

# Measuring Mindfulness in Preschoolers: The Mindfulness Children's Assessment Task and Scale

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**Problem:** The extant literature highlights many benefits of mindfulness for young children including but not limited to: increased executive functioning, working memory, and well-being (Razza et al., 2015; Thierry et al., 2016); improvement in social competence and higher teacher ratings in social-emotional development (Flook et al., 2015); as well as effortful control (Razza et al., 2015). Mindfulness, defined as a nonjudgmental, moment-to-moment acceptance of the present (Kabat-Zinn, 2005) is somewhat elusive and can be difficult to practice for adults; thus, it may prove particularly challenging for young children. There is a lack of clarity in the literature regarding whether very young children (e.g., preschoolers) can truly understand, practice, and identify the benefits typically associated with the practice of mindfulness. The present study sought to address these questions by creating and testing the Mindfulness Children's Assessment Task and Scale (Mindful CATS) consisting of 17 items rated along a 7-point scale and illustrated mindfulness scenarios rated along an emotional intensity scale. Results from the pilot study, where there was no intervention, are summarized below, and results of a 2018-19 study wherein the enrichment group participated in a 12-week mindfulness-based Kindness Curriculum (KC) are forthcoming. We hypothesized no significant changes from pre- to posttest in the pilot study; with the introduction of the KC, we predicted significant gains on the Mindful CATS for the enrichment group vs the control group.

**Methods:** Participants included preschool children (3 - 5 years): 21 in the pilot study, 253 in the mindfulness enrichment study (74.5% low income; 44% White). Data were gathered in the Fall and Spring: 2017-18 for the pilot study and 2018-19 with the enriched curriculum.

**Pilot Study Results:** There was an unexpected overall increase on the Mindful CATS and Other-OK subscale scores from Pre-testing ( $M=5.81$ ,  $SD = 1.64$ ;  $M=6.20$ ,  $SD=1.91$ , respectively) to Post-testing ( $M=6.85$ ,  $SD = 1.37$ ;  $M=7.28$ ,  $SD=1.26$ , respectively),  $t(19) = -2.162$ ,  $p=0.04$ ;  $t(19) = -2.092$ ,  $p=.05$ , respectively. Across the Mindful CATS, Self-OK, and Other-OK, 3-year olds tended to rate themselves higher compared to 4-5 year olds. Also, girls' scores significantly increased on the overall Mindful CATS ( $M_{Pre} = 5.79$ ,  $SD=1.4$ ;  $M_{Post} = 7.2$ ,  $SD = 1.51$ ,  $t = -.347$ ,  $p < .05$ ) and the Other-OK subscale ( $M_{Pre} = 6.22$ ,  $SD = 1.97$ ;  $M_{Post} = 7.77$ ,  $SD = 1.31$ ;  $t = -2.321$ ,  $p < .05$ ).

**Preliminary Conclusions:** Enrollment in a high-quality preschool or 4K program absent formal mindfulness training may promote mindfulness skills such as attention and awareness of self and kindness toward others, but may have less impact on kindness toward one's self. Results of the larger enrichment study with a randomized comparison group are critical to determining both whether the children understand the mindfulness concepts and whether these skills are enhanced by mindfulness training. The impact of enrichment on younger children is of particular interest

as they were inclined to respond to mindfulness prompts in a more positive, dichotomized, less nuanced manner, in the pilot study. Girls' overall mindfulness and tendency to adopt kind attitudes towards others significantly improved over time which may reflect maturity or awareness of social desirability.