

SPECIAL ARTICLE

Mindfulness based stress reduction and citizenship education: A systemic review of the empirical literature



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Abstract Mindfulness based stress reduction has been proven effective in education on several metrics of analysis, but no quantitative research has been conducted within citizenship education. Analysis was conducted across four databases, examining the field work available within citizenship education and mindfulness based stress reduction. A comprehensive and systematic review of the research base was conducted to identify the existing empirical evidence of mindfulness based stress education's impact on citizenship education (*American Psychological Association Survey Shows Teen Stress Rivals That of Adults, 2014*).

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Reducción del estrés basada en el *mindfulness* y educación para la ciudadanía: una revisión sistémica de la bibliografía empírica

Resumen La reducción del estrés basada en el *mindfulness* se ha demostrado eficaz en la educación de varios parámetros de análisis, pero no se ha realizado ninguna investigación cuantitativa en la educación para la ciudadanía. El análisis se realizó en 4 bases de datos y se examinó el trabajo de campo disponible en la educación para la ciudadanía y la reducción del estrés basada en el *mindfulness*. Se llevó a cabo una revisión integral y sistemática de la base de investigación para identificar la evidencia empírica existente en el impacto de la educación del estrés basada en el *mindfulness* en la educación para la ciudadanía (*American Psychological Association Survey Shows Teen Stress Rivals That of Adults, 2014*).

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Students are experiencing unprecedented levels of stress in today's school system. A national study, titled "Stress in America," was conducted by the American Psychological Association observing student stress in the United States. The findings were startling. Currently, youth in the United States are more stressed than adults, with data reported 5.8 for teens versus 5.1 for adults out of a 10-point scale. The numbers become higher at varied points during the year, dependent upon if school was in session ([American Psychological Association Survey Shows Teen Stress Rivals That of Adults, 2014](#)). At such a young age, children should not be at this high level of stress. A plethora of factors have led to higher student stress levels. School is just one contributing factor increasing stress. With higher stress levels, coping skills must be taught to students to address stress and anxiety.

The coping skill analyzed within this literature review is mindfulness based stress reduction (MBSR). Originating in 1979, MBSR is a coping tool founded by [Kabat-Zinn \(1994\)](#). As per [Kabat-Zinn \(1994\)](#), mindfulness is "paying attention in a particular way: on purpose, in the present-moment, and nonjudgmentally. This kind of attention nurtures greater awareness, clarity, and acceptance of present-moment reality" (p. 4). The coping skill allows for a complete observation of self, without judgment. A strategy such as this would be useful for any age, but it would be more valuable for k-12 students.

More specifically, middle school students experience a different set of stresses than other age groups. As these students grow, the maturation process is quite different than that of a student 10 or 15 years ago. Technology and social media has shifted students' perceptions of life amongst k-12 students. To facilitate the learning of life, an emphasis on citizenship education must be placed in schools. UNESCO defines citizenship education as teaching children from a young age to be critical and enlightened thinkers ([Citizenship Education for the 21st Century, 2016](#)). Teaching students how to clearly think would facilitate their everyday life beyond school. It would mitigate concerns of stress, and instead produce more mindful citizens.

In this literature review, a detailed examination of how mindfulness can enhance citizenship education is proposed. To analyze this proposal fully, there needs to be a clear understanding of what citizenship education and mindfulness are to properly connect the two. Once defined, a full examination of the research available will be analyzed. The following five literature review articles attempt to answer to what extent does mindfulness based stress reduction impact citizenship education among 7th grade Civics students.

Citizenship education

Citizenship education can be confused with democratic education. They may be similar, but they are not the same. According to the [Education Commission \(2000\)](#), democratic education

is concerned with academic skills such as how a bill becomes a law, although it includes acquiring civic skills and knowledge. Rather, education for citizenship is a moral enterprise. It is concerned with organizing schools in ways that give students opportunities to learn

about citizenship and its importance, and acquire the needed skills and knowledge associated with it. It is based on the belief that it is just as important for young people to acquire a "democratic self" or a "civic self-understanding" as it is to gain specific civic skills. (p. 1)

Citizenship education provides a complete education of the child.

Citizenship education is not anything new. Beginning in the early years of the United States, the emphasis of education was to train children to become efficient and productive citizens. Thomas Jefferson was a primary promoter of this, stating, "An educated citizenry is a vital requisite for our survival as a free people" ([Thomas Jefferson's Monticello, 2016](#)). This type of education produced citizens that were knowledgeable and could affectively participate within the government. As the years passed, this emphasis of democracy grew as the state of education shifted wider in spectrum to encompass subjects outside of reading, writing, and arithmetic. Yet it was not until the early 1900s when the importance of citizenship and education was clearly laid out that furthered both a child's education and well-being. John Dewey suggested there needed to be a change in education to achieve the true democratic standard that were to be taught to students, stating, "Were all instructors to realize that the quality of mental process, not the production of correct answers, is the measure of educative growth something hardly less than a revolution in teaching would be worked" ([Dewey, 1975](#)).

The change that would be most effective would be focusing on the mental process of students and the power of this? includes citizenship education and modifying the curriculum to include mindful citizenship. The current emphasis of citizenship education needs to be reformed. Evidence suggests there needs to be more democratic critical thinking instead of teaching about government and testing on it. There needs to be more critical understanding of the United States' political foundations ([Newmann, 1987](#)). The disconnect comes from political disengagement including "the most fundamental acts of citizenship voting or staying informed on public issues. In withdrawal, they [the students] become alienated, angry or apathetic" ([Education Commission, 2000](#), p. 16). This effect allows not only for a lack of citizenship but also a lack of mindfulness. To have a more productive society, both mindfulness and citizenship must be employed.

Mindfulness based stress reduction

Mindfulness is a growing field of study within the realms of education. It allows students to be more cognitively aware of themselves as individuals and as students. Within mindfulness, there is a wide spectrum of various types of mindfulness methodology. The method analyzed within this literature review is mindfulness based stress reduction (MBSR), developed by Jon-Kabat Zinn in 1979 at the University of Massachusetts Medical School. Initially Zinn's ideas stemmed from Buddhist meditation techniques, but it was his goal to make meditation more accessible for people without a current meditation practice. MBSR was created for this reason, as well as to remove any religious dogma associated

with the methodology. This method can be utilized by anyone, but first each participant must go through a training so they may reap the complete benefit of the practice. The training includes an eight-week group program, where individuals learn to access ease and peace of mind. The training includes a curriculum, as well as activities for deepening the understanding of mindfulness tools. Throughout the sessions, different forms of mindfulness meditation take place including mindful eating, yoga, and mindfulness in relationships (Grossman et al., 2004). After training, the student may practice whenever and wherever. Regular practice of MBSR has been shown to be beneficial. Preliminary reports on MBSR "have suggested substantial benefits for individuals suffering from chronic pain, fibromyalgia, cancer, anxiety disorders, depression and the stresses of contexts as diverse as medical school and prison life" (Grossman et al., 2004).

Achieving perfection in this practice goes against the foundation of the practice itself. Mindfulness is the art of not doing and not achieving. By not doing, the practitioner will achieve peace as a byproduct, but it is not forced. This may sound difficult, but it is not. Zinn states to practice mindfulness, the practitioner simply reminds himself/herself to be mindful. Kabat-Zinn (1990) writes,

It can be a way of stopping the headlong momentum of all the doing and giving yourself some time to dwell in a state of deep relaxation and well-being and to remember who you are. The formal practice can give you the strength and self-knowledge to go back to the doing and do it from out of your being. (p. 60)

This idea of not doing is transformational in any field. MBSR initially was used in the University of Massachusetts Medical School, predominately as a form of integrative therapy. Since 1979, MBSR has continued to spread and "is now offered in over 200 medical centers, hospitals, and clinics around the world, including some of the leading integrative medical centers such as the Scripps Center for Integrative Medicine, the Duke Center for Integrative Medicine, and the Jefferson-Myrna Brind Center for Integrative Medicine" ("What is Mindfulness-Based Stress Reduction?"). This methodology has continued to spread beyond the medical field and into workplaces, militaries, and prisons (Prison Mindfulness Institute, 2016; Russ, 2015), all receiving benefit from the program. However, MBSR is relatively new for k-12 students. More research is being conducted in this field, as it has been proven effective in other areas.

Methods

The purpose of this literature review was to explore the existing empirical literature base on MBSR and citizenship education in k-12 classrooms and aims to answer the following question:

1. To what extent does mindfulness based stress reduction impact the civics end of course exams scores for 7th grade students?
2. To what extent does citizenship education impact the civics end of course exam scores for 7th grade students?

3. To what extent does mindfulness based stress reduction influence human behavior in citizenship education in a 7th grade civics classroom?
4. Empirical literature on MBSR and citizenship education were identified and defined as studies employing an experimental or quasi-experimental design. This literature review excluded other reviews of literature, editorials, qualitative analysis, and meta-analysis.

Article selection

Four electronic databases were used: ERIC (2010–2016–99), PsychInfo (2006–2016), Education Source (2006–2016), and the National Institute of Health (2006–2016) to search information on the aforementioned topic. Relevant papers from 2010 to 2016, were further analyzed utilizing key words such as: democratic, citizenship, education, mindfulness, meditation, and mindfulness based stress reduction. The search included only k-12 education level in all developed countries, but was limited to abstracts in English. A range of secondary data sources served as the key bibliographic tools for identifying relevant work for review, such as bibliographies and critiques of other authors' work. Through the analysis of this research, a large sample of information was collected describing both mindfulness and citizenship education. To reduce the sample size further, other limiters were placed. Only peer-review articles were used for more quality research. To analyze data more effectively, quantitative research articles were incorporated into the literature review.

For further selection of material, abstracts were judged on whether they included mindfulness and/or citizenship. Dissertations were excluded, as were studies not peer reviewed. Information from papers was extracted and coded within the following categories: name of study, year, sample description and size, variables, and summary of results. The selection of articles can be further understood via Fig. 1 and Table 1.

Data collection was carried out with an independent researcher for verification of limiters and samples. Each potentially relevant article was assessed by the author of the work presented, who read the full text, and the independent researcher verified the articles that were retrieved from the four databases. Any disagreements were resolved through a discussion between the author and reader who reviewed the study.

The variables examined include population, the dependent variable, and the independent variable. The others were not stated on the demographic they were sampling. The experimental variable is mindfulness based stress reduction, and the literature is examining the dependent variable of citizenship education. Not all articles found related to both independent and dependent. Within the articles used, three articles were related to mindfulness based stress reduction/mindfulness, and three articles were related to citizenship education.

Of the studies identified as part of the larger study, initially 329 articles were identified, with few limiters. Upon further implementation of limits put in place, articles for review was narrowed down to 5, PshychInfo had 1, Education source had 4, and National Institute of Health had

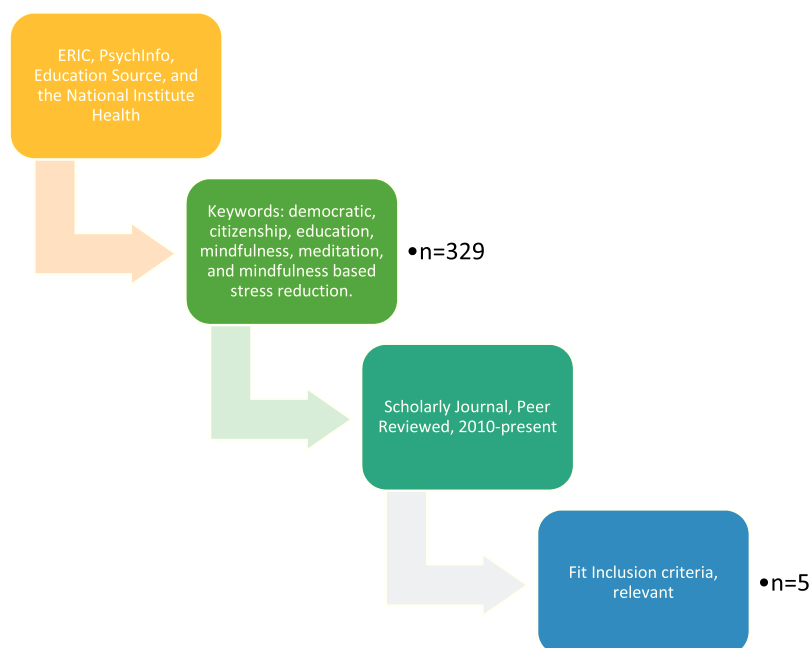


Figure 1 Information flow.

zero. The results were narrowed down further upon reading the studies, and determining the quantitative/qualitative data. The process of selection of articles can be further understood via Fig. 1 and Table 1. In total, five studies were analyzed for this literature review. The literature review results are summarized below in Table 2. All five of these studies were diverse with outcomes and measures; thus, a meta-analysis was not necessary. Likewise, there was no format the paper was organized in, as there were few articles related to the topic that met the quantitative standard.

Results

For this literature review, the articles have been divided into categories of topic. The first topic, citizenship education, returned two articles when searched and exclusions applied. The topics varied, but all were inter-related through the common theme of teaching student's citizenship.

"*Creating classroom-level measures of citizenship education climate*" examines how to effectively deliver citizenship education. Focusing specifically on classroom environment, the study shows the necessity of an open and safe classroom to develop the ideas of citizenship. The study was rather large, with a sample of:

14-year-olds tested in 1999 and analyzed here included 93,882 students in 4136 schools from a total of 28 countries. In the United States more specifically, data came from 2811 students in 124 schools. With the use of sampling weights, the students in the full U.S. data set were nationally-representative of students in ninth grade in 1999 (Barber, Sweetwood, & King, 2015).

The data set came from the IEA Civic Education Study, which began in 1997. Four research questions were asked:

- (1) Reliability of classroom climate measure.
- (2) Student characteristics associated with reliability.
- (3) Contextual characteristics associated with reliability.
- (4) Using classroom level climate measures to predict student outcomes.

The first research question was tested three different ways, with varied outcomes. Cronbach's alpha coefficient of internal consistency determined reliability of classroom climate measure ($\alpha=0.823$). The hierarchical linear model determined similar results ($k=0.723$). However, when using Cohen's statistical test, it was not determined reliable ($k=0.574$). The second research question corresponds to research question 1. Student characteristics were included in the second measurement, which reduced person to person variability in climate perceptions by 30% and increased perceptions of discussion climates to $k=0.656$. Essentially, students have different perceptions of a classroom climate. Upon analyzing student characteristics, other contextual factors were included. Factors analyzing inclusiveness of a classroom were used to examine the classroom climate. The more diverse the classroom, the more positive the classroom climate. This study included open discussions as well as a diverse student population. Research question 4 combines all prior research questions, examining a correlation between characteristics of a classroom and classroom climate. The correlation suggests a varied response, dependent upon how the aggregate data was analyzed. Unadjusted aggregated data showed less variability by 13% (for efficacy) to as much as 45% (for expectations of voting), the adjusted scores reported 0.5% (for efficacy) to 18% (for illegal forms of protest) Fig. 2, provided by the study.

Table 1 Literature search.

Research	How does mindfulness impact the learning of democratic education? Does mindfulness teach citizenship?			
May also need to incorporate:				
Database	Keywords/subjects/limiters used	Number of search results	Date of search	
ERIC	"Mindfulness", Limiters and "civics education", or "democratic education" Remove: Date Published: 201000101-20151231 Remove: Scholarly (Peer Reviewed) Journals Remove: Journals or Document: Journal Articles (EJ) Remove: Educational level: Elementary Secondary Education	329	9/30/2016	Excluded this search as did not seem relevant
	"Mindfulness", Limiters and "democracy", and "education" Remove: Date Published: 20061001-20160931 Remove: Scholarly (Peer Reviewed) Journals	5	9/30/2016	
Education Source	"Mindfulness", and "democracy", and "education"	6	9/30/2016	Repeated sources
PsychInfo	"Mindfulness", and "democracy", and "education"	2	9/30/2016	
Keywords/subjects	Title	Phase I keep or delete?	Phase II keep or delete?	
Democracy, Democratic Values, Perception, Metacognition, Reflection, Political Issues, Education, Health Services, Teaching Methods, Educational Philosophy, Vignettes, School Culture, Citizenship Education	Mindfulness, democracy, and education – Hyde, Andrea Marie; LaPrad, James G.	Keep	Delete	
Metacognition, Psychology, Intervention, Mental Health, Physical Health, Democracy, Criticism, Politics	The politics of mindfulness. A Response to "mindfulness, democracy, education" – Comstock, Patrick W.	Keep	Delete	
Social Justice, Inclusive Schools, Teacher Education Programs, Elementary Secondary Education, Democracy Educational Change, Equal Education, Cultural Pluralism, Criticism, Elementary Secondary Education	A mindfulness to transcend pre-service lip-service: A call for K-12 schools to invest in social justice education	Keep	Delete	
Science Education, Scientific Literacy, Ecology, Ichthyology, Biotechnology, Environmental Education, Conservation (Environment) Youth Opportunities	Alaskan Salmon and Gen R: Hunting, fishing to cultivate ecological mindfulness	Delete		
Humanities, Poetry, Figurative Language, Citizenship, Democracy, Literary Criticism, Higher Education, Activism, Social Sciences, Higher Education	The humanities are not a luxury: A manifesto for the twenty first century	Keep	Delete	

Table 1 (Continued)

Keywords/subjects	Title	Phase I keep or delete?	Phase II keep or delete?
Relationship of Democracy & Education & Discussion, Facilitation of Thoughtful & Sensitive Discussion & Functions of Democratic Discussion in Classroom	Discussion, schooling, and the struggle for democracy	Keep	Keep
Behavioral Analysis, Democracy, Ethic of Care, Conscience, Public Education Democracy—Study & Teaching Curricula (Courses of Study) Leadership Students – United States	Practice Democracy: An Engaged Approach to Teaching and Learning	Keep	Keep
Subjects: Metacognition; Stress variables; At Risk Students; Social Isolation; Elementary School Students; Statistical Analysis; Socioeconomic Background; Academic Achievement; Outcomes of Treatment; Anxiety; Well Being; Qualitative Research; Self Control; Intervention; Foreign Countries	An exploratory study of the effects of mindfulness on perceived levels of stress among school-children from lower socioeconomic backgrounds	Keep	Keep
Citizenship Education; Classroom Environment; Measures (Individuals); Reliability; Correlation; Outcomes of Education	Creating classroom-level measures of citizenship education climate	Keep	Keep
Mental Health; Program Effectiveness; Stress Management, Undergraduate Students; Pretests Posttests; Self Concept; Intervention; Statistical Analysis; Quasiexperimental Design	Examining the efficacy of a brief mindfulness-based stress reduction (brief MBSR) program on psychological health	Keep	Keep
Citizenship Education, Higher Education; Public Colleges; Leadership; Online Surveys; Demography; Student Experience; Predictor Variables; Student Surveys; College Students; Statistical Analysis; Multiple Regression Analysis; Correlation; College Curriculum; Active Learning; Statistical Significance; Political Attitudes	Citizenship education in public higher education: Curricular strategies to promote the development of civic knowledge, skills and attitudes	Keep	Keep
Education; Efficacy; Patriotism; Political Involvement; Rights; Trust	Education, civic patriotism, and democratic citizenship: Unpacking the education effect on political involvement	Keep	Keep
Art Making, Children, Mandala, Mindfulness, Test Anxiety	Effectiveness of a classroom mindfulness coloring activity for test anxiety in children	Keep	Keep

The methods utilized in the study were to test the presence of mediators. Demographic controls were used to analyze mediators further. Next, other mediators, active citizenship, and law-and-order norm were utilized to examine (what was examined) even further. Finally, grassroots movements and voting were also used to analyze political involvement. The controls of gender, race, age, immigration, and urbanism facilitated the descriptive and inferential analysis, as the study ran regression analysis. After the implemented statistical analysis, the conclusion was affirmative of the research question, with an increase in citizenship participation because of higher education. It is important to note, “Even if conventional patriotism tends to erode as education increases, the normative underpinnings of political engagement are sustained by a rising commitment to ideals of active citizenship” (Straughn & Androit, 2011). Citizenship is important regardless of education level, but according to the study, it does play a role in how much a person participates in government. This study

seems viable, but it did not account for change over time. The survey was taken in 2004, seven years before the article was written. Many political ideas shift over seven years’ time. Citizenship participation is not exempt. However, this article does explain a noteworthy relationship between education and citizenship, one that can be used for future studies, despite not being related to the proposed demographic.

Research for MBSR proved similar to citizenship education. Few articles met the strict limitations of research, and other documents were not relevant to the topic. The following three articles did not all address the technique of MBSR, but did address mindfulness. They may be similar, but techniques vary.

The first article addressed MBSR and the overall benefits of the practice. Written in 2013, *Examining the Efficacy of a Brief Mindfulness-Based Stress Reduction (Brief MBSR) Program on Psychological Health* used a quasi-experimental approach to examine MBSR treatment and psychological

Table 2 Literature review.

Citation	Year	Research questions	Method	Measures	Independent variables	Dependent variables	Sample	Summary
1 Barber, Sweetwood, & King (2015) Creating classroom level measures of citizenship education climate. Learning Environment Research, 18(2), 197216. doi:10.1007/S10984-015-9180-7	2015	To what extent does classroom climate impact civic education?	Quantitative	Multiple regression analysis	Classroom climate	Civic education	Sample of the IEA Civic Education Study (CIVED); Altogether the study of 14-year olds tested in 1999 and analyzed here included 93,882 students and 4136 schools from a total of 28 countries	In summary we echo the recommendations of Miller and Murdock (2007) who suggest proceeding with caution when aggregating individual perceptions to the class.
2 Bergen-Cico, D., Possemato, K., and Cheon, S. (2013) Examining the efficacy of a brief mindful based stress reduction, (brief MBSR) Program on Psychological Health. Journal of American College Health, 61(6), 348–360	2013	To what extent does mindfulness based stress reduction (brief MBSR) effect psychological health in an academic course?	Quasi-experimental	Quasi-experimental pretest/posttest design comparing changes in psychological health between brief MBSR treatment in parallel control groups	MBSR treatment	Psychological Health	119 undergraduate students (treatment: N=72; control: N=47) enrolled in elective academic courses on addictive behaviors between January 2010 and May 2012.	Short MBSR programs can improve psychological health; however, longer MBSR programs may be needed to show real improvement.
3 Carsley, D., Heath, N. L., & Fajnerova, S. (2015). Effectiveness of a classroom mindfulness coloring activity for test anxiety in children. Journal of Applied School Psychology, 31(3), 239–255.	2015	To what extent do the children who engage in coloring mandalas show a reduction in their anxiety from pre-to post-intervention compared with the free draw/color condition?	Mixed-methods	Qualitative-State-Trait Anxiety Inventory For Children State Form; ANCOVA used to analyze gender differences	Art therapy interventions	Psychological health	52 participants were randomly assigned to either a structured mandala (n=26) or free coloring condition (n=26)	Discusses using “mindfulness art making activities”, where the teachers must be able to “adapt the mindfulness activity to children’s individual differences and remain sensitive to the students’ own experience of mindfulness”.

Table 2 (Continued)

Citation	Year	Research questions	Method	Measures	Independent variables	Dependent variables	Sample	Summary
4 Costello, E., & Lawler, M. (2014) . An exploratory study of the effects of mindfulness on perceived levels of stress among school-children from lower socioeconomic backgrounds. <i>International Journal of Emotional Education</i> , 6(2), 21–39.	2014	To what extent do mindfulness interventions in school curriculum empower children to participate fully in their education	Mixed-methods	Mixed-methods; quantitative measures including the children's stress levels; qualitative included interviews	Mindfulness interventions	Educational participation	5-Week mindfulness program was performed with 63 primary school students who were struggling with social inclusion – also included interview of 16 children and 2 teachers	As the research was undertaken, the findings are not sufficient to allow conclusions to be generalized to all such schools and children of different ages. However, it is reasonable to suggest that these perspectives may be representative of other school children and as such these finding may be tentatively considered as an example to other schools of the same type.
5 Straughn, J.B., & Androit, A.L. (2011) . Education, civic patriotism, and democratic citizenship: Unpacking the education effect of political involvement. <i>Sociological Forum</i> , 26(3), 556–580. doi:10.1111/j.1573-7861.2011.01262.x	2011	How does civic patriotism effect political involvement?	Quantitative	Used scales, regression analysis	Educational attainment	Political involvement-grassroots activities and political involvement	Used data from the 2004 General Social Survey, National Opinion Resource Center	Taken together, these findings provide strong support for our civic patriotism hypothesis. In the course of our analysis, we showed that education greatly enhances commitment to active citizenship as a civic virtue, which in turn exerts a powerful influence on both grass-roots activism and electoral participation.

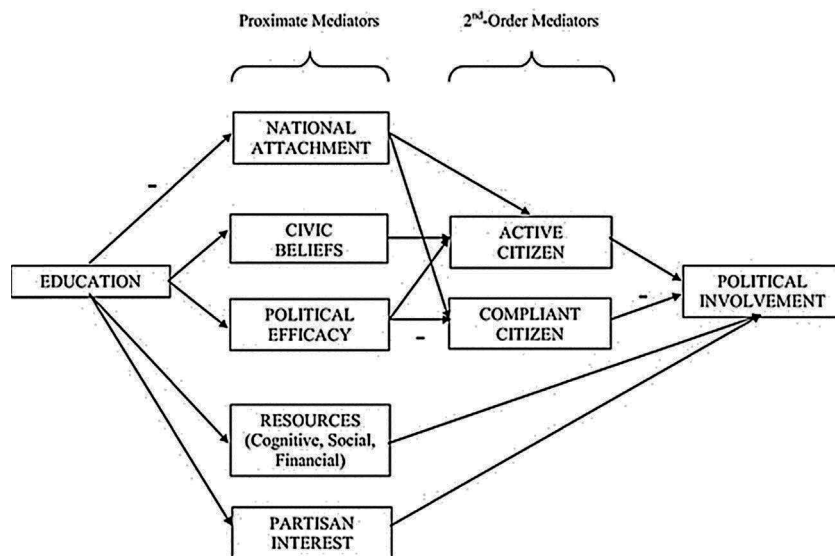


Figure 2 Hypothetical model for the mediated effects of education on political involvement. All hypothesized effects are positive unless denoted as negative (–) (Straughn and Andriot, 2011).

health. Participants were selected from a college elective health course, and in total there were 119 undergraduates. Within the treatment group, 72 participated. The other 47 were in the parallel group. The treatment and parallel programs were simultaneously run: a 5- and 8-week MBSR program analyzing anxiety, psychological distress, self-compassion, and mindfulness. In this program,

various measures were utilized including ANCOVA and Chi square, and the results proved in favor of mindfulness based stress reduction. Analysis of covariance revealed significant improvements in psychological health, measured by mindfulness (Philadelphia Mindfulness Scale: $p \leq .001$; Kentucky Inventory of Mindfulness Scale: $p \leq .001$) and self-compassion (Self-Compassion Scale: $p \leq .001$), among brief MBSR participants compared with the parallel control cohort. Significant reductions in trait anxiety were not evident (Bergen-Cico et al., 2013).

The participants did show significant improvements. However, the separation of time between the completion of the study and the post-test may have skewed the results. Likewise, the participants were not randomized. These limitations did not destroy the validity of the argument though. MBSR facilitates mental health.

A different sample group was utilized in the next study that fits more in the proposed sample. *Effectiveness of a classroom mindfulness coloring activity for test anxiety in children* questions to what extent do the children who engage in coloring mandalas show a reduction in their state anxiety from pre- to post-intervention compared with the free draw/color condition? To analyze this question, the researchers chose an elementary school in Canada, with a final sample size of 52 students "(53.8% female; Mage = 10.92 years, SD = .82); 26 in the mandala coloring group (mandala condition) and 26 in the free draw/color group (free condition)" (Carsley et al., 2015). The procedure of this study was to allow coloring prior to a spelling

test, with either mandalas, a mindfulness-based activity, or free draw. To measure the outcomes, the State-Trait Anxiety Inventory for Children State form was used to assess anxiety as well as TEST and NORM conditions to verify validity. Likewise, ANCOVA was performed to see variance between gender. The results were not surprising. Participants in both the control and mandala groups showed a significant decrease in their anxiety. When examined how students would do coloring in a group, the results were different. As a group, participants did not show a significant reduction in anxiety compared to free draw. However, this can be attributed to the results of ANCOVA. Girls benefitted strictly from the mandala activity, while boys benefitted from the free draw. This study is viable, but with some limitations. This study had a much smaller sample size than the other studies observed in this literature review. The larger the sample, the more potential analysis to be run.

An Exploratory Study of the Effects of Mindfulness on Perceived Levels of Stress among *school-children from lower socioeconomic backgrounds* is more relevant to the research demographic of urban k-12 students. Stated earlier, students with a lower socioeconomic background are more apt to experience stress. This study attempts to investigate the effects of mindfulness on this demographic. The study uses a mixed-method approach to understand children's experiences and effects on anxiety. The MBSR program was the identical model used in Bergen's study. A 5-week MBSR program was taught to 63 at risk elementary aged children. The qualitative analysis performed included interviews of children and teachers. The quantitative section measured children's perceived stress levels. This section was analyzed via a paired samples *t*-test. Measurement from baseline showed significant decrease of stress levels over time. Unfortunately, to test this level of stress, a control group was not used; therefore, it would be hard to repeat the exact same procedure outside of the study participants.

Limitations

Literature reviews synthesize current research and facilitate a fuller understanding of the subject. However, this broad undertaking can encounter issues along the way. First, there is numerous variability of each study's features. The research under review in this literature review varies within each article. There is a variance of study populations, research questions, independent and dependent variables, design, and measures. Without consistency between the studies, the literature review cannot prove the validity of the research questions.

The second problem within this literature review is the variability in definitions of citizenship education and MBSR. Two variables were analyzed in this literature review: mindfulness based stress reduction and citizenship education. Each has a specific definition, but can also be interpreted differently. Interpretations were present during the initial search for articles. To obtain more articles for analysis, various synonyms had to be used. In place of the independent and dependent variables, words such as meditation, democracy, and civics were used instead. The variance in meaning of these words is vast, which would change the research question completely. Due to the variability in definitions, it was difficult to synthesize the studies.

Conclusion

A wide variance of sample existed within MBSR and citizenship education. Straughn's study had too large a sample size, with over 1000 people. The research question was too broad, as it surveyed the entire nation. To provide a more concise understanding, there needs to be a more specific sample and research question. This solution will also help eliminate any errors. The other articles analyzed had a more reasonable sample size varying between 50 and 100 but still seemed unreliable as none stated why the number of the sample was utilized. Using G*Power to justify the sample would have quantified the rationale in sample and could have made replication easier and more valid.

Methodological weaknesses were also prominent. Five studies were analyzed, with variance in methods including quantitative, mixed-methods, and quasi-experimental, and any qualitative articles were eliminated. The research question would dictate the method used, but for this literature review, quantitative research is preferred. More quantitative evidence is needed to fully analyze MBSR and citizenship education to justify correlation of the variables. Yet, the varied methods within the literature review confirms there was not enough empirical evidence to justify the linking of the dependent and independent. Qualitative evidence, dissertations, and journal articles are available for analysis but do not promote empirical reasoning to correlate the variables analyzed.

Not all variances between the studies are weaknesses. Measurements used varied per study, but in general most used ANCOVA for analysis of correlation. Slight differences in measurements allows replication to be far easier. ANCOVA is the most useful to use out of all the other methods used in the five studies, as there needs to be an understanding of the effect between the two variables. Unfortunately, not

all the articles used discussed the effect size, lessening the credibility and desire to replicate.

The predominant weakness noted in this literature review is the lack of evidence describing the benefits of incorporating both variables into a classroom. The research included above shows the benefits of each variable independently and explains the necessity of use in a classroom; however, this does not answer the research question. No research is available to verify the effectiveness of both variables implemented in a classroom. There must be conscious steps toward implementing both MBSR and citizenship education into the classroom.

Going forward, schools must realize the importance of MBSR in education. Implementing techniques of MBSR while teaching citizenship education would enhance the democratic thinking skills of students. The articles used in this literature review described remarkable benefits to students of all ages and demographics, allowing students to decrease anxiety and psychological distress and increase self-compassion and mindfulness.

As stated previously, citizenship education puts more importance on the character and morality of the student rather than a sole focus on civic education. Incorporation of citizenship education should be a priority, as a basic goal of all educational systems is to prepare students to be cognizant members of society. Unfortunately, citizenship education does not have a prominent place in schools, and negative effects can follow. The first step would be to create a citizenship education program to be implemented in classrooms, differentiating per grade level. Accessing results would be easier if research were focused to one grade level. For this purpose, research will be conducted in 7th grade civics and 12th grade government classrooms.

Civics and government education would be far easier to implement citizenship education as it incorporates standards facilitating democracy and civic duty. In the Florida State Standards, two standards lend themselves to the promotion of citizenship education. Standards SS.912.C.2.8, "analyze the impact of citizen participation as a means of achieving political and social change," and SS.912.C.2.5, "conduct a service project to further the public good" (Florida Standards, 2016), both promote the use of citizenship education and engagement of critical thinking skills. Many lessons fall under the umbrella of the two mentioned standards, and it would be simple to create a curriculum integrating the two.

Once a curriculum is implemented into the classroom, and all perceived weaknesses are corrected, the focus will shift to a specific demographic. Youth are in drastic need of an effective character/citizenship education program. In the late 20th century, a decline in citizenship education was observed across all schools. The effects of the depletion of morals trickled down to the students' overall well-being, and called for a re-examination of citizenship. In middle schools in particular, intervention programs are proving necessary to foster a learning environment to facilitate the welfare of students.

One form of intervention is through Mindfulness Based Stressed Reduction. "These interventions are aiming at the cultivation of an open-minded and non-judgmental awareness of whatever is happening at each successive moment of perception. The objects of perception, which is direct

and pre-reflexive, include the whole range of possible phenomena, from internal psychological states and processes (thoughts, feelings, images, etc.), proprioceptive information from the body, to external stimuli entering the senses'' (Nyklíček & Kuijpers, 2008). MBSR helps the mind and body at any age, and is easy to teach. Teaching takes time, and a trained individual to fully implement the intervention.

For both techniques to be implemented successfully, each program must be carried out by a trained professional. MBSR will be taught by someone certified, and citizenship education will be taught by the civics teacher already in the classroom. The techniques will be taught, and will test for a growth in civic understanding utilizing EOC scores. This will be a single case study that will take place over a period of one academic years (2017–2018) and involve 7th grade students enrolled in Civics. One middle school will be randomly selected from 61 OCPS middle schools. Once chosen, Civics classes will be randomly assigned either to a control group (No MBSR, No Citizenship Education) or one of three treatment groups (Group 1 – no MBSR, citizenship education, Group 2 – MBSR, no citizenship education, Group 3 – MBSR, and citizenship education). Due to the nature of single case research design, only a small sample is needed. The sample will focus on one school, with four civics classes under the same teacher. Mixed-method analysis will be employed for methodology to understand varied perspectives. The study conducted will last one whole academic year, and will be tested through End of Course Exam benchmarks and final tests implemented by the state of Florida to collect quantitative data. Likewise, surveys will be used to receive feedback from both the students and teachers on how helpful both variables were in the classroom. The use of qualitative data is important in the social sciences, and highly valid for descriptive research, to obtain a complete perspective of what is being studied. Once research is collected, similar measurements used in prior studies, will also be implemented. ANCOVA will be utilized to understand the relationship between the two variables, to reduce error in variance, and to reduce confound error. Analysis of results will prove validity of implementing both variables into classrooms, and will change the way citizenship education is taught.

In this literature review, a detailed examination of how mindfulness can enhance citizenship education is proposed. After review of the literature, it is necessary to continue exploration. Necessary measures must be taken to continue examination of the topic, and to also undergo new initiations of research.

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