

Introduction

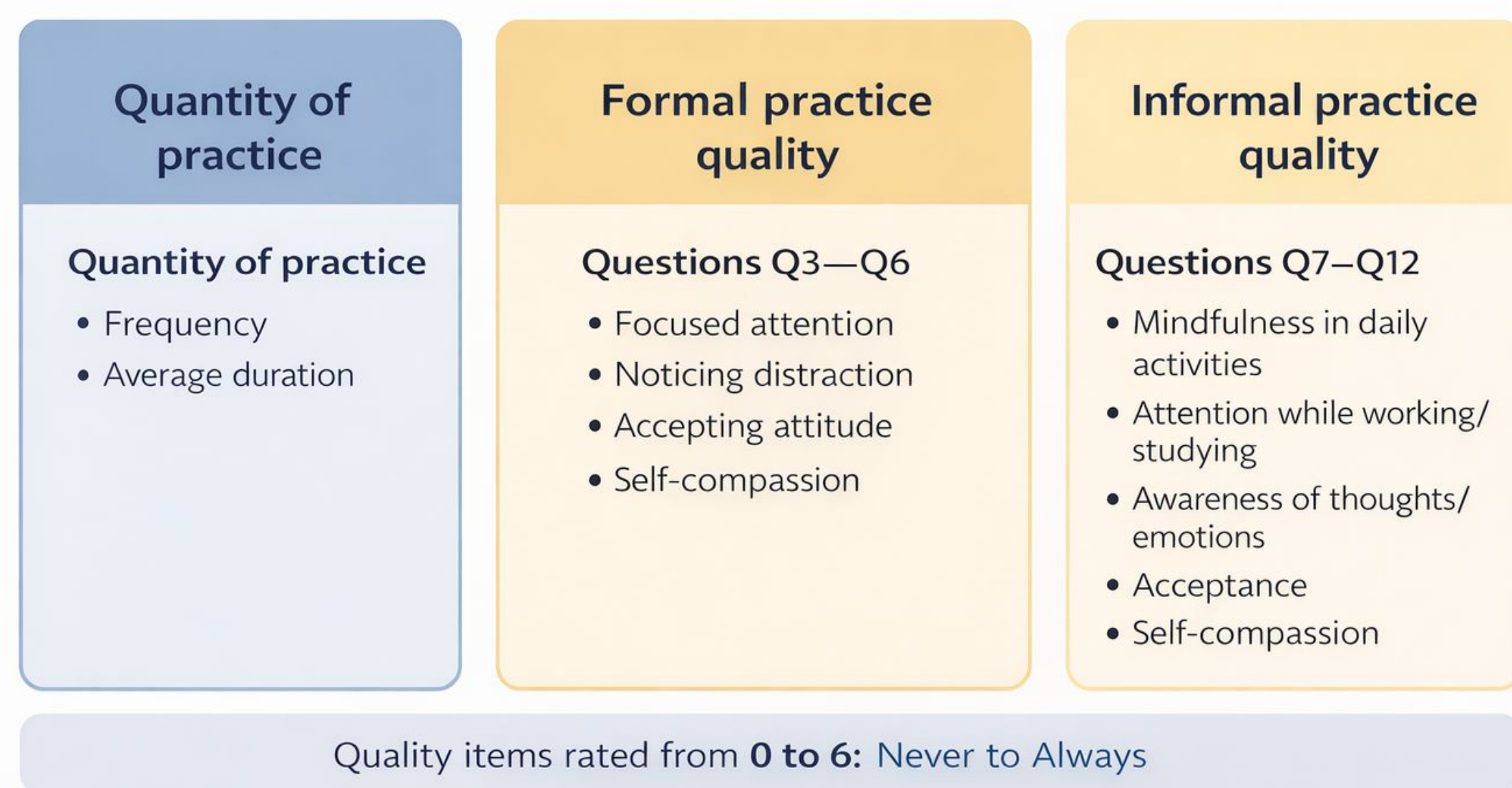
- Prior research has shown that greater adherence to mindfulness-based interventions is associated with better outcomes [1].
- Existing studies suggest that adherence may be shaped by both distress-related factors and resource-related factors, but these predictors have typically been examined piecemeal, with few studies taking their potential overlap into account [2].
- Research Question: Which baseline psychological resources and distress-related factors predict subsequent mindfulness practice adherence, and to what extent do their associations overlap?

Methodology

- Data were drawn from the **Advancing Dynamic And Personalized Training (ADAPT) Study**, a digital mindfulness-based intervention for adults with elevated depressive symptoms.
- Participants ($N=764$) completed baseline questionnaires, engaged in a 4-week intervention, and completed 3-month follow-up assessments.

- **Primary outcome:** Mindfulness Adherence Questionnaire at Week 4

The MAQ measures both quantity and quality of mindfulness practice over the **past week**.



- **Baseline predictors** were examined independently and also grouped into psychological resources or distress

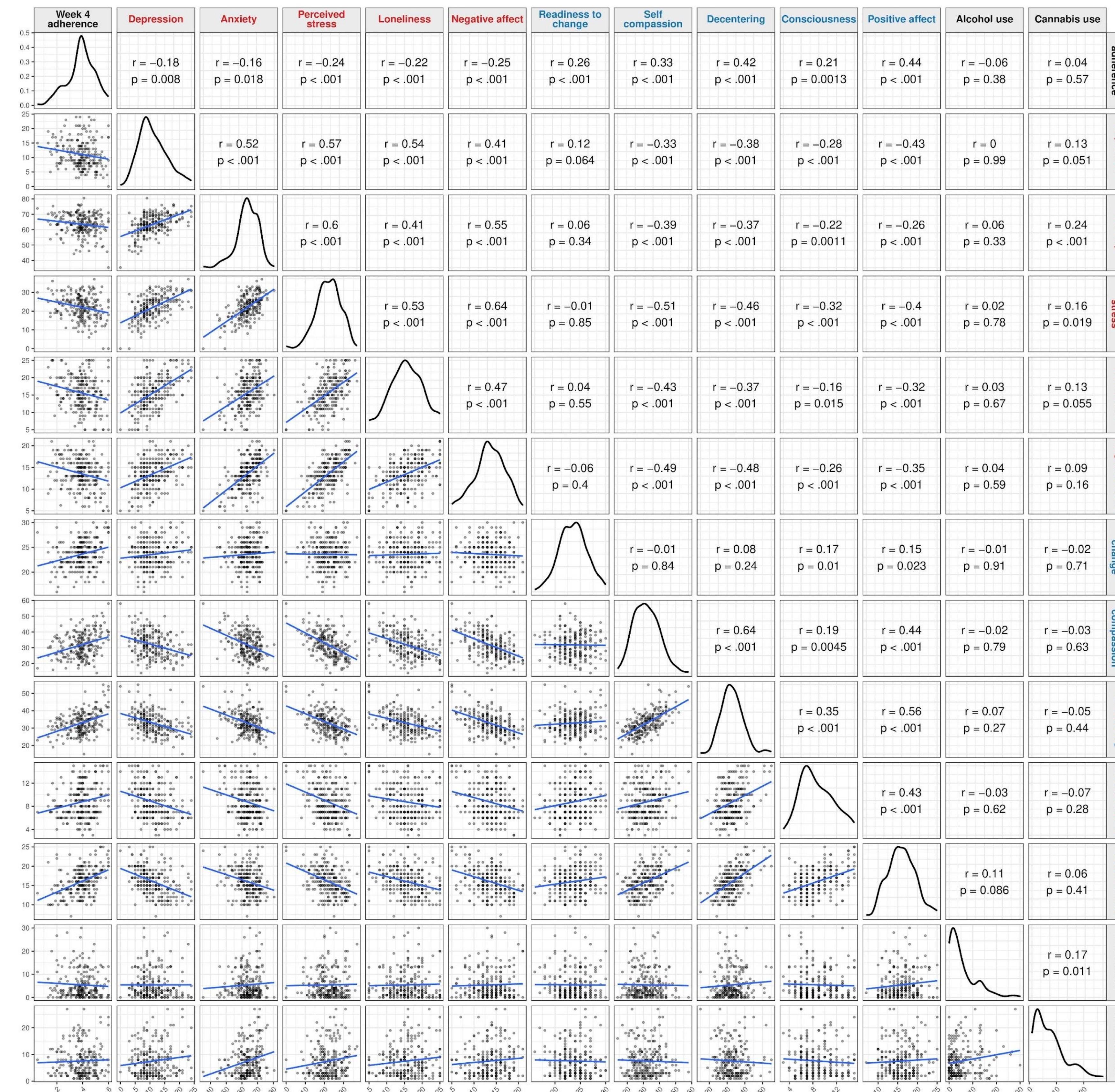
- **Psychological resources:** readiness to change, self-compassion, decentering, conscientiousness, positive affect
- **Psychological distress:** depression, anxiety, perceived stress, loneliness, negative affect
- **Composite scores:** Five standardized resource variables were averaged into one resource composite score, and five standardized distress variables were averaged into one distress composite score.

- **Statistical analyses:**

- Bivariate correlations (*base R*)
- One-factor analyses assessed whether each set of variables could be reasonably summarized by a single score (*psych*).
- Hierarchical regression tested the unique contribution of each composite by reversing entry order and comparing changes in explained variance ΔR^2 (*base R*).

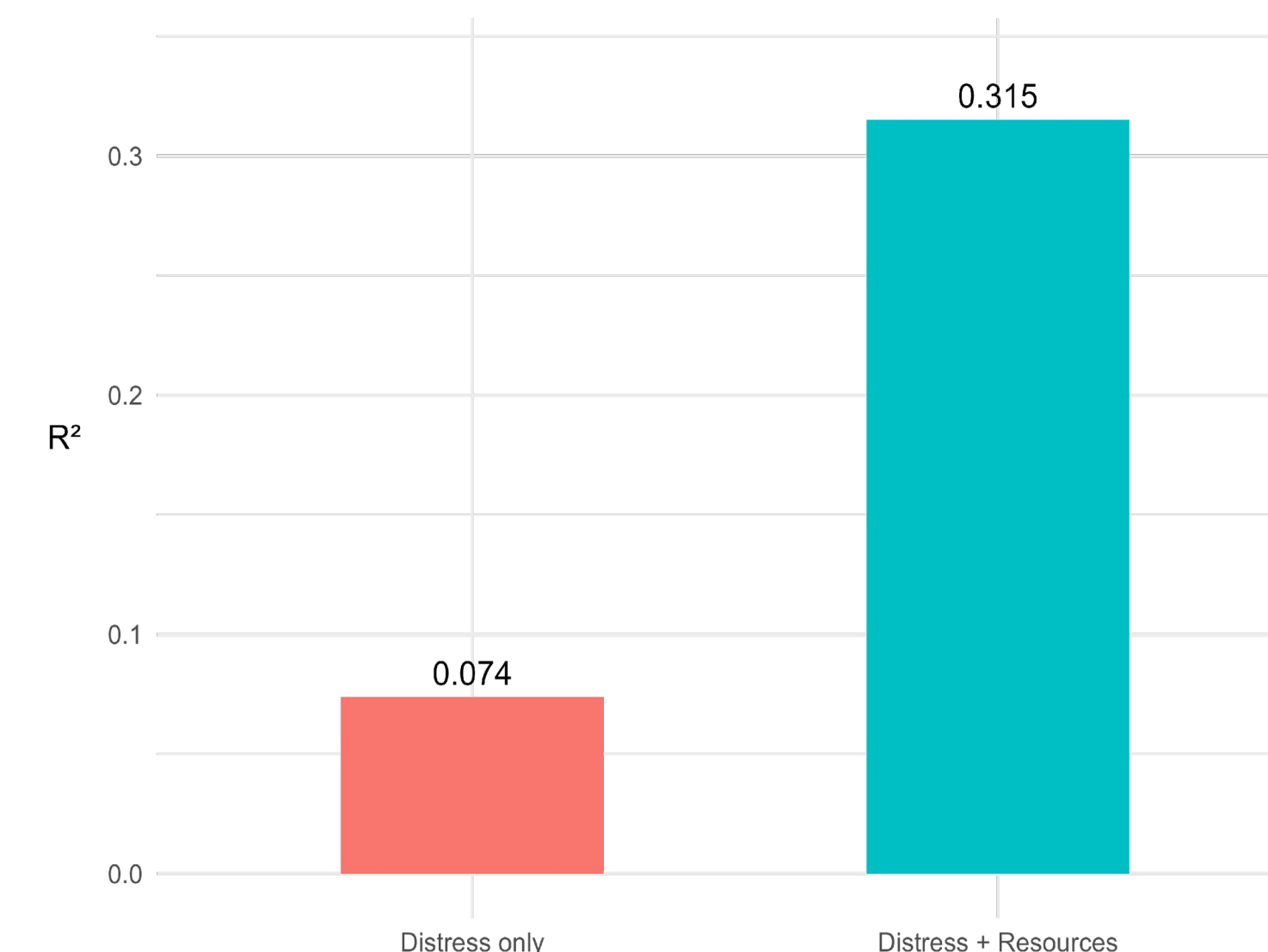
Results

Figure 1. Bivariate Associations Between Baseline Psychological Distress/Resources Variables and Mindfulness Adherence



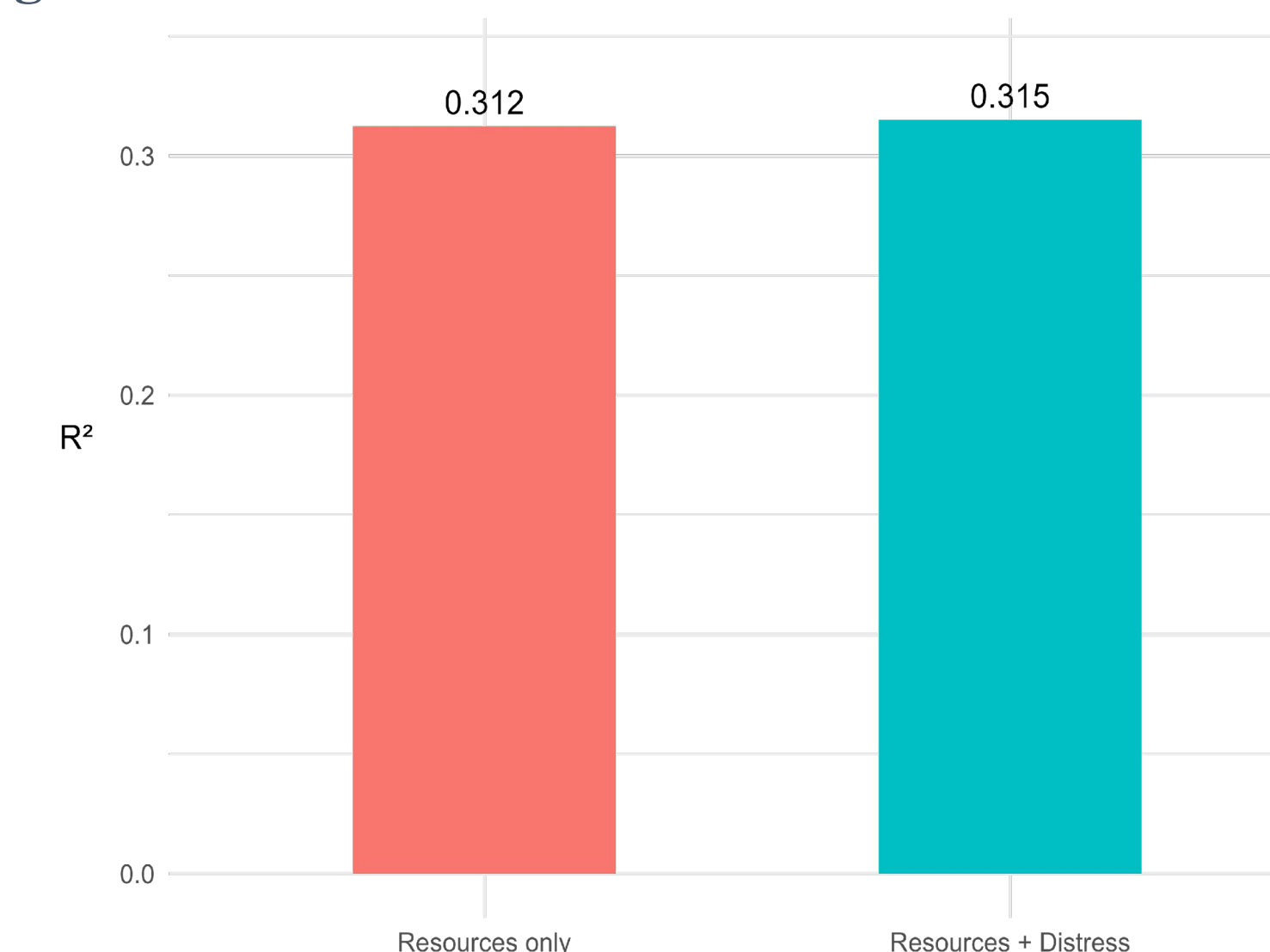
Note. All baseline variables independently were significantly associated with mindfulness adherence at week 4 (all $ps < .001$). A sanity check was run using baseline alcohol and cannabis use, neither of which were associated with adherence at week 4.

Figure 2. Variance Across Distress-first Models



Note. Hierarchical regression showed that distress composite entered at Step 1 explained relatively little variance in week 4 mindfulness adherence ($R^2 = .074$). Adding resource composite at Step 2 substantially improved explained variance ($R^2 = .315$, $\Delta R^2 = .241$).

Figure 3. Variance Across Resource-first Models



Note. Hierarchical regression showed that resource composite entered at Step 1 explained substantial variance in week 4 mindfulness adherence ($R^2 = .312$). Adding distress composite at Step 2 produced only a minimal increase in explained variance ($R^2 = .315$, $\Delta R^2 = .003$).

Discussion

- All psychological predictors showed significant associations with later mindfulness practice adherence in bivariate correlations.
 - Baseline psychological characteristics were meaningfully related to subsequent adherence.
- Alcohol and cannabis use were not significantly associated with adherence.
 - Observed pattern was specific to psychological predictors rather than a general tendency for all baseline variables to be significant.
- **Positive affect** and **decentering** showed the strongest positive associations with adherence, whereas **negative affect** and **perceived stress** showed the strongest negative associations.
- Variables within each domain can be reasonably summarized by a single composite.
- Resource and distress composites showed differential contributions to adherence, with resources emerging as the more informative predictor when both domains were combined.
- Baseline psychological resources may be especially important for understanding and supporting sustained mindfulness practice adherence.

References

- [1] Parsons, C. E., et al. (2017). *Behavior Research and Therapy*, 95, 29–41.
 [2] Canby, N. K., et al. (2020). *Psychosomatic Medicine*, 83(6), 655–664.

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