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## Using Ecological Momentary Assessment as a Mindfulness Intervention for Student-Teachers

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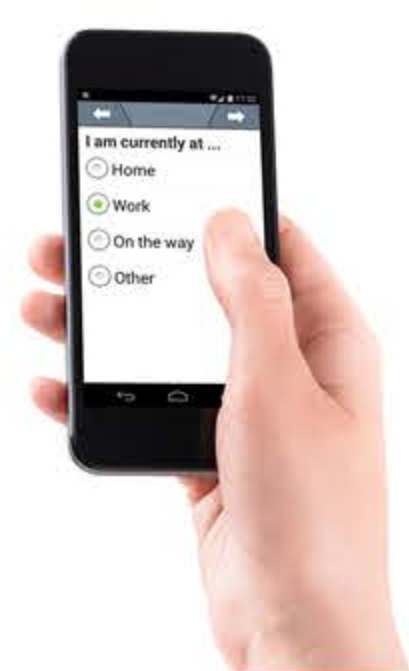
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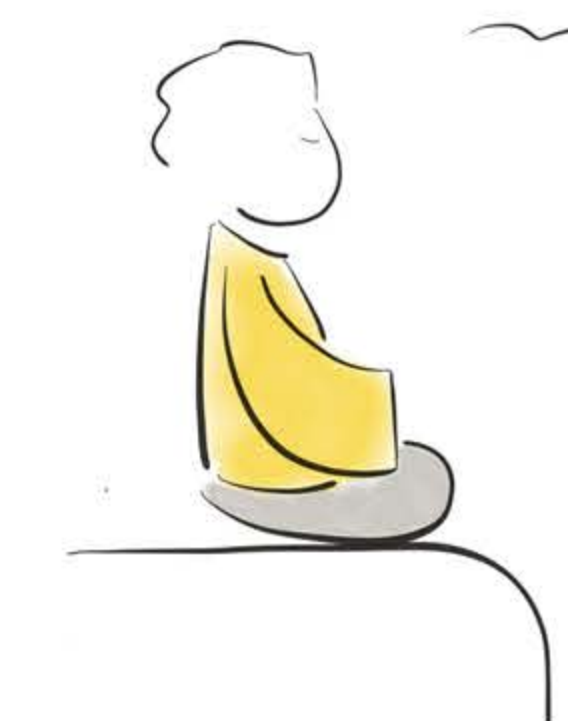
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# Ecological Momentary Assessment as a Mindfulness Intervention for Teacher Burnout

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## Abstract

**Background:** Teacher burnout may be combatted using brief mindfulness interventions. However, mindfulness practices are cultivated over time. Daily prompting using EMA may increase intervention fidelity.

**Method:** Psychoeducation was presented to pre-service teachers for 100-minutes. Participants received text messages (3x/day) with a survey link. Treatment received a reminder to practice mindfulness before completing the survey.

**Results:** Participants showed an increased understanding of mindfulness. Stress levels and frequency of practice were related to state mindfulness.

## Introduction

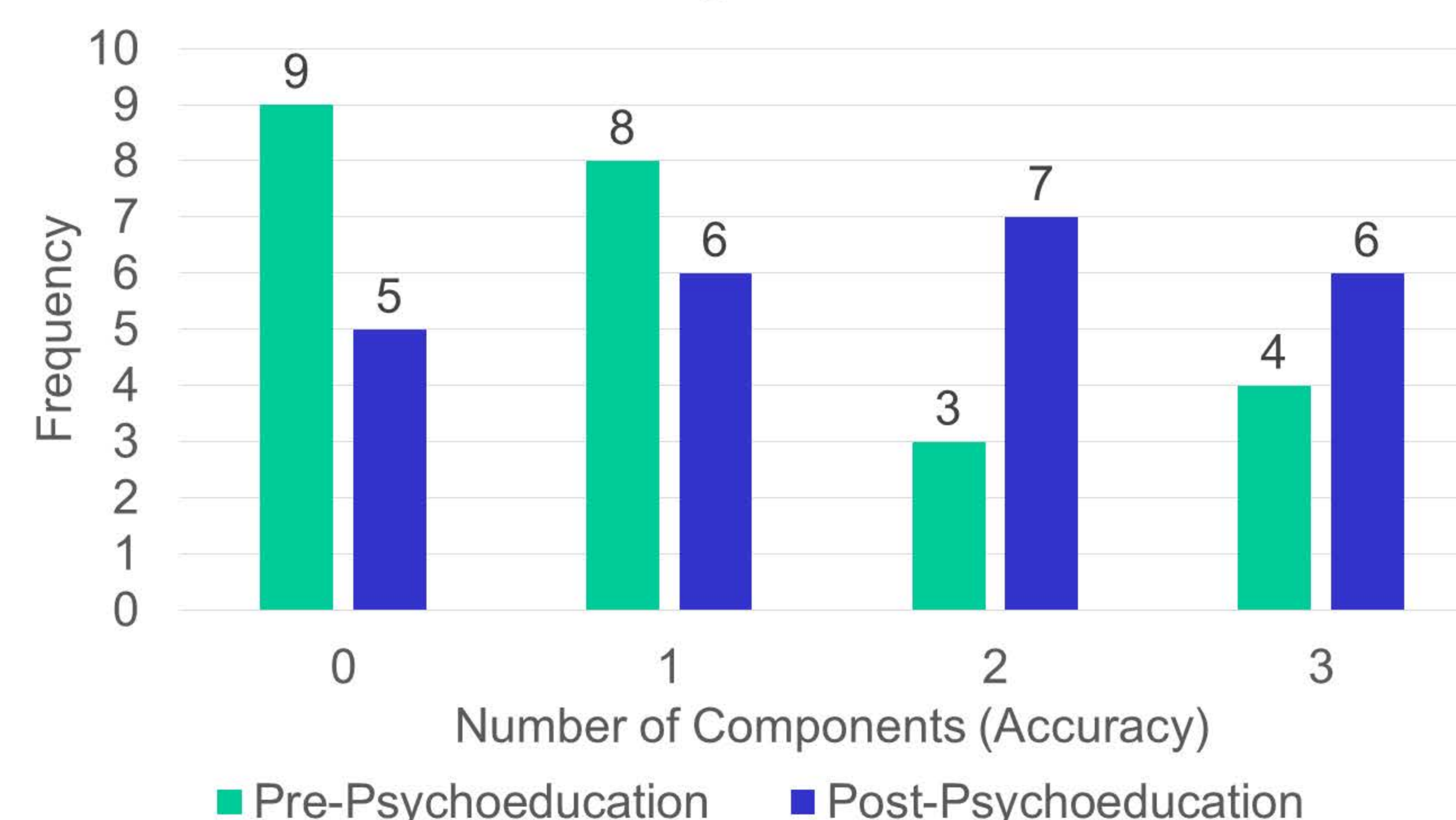
- **School climate** is influenced by discipline, teacher-student relationships, and social-emotional learning (e.g., Hoffman, Hutchinson, & Reiss, 2009).
- **Pre-service teacher** emotion regulation relates to first-year burnout (e.g., Cross & Thomas, 2017).
- **Mindfulness** has been studied through in-class psychoeducation (Brown, 2017).
- Ecological momentary assessment has been used for **measurement and intervention of mindfulness** (Ruscio, Muench, Brede, MacIntyre, & Waters, 2016).

- ✓ **RQ1:** Does 100-minutes of mindfulness psychoeducation increase awareness and understanding of mindfulness?
- ✓ **RQ2:** Does a daily reminder to practice mindfulness change mindfulness practices among pre-service teachers?
- ✓ **RQ3:** Does engagement with mindfulness differentially affect stress levels among pre-service teachers?
- ✓ **RQ4:** Does engagement of mindfulness differentially affect reported levels of state-mindfulness among pre-service teachers?

## Materials and Methods

1. Psychoeducation (100-minutes)
  - N=24
  - *MBSR & Pro-Social Classroom* (Stahl & Goldstien, 2010; Jennings & Siegel, 2015).
  - Measures: written definitions of mindfulness.
2. Ecological Momentary Assessment (3x/day, 2 weeks)
  - N=6
  - Measures: state-mindfulness (TMS), momentary stress, stress mgmt. strategies, fidelity for treatment

### RQ1: Effect of Psychoeducation on Defining Mindfulness



### RQ2: Descriptive Data for Effect of EMA on Mindfulness Practice

Group	ID #	% of Responses Mindfulness Practice Indicated
Treatment	5	18/26 = 69.2%
Control	1	3/29 = 10.3%

### RQ3 & RQ4: Nonparametric Test on Mindfulness Practice

RQ3 (Stress)	$r = 0.598$	$p < 0.01$
RQ4 (State Mindfulness)	$r = 0.729$	$p < 0.01$

## EMA Treatment Protocol 3x/Day

- Find a time within the next 90-minutes to engage in a mindfulness practice. A few options for mindfulness include a timed meditation, a guided meditation, a full body scan, or a scan of your environment.
- How would you rate your level of effort in practicing mindfulness? (0-25%, 26-50%, 51-75%, 76-100%)
- Have you felt stressed since your last time answering or in the past 3 hours?
- What stress management technique(s) have you used since your last time answering or in the past 3 hours?
- *Toronto Mindfulness Scale (TMS; Lau, et al. 2006).*

## Conclusions and Implications

- Participants **increased their understanding** of the definition of mindfulness.
- **Brief psychoeducation** on mindfulness can change perspectives.
- Explicit, **daily reminders** to practice mindfulness may elicit higher likelihood to **initiate a practice**.
- Participants experienced stress but were **simultaneously open to practicing** mindfulness.
- Equip individuals with **hands-on mindfulness experience**.
- Replicates that **engagement** with mindfulness **increases state-mindfulness**.
- **Informal/unstructured** practice may be useful for interventions.

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