



# Mindfulness is Associated with Reduced Risk of Occupation-Related Burnout among K-12 Teachers in Eastern Kentucky

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## ABSTRACT

National statistics suggest that up to 40% of new teachers will leave their school or the teaching profession within their first five years of teaching. Much of this attrition is associated with work-related burnout, some of which may be preventable with better teacher support.

This study compared the self-reported levels of burnout, “secondary traumatic stress,” and “compassion satisfaction” with participants’ levels of interpersonal and intrapersonal mindfulness, respectively. Relative Risks and Odds Ratios of having Secondary Traumatic Stress scores of “average/high” were significantly lower for those with Intrapersonal Mindfulness scores of 3+ and 4+. Odds Ratios and Relative Risks for Compassion Satisfaction indicated that teachers reporting Intrapersonal Mindfulness scores of 3+ or 4+ had significantly higher odds and risks of “average/high” or “high” Compassion Satisfaction scores.

These results will inform further research in the region regarding mindfulness practice and the experience of burnout among teachers in the region. Interventions informed by additional research could one day contribute toward reduced attrition in the teaching profession.

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## INTRODUCTION

Previous research related to mindfulness in education suggests that mindfulness practices, such as Mindfulness-Based Stress Reduction (MBSR) and others, are associated with numerous physical health and psychosocial benefits for both K-12 teachers and students.<sup>1,2</sup> Recent research suggests that mindfulness practices may be associated with reduced teacher burnout, which could contribute to reduced attrition from the profession over time.

While large-scale national studies have identified factors associated with teacher attrition in the United States,<sup>3</sup> studies regarding teacher attrition in Central Appalachia are sparse. Further, limited research has been published regarding epidemiologic factors related to K-12 teacher mental health in the Central Appalachian region. If the region’s educational culture is consistent with national trends, attrition may be in part due to work-related mental health problems including occupational burnout, “Compassion Fatigue” associated with “helping” professions, and elevated anxiety and depression.<sup>4</sup>

If increased teacher mindfulness is associated with reduced burnout, future intervention studies related to mindfulness in schools could help alleviate long-term teacher attrition. The research question was: “Is mindfulness skill level associated with reduced risk of burnout for teachers in Eastern Kentucky?”

## METHODS

Three regional educational cooperatives invited K-12 teachers in Eastern Kentucky to participate in this study. Teachers completed questionnaires containing demographic questions pertaining to those in education-related careers, the Professional Quality of Life (ProQOL) Inventory,<sup>4</sup> and the Mindfulness in Teaching Interpersonal Mindfulness and Intrapersonal Mindfulness subscales.<sup>2</sup>

Data were organized and scale scores were calculated. Epi Info was used to calculate Odds Ratios (OR) and Relative Risks (RR) while SPSS was used to calculate Pearson correlations, linear regression analysis, and ANOVA (with Tukey’s post hoc) analyses. SPSS-calculated Chronbach’s Alpha values confirmed acceptable, good, or excellent validity for each calculated construct.<sup>5</sup>



## RESULTS

RR and OR of reporting “Average/High” burnout is significantly lower for those with higher-than average (3+ and 4+ on a 5-point Likert scale) Intrapersonal Mindfulness. Similarly, RR and OR of having Secondary Traumatic Stress (STS) scores of “average/high” were significantly lower for those with higher-than average (3+ and 4+ on a 5-point Likert scale) Intrapersonal Mindfulness scores. (See Table 1.)

Regression models were able to predict burnout most strongly when Compassion Satisfaction (a ProQOL variable), Intrapersonal Mindfulness, Interpersonal Mindfulness, and STS were predictors (R = 0.87). Alone, Intrapersonal Mindfulness was moderately able to predict burnout (R= 0.63). ANOVA test confirmed significant differences based on Intrapersonal Mindfulness level and burnout.

In Pearson correlations, Intrapersonal Mindfulness was associated with decreased burnout ( $r=-.616, p<.05$ ). ANOVA confirmed significant differences in burnout reported by participants based on level of reported Intrapersonal Mindfulness ( $F=8.93; p<.05$ ). ANOVA found no significant differences between burnout and Interpersonal Mindfulness ( $F=1.33; p=.19$ ). (See Table 2.)

Table 1. Relative Risks and Odds Ratios for Burnout, STS, and Mindfulness

	Low Burnout	Avg/High Burnout	Low STS	Avg/High STS
Intrapersonal Mindfulness 3+	OR = 6.79 CI: (1.95–23.66) RR = 1.33 CI: (1.15–36.54)	OR = 0.15 CI: (0.04–0.51) RR = 0.75 CI: (0.65–0.87)	OR = 4.22 CI: (1.73–10.29) RR = 1.33 CI: (1.11–1.60)	OR = 0.24 CI: (0.10–0.58) RR = 0.75 CI: (0.62–0.90)
Intrapersonal Mindfulness 4+	OR = 11.58 CI: (5.06–26.52) RR = 4.87 CI: (2.76–8.57)	OR = 0.10 CI: (0.04–0.22) RR = 0.22 CI: (0.12–0.39)	OR = 8.35 CI: (3.39–20.57) RR = 4.72 CI: (2.26–9.87)	OR = 0.12 CI: (0.05–0.30) RR = 0.21 CI: (0.10–0.44)
Interpersonal Mindfulness 3+	OR = 1.74 CI: (0.34–8.97) RR = 1.03 CI: (0.95–1.11)	OR = 0.57 CI: (0.11–2.95) RR = 0.97 CI: (0.90–1.05)	OR = 0.68 CI: (0.16–2.94) RR = 0.98 CI: (0.91–1.06)	OR = 1.48 CI: (0.34–6.45) RR = 1.02 CI: (0.95–1.11)
Interpersonal Mindfulness 4+	OR = 1.68 CI: (0.85–3.34) RR = 1.33 CI: (0.92–1.91)	OR = 0.60 CI: (0.30–1.18) RR = 0.75 CI: (0.52–1.09)	OR = 1.30 CI: (0.67–2.52) RR = 1.16 CI: (0.80–1.69)	OR = 0.77 CI: (0.40–1.50) RR = 0.86 CI: (0.59–1.26)

Table 2. Pearson Correlations for All Subscales

	STS	CS	Intrapersonal Mindfulness	Interpersonal Mindfulness
Burnout	.642*	-.774*	-.616*	-.227*
STS		-.364*	-.523*	.018
CS			.529*	.380*
Intrapersonal Mindfulness				.192*

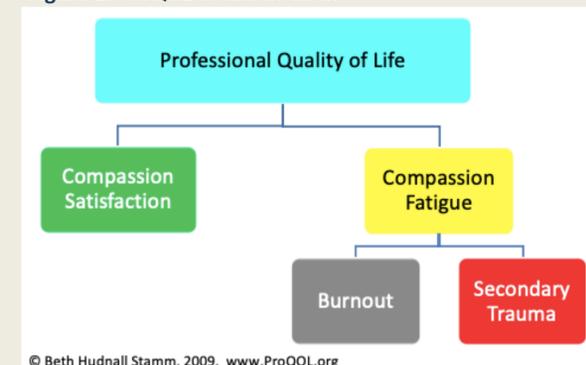
Note. \*  $p < .05$ , two-tailed.

## DISCUSSION

RR and OR for burnout and STS and Intrapersonal Mindfulness suggest that a developed or developing sense of Intrapersonal Mindfulness in the classroom may be a protective factor for teachers in terms of reducing the risk of burnout and STS. Those with higher Intrapersonal Mindfulness scores have reduced the risk for high levels of burnout and increased risk for low levels of burnout. This is consistent with previous research on mindfulness in education.<sup>1,2</sup>

Based on these study results, the relationship of Interpersonal Mindfulness to teacher burnout remains unclear. More research is recommended to better understand this as well as other factors that may affect both a teacher’s risk of burnout and mindfulness level.

Figure 1. ProQOL Model of CS-CF



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## CONCLUSIONS

A developed or developing a sense of Intrapersonal Mindfulness in the classroom may be a protective factor for teachers by reducing the risk of burnout and Secondary Traumatic Stress. The role of Interpersonal Mindfulness remains unclear. Further research can help us to better understand the relationship between Interpersonal Mindfulness and burnout. Cultivating Intrapersonal Mindfulness skills in the classroom may elevate the likelihood of having “average” or “high” Compassion Satisfaction concerning one’s work. These results will inform further research to reduce teacher attrition in the region.

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