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Longitudinal associations between psychological and social well-being: Exploring within-person dynamics

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Abstract

This study examines the longitudinal associations between psychological and social well-being, which represent the private and public dimensions of eudaimonic well-being, respectively. Data were drawn from the Midlife in the United States (MIDUS) project ($N = 6{,}453$). Participants were assessed at three-time points, each approximately a decade apart. Both between-person and within-person associations between social and psychological well-being are examined. The results reveal a strong between-person association, consistent with previous cross-sectional results. In addition, novel insights are gained by uncovering longitudinal within-person associations that suggest consistent and coordinated changes in psychological and social well-being over time. More specifically, deviations from typical levels in one dimension are associated with corresponding deviations in the other dimension after about 10 years, suggesting a reciprocal link. Notably, person-specific changes in social well-being are a better predictor of subsequent changes in psychological well-being, than the other way around. These findings underscore the interdependence of the two facets of eudaimonic well-being and highlight the importance of considering both dimensions in intervention strategies. Taken together, these findings enrich our understanding of the dynamic nature of eudaimonic well-being. Please refer to the Supplementary Material section to find this article's Community and Social Impact Statement.

1 | INTRODUCTION

Central to the concept of eudaimonic well-being are the fundamental elements of personal growth, self-actualization, and the fulfilment of one's inherent potential (Ryff & Singer, 2008; Waterman, 2007). A eudaimonic life is characterised by the continuous and purposeful cultivation of virtues within one's daily existence. In classic philosophy, the cultivation of these virtues embodies the manifestation of humanity's best qualities (Haybron, 2013). In modern psychology, eudaimonic well-being is often operationalised as a multifaceted construct that encompasses the exercise of a range of psychological and social skills, which enable individuals to effectively navigate and cope with the challenges they encounter in their daily lives (Joshanloo, 2018). This involves actively engaging in meaningful activities that are consistent with one's core values and that contribute to the overall well-being of individuals and society. Eudaimonic well-being is typically contrasted with hedonic/subjective well-being, which revolves predominantly around the experience of pleasure, positive affect balance, and overall life satisfaction (Ryan & Deci, 2001; Diener & Ryan, 2009).

Eudaimonic well-being encompasses both personal and social dimensions (Joshanloo, 2021). The personal dimension of eudaimonic well-being is captured by psychological well-being, which is a set of personal and private skills and attributes (Ryff, 1989). Psychological well-being includes six dimensions: Self-acceptance (recognising and embracing one's strengths and weaknesses), personal growth (striving to realise one's full potential and embrace new challenges), purpose in life (pursuing one's passions and aspirations and transforming them into meaningful life goals), environmental mastery (creating and maintaining an environment that aligns with one's values and needs), autonomy (being true to oneself and living according to one's values and beliefs), and positive relationships (establishing and maintaining stable, supportive relationships based on trust and mutual respect) (Ryff, 1989). Social well-being includes a sense of belonging and connection with others, as well as the ability to contribute meaningfully to social groups. Social well-being encompasses five dimensions (Keyes, 1998): Social acceptance (having a positive attitude towards others while recognising and accepting their complexity), social actualization (believing in the collective potential of humanity and the prospect of a better social future), social contribution (feeling that your life has meaning for society and that your contributions are valued by others), social coherence (engaging with society and seeing it as coherent, rational, predictable, and meaningful), and social integration (feeling deeply connected to a community and deriving comfort and support from that connection).

Factor analytic studies consistently show that psychological and social well-being are distinct constructs, yet they exhibit a robust positive correlation with each other (Gallagher et al., 2009; Joshanloo, 2016). This positive link is consistent with the theoretical framework that positions these two dimensions within the broader construct of eudaimonic well-being (Joshanloo, 2021). Although previous research has explored the longitudinal associations between eudaimonic and hedonic well-being (e.g., Joshanloo et al., 2018), a significant research gap remains in exploring the longitudinal associations between psychological and social well-being. The present study aimed to fill this gap by providing new empirical evidence on the longitudinal association between these two variables.

The strong correlation observed between psychological and social well-being suggests a concurrent manifestation of personal and social skills. This significant cross-sectional association indicates the difficulty of identifying individuals who exhibit a substantial disparity between high levels of one variable and low levels of the other. It is logical to expect that individuals who lack a sense of social belonging and meaningful relationships within their community would face challenges in demonstrating high levels of personal skills such as autonomy, mastery, and purpose in life. Similarly, individuals who lack personal skills such as self-acceptance and autonomy may have difficulty cultivating successful relationships with their groups and communities.

Previous research has shown that indicators of low social well-being, such as ostracism or perceived negative impact on others, are associated with lower personal well-being, whereas indicators of higher social well-being are associated with higher personal well-being (Martela & Ryan, 2019; Williams, 2009). However, longitudinal evidence in this area is scarce. One study found that increases in social identity strength over a seven-month period were associated with increased psychological need satisfaction, which is related to psychological well-being (Greenaway et al., 2015). Another longitudinal study found that individuals who were actively engaged in social activities experienced a slower decline in psychological well-being than those who were less socially engaged (Sharifian & Grühn, 2018). Despite these findings, our understanding of the longitudinal associations, particularly the purely within-person dynamics between psychological and social well-being, remains limited. Does an increase in an individual's level of one variable correspond to a subsequent increase in the other variable over time? The present study aims to shed light on this particular aspect of the relationship.

Examining the relationship between two variables typically involves two different levels of analysis: the between-person level and the within-person level (Hoffman, 2015). The between-person level of analysis aims to identify individual differences by examining how variables vary across individuals. This level of analysis seeks to understand how one variable relates to another when considering variations around the average or typical levels of the variables within a group of individuals. In contrast, the within-person level of analysis examines the relationship between variables within the same individual simultaneously or over time. This level of analysis considers the changes or fluctuations that occur within an individual and examines how changes in different variables within the same individual coincide. By examining associations at the within-person level, it is possible to examine whether within-person changes in one variable are associated with subsequent within-person changes in another variable (in the same individual). Both between-person and within-person analyses provide valuable perspectives on the relationship between variables. By incorporating and distinguishing both levels, researchers can cultivate a comprehensive understanding of the interplay between variables that encompasses both persistent individual differences and within-person variability (Schuurman, 2023).

Within structural equation modelling, two main approaches are commonly used to study cross-lagged effects: the cross-lagged panel model (CLPM) and the random intercept cross-lagged panel model (RI-CLPM). The CLPM assumes that an individual's changes over time are solely relative to the average changes observed within a group of individuals, ignoring the longitudinal variations around individuals' unique averages (Mund & Nestler, 2019). As a result, the CLPM cannot disentangle the sources of variation within and between individuals, limiting its ability to comprehensively explore the dynamics that occur within individuals (Falkenström et al., 2020; Hamaker, 2012; Lucas, 2023). In contrast, the RI-CLPM separates variance into distinct within-person and between-person levels (Hamaker et al., 2015). Specifically, the RI-CLPM distinguishes between stable between-person differences relative to the overall group average and the temporal within-person changes that occur over the study period. By accounting for both sources of variation, the RI-CLPM allows for the examination of pure within-person and between-person associations. This distinction is particularly important for the present study, as the primary focus here is on longitudinal within-person associations. In particular, longitudinal within-person associations provide more relevant insights into the directionality of the association between two variables (Hamaker et al., 2015; Lucas, 2023). Therefore, the current study used the RI-CLPM to investigate whether within-person deviations from one's expected value on one variable are associated with subsequent within-person deviations on the other variable in the same person.

Empirical evidence from numerous cross-sectional studies across cultures suggests that individuals who consistently report high levels of psychological well-being are also likely to report high levels of social well-being. This prediction is grounded in theoretical frameworks and supported by previous cross-sectional research (Gallagher et al., 2009; Keyes, 2003). Although cross-sectional studies do not provide pure between-person estimates of associations (Schuurman, 2023), the observed cross-sectional association between psychological and social well-being may be considered a rough indicator of the between-person association, given the substantial presence of stable variance in both constructs (Joshanloo, 2022). Therefore, a robust between-person association was expected. The central goal of the present study, however, is to shed light on the unexplored area of longitudinal within-person associations

between psychological and social well-being. Little is known about whether within-person changes in one of these variables are associated with future within-person changes in the other. By examining longitudinal within-person dynamics that are not confounded by between-person differences, the present study aimed to fill this research gap and contribute to a more comprehensive understanding of the interplay between these two constructs over time. Given the lack of prior research examining within-person associations between social and psychological well-being, this study did not formulate strong predictions regarding within-person effects, and the effect in both directions was explored.

2 | METHODS

2.1 | Participants

Participants were from the Midlife in the United States (MIDUS) project (midus.wisc.edu). This project collected a nationally representative sample of American adults aged 24–74 in its first wave using a Random Digit Dial methodology (Radler, 2014). Two additional waves of data collection were then conducted, with approximately a decade between each successive wave. This study included the data from all three waves, namely Wave 1 (conducted between 1995 and 1996), Wave 2 (2004–2006), and Wave 3 (2013–2014). A total of 7,108 individuals are included in the data set. However, a proportion of the participants, namely 655 individuals (9.2%), did not respond to any of the social and psychological well-being variables at any of the waves, and thus were excluded. Consequently, the final sample size consisted of 6,453 individuals who had data available for at least one of the waves. At wave 1, participants had a mean age of 46.83 and a median age of 46.00 (SD = 12.930). In addition, the proportion of women in the final sample was 52.5%.

2.2 | Ethics and informed consent

The studies were reviewed and approved by the University of Wisconsin-Madison Institutional Review Boards (IRBs). Each participant provided informed consent prior to participation in the study. Additional details are available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4280664.

2.3 | Measures

Ryff's (1989) 18-item scale was used to assess psychological well-being. This scale measures six dimensions of psychological well-being, with three items per dimension: Positive relationships (e.g., 'People would describe me as a giving person, willing to share my time with others'), autonomy (e.g., 'I have confidence in my opinions, even if they are contrary to the general consensus'), purpose in life (e.g., 'Some people wander aimlessly through life, but I am not one of them'), environmental mastery (e.g., 'In general, I feel I am in charge of the situation in which I live'), self-acceptance (e.g., 'I like most parts of my personality'), and personal growth (e.g., 'For me, life has been a continuous process of learning, changing, and growth'). Keyes' (1998) 14-item scale was used to assess social well-being. However, due to inadequate internal consistencies (ranging between .41 and .42 across the three waves), the social acceptance subscale was excluded. As a result, the study focused on four dimensions: Social actualization (e.g., 'The world is becoming a better place for everyone'), social coherence (e.g., 'I cannot make sense of what's going on in the world', reverse-scored), social integration (e.g., 'I feel close to other people in my community'), and social contribution (e.g., 'I have something valuable to give to the world'). These dimensions were measured with two or three items each. For both scales, participants provided their responses on a 7-point scale ranging from 1 = strongly agree to 7 = strongly disagree (reverse-scored). Internal consistencies and descriptive statistics are presented in Table 1.

TABLE 1 Descriptive statistics and alphas.

Wave	Variable	M	SD	Skewness	Kurtosis	α
1	Autonomy	16.42	3.31	−.64	.43	.48
	Mastery	16.14	3.45	−.64	.36	.52
	Growth	17.88	3.12	−1.11	1.20	.55
	Relations	16.19	4.08	−.57	−.67	.58
	Purpose	16.51	3.62	−.66	−.22	.36
	Acceptance	16.60	3.49	−.77	.39	.59
	Social coherence	9.00	3.25	−.12	−1.01	.65
	Social integration	14.20	4.36	−.56	−.40	.73
	Social contribution	15.59	3.78	−.57	−.08	.67
	Social actualization	12.03	4.18	−.07	−.60	.64
	Psychological well-being	99.16	14.76	−.74	1.31	.80
	Social well-being	50.48	11.30	−.23	−.04	.79
2	Autonomy	16.53	3.09	−.38	−.34	.45
	Mastery	16.77	3.26	−.76	.46	.54
	Growth	17.17	3.22	−.72	−.03	.54
	Relations	16.81	3.81	−.72	−.42	.63
	Purpose	16.21	3.42	−.50	−.31	.29
	Acceptance	16.31	3.80	−.76	−.05	.66
	Social coherence	9.20	3.08	−.10	−.84	.64
	Social integration	14.72	3.99	−.49	−.23	.75
	Social contribution	15.66	3.66	−.45	−.26	.70
	Social actualization	12.66	3.97	−.08	−.45	.66
	Psychological well-being	99.76	14.67	−.63	.21	.83
	Social well-being	52.04	10.88	−.17	−.12	.81
3	Autonomy	16.41	3.00	−.42	−.12	.42
	Mastery	16.91	3.23	−.87	.74	.55
	Growth	17.31	3.09	−.70	−.09	.53
	Relations	16.81	3.72	−.75	−.21	.61
	Purpose	16.05	3.43	−.47	−.38	.32
	Acceptance	16.32	3.78	−.82	.07	.67
	Social coherence	9.11	3.11	−.05	−.87	.67
	Social integration	14.74	4.06	−.49	−.27	.79
	Social contribution	15.50	3.71	−.43	−.26	.72
	Social actualization	11.70	4.04	.04	−.42	.70
	Psychological well-being	99.40	14.54	−.62	.36	.83
	Social well-being	50.79	11.00	−.12	−.05	.82

2.4 | Statistical analysis

Using Mplus 8.10, the statistical analysis employed a robust maximum likelihood (MLR) estimator to account for non-normality and handle missing data through full information maximum likelihood. Model fit was evaluated using

established criteria for acceptable fit, including a Comparative Fit Index (CFI) threshold of 0.90, a Root Mean Square Error of Approximation (RMSEA) threshold of 0.07, and a Standard Root Mean Square Residual (SRMR) threshold of 0.08 (e.g., Kline, 2023). Measurement invariance was examined to ensure that observed differences in the parameters across time points reflected changes in social and psychological well-being rather than variations in the measurement properties of the subscales. Given the primary focus of the study on regression coefficients, it was critical to establish longitudinal metric invariance (Newsom, 2015). Metric invariance refers to the equivalence of the factor structure and the meaning of the observed variables (in this case, subscales) across time points. It ensures that the relationships between the observed variables and the underlying latent construct remain stable over time. Scalar invariance, which relates to the structure of the means, was not assessed in this study because latent means were not compared across time. To examine within- and between-person effects, the RI-CLPM was used. In this model, psychological and social well-being were specified as latent variables represented by six and four indicators (i.e., subscales), respectively. The metric invariance equality constraints were included in the RI-CLPM. Baseline age and gender were included as time-invariant predictors of the psychological and social well-being latent variables over time. Auto-regressive and cross-lagged effects were constrained to be equal over time.

3 | RESULTS

Initially, two longitudinal confirmatory factor analyses were conducted, one for psychological well-being and one for social well-being. The results presented in Table 2 indicate that these configural models showed an acceptable fit to the data. The estimated factor loadings can be found in Data S1. All standardised factor loadings exceeded 0.40 and were considered acceptable. To test for metric invariance, equality constraints were imposed on the factor loadings across time points. As the constrained models did not show a significantly worse fit than the configural models (Table 2), metric invariance was supported for both constructs (Cheung & Rensvold, 2002). These two metric invariance models were then integrated into an RI-CLPM. The RMSEA and the SRMR, indicated an excellent fit for the RI-CLPM model, while the CFI indicated a marginally acceptable fit. Considering the acceptable RMSEA and SRMR values, as well as the complexity of the model, the overall fit was considered acceptable.

The between-person correlation of psychological and social well-being was estimated to be 0.864, implying a strong relationship. This correlation indicates that individuals who tend to score high on one variable are also likely to score high on the other variable. However, this correlation does not provide any insight into the longitudinal relationship between the two variables. Table 3 shows synchronous correlations between psychological and social well-being from the within-person part of the RI-CLPM, ranging from 0.548 to 0.609 at the three points in time. These strong correlations suggest that if one variable deviates from its typical level at a given point in time, the other

TABLE 2 Fit indices.

Model	X^2	df	p	RMSEA [90% CI]	CFI	SRMR
Invariance (PWB)						
Configural	1,067.811	114	0.000	0.036 [0.034–0.038]	0.962	0.036
Metric	1,135.127	124	0.000	0.036 [0.034–0.037]	0.959	0.042
Invariance (SWB)						
Configural	852.718	39	0.000	0.057 [0.054–0.060]	0.944	0.046
Metric	864.207	45	0.000	0.053 [0.050–0.056]	0.944	0.048
Both variables						
RI-CLPM	5484.582	429	0.000	0.043 [0.042–0.044]	0.895	0.058

TABLE 3 R^2 values, between-person correlation, and within-person correlations.

Model	R^2				Between-person correlation	Within-person correlations		
	PWB		SWB			W1	W2	W3
	W2	W3	W2	W3				
RI-CLPM	0.103	0.179	0.113	0.135	0.864	0.548	0.609	0.554

Note: R^2 values are related to the structural part of the model, at the within-person level. The table shows the standardised covariances for both the between-person correlations and the within-person correlations, all of which are statistically significant at the $p < .001$ level. Between-person correlations refer to correlations between PWB and SWB trait components. Within-person correlations are concurrent correlations between the state components of PWB and SWB within each wave.
Abbreviations: PWB, psychological well-being; SWB, social well-being; W, wave.

TABLE 4 Auto-regressive and cross-lagged coefficients.

Predictor	Outcome	Unstandardised coefficient	p	95% CI		Standardised coefficient
				Low	Up	
Auto-regressive						
PWB1 →	PWB2	0.162	0.006	0.047	0.276	0.131
PWB2 →	PWB3					0.189
SWB1 →	SWB2	0.272	0.001	0.114	0.431	0.265
SWB2 →	SWB3					0.268
Cross-lagged						
SWB1 →	PWB2	0.190	0.000	0.108	0.273	0.231
SWB2 →	PWB3					0.276
PWB1 →	SWB2	0.166	0.022	0.024	0.308	0.108
PWB2 →	SWB3					0.132

Abbreviations: PWB, psychological well-being; SWB, social well-being.

variable is also likely to deviate from its typical level in the same direction. It is important to note that these correlations are concurrent, and not indicative of lagged associations between the variables.

The cross-lagged effects, shown in Table 4, provide further insight into the longitudinal associations. Both the cross-lagged effects from psychological well-being to social well-being and from social well-being to psychological well-being were found to be statistically significant, suggesting a reciprocal relationship between the two variables. The effect of social well-being on psychological well-being was found to be stronger than that of psychological well-being on social well-being. The sizes of these effects can both be considered large for a typical RI-CLPM (Orth et al., 2022). These cross-lagged effects show pure temporal within-person relationships between the variables. A positive cross-lagged effect within the RI-CLPM means that a score above (or below) the typical level of one variable at one point in time is followed by a score above (or below) the typical level of the other variable at the subsequent time point.

4 | DISCUSSION

The strong between-person estimate in this study is consistent with associations found in previous cross-sectional research (Gallagher et al., 2009; Joshanloo, 2016). However, this study contributes novel insights by uncovering the

longitudinal within-person associations between these two constructs. Specifically, the results show that psychological and social well-being show consistent within-person changes. At time points when psychological well-being exceeded its expected average were accompanied by elevated levels of social well-being, and vice versa. The primary focus of this study was, however, to examine the longitudinal within-person associations. The results show that deviations from the typical values of one of the variables are associated with corresponding deviations in the other variable after approximately 10 years. More specifically, within-person increases or decreases in one of the variables are indicative of subsequent within-person increases or decreases in the other variable. Of particular importance is the finding that individual-specific improvements in social well-being serve as a better predictor of subsequent changes in psychological well-being than the reverse.

The results of this study provide valuable insights into the dynamic interplay between the private and public dimensions of eudaimonic well-being. They reveal a reciprocal relationship in which these dimensions reinforce each other over time. This within-person temporal association underscores the inherent interdependence of the private and public facets of eudaimonia. Unfortunately, the social dimension of eudaimonic well-being often receives insufficient attention in psychological research (Keyes, 1998). Nevertheless, Aristotle, a prominent figure in the conceptualization of eudaimonia, emphasised the indispensable role of civic, social, and political virtues in achieving a state of eudaimonia, positing that a truly fulfilling life involves active participation in civic activities (Crespo & Mesurado, 2014). The present study highlights the separate yet interrelated nature of the private and social elements of eudaimonia, which warrants equal consideration. Interestingly, the present results indicate that social well-being has greater predictive value for future psychological well-being, than the other way around, underscoring its critical importance in the pursuit of overall mental well-being. The results of the present study should be considered in conjunction with previous research showing that psychological and social well-being prospectively predict hedonic/subjective well-being, whereas hedonic/subjective well-being does not prospectively predict psychosocial well-being (Joshanloo, 2019; Joshanloo et al., 2018). Taken together, these findings suggest that the two components of eudaimonic well-being prospectively reinforce each other and future hedonic well-being.

Within-person associations provide more relevant insights related to intervention construction than between-person and cross-sectional results (Hamaker et al., 2015). Accordingly, the implications derived from the present findings have significant relevance for interventions aimed at enhancing eudaimonia. First, the results suggest that attempting to improve one element of eudaimonia in isolation may be challenging, as progress in one dimension is intricately intertwined with progress in the other. This critical insight should be taken into account in the development of interventions aimed at promoting eudaimonia. A review of existing interventions focused on increasing psychological well-being reveals an obvious lack of emphasis on cultivating social skills (Weiss et al., 2016). To increase the effectiveness of these interventions, the inclusion of additional social components is warranted. Notably, simply increasing engagement in social relationships is not enough to develop social well-being. Social well-being is based on adaptive perceptions of other people and social groups (such as 'people are nice', 'society is progressing', and 'I can understand what is going on around me'). Therefore, to increase social well-being, these basic social beliefs and perceptions must be targeted, along with the social skills needed to build constructive relationships with people and groups.

Second, the observed within-person interplay between the private and social dimensions of eudaimonia suggests that interventions designed solely to improve one element have the potential to benefit the other. That is, interventions designed to enhance psychological well-being may have positive spillover effects on social well-being and vice versa. This is consistent with emerging insights in interventional research. For example, in a review of well-being interventions, Vella-Brodrick (2016) states that 'there is a shift from focusing predominantly on what will make an individual happy, to the exploration of how individuals can contribute to the well-being of others and on group well-being' (p. 402). This implies that well-being researchers are paying increasing attention to social perceptions and skills, and how individuals function as members of groups. This heightened attention to the social components is based on evidence that social components can intensify the effect of well-being interventions (Vella-Brodrick, 2016). The present results shed light on the spillover effects between social and psychological well-being, highlighting their importance for greater intervention effectiveness.

In sum, the findings of this study call for a new generation of multicomponent interventions that target both social and psychological well-being simultaneously. This integrated approach has the potential to produce more holistic and synergistic outcomes, promoting improvements in both the private and social dimensions of individuals' well-being when both elements are mutually reinforcing. These implications can inform interventions beyond clinical or psychological settings as well. For example, policymakers and public health professionals can use these insights to promote community engagement and social cohesion as a means of enhancing the psychological well-being of citizens. Human resource and organisational management can also recognise that fostering a positive work environment and social connections among employees can lead to improvements in their psychological well-being over time. An exclusive emphasis on private skills while neglecting the social dimension of eudaimonia is suboptimal.

This study is not without limitations. First, the measures used in this study are short and, in some cases, unreliable. While the use of extensive nationally representative data collected over two decades is a strength, the limitations associated with the measures should not be overlooked. It is therefore crucial to replicate these findings using longer and more reliable measurement instruments. Second, the data used in this study were derived from a single nation, which may limit the generalizability of the results, particularly to other nations with different cultural contexts, such as collectivist and non-Western societies. Cross-cultural differences may influence the associations between psychological and social well-being, and caution is warranted when extrapolating these findings to other cultural settings. In addition, it should be noted that the time interval between measurement points in this study was particularly long, spanning approximately a decade. As a result, the findings of this study primarily shed light on the long-term interplay between psychological and social well-being. However, in order to gain a comprehensive understanding of the longitudinal dynamics between these variables, it is imperative to examine the associations using different time lags, including shorter intervals such as 1 week, 1 month, and so on. It is well-established that longitudinal associations between variables are affected by the time lag used (Taris & Kompier, 2014). Consequently, the present findings cannot be easily generalised to shorter time frames, and further research is needed to capture the nuances of within-person associations at different time intervals.

In summary, the results of this study provide novel evidence that enhances our understanding of the interplay between psychological and social well-being, thereby enriching our understanding of the multifaceted and dynamic nature of eudaimonia. The findings provide insight into the interrelationship between these dimensions, revealing consistent, co-occurring changes as well as emphasise the critical role of each element in enhancing future levels of the other. These findings have significant implications for interventions aimed at cultivating eudaimonia, underscoring the need for a comprehensive approach that integrates both psychological and social elements. By holistically incorporating social components into well-being interventions and recognising the potential for positive cascading effects between these dimensions, we can promote synergistic outcomes and cultivate a holistic state of eudaimonic well-being. Further research efforts that address the limitations of this study, including the use of more reliable measures, the inclusion of diverse cultural samples, and the exploration of shorter time intervals, will contribute to a deeper understanding of within-person associations and refine our intervention strategies to effectively promote an individual's overall well-being.

DATA AVAILABILITY STATEMENT

All data and study materials are publicly available. More information can be found at http://midus.wisc.edu/data/index.php.

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