

The Effects of Mindfulness on Perceived Stress and Meaning in Life

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Background

Mindfulness, which has its roots in Buddhism, has gained popularity as a therapeutic tool in various clinical approaches, including those under the umbrella of Contextual Behavioral Science (e.g., Acceptance and Commitment Therapy).

Previous research has shown that mindfulness acts as a buffer against stress, enhancing life satisfaction (Bergin & Pakenhama, 2016) and well-being (Lu et al., 2019), suggesting overall positive effects. It also promotes meaning in life (Chu & Mak, 2020).

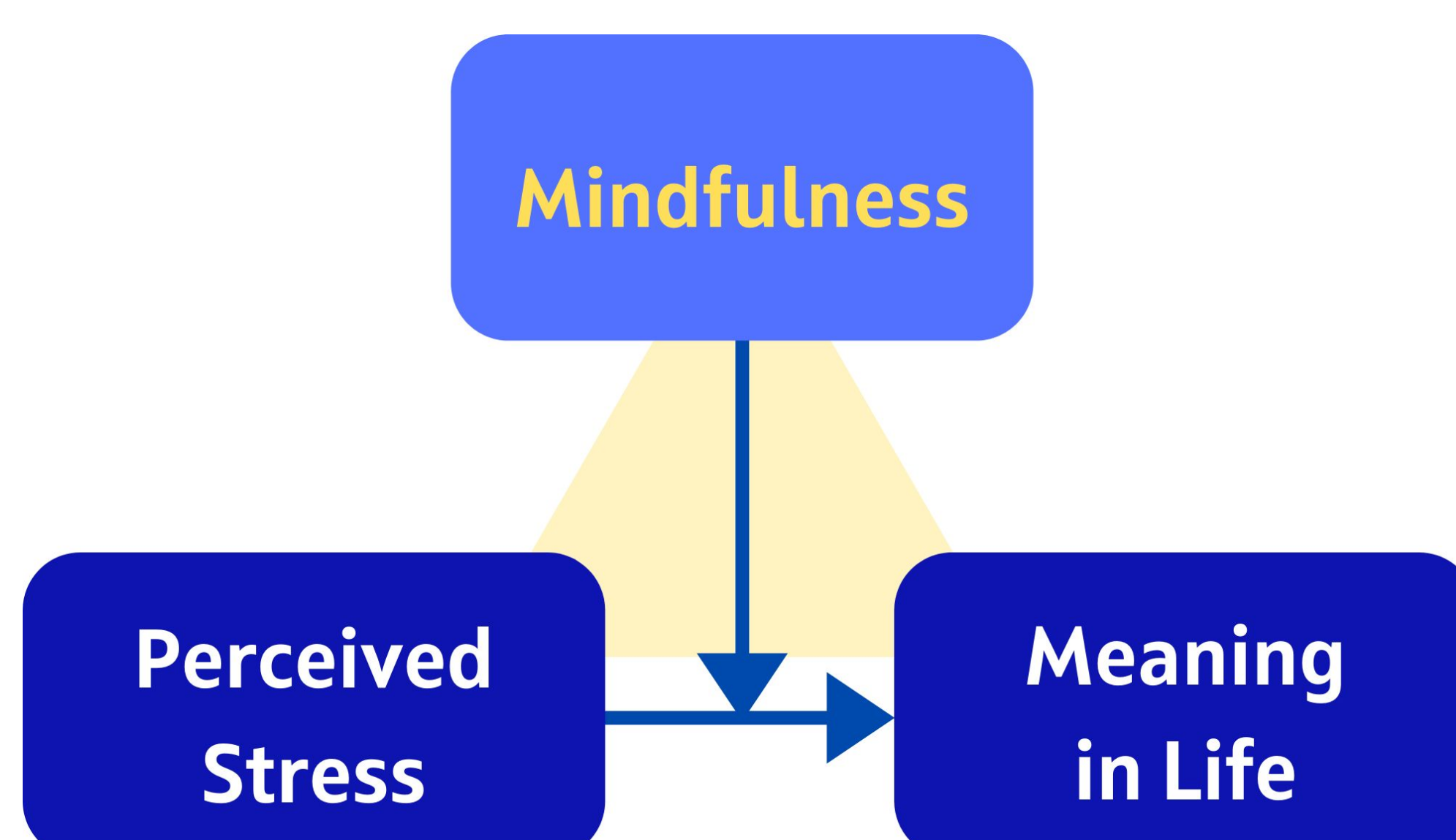
Meaning in life, a key component in human motivation, is important for life satisfaction and well-being as well. However, the relationship between stress and meaning in life remains unclear. Furthermore, mindfulness may play a moderating role between these two variables.

The present study assessed the relationship between stress, meaning in life, and the moderating role of mindfulness.



Hypothesis

We hypothesized that **perceived stress is negatively correlated with meaning in life** and that **presence of mindfulness moderates this relationship** such that having higher levels of mindfulness reduces the strength of this relationship.



Methods

Participants

- N = 183 (53% males)
- Average age was 34 years old
- Participants identified themselves as:
 - White Caucasian (62%), Asian/Asian American/Pacific Islander (19%), African American/Black (11%), Hispanic (5%), Biracial (1%) & Other (2%)

Measures

- **Stress - Perceived Stress Scale (PSS):** (Cohen et al., 1983) A 10-item scale examining perceived stress during the last month. Items are scored on a 5 point likert scale. Resulting in a score between 0-40; with higher scores indicating more perceived stress.
- **Meaning in Life - The Meaning in Life Questionnaire (MLQ):** (Steger et al., 2006) A 10-item scale with two subscales assessing the (1) presence and (2) search for meaning in life. Items are scored on a 7-point scale with 1 being “absolutely untrue” and 7 being “absolutely true”. Resulting in a score between 5-35 for each subscale; with higher scores indicating more meaning in life.
- **Mindfulness - Five Facet Mindfulness Questionnaire (FFMQ):** (Baer et al., 2006) A 39-item scale with five subscales: (1) observing, (2) describing, (3) acting with awareness, (4) non-judging of inner experience, and (5) non-reactivity to inner experience. Items are scored on a 5-point scale with 1 being “never or very rarely true” and 5 being “very often or always true”. Resulting in a score between 8-40 for each subscale; with higher scores indicating more mindfulness.

Procedures

- Recruitment via Amazon Mechanical Turk (mTurk)
 - Previous studies utilizing mTurk data had acceptable psychometric quality and higher demographic diversity compared to college samples (Buhrmester, Kwang, & Gosling, 2011)
- Participants followed a link to Qualtrics survey
 - Assigned random identification number to ensure confidentiality
 - Incorporated manipulation checks throughout the survey to ensure accuracy
- After survey completion, participants were paid through mTurk

Results

The moderation analysis included a four-step process involving hierarchical multiple regression correlations. The outcome variable was Meaning in Life.

- Step 1: predictor as Perceived Stress
- Step 2: predictor as Mindfulness
- Step 3: In order to demonstrate moderation, the third step requires a significant correlation between the cross-product of Perceived Stress x Mindfulness and Meaning in Life

Table 1. Correlation Matrix.

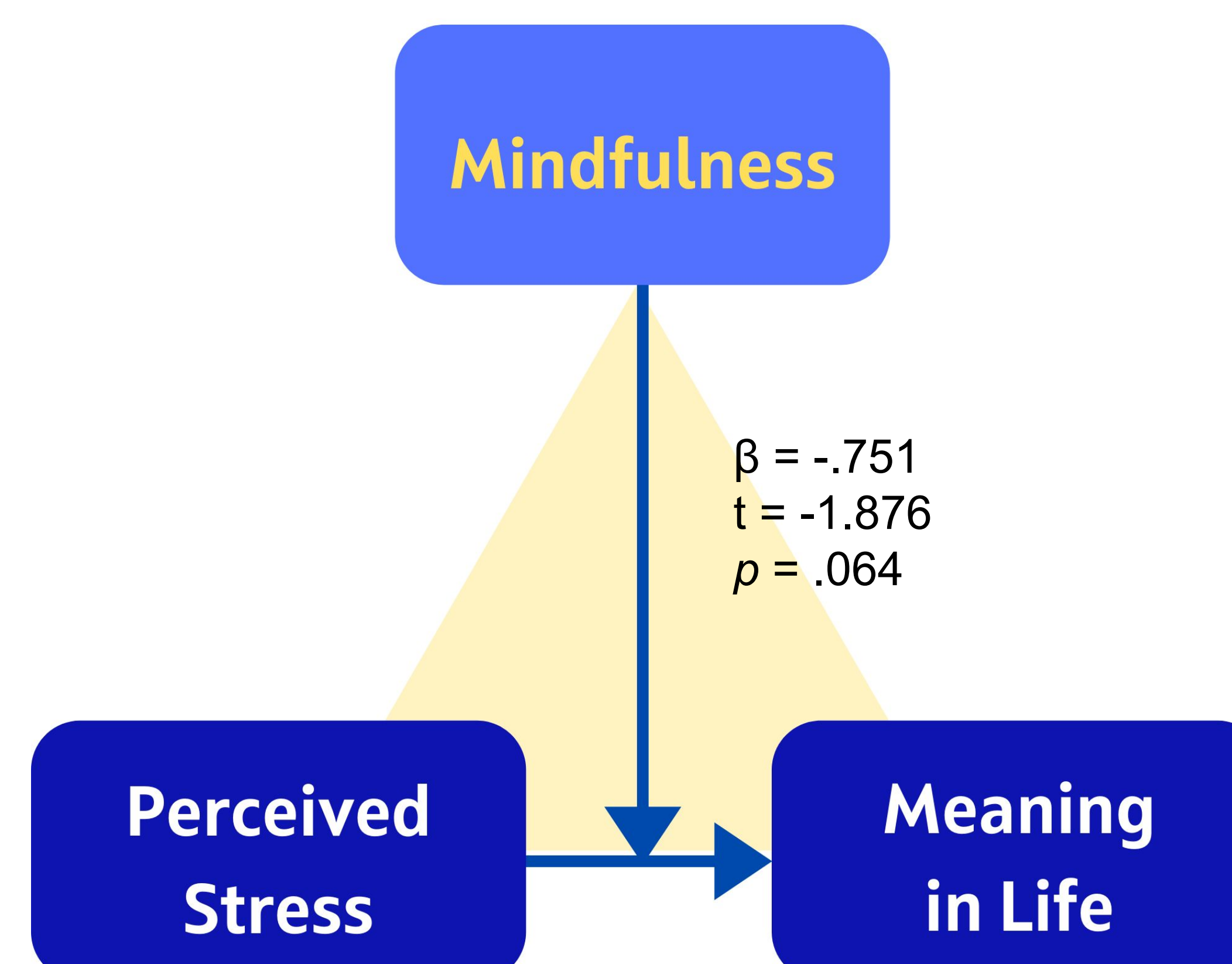
Measure	1	2	3
1. Perceived Stress	-		
2. Presence of Meaning in Life	-.337**	-	
3. Mindfulness	-.508**	.247**	-

* = p < .05, ** = p < .01

Table 2. Hierarchical Multiple Regression Correlation

Predictors	R ²	ΔR ²	β	t
Step 1: Perceived Stress	.104	.104	-.323	-3.394*
Step 2: Mindfulness	.155	.051	.262	2.427*
Step 3: Perceived Stress x Mindfulness	.185	.030	-.751	-1.876

For t-values, * = p < .05, ** = p < .01



Discussion

Conclusion

- Perceived stress was significantly negatively related to meaning in life. Once perceived stress was taken into account, mindfulness accounted for a significant amount of remaining variance. However, there was no significant effect from the perceived stress and meaning in life interaction suggesting that **mindfulness does not moderate the relationship between perceived stress and meaning in life.**

Limitations

- Accuracy of self-report responses through the mTurk system can be questionable since participants are surveyed in uncontrolled environments.
- The sample was predominantly White Caucasian which calls into question the generalizability of the results.

Future Directions

- Since previous studies have shown a buffering effect of mindfulness against stress, future studies should analyze in what context this occurs.
- In this study, mindfulness did not moderate the relationship with meaning in life, but it could play a key role in the effects of stress on other outcome variables.

References

Bergin, A. J., & Pakenham, K. I. (2016). The stress-buffering role of mindfulness in the relationship between perceived stress and psychological adjustment. *Mindfulness, 7*(4), 928-939.

Chu, S. T. W., & Mak, W. W. (2020). How Mindfulness Enhances Meaning in Life: A Meta-Analysis of Correlational Studies and Randomized Controlled Trials. *Mindfulness, 11*, 1-17.

Lu, F., Xu, Y., Yu, Y., Peng, L., Wu, T., Wang, T., ... & Li, M. (2019). Moderating effect of mindfulness on the relationships between perceived stress and mental health outcomes among Chinese intensive care nurses. *Frontiers in Psychiatry, 10*(260).