brooke Smith, who guided me through the process of data analysis and interpretation. Her time and expertise proved invaluable throughout this journey. I would also like to thank Callum Smith and Lucie Romano for their feedback, time, and support as members of my thesis committee.

References

Bodys-Cupak, I., Majda, A., Kurowska, A., Ziarko, E. & Zalewska-Puchala J. (2021). Psycho-social components determining the strategies of coping with stress in undergraduate Polish nursing students. *BMC Nursing, 20*(129). https://doi.org/10.1186/s12912-021-00630-2

Bureau of the Census. (2020). *QuickFacts: United States.* The United States Census Bureau, U.S. Federal Statistical System. https://www.census.gov/quickfacts/fact/table/US/PST045221

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, *56*(2), 267-283. https://doi.org/10.1037/0022-3514.56.2.267

Carver, C. (1997). You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioral Medicine*, *4*(1), 92-100. https://www.researchgate.net/publication/7515511_You_want_to_Measure_Coping_But_Your_Protocols_Too_Long_Consider_the_Brief_COPE

Centers for Disease Control and Prevention. (2022). *CDC Orders.* U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. https://www.cdc.gov/nchs/.

Diong, S., & Bishop, G. D. (1999). Anger expression, coping styles, and well-being. *Journal of Health Psychology, 4*(1), 81-96. https://doi.org/10.1177/135910539900400106

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, *21*(3), 219–239. https://doi.org/10.2307/2136617

García, F. E., Barraza-Peña, C. G., Wlodarczyk, A., Alvear-Carrasco, M., & Reyes-Reyes, A. (2018). Psychometric properties of the brief-COPE for the evaluation of coping strategies in the Chilean population. *Psicologia: Reflexão e Crítica, 31*(11). https://doi.org/10.1186/s41155-018-0102-3

Hamama-Raz, Y., Palgi, Y., Leshem, E., Ben-Ezra, M., & Lavenda, O. (2017). Typhoon survivors' subjective wellbeing—A different view of responses to natural disaster. *PLoS ONE*, *12*(9), 11. https://doi.org/10.1371/journal.pone.0184327

Holm, S. (1979). A simple sequentially rejective multiple test procedure. *Scandinavian Journal of Statistics, 6*, 65–70. http://www.jstor.org/stable/4615733

Kavčič, T., Avsec, A., & Zager Kocjan, G. (2022). Coping profiles and their association with psychological functioning: A latent profile analysis of coping strategies during the COVID-19 pandemic. *Personality and Individual Differences, 185*(6). https://doi.org/10.1016/j.paid.2021.111287

Kuhlmann, S., Piel, M., & Wolf, O. T. (2005). Impaired memory retrieval after psychosocial stress in healthy young men. *The Journal of Neuroscience, 25*(11), 2977-2982. https://doi.org/10.1523/JNEUROSCI.5139-04.2005

Lehane C.M., Dammeyer J., Wittich W. (2019). Intra- and interpersonal effects of coping on the psychological well-being of adults with sensory loss and their spouses, *Disability and Rehabilitation, 41*(7), 796-807. https://doi.org/10.1080/09638288.2017.1410583

Leigh-Hunt, N., Bagguley, D., Bash, K., Turner, V., Turnbull, S., Valtorta, N., & Caan, W. (2017). An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public Health*, *152*, 157–171. https://doi.org/10.1016/j.puhe.2017.07.035

Li, J. and Lambert, V.A. (2007), Coping strategies and predictors of general well-being in women with breast cancer in the People's Republic of China. *Nursing & Health Sciences, 9*, 199-204. https://doi.org/10.1111/j.1442-2018.2007.00325.x

Liao, K. Y.-H., & Weng, C.-Y. (2018). Gratefulness and subjective well-being: Social connectedness and presence of meaning as mediators. *Journal of Counseling Psychology*, *65*(3), 383–393. https://doi.org/10.1037/cou0000271

Mackay, J., Charles, S. T., Kemp, B., & Heckhausen, J. (2011). Goal striving and maladaptive coping in adults living with spinal cord injury: Associations with affective well-being. *Journal of Aging and Health, 23*(1), 158-176. https://doi.org/10.1177/0898264310382039

Meyer, B. (2001). Coping with severe mental illness: Relations of the brief COPE with symptoms, functioning, and well-being. *Journal of Psychopathology and Behavioral Assessment, 23*(4), 265-277. https://doi.org/10.1023/A:1012731520781

Pan, K., Kok, Almar, A.L., Eikelenboom, M., Horsfall, M., Jörg, F., Luteijn, R. A., Rhebergen, D., Oppen, P., Giltay, E. J, & Penninx, B. W. J. H. (2021). The mental health impact of the COVID-19 pandemic on people with and without depressive, anxiety, or obsessive-compulsive disorders: A longitudinal study of three Dutch case-control cohorts. *The Lancet Psychiatry, 8*(2), 121-129. https://doi.org/10.1016/S2215-0366(20)30491-0

R Core Team. (2016). *R: A language environment for statistical computing*. https://www.R-project.org/

Revelle, W. (2019). *psych: Procedures for Psychological, Psychometric, and Personality Research*. [R package]. Retrieved from https://cran.r-project.org/package=psych.

Ripley, B., Venables W., Bates, D. M., Hornik, K., Gebhardt, A., & Firth, D. (2018). *MASS: Support Functions and Datasets for Venables and Ripley's MASS*. [R package]. Retrieved from https://cran.r-project.org/package=MASS.

Russell, B. S., Adamsons, K., Hutchison, M., & Francis, J. (2022). Parents' well-being and emotion regulation during infancy: The mediating effects of coping. *The Family Journal, 30*(1), 4–13. https://doi.org/10.1177/10664807211022230

Smith, B. & Twohy, A. & Smith, G. S. (2020). Psychological inflexibility and intolerance of uncertainty moderate the relationship between social isolation and mental health outcomes during COVID-19. *Journal of contextual behavioral science.* 18. https://doi.org/10.1016/j.jcbs.2020.09.005.

The jamovi project (2021). *jamovi*. (Version 2.2) [Computer Software]. Retrieved from https://www.jamovi.org.

Topp, C. W., Østergaard, S. D., Søndergaard, S., & Bech, P. (2015). The WHO-5 Well-Being Index: A systematic review of the literature. *Psychotherapy and Psychosomatics*, *84*(3), 167–176. https://doi.org/10.1159/000376585

Trouillet, R., Doan-Van-Hay, L., Launay, M., & Martin, S. (2011). Impact of age, and cognitive and coping resources on coping. *Canadian Journal on Aging / La Revue Canadienne Du Vieillissement, 30*(4), 541-550. https://doi.org/10.1017/S0714980811000456

van Buuren, S. (2018). *Flexible imputation of missing data* (2nd ed.). CRC Press.

Williams, K. & McGillicuddy-De Lisi, A. (1999). Coping strategies in adolescents. *Journal of Applied Developmental Psychology, 20*(4), 537-549. https://doi.org/10.1016/S0193-3973(99)00025-8.

World Health Organization. (2021). *WHO Coronavirus Dashboard*. https://covid19.who.int

Table 1

Descriptive Statistics for Demographic Variables

Variable	*M*/count	*SD*/%
Age	39.7	15.8
Gender		
Male	50	18.0%
Female	224	80.6%
Another gender	4	1.4%
Race/Ethnicity		
White	249	89.6%
Asian	7	2.5%
African American/Black	6	2.2%
Hispanic/Latinx	4	1.4%
Middle Eastern/North African	2	0.7%
Mixed race	8	2.9%
Other	2	0.7%

Note. Mean and standard deviation (SD) generated using jamovi.

Table 2

Descriptive Statistics for Psychological Measures

Variable	*N*	Missing	Mean	Median	*SD*	Minimum	Maximum
WHO-5	270	8	49.9	52.0	21.3	0.00	96.0
Brief COPE							
Active Coping	271	7	5.10	5.00	1.60	2.00	8.00
Denial	271	7	2.68	2.00	1.19	2.00	7.00
Substance Use	271	7	3.26	2.00	1.79	2.00	8.00
Emotional Support	270	8	5.26	5.00	1.78	2.00	8.00
Instrumental Support	271	7	4.48	4.00	1.66	2.00	8.00
Behavioral Disengagement	269	9	3.10	2.00	1.46	2.00	8.00
Venting	270	8	4.28	4.00	1.42	2.00	8.00
Positive Reframing	271	7	5.34	5.00	1.62	2.00	8.00
Planning	271	7	5.07	5.00	1.61	2.00	8.00
Humor	270	8	4.58	4.00	1.76	2.00	8.00
Acceptance	272	6	6.56	7.00	1.31	2.00	8.00
Religion	271	7	4.34	4.00	2.14	2.00	8.00
Self-Blame	271	7	3.39	3.00	1.48	2.00	8.00

Note. Descriptive statistics generated using jamovi.

Table 3

Internal Consistency

Measure	Cronbach's α
Self-Distraction	0.412
Active Coping	0.625
Denial	0.666
Substance Use	0.973
Emotional Support	0.842
Instrumental Support	0.788
Behavioral Disengagement	0.721
Venting	0.590
Positive Reframing	0.738
Planning	0.683
Humor	0.795
Acceptance	0.556
Religion	0.863
Self-Blame	0.575

Note. Cronbach's α generated using jamovi.

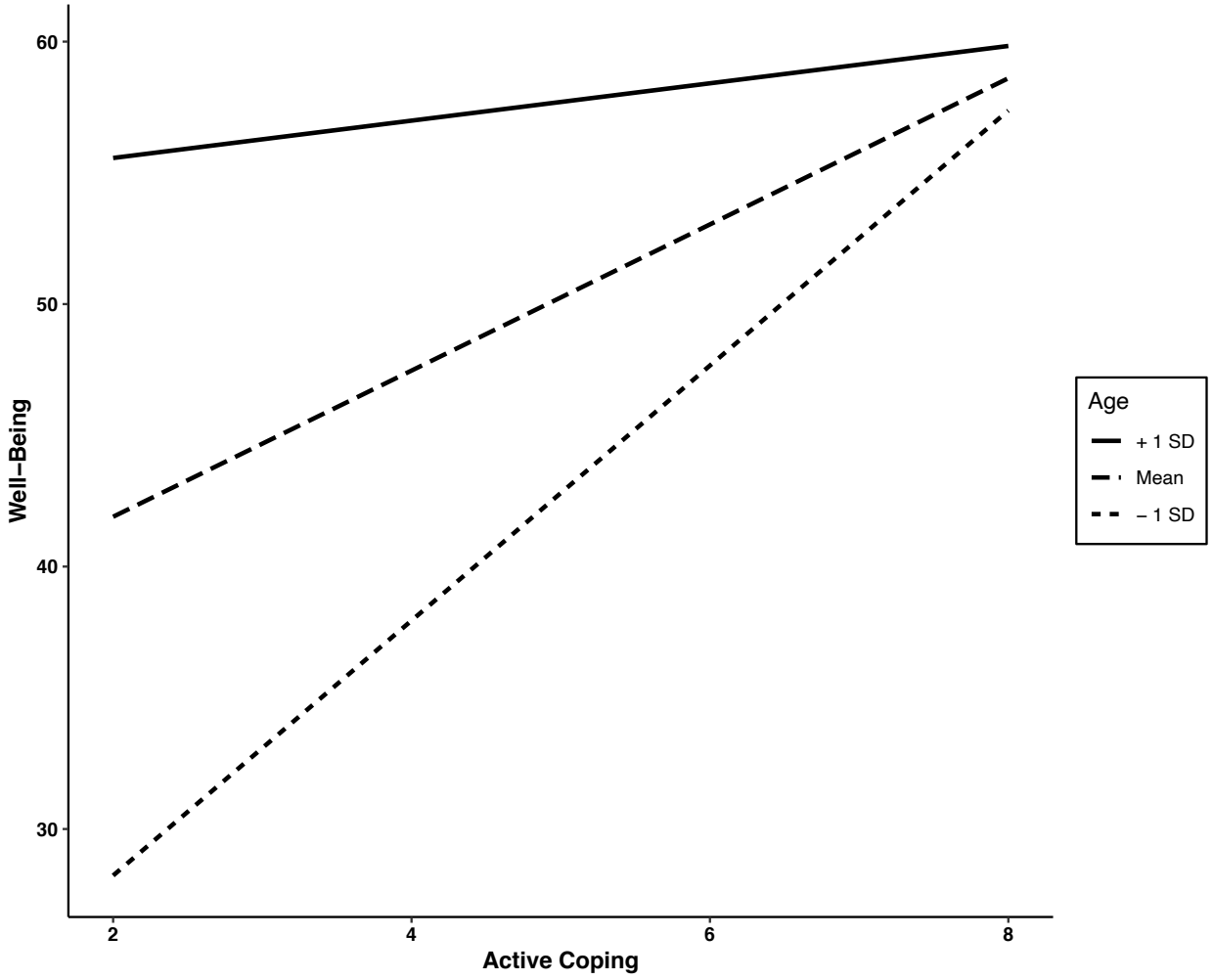
Table 4

Interactions

Variable	Est.	*SE*	*Z*	*p*
Brief COPE				
Active Coping	-0.130	0.0474	-2.75	0.006
Denial	-0.137	0.0702	-1.95	0.052
Substance Use	-0.00569	0.0442	-0.129	0.898
Use of Emotional Support	-0.00274	0.0437	-0.0627	0.950
Use of Instrumental Support	0.00530	0.0443	0.120	0.905
Behavioral Disengagement	0.0154	0.0464	0.331	0.740
Venting	-0.0332	0.0540	-0.614	0.539
Positive Reframing	-0.0952	0.0462	-2.06	0.039
Planning	-0.0202	0.0461	-0.438	0.661
Humor	0.0479	0.0439	1.093	0.275
Acceptance	0.00965	0.0552	0.175	0.861
Religion	-0.0142	0.0369	-0.385	0.700
Self-Blame	0.00607	0.0531	0.114	0.909

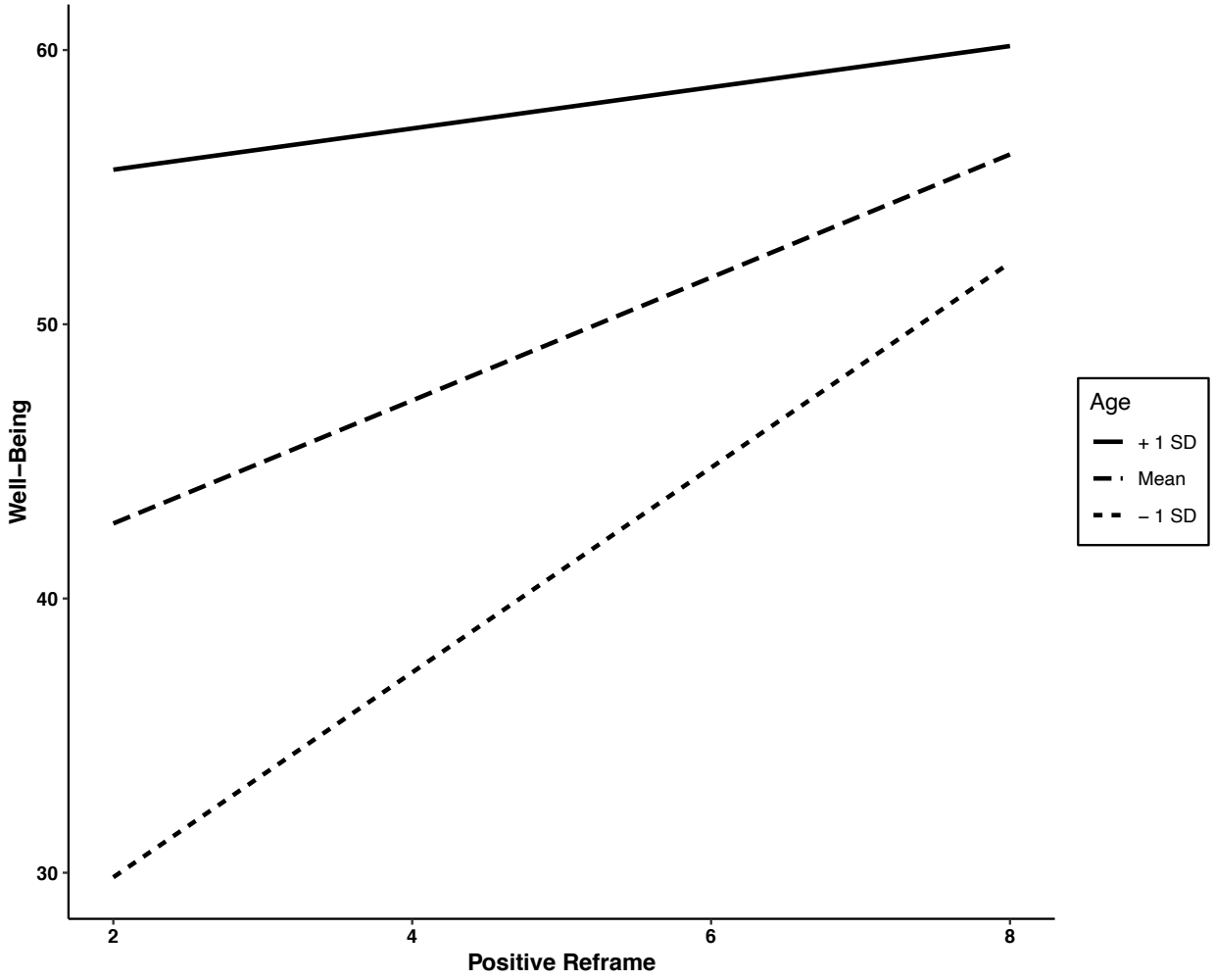
Note. Shows the effect of each predictor on the dependent variable (WHO-5) at different levels of the moderator (age). Estimates (est.), standard error (*SE*), *Z* values and *p* values generated in jamovi.

Figure 1



Note. Moderating effect of age on the relationship between active coping and psychological well-being.

Figure 2



Note. Moderating effect of age on the relationship between positive reframing and psychological well-being.