

## RESEARCH ARTICLE

# Happiness-enhancing activities as a mediator between orientations to happiness and positive emotions: A longitudinal study

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**Objective:** Although multiple studies have linked orientations to happiness to various well-being indicators, such as positive emotions, the underlying mechanisms of this relationship remain less understood. Given that orientations represent behavioral tendencies rather than concrete actions, this study aims to explore whether engaging in happiness-enhancing activities mediates their effect on positive emotions.

**Methods:** At baseline (T0; N = 349), participants completed an online survey assessing their happiness orientations. Over the following three weeks, participants reported their involvement in pleasure-, engagement-, and meaning-enhancing activities and their positive emotions (T1: N = 166; T2: N = 164; T3: N = 129).

**Results:** Multilevel mediation analyses showed that pleasure-enhancing activities partially mediated the pleasure orientation–positive emotions link (beta coefficient = 0.08,  $p < 0.05$ ), while engagement-enhancing activities fully mediated engagement orientation (beta coefficient = 0.08,  $p < 0.05$ ). Meaning-enhancing activities partially mediated the effect of meaning orientation on positive emotions, with a marginally significant indirect effect ( $\beta = 0.07$ ,  $p = 0.050$ ).

**Conclusions:** Findings suggest that translating happiness orientations into concrete, activity-based behaviors is important for sustaining positive emotions. Engagement orientation appears to rely fully on active participation in engagement-enhancing activities, while pleasure and meaning orientations benefit from such activities but may also be influenced by cognitive processes or other psychological mechanisms.

**Keywords:** orientations to happiness, positive emotions, happiness-enhancing activities

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## Introduction

Happiness is a fundamental aspect of human life and a core focus of positive psychology [1]. The Orientations to Happiness (OTH) model [2] identifies three distinct pathways: pleasure (i.e., pursuit of enjoyable experiences), engagement (i.e., deep absorption in activities), and meaning (i.e., sense of purpose and connection to something greater). The orientations to happiness were consistently linked to well-being indicators such as life satisfaction and positive emotions [3]. However, OTH reflect psychological tendencies rather than concrete behaviors [4]. This highlights the need to explore whether active participation in behaviors promoting well-being represents the mechanism by which orientations to happiness lead to positive emotions, given that orientations alone might not directly yield emotional advantages [4].

First, individuals with higher scores on the OTH scale tend to actively plan, pursue, and ideally prefer activities congruent with their dominant orientation [5-7]. Second, actively participating in congruent activities fosters greater positive emotions. For example, hedonic activities were found to boost momentary positive affect, while eudaimonic activities foster long-term well-being [6]. However, another study showed that prosocial acts, like kindness and gratitude, enhance both immediate and sustained positive

affect [7]. Another key contributor to positive emotions is flow-inducing activities [8]. Flow, characterized by deep immersion and intrinsic enjoyment [9], has been consistently linked to momentary increases in positive affect [8].

Taken together, the tendency to engage in activities aligned with one's dominant happiness orientation [5] and evidence linking such activities to increased positive emotions [6-8] suggest that behavioral engagement is a key mechanism connecting happiness orientations to positive emotions.

Building on these findings, the present study explores whether happiness-enhancing activities mediate the relationship between OTH and positive emotions. Accordingly, we propose the following hypotheses: (H1) Pleasure-enhancing activities will mediate the relationship between pleasure orientation and positive emotions; (H2) Engagement-enhancing activities will mediate the relationship between engagement orientation and positive emotions; and (H3) Meaning-enhancing activities will mediate the relationship between meaning orientation and positive emotions.

## Methods

### Procedure

The study was approved by the Babeș-Bolyai University ethics committee. Informed consent was obtained from all participants. Recruitment was conducted via Facebook, with paid advertisements to expand outreach. All partici-

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pants received free access to one of three personal development workshops, while students from the Faculty of Psychology and Educational Sciences at Babeş-Bolyai University were additionally granted a 10-hour course credit as compensation.

The study was conducted online over three weeks via Google Forms. Participants initially completed a baseline survey on happiness orientations at T0. At one-week intervals (T1, T2, T3), they submitted responses on happiness-enhancing activities and positive emotions. To boost participation, reminders were sent via email and SMS at each measurement point.

## Measures

*Orientations to Happiness Scale* (OTH) [2]: is an 18-item self-report measure assessing three orientations to happiness—pleasure, engagement, and meaning—each represented by a six-item subscale. Participants rate statements on a 5-point Likert scale (1 = *does not describe me at all*; 5 = *describes me very well*). Sample items include: “Life is too short to postpone the pleasures it can provide” (pleasure), “In choosing what to do, I always take into account whether I can lose myself in it” (engagement), and “I have spent a lot of time thinking about what life means and how I fit into its big picture” (meaning). In our sample, the Cronbach’s alpha values indicated acceptable internal consistency for the pleasure (0.76) and meaning (0.77) subscales, but poor internal consistency for the engagement subscale (0.51). The lower reliability of the engagement dimension aligns with previous findings, which consistently show weaker internal consistency for this dimension [10].

*The Pleasant Activities List* (PAL) [11]: is a 139-item questionnaire assessing the frequency and enjoyment of activities over the past 30 days. In this study, we reclassified PAL activities into three OTH-aligned categories: Pleasure-, Engagement-, and Meaning-Enhancing activities. Two independent raters categorized the items, with an initial moderate agreement (Cohen’s  $k = 0.53$ ). Discrepancies were reviewed and resolved by consensus, discarding unclear items. The final set included 53 Pleasure-, 50 Engagement-, and 9 Meaning-Enhancing activities items. While PAL assesses both enjoyment and frequency, we measured only frequency, focusing on activity engagement during the administration week. Reliability was assessed via Cronbach’s alpha at each time point. At T1, internal consistency was good for Pleasure-Enhancing ( $\alpha = 0.88$ ) and Engagement-Enhancing ( $\alpha = 0.89$ ), but questionable for Meaning-Enhancing activities ( $\alpha = 0.66$ ). These values remained stable at T2 (Pleasure-Enhancing activities:  $\alpha = 0.88$ , Engagement-Enhancing:  $\alpha = 0.88$ , Meaning-Enhancing:  $\alpha = .68$ ) and T3 (Pleasure-Enhancing:  $\alpha = 0.89$ , Engagement-Enhancing:  $\alpha = 0.88$ , Meaning-Enhancing:  $\alpha = 0.68$ ). A full description of the procedure can be found at: [https://osf.io/as4ef/?view\\_only=460940c0446340119192889cf3c33aef](https://osf.io/as4ef/?view_only=460940c0446340119192889cf3c33aef)

*The Profile of Emotional Distress* (PED) [12]: is a self-report instrument designed to assess the intensity of positive

and negative emotions. The scale consists of 39 items describing various emotional states, with participants rating their experiences on a 5-point Likert scale, ranging from 1 (Not at all) to 5 (Very much). Example items include “Tense” and “Worried” for negative emotions, as well as “Optimistic” and “Content” for positive emotions. Initial validation studies showed that the scale had adequate internal consistency, with Cronbach’s alpha values ranging from 0.75 to 0.94, reflecting good reliability for a self-report measure. In the current study, we only used items assessing positive emotions, with the subscale exhibiting excellent reliability at T1 ( $\alpha = 0.95$ ), a high level of consistency maintained at both T2 ( $\alpha = 0.96$ ) and T3 ( $\alpha = 0.96$ ).

## Data Analysis

All statistical analyses were conducted using RStudio [13]. Initially, the dataset was examined to determine the percentage of missing values and to test assumptions of normality. Hypotheses were tested using multilevel structural equation modeling (ML-SEM) in a type 2-1-1 mediation model [14]. As only the mediator and criterion variables were measured at three different time points, the mediation analysis was conducted at the between-subject level to assess differences between participants while accounting for intra-subject variability [14]. Additionally, the within-subject relationship was assessed exclusively between mediator and criterion to examine how within-person changes correlated across time [14]. Missing data were handled using Full Information Maximum Likelihood (FIML), and the model was estimated using the Maximum Likelihood (ML) estimator [15]. Model fit indices were not evaluated, as the resulting model was saturated with zero degrees of freedom.

## Results

### Participants

A total of 349 participants ( $N = 349$ ) were recruited at baseline (T0;  $M_{age} = 32.03$ ,  $SD = 10.33$ ). The sample was predominantly female (93.1%), with 70.5% of participants being unmarried. Additionally, 76.2% held higher education degrees, and 84.2% resided in urban areas.

Normality assumptions were assessed using skewness and kurtosis across all variables and time points. Skewness ranged from -0.55 to 1.62, and kurtosis from -0.64 to 3.67, falling within commonly accepted thresholds. The Henze-Zirkler test was significant ( $H-Z = 1812$ ,  $p < 0.001$ ), suggesting a deviation from multivariate normality. However, given its sensitivity in large samples, results should be interpreted with caution, considering additional indicators like skewness and kurtosis.

Participant attrition was observed across measurement waves. From an initial  $N = 349$  at baseline (T0), 52.44% dropped out by T1 ( $N = 166$ ). Attrition was minimal between T1 and T2 (1.20%), with  $N = 164$  completing T2. However, an additional 21.34% dropout occurred before T3, leaving a final sample of  $N = 129$ . Overall, 63.04% of

the original sample did not complete the final measurement. At the within-subjects level, higher engagement in pleasure-enhancing activities was linked to greater positive emotions ( $\beta = 0.29, p < 0.001, R^2 = 0.08$ ). The multilevel mediation analysis (between-subjects level) showed that pleasure orientation predicted engagement in pleasure-enhancing activities ( $\beta = 0.26, p < 0.01, R^2 = 0.07$ ), which, in turn, was associated with positive emotions ( $\beta = 0.29, p < 0.01$ ) (Figure 1). Beyond this, pleasure orientation directly predicted positive emotions ( $\beta = 0.19, p < 0.05$ ), indicating an effect beyond activity engagement. The indirect effect was significant ( $\beta = 0.08, p < 0.05$ ), supporting partial

mediation. The model explained 15.2% of the variance in positive emotions ( $R^2 = 0.15$ ).

Similarly, at the within-person level, greater engagement in engagement-enhancing activities was linked to higher positive emotions ( $\beta = 0.13, p < 0.05$ ), though the effect was weaker ( $R^2 = 0.02$ ) (Figure 2). A multilevel mediation analysis showed that engagement orientation predicted engagement in these activities ( $\beta = 0.22, p < 0.01, R^2 = 0.05$ ), which, in turn, was associated with positive emotions ( $\beta = 0.34, p < 0.001$ ). The direct effect of engagement orientation on positive emotions was non-significant ( $\beta = 0.12, p = 0.155$ ), indicating its influence operates primarily

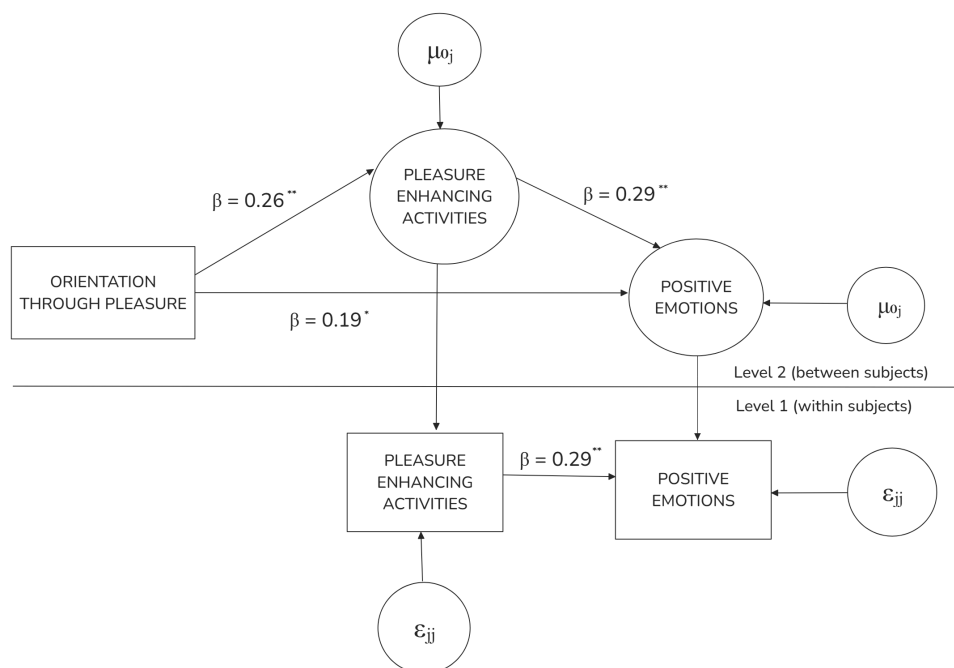


Fig. 1. Multilevel mediation model examining the relationship between pleasure orientation, pleasure-enhancing activities, and positive emotions. Note. Standardized beta coefficients ( $\beta$ ) are reported.  $p < .05$  (\*),  $p < .01$  (\*\*).

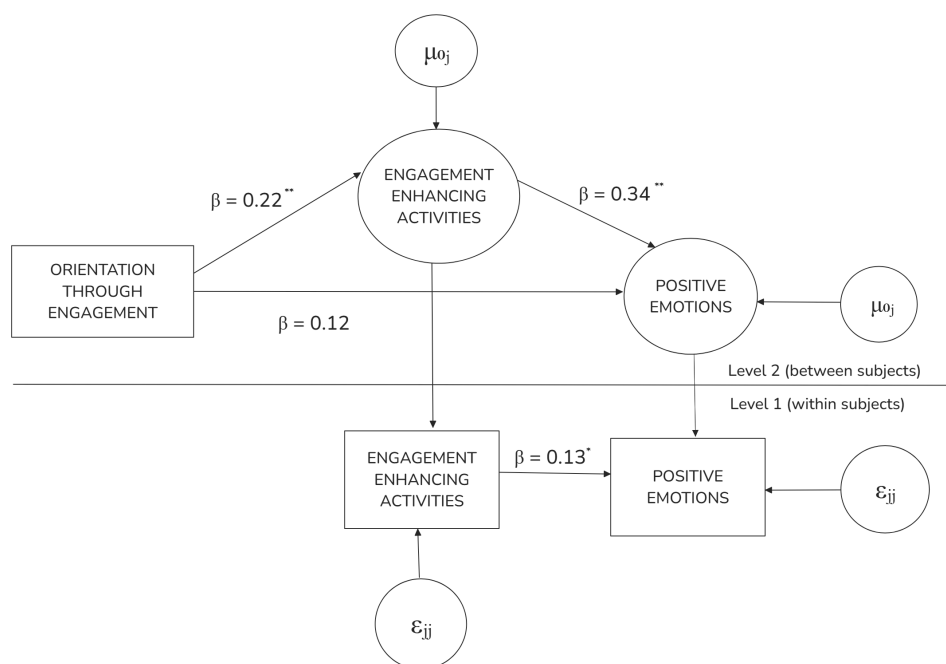


Fig. 2. Multilevel mediation model examining the relationship between engagement orientation, engagement-enhancing activities, and positive emotions. Note. Standardized beta coefficients ( $\beta$ ) are reported.  $p < .05$  (\*),  $p < .01$  (\*\*).

through activity engagement. The indirect effect was significant ( $\beta = 0.08, p < 0.05$ ), supporting full mediation. The model explained 15.0% of the variance in positive emotions ( $R^2 = 0.15$ ).

The final analysis examined the link between meaning-enhancing activities and positive emotions. At the within-person level, meaning-enhancing activities were not significantly associated with positive emotions ( $\beta = 0.12, p = 0.089, R^2 = 0.01$ ), suggesting minimal daily impact (Figure 3). A multilevel mediation analysis showed that meaning orientation predicted engagement in these activities ( $\beta = 0.21, p < 0.05, R^2 = 0.05$ ), which, in turn, was associated with positive emotions ( $\beta = 0.33, p < 0.001$ ). Beyond this, meaning orientation directly predicted positive emotions ( $\beta = 0.24, p < 0.01$ ), indicating an effect beyond activity engagement. The indirect effect was marginally significant ( $\beta = 0.07, p = 0.050$ ), supporting weak partial mediation. The model explained 19.6% of the variance ( $R^2 = 0.20$ ).

**Discussion**

This study investigated whether participation in happiness-enhancing activities mediates the link between orientations to happiness (OTH) and positive emotions. Using a longitudinal mediation design, it examined the temporal dynamics of these relationships, offering insight into how behavioral involvement in pleasure-, engagement-, and meaning-enhancing activities sustains positive emotions over time.

At the within-person level, engaging in pleasure-enhancing activities was linked to higher levels of positive emotion. This suggests that increasing involvement in pleasurable activities could increase positive affect, aligning with prior research demonstrating that hedonically motivated behaviors contribute to positive emotions [6].

At the between-person level, participation in pleasure-enhancing activities mediated the relationship between pleasure orientation and positive emotions. This supports the idea that behavioral engagement in pleasurable activities serves as a mechanism through which pleasure orientation translates into positive emotions.

However, as the direct effect of pleasure orientation on positive emotions remained significant after accounting for the mediator, mediation was only partial. This suggests that additional factors may contribute to this relationship beyond involvement in pleasure-enhancing activities. One such factor could be savoring, defined as the ability to maintain and amplify positive emotions [16]. For instance, anticipatory savoring—the tendency to derive pleasure from looking forward to enjoyable experiences—may enhance positive emotions even before engaging in pleasurable activities. Likewise, reminiscent savoring, or the act of recalling and reliving past pleasurable experiences, could further amplify the emotional benefits of a pleasure orientation, independent of current activity engagement. These psychological mechanisms may help explain why individuals with a strong pleasure orientation experience greater positive emotions beyond their direct participation in pleasurable activities [16, 17].

At the within-person level, our findings suggest that engagement-enhancing activities increase positive emotions over time, although the low explained variance suggests other influencing factors. Since we measured a wide range of activities—from creative and cognitive tasks to physical pursuits—the emotional benefits of engagement likely vary by activity type [18]. Some require deep concentration, delaying emotional rewards or making them contingent on broader psychological and contextual factors.

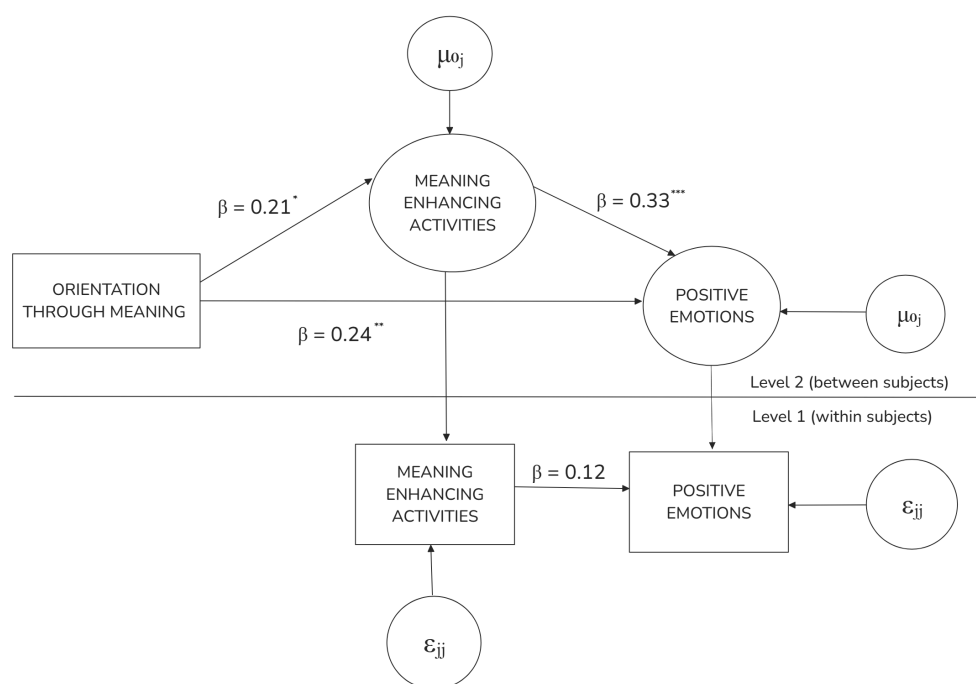


Fig. 3. Multilevel mediation model examining the relationship between meaning orientation, meaning-enhancing activities, and positive emotions. Note. Standardized beta coefficients ( $\beta$ ) are reported.  $p < .05$  (\*),  $p < .01$  (\*\*),  $p < .001$  (\*\*\*)

At the between-person level, engagement-enhancing activities fully mediated the link between engagement orientation and positive emotions, suggesting that individuals high in engagement orientation experience greater positive emotions only through active participation. Unlike pleasure orientation, where other factors such as anticipatory savoring may contribute to positive emotions independently of activity involvement [17], engagement likely requires direct involvement, given its nature [9].

At the within-person level, meaning-enhancing activities were not significantly linked to short-term increases in positive emotions. This contrasts with previous studies who found that acts of kindness (e.g., donating blood, helping a friend) boosted positive affect, especially when performed in a concentrated manner [7]. A key distinction may be that the meaning-enhancing activities in this study (e.g., volunteering, organizing charity events) were more structured and extended over time, likely contributing to well-being through gradual, long-term mechanisms rather than immediate emotional boosts.

At the between-person level, we tested whether meaning-enhancing activities mediate the link between meaning orientation and positive emotions. This supports the idea that behavioral engagement in meaning-enhancing activities is one pathway through which meaning orientation contributes to positive emotions. However, the indirect effect was marginal, suggesting these findings should be interpreted with caution.

Notably, the mediation was partial, as meaning orientation maintained a strong direct effect on positive emotions beyond engagement in meaning-enhancing activities. This suggests that meaning-oriented individuals may not always need direct involvement in such activities to experience positive emotions. Instead, they might naturally reinterpret various life events—including stressors—through cognitive reappraisal, viewing them as opportunities for growth or sources of deeper significance. This adaptive perspective may help sustain positive emotions even in the face of adversity [19].

While this study offers valuable insights into the mechanisms linking happiness orientations to positive emotions, several limitations should be noted. First, the three-week duration may have been too short to capture long-term emotional changes. Second, measurement challenges emerged, as the engagement and meaning-enhancing activities subscales showed lower internal consistency. While values around 0.50 may be acceptable for complex constructs [20, 21], they should be interpreted with caution, as lower reliability can introduce measurement error. Beyond internal consistency issues, a key limitation is the post-hoc adaptation of the PAL instead of using a pre-validated instrument. Future research should develop a validated scale to distinguish pleasure-, engagement-, and meaning-enhancing activities, while also differentiating short- vs. long-term meaning-enhancing activities for a clearer understanding of their emotional impact [7].

Another limitation is the marginal effect in one mediation analysis, possibly due to low statistical power or unaccounted variables [22]. Future research should use larger samples or alternative models to better capture these relationships.

Finally, self-report biases may affect accuracy. Future research should integrate objective measures like ecological momentary assessments or digital tracking for greater precision.

## Conclusion

Despite its limitations, this study offers key contributions to the well-being literature by demonstrating that behavioral engagement mediates the link between OTH and positive emotions. While previous research established associations between happiness orientations and well-being [3,4], this study underscores the importance of translating OTH into concrete activities for sustaining positive emotions.

These findings also have practical implications for well-being interventions. By encouraging behavioral alignment with each individual's orientation to happiness, interventions may more effectively enhance overall positive affect. For example, individuals oriented toward pleasure might benefit from regularly incorporating enjoyable, rewarding experiences; those high in engagement orientation could thrive through immersive, skill-based pursuits; and meaning-oriented individuals might find greater fulfillment via prosocial, purposeful activities.

By highlighting the behavioral mechanisms underlying happiness orientations, this study reinforces the need for interventions that go beyond trait-based approaches and actively promote engagement in fulfilling activities. Future research should further investigate how these processes unfold over time and across different life contexts to refine well-being strategies.

## Authors' Contributions

A.C. was responsible for conceptualization, formulating hypotheses, data collection, and survey administration. Both A.C. and P.S. contributed to the study methodology. A.C. also wrote the original draft of the manuscript, while I.S.F. conducted the statistical analysis and revised the manuscript, providing feedback for improvement. P.S. provided feedback on the study design and offered general suggestions on various parts of the manuscript. No funding was received for this research.

## Conflict of Interest

None to declare.

## References

1. Seligman ME. Positive psychology, positive prevention, and positive therapy. In: Snyder CR, Lopez SJ, editors. Handbook of positive psychology. Oxford: Oxford University Press; 2002. p. 3–12.
2. Peterson C, Park N, Seligman ME. Orientations to happiness and life satisfaction: The full life versus the empty life. *J Happiness Stud.*

- 2005;6:25–41.
3. Schueller SM, Seligman ME. Pursuit of pleasure, engagement, and meaning: Relationships to subjective and objective measures of well-being. *J Posit Psychol.* 2010;5(4):253–63.
  4. Peterson C, Ruch W, Beermann U, Park N, Seligman ME. Strengths of character, orientations to happiness, and life satisfaction. *J Posit Psychol.* 2007;2(3):149–56.
  5. Ruch W, Harzer C, Proyer RT, Park N, Peterson C. Ways to happiness in German-speaking countries. *Eur J Psychol Assess.* 2010.
  6. Huta V, Ryan RM. Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *J Happiness Stud.* 2010;11:735–62.
  7. Lyubomirsky S, Sheldon KM, Schkade D. Pursuing happiness: The architecture of sustainable change. *Rev Gen Psychol.* 2005;9(2):111–31.
  8. Rogatko TP. The influence of flow on positive affect in college students. *J Happiness Stud.* 2009;10:133–48.
  9. Csikszentmihalyi M. *Flow: The psychology of optimal experience.* New York, NY: Harper & Row; 1990.
  10. Chen LH, Tsai YM, Chen MY. Psychometric analysis of the Orientations to Happiness Questionnaire in Taiwanese undergraduate students. *Soc Indic Res.* 2010;98(2):239–49. doi:10.1007/s11205-009-9473-2.
  11. Roozen HG, Wiersema H, Strietman M, Feij JA, Lewinsohn PM, Meyers RJ, Vingerhoets AJ. Development and psychometric evaluation of the pleasant activities list. *Am J Addict.* 2008;17(5):422–35.
  12. Opris D, Macavei B. The profile of emotional distress; norms for the Romanian population. *J Evid Based Psychother.* 2007;7(2):139.
  13. Posit Team. *RStudio: Integrated Development for R.* Boston, MA: Posit Software, PBC; 2023. Available from: <https://posit.co>
  14. Preacher KJ, Zyphur MJ, Zhang Z. A general multilevel SEM framework for assessing multilevel mediation. *Psychol Methods.* 2010;15(3):209–33. doi:10.1037/a0020141.
  15. Enders CK. *Applied missing data analysis.* New York, NY: Guilford Press; 2010.
  16. Bryant FB, Veroff J. *Savoring: A new model of positive experience.* Mahwah, NJ: Lawrence Erlbaum Associates; 2007.
  17. Quoidbach J, Berry EV, Hansenne M, Mikolajczak M. Positive emotion regulation and well-being: Comparing the impact of eight savoring and dampening strategies. *Pers Individ Differ.* 2010;49(5):368–73.
  18. Rheinberg F, Engeser S. Intrinsic motivation and flow. In: Heckhausen J, Heckhausen H, editors. *Motivation and action.* Cham: Springer; 2018. p. 579–622. doi:10.1007/978-3-319-65094-4\_15.
  19. Lazarus RS, Folkman S. *Stress, appraisal, and coping.* New York, NY: Springer Publishing Company; 1984.
  20. Nunnally JC. *Psychometric theory.* 2nd ed. New York, NY: McGraw-Hill; 1978.
  21. Hair JF, Anderson RE, Tatham RL, Black WC. *Multivariate data analysis.* 7th ed. Upper Saddle River, NJ: Pearson; 2010.
  22. Fritz MS, MacKinnon DP. Required sample size to detect the mediated effect. *Psychol Sci.* 2007;18(3):233–9.