

Mathematical Wellbeing as an Inclusive Framework for Equity: A Systematic Review

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Keywords: mathematical wellbeing, literature review, culture, organizational change

For many undergraduate students, navigating the demands of mathematics education can feel like navigating a pressure-cooker system. The term “mathematical wellbeing,” coined in 2010, describes how individuals relate to mathematics in ways that are positive, functional, and sustainable throughout their lives (Clarkson et al., 2010; Part, 2012; Hill et al., 2021; Almora Rios, 2024; Hunter & Hill, 2024). Although relatively new, research on mathematical wellbeing has grown rapidly. This poster presents initial findings from a large-scale systematic review of the emerging literature on mathematical wellbeing, focusing on the rationales authors use to motivate its study. Specifically, this study highlights how centering mathematical wellbeing in organizational change efforts can promote student persistence in introductory math course sequences and foster positive, lifelong relationships with mathematical practice.

Methods

The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines were used as a framework for data collection (Page et al., 2021). Following prior systematic review methods in mathematics education research (e.g., Darragh, 2016; Radovic et al., 2018; DiMartino et al., 2022; Cevikbas et al., 2022), the article corpus for review was constructed using databases in psychology and education research (ERIC, APA PsycInfo, ProQuest Dissertations & Theses Global, Web of Science Core Collection, Academic Search Complete, Education Source), international conference proceedings (2021-2024 International Group for the Psychology of Mathematics Education (PME) conference), citation searching, and gray literature found on Google Scholar (within first 300 results; see Haddaway et al., 2015). The search criteria used in this review was: (Keyword:Education AND Title:math*) AND Abstract/Title:(wellbeing OR flourishing OR happiness OR thriving OR satisfaction OR eudaemonia OR “mental health” OR “quality of life”) after considering the usage and frequency of various synonymous search terms to ‘wellbeing’ in academic journals (see Iasiello et al., 2024; Butler & Kern, 2016; Veenhoven, 2015; Hill et al., 2021). Eligible studies were published in English and centered (not just utilized) the mathematics education context at any level. Articles passed screening by focusing on the conceptualization, measurement, or theorization of concepts related to the persistence of math learning or practice. Articles related to job satisfaction, in-service teachers, educators, the faculty workplace, or distance, online, computer-based, or e-learning, were excluded, as well as book reviews and oral communications from conference proceedings.

Acknowledgments

This material is based upon work supported by the National Science Foundation Graduate Research Fellowship Program under Grant DGE-2034835. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation.

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