THE INFLUENCE OF MINDFULNESS ON TEACHERS' PROFESSIONAL PRACTICE

A Dissertation

Presented to

The Faculty of the Curry School of Education

University of Virginia

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

By

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May, 2018

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APPROVAL OF THE DISSERTATION

This dissertation, The Influence of Mindfulness on Teachers' Professional Practice, has been approved by the Graduate Faculty of the Curry School of Education in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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March 26, 2018

Dissertation Linking Document

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Researcher as Instrument Statement

Due to journal page limit guidelines, I did not include a "researcher as instrument" statement in each individual manuscript. Yet, paramount to the trustworthiness of my research is my reflexivity throughout the research process and an understanding of how my background, values, biases, etc. influence the way I carry out a study and makes sense of data (Schwartz-Shea & Yanow, 2013). Thus, I wanted to use this space to describe parts of my background and reflexivity in the dissertation process.

About seven years ago, I began a daily meditation practice, which was the impetus for my current scholarly work. My personal meditation practice is oriented toward spirituality and mysticism, but it incorporates many elements of mindfulness such as present-moment awareness and breathing techniques for calming, focusing, and interiorizing the attention. My personal practice also includes elements of prayer and devotion, which are outside the strictly secular tradition of mindfulness. However, I am a proponent and teacher of mindfulness and I do hold the belief that mindful awareness practices have benefits for individuals' stress-management, well-being, and the way they move through the world. Thus, I have been careful to watch how my positive bias of mindfulness influences my scholarly work on it. I used a peer reviewer and an informant (Mr. Andrews from manuscript one) who did not have backgrounds in mindfulness as a check against my own favorable view of mindfulness. I have completed exhaustive searches for disconfirming evidence and frequently used member checks to increase the trustworthiness of the findings. I have also explored potential drawbacks of engaging with mindful awareness practices with teachers, such as becoming complacent or numb to their work, and participants have reported they do not feel this has been the case. Thus, I have some degree of confidence my personal bias did not dictate the findings.

Another significant part of my background is my experience working in PK-12 schools as a behavioral specialist consultant and my work as a teaching assistant and instructor in the classroom management course for elementary teaching candidates. Following completion of my first manuscript, a faculty mentor helped me notice many of my findings focused on the teacher's classroom management and teacher-student relationships. This likely arose from my professional background and a tendency to emphasize these aspects of teaching over others. Therefore, in my second and third manuscripts, I made sure to broaden my perspective to include other aspects of teaching such as planning and delivering academic instruction, providing feedback to students, working with other adults in the school, etc. This allowed for a more comprehensive description of the ways mindfulness influenced teachers' professional practice in manuscripts two and three.

Lastly, throughout the research process I attended to how my whiteness, maleness, and status as an academic researcher created power dynamics with the teachers I studied. Upon consent and throughout interviews, I reminded teachers that they were the experts in mindfulness and teaching, and that they did not need to provide any "correct" answers about their experiences to me. On the contrary, their subjective experiences were really the heart of the study because so little research existed on mindfulness for teachers' professional practice. I was also careful to listen with openness and curiosity and avoid leading questions to ground the research in their lived experiences as opposed to a top-down approach. The inductive research methodology greatly facilitated these processes.

This is not to say that my dissertation eventually became free of bias. In fact, that is neither a desirable nor realistic goal in interpretive research (Schwartz-Shea & Yanow, 2013). Yet, my reflexivity throughout the process did strengthen the trustworthiness of the studies and continually expanded the scope of my findings.

Manuscript 1: Responding vs. Reacting: A Case Study of One Teacher's Mindfulness

The first manuscript of my dissertation developed out of a project in my Advanced Qualitative Analysis course[1]. I was the principal investigator for the study and carried out all interviews, fieldwork, data analysis, and write-up. Tish, as the second author, provided feedback on assertions, assisted in the search for disconfirming evidence, and helped edit the manuscript. The manuscript was submitted to the *American Journal of Education*[2] in March 2018.

With this project, I wanted to explore how one teacher with an established mindfulness practice saw the value of mindfulness. I began formulating research questions around how mindfulness helped the teacher with stress management, as most of the previous research, content from existing mindfulness-based trainings for teachers, and conversations I had had with experts in the field all related to how mindfulness training could alleviate teachers' occupational stress. Knowing the intense emotional demands of teaching (Chang, 2009; Isenbarger & Zembylas, 2006; Kyriacou, 2001; Roeser, Skinner, Beers, & Jennings, 2012), coupled with policies that create additional pressures for teachers' performance (Dworkin & Tobe, 2014; Richards, 2012), it seemed like a logical avenue to qualitatively explore how mindfulness might help teachers navigate these challenges. However, Walt urged me to take a more inductive approach to the research questions and not frame the study around stress management. Rather, he suggested I begin with no prior assumptions about mindfulness as a stress management strategy, but ask more broadly: what is the relationship between mindfulness and teaching? I followed his recommendation, and although I did not know this at the time, this decision ended up being a major catalyst in the line of research that comprises my dissertation.

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[1]The final project required 20 hours of total contact with participants including 15 hours of fieldwork. I conducted an additional 5 hours of fieldwork beyond these requirements.

[2] Written in Chicago Manual of Style for journal guidelines

It turned out the teacher I studied did not relate his personal mindfulness practice to managing the stressors of teaching. Despite challenges of disruptive students and standardized testing, he did not feel his job was particularly stressful. This likely had a lot to do with the school context in which he taught, with more than 90% of students passing SOLs and students largely coming from middle- to upper-class socioeconomic backgrounds. Nevertheless, he still found mindfulness to be very useful because he felt his mindfulness practice actually helped him be a better teacher. In interviews he discussed how regular engagement with mindful awareness practices helped cultivate a greater awareness and mental clarity in the classroom. This enhanced awareness helped him respond, rather than impulsively react, to situations in the classroom such as students' disruptive behavior, academic struggles, and conflicts with peers. He described reactions as typically coming from emotions of frustration or anger triggered by classroom events, whereas responding involved taking a pause before acting, regulating emotional reactions, and addressing situations more purposefully. He believed these responses were most useful in allowing him to see students' needs more clearly, and by meeting students' needs he could foster supportive relationships with them.

The findings aligned with previous research (e.g. Schussler, Jennings, Sharp, & Frank, 2016; Sharp & Jennings, 2016) and scholarly work (e.g. Roeser et al., 2012;) on the contribution of mindfulness training to teachers' emotional awareness. Where this study extended previous findings was that it provided concrete descriptions of how a teacher's emotional awareness contributed to a greater responsiveness. No prior research had employed fieldwork to provide observational evidence for the manifestations of a teacher's mindful awareness in his or her professional practice, likely due to the largely meta-cognitive elements of mindfulness. However, this study demonstrated it was possible to capture the mechanisms and outward behaviors of

mindfulness in teaching through the use of both observations and interviews, where I could discuss with the participant what internal processes of mindfulness he experienced as I observed him carry out his professional practice. Thus, the study's methodology and findings led me to formulate a broader research interest that the field had yet to explore – how do teachers' personal engagement with mindful awareness practices influence their teaching practice?

Manuscript 2: Mindfulness and Caring in Professional Practice: An Interdisciplinary Review of Qualitative Research

I initially intended to further pursue this question by digging into a qualitative dataset of interviews collected from participants in a recent randomized controlled trial of Cultivating Awareness and Resilience in Education (CARE for Teachers). I had coded more than half of the 21 interviews and remembered some teachers discussing how the training influenced aspects of their teaching practice. However, the research questions guiding the original interview protocol dealt more with participants' experiences of CARE for Teachers and their experiences of stress before and after the intervention. Although some teachers brought up mindfulness in relation to their professional practice, there simply was not enough data to thoroughly explore this question. I then consulted Walt about this impasse, and he again provided very useful guidance by recommending I look to other related professions to see if qualitative work on mindfulness and professional practice existed in these fields. The goal would be to explore professions that have similar occupational demands as teaching so that connections could be made between elements of each discipline's professional practices. I used the broad category of the "caring professions" to situate the interdisciplinary nature of my search.

Examining literature for nursing, psychotherapy, and social work, I found that, like teaching, there were only a few studies from each discipline involving the relationship between

mindfulness and professional practice. Yet together, the collection produced a meaningful body of literature to examine. With 16 studies among the four disciplines fitting the inclusion criteria, I saw a number of similar findings and themes in my first read of the articles. Before I conducted the systematic review, I identified Noddings' (2013) theory of caring as a framework to guide the review. Noddings' work focuses on the process of caregiving and how to establish healthy caring relationships through receptivity, motivation, and responsiveness. These processes were showing up in many of the articles and are generally prevalent throughout the broader literature on mindfulness. Noddings never uses mindfulness in her theory, but there are strong linkages between mindfulness, her theory, and literature from the four professions I was reviewing.

Throughout the systematic review, I found that across the four professions, participants described how learning about and practicing mindfulness enhanced their therapeutic presence, listening skills, and ability to remain non-judgmental and accepting of those with whom they worked. These skills allowed the caregivers to more fully receive others and become more attuned to their experiences and needs. Further, caring professionals felt mindfulness helped maintain their motivation to care through their growing compassion, commitment to self-care, and emotional awareness. Lastly, along with becoming more aware of the emotions they experienced in their work, they learned techniques to regulate their emotions. This helped them respond, rather than react to challenging situations they regularly faced in their professional practice.

Similar to the participant in my first study, participants in the reviewed studies reported feeling their engagement with mindfulness actually enhanced their ability to carry out their professional responsibilities. Interview excerpts highlighted some of the same findings from my first study such as emotional awareness and regulation, along with some additional processes or

mechanisms of mindfulness in its application to professional caring practice. The review also pointed to some notable similarities in how professionals in four different disciplines made sense of mindfulness in its application to their fields, which highlights the importance of mindfulness in these contexts.

Tish assisted me with the literature search, but I conducted the systematic review and wrote the manuscript independently. I collaborated with scholars from nursing, psychotherapy, and social work to review my writing and synthesis. I wanted to ensure that I accurately represented the processes, language, occupational demands, etc. from the fields in which I have limited background. Tish served as the teaching expert, Timothy Cunningham and Dorrie Fontaine contributed to nursing, Helen Park served as the expert for social work, and Peter Sheras reviewed the psychotherapy component. These individuals were chosen because they are leaders in their respective fields and also have knowledge and experience with mindfulness. I sent a full draft of the manuscript to each co-author, and they provided feedback/edits to ensure the review accurately represented the experiences of those working in their respective fields. The final manuscript was submitted to the journal, *Mindfulness*[3], in January 2018.

Manuscript 3: The Influence of Mindfulness on Teachers' Professional Practice: A Qualitative Case Study

Following logically from the literature review was an empirical exploration of the influence of mindfulness on professional practice in the specific context of teaching. This project extended the single case study design of manuscript one by examining multiple teachers' experiences. I recruited three teachers with a regular personal mindfulness practice, limiting

[3] The style format for this manuscript follows the unique journal guidelines

recruitment to teachers with at least five years of mindfulness experience and five years of teaching experience to capture "expert" perspectives.

The study attempted to extend recent research showing that training teachers in mindfulness can actually improve the quality of their interactions with students (Jennings et al., 2017), and my intention was to explore *how* mindfulness plays a role in this relationship. Consistent with the previous case study, I used both interviews and observations, as well as a conceptual framework of symbolic interactionism (Blumer, 1969) and analytic induction as an analysis technique (Erickson, 1986). I allowed my two previous manuscripts and findings from the Jennings et al. (2017) study to loosely inform the early stages of the study (i.e. focusing on teacher-student interactions etc.), but I remained open to new relationships as they emerged. The methodology again allowed me to capture the internal processes of mindfulness along with the external manifestations of teachers' mindful awareness in their teaching practice.

Findings similar to those from the single case study emerged in the multiple case study such as the relationship of mindfulness and teachers' emotional awareness and regulation, so they could respond, rather than react, to classroom events and meet their students' needs. The teachers identified deep breathing and reperceiving as two emotion regulation strategies they used in their teaching. This study uncovered additional mechanisms of mindfulness in teaching such as the importance of mindful awareness practices as a form of self-care to maintain teachers' well-being and the role of mindfulness in how teachers made meaning of their teaching practice. They described how mindfulness contributed to a process of reappraising certain classroom events, which mitigated the emotional distress they experienced. Further, the teachers described how mindfulness enhanced their attentional abilities and awareness of what occurred

in their classrooms, as well as a greater awareness of their own internal experiences throughout the day and how their thoughts and emotions impacted their teaching.

Another very important way the multiple case study extended the single case study was by showing the importance of school/classroom context in understanding the relationship between mindfulness and teaching. For one, it showed that self-care and stress management is in fact an important aspect of mindfulness for some teachers, which may be especially true for teachers working in more challenging contexts such as middle- to low-performing schools, high poverty schools, schools with difficult administrators, or having students with emotional disturbances. It also showed some differences in how the teachers' applied mindfulness to the unique demands of their classroom contexts, including different grade levels and general vs. special education comparisons. As a whole, the third manuscript provided a number of meaningful insights into how teachers' regular engagement with mindful awareness practices can influence their professional teaching practice and strengthened the existing research on the benefits of mindfulness for teachers.

I completed all aspects of the study independently, with some occasional guidance from dissertation committee members. I am the sole author of the manuscript and am planning to submit it to *Teaching and Teacher Education* soon after my defense.

Conclusion

The sequence of manuscripts demonstrates a coherent progression of inquiry from broad explorations of mindfulness for teachers and other caring professionals to a more focused study of the influence of teachers' regular engagement with mindful awareness practices on their teaching practice. Together, the three studies contribute significantly to the field by providing methodological advancements in the study of mindfulness for teachers, shedding light on the

underlying mechanisms of mindfulness for teachers, showing how mindfulness may be useful for teachers in their professional practice, and providing numerous future directions of inquiry.

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Manuscript 1:

Responding vs. Reacting: A Case Study of One Teacher's Mindfulness

Anthony A. DeMauro, Patricia A. Jennings

Abstract

There is currently a growing interest to provide PK-12 teachers with mindfulness-based training. Mindfulness is characterized as a state of enhanced awareness, yet little is known about how teachers may use mindful awareness in their teaching practice, including their moment-to-moment classroom decisions and interactions with students. This qualitative case study explores the relationship between mindfulness and teaching through the experiences of one fourth grade public school teacher who is developing mindfulness through yoga, meditation, and formal trainings. The results indicate mindfulness, as it manifests in teaching, involves an enhanced awareness which allows the teacher to pause and consider how to best meet students' needs. The teacher is then able to respond more purposefully to students rather than react emotionally. There are, however, unique challenges to teaching which make it difficult to maintain a state of mindful awareness such as feelings of time pressure.

Mindfulness is defined as "the awareness that emerges through paying attention, on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn 2003, 145). As opposed to one's attention being wrapped up in thoughts about troublesome past events, worries of the future, or other fleeting trivial thoughts, mindfulness allows one to bring present-moment awareness to the full experience of life as it occurs. The state of mindful awareness is cultivated through regular engagement with mindful awareness practices (MAPs) such as meditation and yoga (Bishop et al. 2004), and it is thought to manifest through one's internal cognitive and affective experiences (Shapiro et al. 2006) and in one's interpersonal interactions through listening, understanding, and managing conflict (Burgoon et al. 2000; Frank et al. 2016). Empirical studies of MAPs have demonstrated a number of psychological benefits in non-clinical adult populations including improvements in well-being (Eberth and Sedlmeier 2012), working memory (Jha et al. 2010), attention (Lutz et al. 2008), and emotion regulation (Arch and Craske 2006).

Due to the heavy attentional and emotional demands of teaching, along with the growing stressors faced by teachers (Gallup 2014) such as overwork, needing to meet increasingly complex student needs without proper support, and accountability pressures (Richards 2012), mindfulness may be particularly useful in this context (Roeser et al. 2012). Hence, there has been a growing interest to train teachers in MAPs over the last 15 years (Meiklejohn et al. 2012). A number of studies have demonstrated mindfulness-based interventions (MBIs) to be efficacious in reducing teachers' stress symptomology, as well as improving their well-being, self-compassion, and efficacy (Benn et al. 2012; Jennings et al. 2013; Roeser et al. 2013). However, much less empirical work has explored behavioral manifestations of mindfulness in the classroom or Kabat-Zinn's (2003) conceptualization of present-moment, nonjudgmental

awareness in the context of teaching. Teachers make countless decisions throughout the course of a school day (Shavelson and Stern 1981), and little is known about how teachers may employ mindful awareness to inform their momentary classroom decisions or how mindfulness manifests in interactions with students. This gap in the literature is important to address because although mindfulness-based interventions may be beneficial for teachers' mental and emotional health, much less in known about the cognitive, affective, and behavioral processes leading to these changes or how a teacher's mindfulness may enhance the experiences of their students.

Literature Review

Much of the extant literature on mindfulness for teachers comes from small- to medium-scale randomized controlled trials (RCT) of MBIs. Results from these studies have shown MBIs can reduce teacher stress and burnout (Benn et al. 2012; Jennings et al. 2013; Roeser et al. 2012). The studies have also showed MBIs can increase teachers' self-compassion, personal growth, empathy, and forgiveness (Benn et al. 2012), enhance attention and working memory (Roeser et al. 2012), and improve teachers' efficacy (Jennings et al. 2013). Investigations of MBIs for teachers have also demonstrated physiological benefits including decreased diastolic blood-pressure and protection against stress response degradation (Harris et al. 2016). While the aforementioned studies suggest mindfulness may be beneficial for teachers' well-being, less is known about how improving teachers' well-being impacts classroom processes. It may be that teachers mostly use mindfulness practices as coping techniques, and the benefits they experience have little effect on their classrooms.

Most recently, Jennings et al. (2017) conducted a large cluster RCT ($n = 224$) to study the impact of one MBI, Cultivating Awareness and Resilience in Education (CARE for Teachers), on teachers' well-being and the quality of their interaction with students. Results at posttest

showed that treatment teachers experienced reduced personal distress and feelings of time urgency in the classroom, as well as improved emotion regulation and mindfulness compared to control teachers. Additionally, treatment teachers scored significantly higher on ratings of emotional support and marginally higher on classroom organization than controls, as measured by the Classroom Assessment Scoring System (Pianta et al. 2007). More specifically, treatment teachers had significantly higher positive climate (the ability to develop warm, respectful relationships with students), teacher sensitivity (the ability to respond to students' needs), and productivity (how smoothly classroom routines operated) than control teachers. This was the first study to demonstrate benefits of MBIs for teachers' actual classroom practices using third-person observational tools, which suggests that MBIs for teachers may also be beneficial for students' experiences in the classroom. Taken together, the results of experimental trials of MBIs demonstrate that training teachers in mindfulness offers a promising approach to improve their well-being and teacher-student interactions. However, the experimental designs do not explain *how* mindfulness improves teachers' interactions with students.

Two qualitative studies were conducted with teachers who took part in CARE for Teachers in order to explain findings of the Jennings et al. (2013) study, and explore how teachers used skills learned from the training in their daily lives. Schussler et al. (2016) conducted four focus groups with a total of 44 teachers and six paraprofessionals who received CARE for Teachers. Following the training, participants reported having a greater awareness of the connection between their physical feelings and mental states by noticing headaches and muscle tension, as well as having strategies to alleviate those physical symptoms such as stretching or deep breathing. Similarly, teachers noted a greater appreciation for self-care as a strategy to manage stress. These findings explained many improvements in teacher well-being

found in the RCT. Teachers also discussed how the program helped them be less reactive in interpersonal interactions by regulating emotional impulses before responding to others.

Sharp and Jennings (2016) had similar findings from interviews with eight K-12 teachers and specialists who participated in CARE for Teachers, and their study focused more on how participants applied lessons learned from the training to their teaching practice. Participants reported having a greater emotional awareness that allowed them to recognize rising emotions, like anger or frustration, and use strategies like deep breathing to regulate emotions before responding to students. They also discussed a strategy of shifting their perspective to see events in the classroom more objectively. For example, one teacher described a situation where she noticed feelings of frustration arise in response to students talking, but she was able to take a step back from her emotions and consider how a little bit of noise was not going to sabotage the lesson. Then she was able to calm herself and regulate the feelings of frustration. This process has been identified by scholars in the mindfulness field as "reperceiving" (Shapiro et al. 2006). Lastly, participants explained that CARE for Teachers helped them be more compassionate toward their students, and more understanding of students' own emotions in the way they behaved. This helped teachers refrain from pathologizing students' behaviors or viewing their disruptive behavior as a personal attack.

Empirical evidence is beginning to show how teachers might use mindful awareness in their teaching practice through a process of emotional awareness, emotion regulation, and responsiveness. However, almost all of the current literature relies solely on teachers' self-reports of their mindfulness. An overreliance on self-report has been identified by leading scholars of mindfulness (e.g. Davidson and Kaszniak 2015) as a significant shortcoming of the field's empirical base. Studies measuring third-person outcomes of mindfulness, like

physiological indicators of stress (e.g. Harris et al. 2016; Roeser et al. 2013) and observational assessments of teaching (e.g. Jennings et al. 2017), provide less subjective evidence than self-reports that MBIs are beneficial to teachers and students. However, they fail to demonstrate *how* these outcomes occur. Naturalistic fieldwork combined with interviews can provide more insight into the mechanisms of mindfulness as it manifests in teaching. Such an approach allows the researcher to observe teaching practice, then discuss with the participant the cognitive and affective processes behind the observed behaviors. In this manner, the present study provides an in-depth exploration of one fourth grade teacher's mindfulness and how it manifests in his daily teaching practice.

Research Questions

- How does one teacher describe the relationship between mindfulness and teaching?
- How does mindfulness manifest in one teacher's momentary classroom decisions?
- How does mindfulness manifest in one teacher's interactions with students?

Methods

Research Methodology

The study operated in the interpretive paradigm (Lincoln et al. 2011). The interpretive paradigm assumes there are multiple, inter-relted realities in the social world, as human beings constantly construct meaning of the world and their experiences in unique ways.

One cannot understand the multiple realities of the social world with nomothetic generalizations or universal principles, so the epistemological goal of interpretivist research is to capture how human beings construct these realities through their meaning making. Such knowledge is best obtained through naturalistic observational fieldwork, interviewing, hermeneutical text analysis, and inductive research methodologies.

The study utilized an instrumental case study design (Stake 1995) to provide an in-depth investigation of a case in order to understand more about the relationship between mindfulness and teaching. The design is most appropriate for the present study because teaching is a highly complex and situated profession. The fast-paced, interactive, and emotional aspects of teaching may provide unique opportunities and challenges to applying mindfulness to one's practice. In order to explore the cognitive, affective, and behavioral manifestations of mindfulness, it is worthwhile to explore one case in great depth using both interviews and observations. While case studies sacrifice the potential to generalize findings, a rich description of one teacher's experiences provides rigorous empirical evidence that can contribute to the growing literature on a relatively new phenomenon in education.

Conceptual Framework

Symbolic interactionism (Blumer 1969) served as the conceptual framework for the study. Symbolic interactionism rests on three assumptions: 1) human beings act toward things based on the meaning they ascribe to those things, 2) the meaning of things arise out of social interactions, and 3) meanings change through interpretive processes when individuals interact with each other. The focus of symbolic interactionism rests on individuals' subjective experiences, or their interpretations of events, people, and things they encounter. Individuals actively construct their social worlds through their own actions, the interpretation of their own actions, and the interpretation of others' actions in social encounters. Thus, the social world is a collection of individuals' subjective and constantly changing realities.

Bolster (1983) argued symbolic interactionism is a particularly useful framework for the study of teaching because teachers make meaning of their practice by reflecting on events in the classrooms and decisions they make in a given day. Classrooms are also highly social spaces

where teachers and students constantly interact with one another and draw meaning from those experiences through interpretive processes. According to Bolster, research on teaching should involve an "awareness of the emerging meanings that participants are developing and the specific ways these meanings are functioning to shape their endeavors and thus the characteristics of the situation itself" (303). Therefore, he argued researchers should focus on the *function* and *process* of teaching. Function relates to purpose, or why teachers act in certain ways. Process involves the means, or how they shape the classroom environment.

Teaching is a highly relational endeavor, and the teacher's meaning making will likely arise out of interactions with students, peers, administrators, parents, etc. Symbolic interactionism offers a framework for analyzing how the teacher may interpret events in the classroom, thoughts and emotions triggered by those events, and decisions made in response to those events. Bolster's (1983) concepts of function and process will narrow the scope of analysis to explore reasons why the participant incorporates mindfulness into teaching and how mindfulness actually occurs in practice.

Setting

The study took place at Bradford Elementary School[4], which is a public school serving approximately 600 students located in a suburb of a small mid-Atlantic city in the United States. The racial/ethnic make-up of the student body is roughly 60% White, 15% Asian, 5% Black, 5% Hispanic, and 10% more than one race. About 10% of the students receive free or reduced lunch. In 2014, Bradford ranked around the 95th percentile in statewide performance assessments. The 17 students in the participating teacher's 4th grade classroom were demographically comparable to the school's student body. School performance data and student deomographics indicate

[4] All names and places have been replaced with pseudonyms

Bradford is not a high-stress school setting. This contextual factor is important to consider in the teacher's description of the relationship between mindfulness and teaching.

Participants

The primary participant, Mr. Marino, has 19 years teaching experience. He has been teaching fourth grade at Bradford for five years, and previously taught fifth grade at the same school for seven years. He taught fifth grade at a different school for seven years before teaching at Bradford. He uses the *Responsive Classroom* approach to teaching, a generally student-centered approach which aims to cultivate students' social-emotional and academic learning (Charney 1993; for an overview of *Responsive Classroom*, see Rimm-Kaufman and Chiu 2007). Mr. Marino was selected for this study based on his engagement in MAPs, particularly yoga and meditation. He first received formal mindfulness training 15 years ago through an 8-week Mindfulness Based Stress Reduction (MBSR) course. At the time, he did not fully integrate mindfulness into his professional life, nor did he regularly practice yoga or meditation.

In November of 2013, however, he attended a mindfulness retreat specifically for teachers, which left a more lasting impression. Since then, he has attended numerous mindfulness retreats and trainings around the United States and in Europe. His mindfulness practices have also become more regular over the last year and a half. He practices yoga for about 30 minutes three times per week, and meditates for about 10-20 minutes once per week. His yoga practice incorporates movement and relaxation. His meditation practices involve commonly used techniques such as awareness of breath (focusing on one's breath to slow thinking), body scan (visualization exercise for body relaxation), and loving-kindness practice (offering caring thoughts to self and others). His meditation practice is becoming more regular, particularly with his second enrollment in an 8-week MBSR training. This training, delivered by

a local university, was designed specifically for teachers and others working in school settings.

Mr. Marino is also actively involved in bringing MAPs to his school and the local community. He has worked with a local philanthropist, a yoga instructor, and a university faculty member to bring yoga to teachers and students at Bradford and other nearby schools. He also coordinates a monthly meeting of local teachers interested in mindfulness.

Mr. Marino's colleague, Mr. Andrews, is a fifth-grade teacher at Bradford. He has been teaching for 14 years, all at Bradford, and has known Mr. Marino for the 12 years they have been teaching at Bradford together. Mr. Andrews has no experience in mindfulness training and does not engage in any mindful awareness practices. Mr. Andrews was interviewed to obtain an added data source regarding Mr. Marino's teaching practice to corroborate Mr. Marino's self-reports of his teaching and the researcher's observations.

Data Collection

This study was approved by the university's IRB, the school district, and the school's administration. Informed consent was obtained from all those interviewed. The first author served as the primary data collection instrument.

Observations

Data collection involved a total of 20 hours of classroom observation. The researcher remained strictly as an observer in the classroom and did not participate in classroom activities. This allowed the researcher to focus on events in the classroom and record field notes throughout observations, thus increasing the accuracy of reporting what occurred. Eight observations of two-and-a-half hours were conducted through April and May. It was important to vary the time of day and day of the week for observations to obtain a wide sample of events and activity levels. Observations took place both in the morning and afternoon, and across all days of the week. The

researcher took detailed field-notes during observations with pen and pad. The researcher composed field notes into a more detailed narrative of the observation including commentary and inferences following the observations. This process not only ensured that events and inferences were recorded as accurately as possible, but also aided in the iterative data analysis process where each observation, inference, and memo influenced the direction of the study.

Interviews

The researcher conducted a total of three, one-hour, semi-structured interviews with Mr. Marino. Interviews were interspersed with observations so the researcher and participant could discuss events shortly after they occurred and themes as they emerged during data collection. The researcher conducted one, one-hour, semi-structured interview with Mr. Marino's colleague, Mr. Andrews, in order to explore how a fellow teacher viewed Mr. Marino's teaching practice. This teacher was purposefully selected as one who did not have experience with mindfulness to compare how the researcher's perceptions of Mr. Marino's mindfulness in teaching aligned with the perceptions of a colleague with little to no knowledge of mindfulness. Interviews were audio-recorded with a handheld recorder and manually transcribed by the researcher.

Data Analysis

The researcher employed analytic induction (Erickson 1986) to study the participant's meaning making in action. Due to the limited body of research on mindfulness in teaching, analytic induction was most appropriate for this study because the strategy does not begin with any prior assumptions or hypotheses about a phenomenon. Rather, the strategy allows for patterns and themes to emerge from the data, generating empirical assertions based on relationships among actors, meaning making, and context. As data collection procedded, the researcher first developed working assertions, which are general statements of inference about

the phenomenon, supported by evidentiary warrants in the data. Next the researcher tested the working assertions with new data by seeking confirming/disconfirming evidence. If disconfirming evidence was found, the researcher modified assertions or generated new assertions to reflect the disconfirming evidence and its conditions. After an exhaustive search for confirming and disconfirming evidence in the complete data log, working assertions became empirical assertions in the final report. The second author aided in the search for disconfirming evidence and provided feedback on assertions.

Results

Through the process of analytic induction, a set of empirical assertions were generated. The following assertions, presented in Table 1, represent statements about the phenomenon that were confirmed by empirical warrants in the data.

Assertion 1: Mr. Marino describes mindfulness as an increased awareness and greater mental space that helps him make momentary decisions in the classroom

When asked what mindfulness means to him, Mr. Marino stated, “I think one of the first words that comes to mind is ‘awareness.’ That idea that you’re just more aware… if you’re aware you’re observing what’s around you.” Later, he elaborated on the idea of awareness. “I think it means just noticing, or being alert to what is around you, including most importantly, probably the people.” Mr. Marino used the words “aware”, “noticing”, and “alert” to describe mindfulness as a state of enhanced attention. He noted this state of awareness is most meaningful for being mindful of others, which, in teaching, can be inferred to include his students.

In describing mindfulness, Mr. Marino also explained a feeling of mental clarity. “The biggest word I get from the feeling of mindfulness is ‘space.’ Not like space with a tall ceiling, but space in my brain to have a little bit more time to think or to notice.” As opposed to

constantly having distracting thoughts competing for space in his mind, he feels mindfulness frees up some of his mental space to be more aware of the present moment. To further clarify this process, Mr. Marino described what it means for someone to not be in a mindful state.

> Busy, busy, busy. Always doing something... And they're just caught up in that busyness and their mind is everywhere else... just sort of bouncing back and forth in their lives, or in their heads I guess, of future and past, future and past… Not that we all don't do that, it's just a certain amount.

During these times the mind is wrapped up in thoughts of the past or worries about the future, rather than one's full attention being on the task at hand. As a result, one cannot clearly see what is occurring in the present moment. Mr. Marino admits he too becomes preoccupied with the past and future, but feels mindfulness helps him stay in the present moment more often.

Outwardly, Mr. Marino carries himself with poise and maintains a particularly steady and warm affect through the rapidly changing intervals of a school day. He feels these qualities are more related to his personality than his mindfulness, which suggests he may have some dispositional or innate traits of mindfulness. Yet, he defines mindfulness as a primarily metacognitive state where his mind is free from distracting thoughts, and the extra space in his mind helps him pay more attention to events as they occur. The extra space is particularly valuable because it gives him more clarity to think about momentary decisions in the classroom.

Assertion 2: Mr. Marino uses mindfulness to respond, rather than react, to students

Most of the decisions Mr. Marino makes throughout a school day occur in interactions with students. Whether it be managing their behavior, teaching them academic skills, or meeting their social and emotional needs, Mr. Marino's role as a teacher is to lead a classroom of 17 students. Many of these decisions, such as how to deal with disruptive behavior or how to

provide academic support must be made instantaneously. At these times, he finds mindfulness helps because it allows him to pause and respond to students, rather than react impulsively.

> Mr. Marino discussed the difference between responding versus reacting to students:
>
> I think reacting is immediate and it's not as thought out… But I think responding gives you a little bit of pause to notice if any of my emotion is going to come through what I think might be the best choice of action or words.

A reaction is not thought out; it is like a reflex to a stimulus. Oftentimes, immediate emotional reactions, particularly when dealing with students' disruptive behavior, can involve annoyance, frustration, or anger. Yet, rather than react emotionally to a student or an event, mindfulness allows Mr. Marino to pause, regulate his emotions, and respond with a more purposeful action.

The metacognitive process of mindfulness is difficult to observe from a third-person point of view. However, there were a few times during observations where Mr. Marino's pause and response were clearly visible, as demonstrated in the following vignette.

> *As everyone is moving around the room cleaning up and getting their belongings organized for dismissal, Ben is standing in the back of the room looking at his Pokémon cards. Mr. Marino sees Ben is not getting ready, so he calls to him, "Ben, no cards right now". Ben ignores him. Mr. Marino repeats the directive, "Ben, no cards right now." But Ben is still intensely looking at his cards. Mr. Marino pauses. The two attract the attention of other students curious to see how this will be resolved. "Ben, there's a gorilla on your head!" Mr. Marino exclaims. Ben looks up with a confused look on his face, then laughs. He puts his cards away and begins to pack up the rest of his belongings.*

In this instance, Ben's focus is on his Pokémon cards, and not on preparing for dismissal. He is

so focused on them he either does not hear or chooses to ignore Mr. Marino's two directives to put them away. Mr. Marino could be considered justified in becoming upset with Ben, scolding him, or even taking his cards away. Instead, Mr. Marino pauses, then uses a creative and amusing way to get Ben's attention, and Ben complies. Mr. Marino accomplished his goal of redirection without being harsh or punitive, and the pause allowed him to do this.

Mr. Marino does not contend mindfulness always gives him a perfect solution to what is needed in every moment.

> Mindfulness doesn't give you all the answers, but it creates more space for an opening to respond… it's not like a button I can push that says it's going to tell me what to do next, but I think it's something going on in my brain that maybe allows me to see a possibility for an opening.

He refers again to the feeling of space in his mind, or room to consider what is needed, so his responses can be more purposeful. It is an intuitive process that ultimately gets to the question of, "What is needed at this moment?" In the brief mindful pauses, he is not always thinking of clever responses to students' behavior. Sometimes, he deliberately chooses not to respond if he feels that is what is needed.

> Some of that response is doing absolutely nothing… especially with [Steven], it's like I just step back and say "do I really need to say his name right now?" I don't. And even though that's my initial response is to say his name, and say it 60 times a day, I think I've reduced that to 30 times a day (laughs). And maybe that is a result of being mindful.
>
> Because I don't think saying his name helps him at all. It doesn't. And it doesn't help me.

Steven is a student in Mr. Marino's class who is frequently disruptive. He often loses focus on activities, makes silly and inappropriate comments throughout the day, and distracts other

students by talking to them during quiet work times. There are numerous times throughout the day where Mr. Marino has to call Steven's name or walk over to his desk to redirect him. However, there are an equal number of times when Steven acts inappropriately and Mr. Marino ignores him or chooses not to respond. "It definitely takes mindfulness to say, 'I'm not going to react on purpose.' Especially if you know the kid often feeds off reaction." Throughout observations Steven repeatedly makes silly comments or make faces at other students and Mr. Marino does not try to redirect him. Knowing these behaviors are Steven's attempt to obtain negative attention from his peers or the teacher, Mr. Marino purposefully refrains from giving him that attention and simply continues with his lesson. He feels mindfulness helps him do this.

Assertion 3: Mr. Marino uses mindfulness to meet individual students' unique needs

Mr. Marino's responsiveness is related to a deep knowledge of his students' needs, not limited to the general developmental needs of fourth graders, but extending to each of his student's unique needs. Mr. Marino's colleague, Mr. Andrews, who has limited background in mindfulness, describes his perception of mindfulness in teaching as an awareness and response to students' needs, such as the teacher noticing students have been working for an extended period of time and giving the class a break. Mr. Marino frequently provides brain breaks for the students during extended academic periods. However, he does not particularly relate this practice to mindfulness. "I think it's good teaching, not really so much that I'm being mindful."

Mr. Marino knows that fourth graders can only handle so much seat work or instruction before needing a break, but he relates mindfulness more to how he responds to individual students' unique needs. "It comes more at a one-to-one level with the kids… I think I'm just really trying to think of what a kid needs." Frequently Mr. Marino spoke of his desire to understand each student's unique needs based on their personality, ability levels, home life, and

previous experiences in the classroom. While it takes a lot of effort for Mr. Marino to have such a comprehensive understanding of every child's needs, he certainly invests in it. He gets to know his students by playing kick ball with them at recess, attending their soccer games on the weekends, starting afterschool clubs, and frequently meeting with parents in order to better understand how his students function in the classroom. Mr. Andrews confirmed this. When asked what Mr. Marino's greatest strength as a teacher was, he said, "Number one is his connection to students… He's always here and always looking to do things with kids outside of school." This is another of Mr. Marino's qualities one could simply view as good teaching. However, he relates it to mindfulness because he feels he can draw on his intimate knowledge of students when he mindfully responds to them.

The following vignette illustrates how Mr. Marino mindfully responds to the diverse needs of three students during a math lesson:

> *After about 10 minutes of independent math work, Mr. Marino gets the class' attention, and they review the set of problems. He calls on students to share their answers. Most are answering the questions correctly, but when they do not, Mr. Marino provides support. About halfway through the review, Allie and Liz are giggling and passing a paper ball back and forth to each other. Mr. Marino says, "Allie, do the next one for us." She focuses back on her sheet and gives the correct answer. Next, he calls on Liz who also gives the correct answer. Mr. Marino continues calling on others for the next problems. Two questions later he calls on Lucas, who had been daydreaming. Lucas, as if he had been awoken from his daydream quickly looks down at his paper, but has no idea where the class is. "C'mon bud, you gotta stay with us," Mr. Marino tells him.*
>
> *Mr. Marino continues calling on students and providing support for questions*

that are unclear. He calls on Nora, and Steven turns around and makes faces at her. Mr. Marino sees this and tells Nora, "Nora, keep your eyes on me." Nora answers the question. Mr. Marino affirms her answer then calls on a few students for the next problems. Then he calls on Lucas again and tells him, "I gotta make sure you're with it." Lucas answers correctly, and Mr. Marino cheers, "Woo! You're with it."

There are numerous ways Mr. Marino notices and responds to students' needs in this passage. Rather than react emotionally or call out Allie and Liz for not paying attention, Mr. Marino simply asks them the next two questions. They both actually know where the class is, and after answering the questions correctly they remain on task. Mr. Marino explained this particular event. "I'm just a lot less worried about a kid that has got the concept already… my response to that is just to check in and say, 'Hey I don't mind if you're talking, but if you don't have the idea, then I have a problem with it.'" Mr. Marino allows for some chatter in his classroom, particularly to develop students' social and collaborative learning skills. He does not get upset with students who may be a little distracted or off-task as long as they understand the concept. He feels this is a way for them to relax from the constant work demands. In this example, both Allie and Liz show they are in fact paying attention and understand the concept, so Mr. Marino does not disrupt the lesson to redirect them.

However, there are students like Lucas who do not demonstrate the same attentiveness. Mr. Marino checks in with Lucas more frequently because he knows he has a tendency to daydream. The first time Lucas shows he is not following along, Mr. Marino does not get upset, he simply provides some words of encouragement. Then when he calls on him again, and Lucas answers correctly, he cheers and praises him for paying attention. The vignette also provides another example of Mr. Marino ignoring Steven's attention seeking behavior. He is constantly

thinking of each students' individual needs, and he is able to respond in ways that meet their unique needs through a mindful awareness of the entire situation.

> It might be more holistic too, where I'm not just thinking at this moment of this child's actions, but maybe what's underneath it…it's a presence of mind, looking more at the whole picture… the child's home life, it sort of flashes in my head. What they've been doing recently as far as the day before, the week before. Is this very unusual or is it just part of their personality?

In order to meet students' unique needs, Mr. Marino treats all students fairly, but not necessarily equally. His constant efforts to connect with students help him understand their needs, and his mindfulness helps him apply this understanding to his responses.

Assertion 4: The context of teaching limits Mr. Marino's ability to maintain a mindful state

Mr. Marino cannot fully meet and mindfully respond to every single student need in the course of a day. The limited time in a school day simply does not allow for it. Mr. Marino faces a number of time pressures related to content coverage and test preparation. At times, he may sacrifice a more thorough response to students' needs because he must finish a lesson. The short pause before responding takes no more than a second or two. However, a thoughtful, comprehensive response to fully meet every need that arises would take quite a bit of time. When asked if there is any reason why he may not mindfully respond to a student, he replied, "I think some of it has to do with time… Teaching is extremely time sensitive." When lessons move fast and Mr. Marino has to cover a certain amount of material, he cannot always take the time to respond to students' individual needs, particularly if it will interrupt the flow of the lesson. In explaining how time can take away from his mindfulness he stated, "At the beginning of class I might be, 'Everything's fine, we've got plenty of time,' and at the end I'm like, 'Ahh!'" Time

can create a sense of urgency for Mr. Marino to accomplish a tremendous number of goals in a finite period of time, and that urgency interferes with his ability to be mindfully aware.

The time pressures of teaching may certainly make it difficult for Mr. Marino to maintain mindfulness. Yet, Mr. Marino is confident if he continually develops his mindfulness he may be able to handle the time pressure more effectively.

> There's no more or less time, it's always the same, we always have the same amount of minutes per day…I think it would just maybe make it so that the minutes you're using are just- you're using them wisely. But you're also patient enough and calm enough to say, "You know what, this might be more important than learning one or two more facts or one or two more little things."

He feels developing greater mindfulness may help him remain patient in the final minutes of a lesson, or calm enough to take a step back and reappraise the situation in order to find what is best for him and his students. Even here, he ties his thought process back to students' needs. He asks himself if they really need a few extra facts crammed into the end of a lesson, or if there is something else more important. Mr. Marino believes the pressure of time is especially challenging to the teaching profession, but he is confident developing his mindful awareness practices will help him with this challenge.

Discussion

The study revealed the function and process (Bolster 1983) of one teacher's mindfulness. Mr. Marino primarily used mindfulness to meet students' individual needs, and did this through a greater awareness and mental clarity which allowed him to respond purposefully to students rather than react impulsively. Mr. Marino cared tremendously for his students and made great efforts to know about their unique backgrounds, personalities, and motivations. His efforts to

connect with and deeply know his students helped him to understand their individual needs. In this regard, the function of his mindfulness was to meet his students' needs. The process by which he did this, was through a mental clarity and emotion regulation skills gained from mindfulness which allowed him to choose purposeful and deliberate responses to situations rather than emotional reactions.

Results of the present study aligned with previous findings by Sharp and Jennings (2016) that mindfulness helped teachers regulate emotion to be less reactive and more responsive to students. While the previous studies relied solely on teachers' self-reported behaviors, this study was able to provide third-person observation data of the phenomenon. Therefore, the teacher's reports of his own mindfulness were able to be witnessed during observations, and the researcher and teacher could discuss events from observations in interviews to corroborate findings. The present study may also shed light on Jennings et al.'s (2017) findings that MBIs can improve teachers' ratings of emotional support on observational measures of the quality of their interactions with students, specifically teacher sensitivity and positive climate. Teacher sensitivity is evidenced by an awareness and responsiveness to students' needs and other problems arising in the classroom (Pianta et al. 2007). The present study revealed many ways mindfulness enhanced Mr. Marino's sensitivity through his mindful responses to students' needs and issues arising in the classroom. This may also relate to Jennings et al.'s (2017) findings of increased positive climate following an MBI through mechanisms of teacher-student relationships and positive communication, which are two dimensions of positive climate (Pianta et al. 2007). Mr. Marino already made great efforts to connect with students, but the way he mindfully responded to their needs with positive, not punitive, language may further strengthen teacher-student relationships.

The study also uncovered some challenges to mindfulness in teaching. The participant admitted being mindful was particularly difficult for him when he was pressed for time, and he found it to be especially challenging due to the time sensitivity of teaching. Jennings et al. (2013) found the CARE program reduced teachers' feelings of time pressure; although, the present study demonstrated time pressure remained a challenge for the participant. It is important to note Mr. Marino possessed a conscious awareness of the way time pressures took away from his mindfulness and reflected on how he could potentially remain calmer in time-sensitive situations. He mainly described a way of reappraising learning goals, which was another process teachers in the Sharp and Jennings (2016) study similarly discussed.

Another interesting finding of this study was that despite most of the extant literature's focus on mindfulness-based interventions targeting teachers' stress and well-being (e.g., Benn et al. 2012; Harris et al. 2016; Jennings et al. 2013; Roeser et al. 2013), the participant did not view mindfulness as primarily relating to his ability to manage stress. He spoke of some challenges to the teaching profession, such as time as being a stressor, but did not describe mindfulness as a stress management technique. This could be a function of Mr. Marino's school context, personal characteristics, and teaching style. Because Bradford Elementary is a generally high-performing school with a student body coming from mostly middle to upper SES backgrounds, it is possible the overall school climate may be less stressful than one of a lower-performing school serving low-SES students. Teachers with greater demands placed on their time or more challenging students may also have greater difficulty maintaining a mindful state while teaching. Thus, the school and community setting may significantly impact how a teacher makes meaning of mindfulness. Additionally, Mr. Marino is a relatively easy-going individual with a calm and steady affect. He feels he has always had this general disposition, but also believes mindfulness

may enhance those qualities. Teachers with different dispositional qualities may experience mindfulness in other ways.

Finally, it is important to relate Mr. Marino's mindfulness to his teaching approach. He follows the *Responsive Classroom* approach, which targets students' social and emotional learning through student-centered teaching practices (Charney 1993). Thus, he may filter many of what he is learning about mindfulness through a *Responsive Classroom* lens, which may relate to why so much of his meaning-making revolves around using mindfulness to be responsive to students' needs. Teachers with different teaching philosophies may find alternative ways to incorporate mindfulness into their personal practice.

Limitations and Implications

There were some limitations in the present study. Erickson's (1986) approach to qualitative inquiry calls for extended time in the field as a source of validity. While he gave no precise criteria for the number of hours needed in the field, he generally supported an extended ethnographic approach. The present study used 20 hours of field work and four hours of interviews, which gave the researcher an in-depth understanding of the participant's teaching practices, but additional time in the field would have enhanced the confidence in the findings.

Additionally, the participant had somewhat limited experience with mindfulness practices. Despite learning and practicing mindfulness for more than a year, he would not be considered to have expert knowledge on mindfulness. Studying a teacher with long-term experience in mindfulness may have provided more expert insight into the phenomenon. Nevertheless, the present study was able to describe in-depth the experiences of a novice practitioner, which provides important insights into potential developmental trajectories of mindful awareness. With the growing popularity of mindfulness and its applications to teaching,

the participant's experiences may be very similar to the many teachers who are also in the early stages of integrating mindfulness into their teaching practice.

In spite of the limitations, the present study significantly contributes to the body of research on mindfulness in teaching. The study explored how mindfulness occurs in teaching, particularly in the teacher's interactions with students, to show how mindfulness may have benefits for teachers beyond a stress management technique. The study also extended the empirical literature by examining how mindfulness relates to a teacher's moment-to-moment awareness, decision-making, and interactions with students, as opposed to mean-level quantitative outcomes of interventions. Future work in this area can continue to examine this phenomenon in a number of ways. Additional studies could be conducted with teachers having more years of experience with mindful awareness practice to examine the developmental trajectory of mindfulness for teachers. Researchers can also study teachers working in other school settings to uncover relationships between school context and teachers' mindfulness. Lastly, a grounded theory approach to studying mindfulness in teaching may provide a more systematic method of building theory around mindfulness in teaching.

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Table 1

Empirical Assertions

Assertion 1	Mr. Marino describes mindfulness as an increased awareness and greater mental space that helps him make momentary decisions in the classroom
Assertion 2	Mr. Marino uses mindfulness to respond, rather than react, to students
Assertion 3	Mr. Marino uses mindfulness to meet individual students' unique needs
Assertion 4	The context of teaching limits Mr. Marino's ability to maintain a mindful state

Manuscript 2:

Mindfulness and Caring in Professional Practice: An Interdisciplinary Review of Qualitative Research

Anthony A. DeMauro, Patricia A. Jennings, Timothy Cunningham, Dorrie Fontaine, Helen Park, Peter L. Sheras

Abstract

Training in mindfulness has become increasingly popular as a means of professional development for caring professionals, including teachers, nurses, psychotherapists, and social workers. Mindfulness practices have shown to be particularly useful for these individuals as a means of self-care, helping them manage occupational stress and the emotional demands of their roles. Evidence from qualitative studies suggests that mindfulness training can also enhance professional practice among these four disciplines. These studies offer narrative descriptions of the ways caring professionals employ mindfulness both as a means of self-care and as a resource to help them better serve others. This literature review synthesizes qualitative research from teaching, nursing, psychotherapy, and social work with Noddings' theory of caring to show how mindfulness can support professional practice in the caring professions through mechanisms of therapeutic presence, listening, non-judgment, compassion, self-care, emotional awareness, and emotion regulation.

Professional caring constitutes a specific group of occupations that "on the basis of a high level of training in specific knowledge and skills, undertake work in which the human person is both the object and the subject, whether physically, mentally, emotionally, or spiritually" (Hugman 2005, p. 1). Professions that are typically categorized as caring professions include teachers, nurses, psychotherapists, and social workers. Each of these occupations demands a different set of specialized knowledge and skills, but share a common commitment to serving the needs of others in order to support their growth and healing (Kahn 1993). These roles require a high degree of social and emotional intelligence, where caregivers must attend to and interpret others' emotions and needs, which are highly contextualized and often unspoken. Such unique occupational demands contribute to postulations that caregiving roles are among the least likely to be replaced by robotics or computerization in the upcoming decades (Frey & Osbourne 2017; Hess & Ludwig 2017). If the skills of caring are not easily formulated and automated, how then do caring professionals acquire them?

Historically, some have assumed professional caring to be an extension of female domestic duties, requiring skills that women were thought to naturally possess (e.g. Brewer & Lait 1980). This perception that professional caring does not require any specialized training, along with existing sexist narratives which diminish traditionally feminine values of care and compassion, have caused many caring professionals, especially teachers, nurses, and social workers, to need to legitimize their professional status in a Western, traditionally male-dominated workforce (Abbott & Meerabeau 1998; Rowan 1994). Numerous scholars (e.g. Chambers & Ryder 2009; Watson 1999) have challenged the narrative of caring work lacking professionalism and have drawn attention to the complex processes involved in caring. Among these scholars is Noddings (2013), who identifies a set of skills required to effectively provide

care. These include 1) receptivity to the needs of others, 2) motivation to exert energy toward serving others, and 3) responsiveness in meeting others' needs.

The most well-studied dimension of caring is caregivers' motivation to care for others and the threat of losing that motivation due to experiences of burnout. Burnout is an adaptive response to chronic occupational stress and emotional distress which involves experiences of emotional exhaustion, depersonalization, and lack of personal accomplishment (Maslach, Schaufeli, & Leiter 2001). Emotional exhaustion results from over-extending oneself emotionally. It involves feeling drained of physical and emotional energy and lacking the motivation or ability to continually give of oneself to others. Jennings and Greenberg (2009) describe a "burnout cascade" (p. 492) where emotional exhaustion can lead to depersonalization, which refers to a feeling of detachment and callousness toward others. This is a maladaptive coping strategy in response to chronic occupational stress that protects caregivers from further expending their already depleted emotional energy. It interferes with their ability to care for their students, patients or clients. Then, as caregivers notice their diminished capacity to care, they begin to lack a sense of personal accomplishment because they are no longer able to provide sufficient care to others. Maslach (2003) identified burnout as "the cost of caring" (p. xxi), and there is no shortage of evidence showing the high prevalence of stress and burnout among teachers (e.g. Chang 2009; Kyriacou 2001; Montgomery & Rupp 2005; Richards 2012), nurses (e.g. Clegg 2001; Jennings 2008; Patrick & Lavery 2007; McVicar 2003), psychotherapists (e.g. Cushway & Tyler 1996; Hannigan, Edwards, & Burnard 2004; Varm 1997; Rupert & Morgan 2005), and social workers (e.g., Kim & Stoner 2008; Lloyd, King, & Chenoweth 2002; Söderfeldt, Söderfeldt, & Warg 1995; Storey & Billingham 2001). Evidence also indicates that increased feelings of burnout are significantly associated with lower quality of care (Poghosyan,

Clarke, Finlayson, & Aiken 2010; Shanafelt et al. 2016; West, Dyrbye, Erwin, & Shanafelt 2016).

In an attempt to address this pervasive problem in the caring professions, many have turned to mindfulness-based interventions (MBI), which have shown to be effective in reducing stress in non-clinical adult populations (see Chiesa & Serretti 2009; Khoury et al. 2013 for meta-analyses). Mindfulness is defined as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn 2003, p. 44) and is cultivated through engagement with mindful awareness practices such as meditation and yoga. The general purpose of mindfulness in its contemporary use is to build an awareness of one's mental processes that contribute to personal distress and maladaptive behavior, while learning ways of skillfully responding to these emotions and thought-patterns (Bishop et al. 2004). Mindfulness has been postulated to be a useful resource for preventing burnout by helping individuals identify their own habitual mental and emotional reactions to events or persons they work with while providing skills to regulate those challenging emotions and respond in more adaptive ways that do not take the same emotional toll and impair caregiving (Hülsheger, Alberts, Feinholdt, & Lang 2012).

Over the past 20 years, experimental studies have repeatedly shown MBIs to be effective in reducing caring professionals' experiences of stress and burnout (see Irving, Dobkin, & Park 2009; Lomas, Medina, Ivtzan, Rupprecht, & Eiroa-Orosa 2017; Luken & Sammons 2016 for reviews). This indicates mindfulness can be a useful resource for maintaining caring professionals' motivation to care for others. However, the experimental studies provide only limited insight into whether mindfulness can be useful for the other two dimensions of Noddings' caring process: caregivers' receptivity to others' needs and their responsiveness to

those needs. Experimental studies of MBIs for caring professionals have shown positive effects on self-reported outcomes of empathy and compassion (Kemeny et al. 2012; Roeser et al. 2013; Shapiro, Schwartz, & Bonner 1998), which may enhance caregivers' receptivity by being more in tune with others' feelings and emotions. Further, results from a recent randomized trial of an MBI for teachers may provide even more sound evidence of the impact of mindfulness on caring by showing improvements on third-person observational measures of teachers' sensitivity and responsiveness to students' needs following mindfulness training (Jennings et al. 2017).

Though these experimental studies provide some indication of the positive impact of mindfulness on caregivers' receptivity and responsiveness, they offer only a limited window into understanding how this occurs or why mindfulness might be especially useful for caring professionals. Fortunately, there is a growing body of qualitative work across the caring professions that more clearly articulates how mindfulness relates to the dimensions of receptivity and responsiveness, as well as its contribution to caregivers' abilities to prevent burnout and maintain their motivation to care. These studies offer in-depth descriptions of how mindfulness-based trainings and regular engagement with mindful awareness practices can enhance professional caring through mechanisms of therapeutic presence, listening, non-judgment, compassion, self-care, emotional awareness, and emotion regulation.

Caring is a process (Noddings 2013), and thus, qualitative research is well suited to study caring by providing rich narrative accounts of the mechanisms and active ingredients of mindfulness in its relationship to caring. Thus, this paper reviews the qualitative literature on mindfulness for caring professionals in order to better understand how mindfulness relates to caring as a professional practice. The review gathers and synthesizes caring professionals' descriptions of their understanding of mindfulness and the ways they employ mindfulness in

caring for others. The review highlights commonalities across the disciplines of teaching, nursing, therapy, and social work to uncover the fundamental elements of mindfulness in caring. We apply Noddings' (2013) theory of caring to the studies' findings, organized around the dimensions of receptivity, motivation, and responsiveness, to better understand how caring professionals describe the relationship between mindfulness and their professional practice.

Theoretical Framework

Noddings' theory of caring (2013) outlines the fundamental characteristics of caring relationships, and although her work largely focuses on the context of education, she highlights the similarities of caring across a variety of contexts (i.e. parent-child, friend-friend, teacher-student, healthcare provider-patient). She describes caring as a relational process and holds there are certain attitudes and behaviors that support healthy caring relationships. Providing care is a process of receptivity, motivation, and responsiveness. Receptivity involves deeply tuning into the other's experience, feeling with the other's suffering, and seeing that action is needed. The caregiver then feels a sense that "I must do something" (p. 14) and experiences a motivational shift to be of service to the other. Then the caregiver must respond skillfully to the situation and either meet the other's needs, or if that is not possible, respond in a way that maintains the caring relation. This responsiveness depends on the caregiver's ability to listen to and accurately perceive the situation, consciously reflect on what is needed, and execute an appropriate plan of action. The one receiving care also plays a meaningful role in the interaction by indicating they have received the care, perhaps by showing gratitude or smiling. This exchange completes and sustains the caring relation. Noddings' model of caring, in many ways, aligns with Watson's (1999) model of caring designed specifically for nurses, and both models reflect underlying processes of caring present across the four disciplines reviewed here.

In addition to outlining the steps of caring, Noddings (2005b; 2013) also highlights conditions that support and hinder caring. A frequent obstacle is caregivers' experiences of stress and burnout. She discusses how experiences of stress and burnout can diminish caregivers' motivation to care for others and describes how self-care is necessary to reenergize the caregiver and replenish the emotional resources necessary for caring. Thus, Noddings' theory provides an appropriate framework for understanding the complexities of the caring process and the role mindfulness may play in support of this process.

Methods

Literature Search

The literature search followed Booth's (2006) STARLITE procedures for a qualitative systematic review. The first and second author conducted a literature search in March 2017 using the following electronic databases: PsycINFO, ERIC, MEDLINE, and PubMed. Search terms included "mindfulness," "qualitative," "mixed methods," and purposive indicators of a specific field such as "teachers" or "teaching," "nurses" or "nursing," etc. The search produced over 100 results, but many were immediately excluded in the initial pass if the title or abstract clearly indicated that it did not fit the aim of the review. The search also involved snowballing strategies, examining reference lists of the reviewed articles and related papers.

Inclusion Criteria

The first criterion for inclusion was that the article be published in a peer reviewed journal to ensure a minimal level of rigor. Second, the manuscript had to provide narrative data in the results. This decision was made because the intention of the review was to explore the ways caring professionals described mindfulness in relation to their professional practice, and without narrative data from interview excerpts, this could not be accomplished. One mixed

methods study was excluded because the researchers numerically coded the qualitative data to include as a variable in mediation analyses and did not provide more than a few brief quotations from interviews. Another mixed methods study provided very minimal narrative data that did not clearly illustrate participants' experiences. Thus, these studies were excluded from the review.

A third criterion for inclusion was that study participants be practicing professionals. A number of qualitative studies were identified across the four disciplines that were conducted with professionals-in-training and graduate students, but the decision was made to exclude these studies due to the participants' lack of professional experience. In attempting to understand the relationship between mindfulness and caring in the context of professional practice, it seemed appropriate to only include the perspectives of those with actual professional experience. This criterion was meant to ensure participants' descriptions of the phenomena would be supported by first-hand experiences with the day-to-day demands of their profession.

Sixteen articles from the literature search fit all inclusion criteria and were selected for the review. There was no specific range identified for date of publication, but all included studies were published no earlier than 2004. See Table 1 for a list of included articles and study characteristics.

Literature Review

This qualitative systematic review (Booth, Papaioannou, & Sutton 2016) aimed to identify and integrate themes present across the included studies and synthesize findings with Noddings' (2013) theory of caring to create a coherent narrative of how caring professionals describe the relationship between mindfulness and their professional practice. The comprehensive narrative was checked against findings from the individual studies to ensure the overall narrative accurately represented each study in the review. The narrative was then

structured around Noddings' three dimensions of caring: receptivity, motivation, and responsiveness.

It is important to note that not all participants in the reviewed studies had the same experiences in their mindfulness trainings. However, all of the results presented here were identified as key themes/findings from the reviewed articles and were present in findings across multiple professions. Table 2 displays the frequency of themes/findings by profession. Thus, the aim of this paper is not to argue that mindfulness will systematically provide all caring professionals with these skills, but to demonstrate ways in which mindfulness may enhance the caring relation across professions. The review highlights selected quotes from the reviewed studies to illustrate how caregivers described these processes.

Receptivity

The first step in the caring process is receiving the other and noticing the other is in need of care. Noddings (2013) describes this process as one of "engrossment" (p.30), which is more than the caregiver merely analyzing another's situation cognitively or thinking about how he or she would feel in a similar situation. Rather, it involves deeply tuning into the other's experience and perhaps feeling the same emotions as the other is experiencing them. In some ways, one may compare the concept of receptivity to the practice of empathy as described in the nursing profession. A "necessary precondition for compassion" (Fontaine, Rushton, & Sharma 2014), empathy occurs when a caregiver is able to place oneself in another's shoes and see, with a deep presence, the other's predicament (Hojat 2016). Receptivity occurs through giving one's full, non-manipulative attention to the other, non-judgmentally listening, and seeing the other's situation as a possibility for one's own reality.

Therapeutic Presence / Presence

Caring professionals must receive others with their full, open-hearted attention. At the same time, they must be attuned to and stay grounded in their own internal experiences so as to not become overwhelmed by the other's emotional experiences. This simultaneous internal and external present-moment awareness and "bringing one's whole self to the engagement with the client and being fully in the moment with and for the client, with little self-centered purpose or goal in mind" (Geller & Greenberg 2002, p. 72) has been defined as therapeutic presence. It is important to note that merely being in proximity to the other does not constitute therapeutic presence. Caregivers may be engaging with persons seeking care, but if they are distracted, detached, or trying to control the encounter, they will likely fail to be fully receptive to the other's experience.

Present-moment awareness is an essential component of mindfulness, and thus, many caring professionals in the reviewed studies discussed how mindfulness related to their ability to receive others with their full presence. In describing how a regular mindfulness practice influenced her interactions with clients, one social worker noted,

> I want to be right with the client in the moment, and there is something about being present, moment by moment, which has a healing quality. We're in charge of being fully receptive … so that's become my sole criterion: Was I there? (Brenner & Homonoff 2004, p. 264)

This social worker identified therapeutic presence as a primary indicator of effectiveness, and explicitly related presence to the act of receiving the client. A psychotherapist described how mindfulness training influenced therapeutic presence in a similar way.

> To go from approaching the client as a problem to solve, to being present with this other human being. And having a kind of authentic exchange take place without, going back to

> the control, without trying to control the encounter, or take care of my own ego needs, or flee because I was anxious (Christopher et al. 2011, p. 334).

This quote illustrates how mindfulness may help transform a caregiver's tendency to control an interaction or fix the client to an orientation relying more on receptivity and presence. While there may be an initial tendency for the caregiver to immediately want to solve the other's problem or fix the situation, true caring involves a much less controlling approach. Noddings (2013) states that receptivity happens "when our manipulative efforts are at rest" (p. 30), and findings from multiple studies of caring professionals demonstrate how mindfulness can facilitate caring professionals' abilities to be fully present with those with whom they work – not trying to control the interaction, but simply remaining open and receptive.

Listening

By bringing one's full presence and attention into an interaction, the caregiver is more able to closely listen to what the one seeking care presents. Listening allows the caregiver to more fully comprehend the situation and *feel* with the other's thoughts, emotions, and needs. One social worker highlighted the listening component of a mindfulness training. "I really appreciated being challenged on a basic skill [listening] which we utilize each day. I have taken this into my work and I am more mindful of where my mind is at when with clients" (McGarrigle & Walsh 2011, p. 221). Listening may initially seem to be a basic skill that all caregivers naturally possess, but there can be some common deficiencies in how caregivers listen to others. One may involve a tendency to want to fix the other's problems or too quickly offer advice based on experiences in similar circumstances. However, this rush to problem solve may interfere with the caregiver's ability to fully receive the other. For example, as one seeking care shares the details of his problem, the caregiver might begin thinking of ways to respond with

suggestions or advice, without fully listening to everything the one seeking care has to say (Jennings 2015). The caregiver might then offer a solution that only considers part of the problem. To avoid this error, caregivers must focus their attention on listening to everything the other brings. One nurse described this tendency very clearly and also spoke of how mindfulness training changed her approach to listening to clients.

> I think I am able to listen better to what people have to say because I am trying to really just be there as opposed to "o.k. I have a role to play, I'm here to listen but I *have* to fix you" (Irving et al. 2014, p. 68; emphasis in original).

This quote also shows how listening is involved in therapeutic presence and the non-manipulative component of caring. A final quote from another nurse shows that a deeper listening ultimately enhances the caring relation by allowing the caregiver to better understand the other's needs. "I'm starting to become aware of other people's needs when I communicate. I listen more and talk less" (Cohen-Katz et al. 2005, p.82).

There may be some situations, such as intense traumatic events, that are beyond the caregiver's ability to solve. In these instances, offering one's listening presence may be all one can contribute to the caring relation. However, there are certainly other times when it is appropriate for caregivers to offer advice or a solution. Caregivers' advice then, will be much more accurate and useful if they have been fully in-tune with the other and listening openly to everything that is presented, rather than coming from a place of distraction and/or manipulation. As Noddings (2013) states, "Most important of all, [the caregiver] listens to [the other], and both her listening and her advice are perceptive and creative rather than judgmental. Listening, that supremely important form of receiving is essential" (p. 121). Evidence from the reviewed studies illustrates how caregiver's engagement with mindfulness helped them listen more attentively,

and this deep listening is not only healing in itself, but also allows for more clarity and creativity to inform a potential response.

Non-judgment / Acceptance

A key element of mindful awareness is having a non-judgmental attitude toward the present-moment, or accepting things as they are. The tendency of the human mind is to frequently judge and categorize things, experiences, and persons as "good," "bad," or "neutral." Yet, these judgments are merely automatic reactions of the mind that come from one's own biases and fears (Kabat-Zinn & Hanh 2013). On the other hand, the non-judgmental approach of mindfulness involves first noticing when the mind makes judgments, then attempting to not identify with or act upon the judgment, but to simply observe its presence. This does not preclude one from making discernments, or wise decisions, about ethical issues (Greenberg & Mitra 2015) as they relate to those for whom they care.

Judgments can certainly occur in a caring relation, as the caregiver might judge the other's character to be deficient or their situation to be the result of immoral behavior. As Noddings states, these judgments can interfere with the caregiver fully receiving the other. Because mindfulness focuses heavily on taking a non-judgmental approach toward one's experiences, it is not surprising that numerous caring professionals applied the non-judgmental approach of mindfulness to their professional work. One nurse stated, "I think I'm kinder and less judgmental of others now" (Cohen-Katz et al. 2005, p. 82). Another nurse described trying to take a less judgmental approach with clients. "When I go into a patient's room I want my face to be soft and not forced and not judgmental" (Moody et al. 2013, p. 280). One therapist with a long-term personal mindfulness practice more specifically described how non-judgment showed up in interactions with clients. "[M]uch more compassionate, less judgmental, less on the side of

first impressions: ‘oh I see what this person is all about’; all that judgmental crap. Just seeing it and just letting it go” (Gill et al. 2015, p. 715). Here, the therapist discussed the process of seeing his initial judgment of the one seeking care and “letting it go,” or not allowing it to influence the interaction. That conscious act of recognizing the judgment and choosing not to identify with it is a critical component of mindfulness and demonstrates the moment-to-moment awareness of internal and external experiences that mindfulness scholars speak of. The above quote demonstrates how mindful awareness manifests in a therapist’s interactions with clients and speaks to an enhanced receptivity in professional caring practice.

Motivation

Receptivity does not constitute caring on its own. Caring also requires the caregiver’s motivation to act, or the sense that “I must do something” (Noddings 2013, p. 14). Where receptivity might be analogous to empathy, receptivity coupled with a motivation to act is what many scholars identify as compassion.

Compassion

Noddings (2013) frequently emphasizes the interconnectedness of the caregiver and one receiving care in describing receptivity. She also notes how understanding such interconnectedness can serve as motivation to care for the other. “Apprehending the other’s reality, feeling what he feels as nearly as possible… I am impelled to act as though in my own behalf, but in behalf of the other” (p. 16). Although Noddings makes reference to compassion in a number of her works (e.g. 1998; 2005a; 2013), she does not explicitly equate compassion with her concepts of receptivity and motivation. Though it is clear that together, these first two components of caring closely resemble compassion.

Goetz, Keltner, & Simon-Thomas (2010) define compassion as "the feeling that arises in witnessing another's suffering and that motivates a subsequent desire to help" (p. 351). Mindfulness scholar, Halifax (2012), similarly defines compassion as "the affective feeling of caring for one who is suffering, and the motivation to relieve suffering" (p. 228). The parallels between these definitions and Noddings' concepts of receptivity and motivation, support the assumption that compassion plays a critical role in the caring relation.

Participants across all four professions identified compassion as an application of mindfulness training to their professional practice. One therapist stated, "I mean that's, in some ways, the biggest benefit of all, it's just that very naturally, more compassionate way of moving through the world that comes from just being able to be attentive" (Gill et al. 2015, p. 715). Another therapist also felt mindfulness contributed to being "compassionate with others, focusing on the interconnectedness of everything" (Cigolla & Brown 2011, p. 713). Like Noddings, this therapist identified a feeling of interconnectedness as a key component of compassion.

One social worker's reflection on mindfulness echoed the motivation and action components of compassion.

> Perceive the situation and act on it. I mean, just very simple, like what's going on, what can I do? You take in the whole situation and then you give something back depending on what you see and what is inside you (Brenner & Homonoff 2009, p. 266).

The feeling of "what can I do?" speaks to this social worker's motivation to act, and he also identified an awareness of both external and internal processes that inform his actions. Here again we see how mindful awareness attends to both outer and inner experiences, which is particularly important for the relational work of caring.

In addition to increased feelings of compassion toward others, many caring professionals identified greater self-compassion as another outcome of their mindfulness training. Many reported being more accepting of their own faults and limitations, some felt they were able to cultivate loving-kindness for themselves, and others spoke of developing a greater appreciation for making sure they met their own physical and emotional needs so that their caring work could be more sustainable. This emphasis on self-compassion is critical for caregivers' abilities to maintain their motivation to care for others.

Self-Care

The caregiver may feel with another's suffering but deliberately choose not to act, perhaps in an effort to preserve scarce emotional resources or because she has no more resources to offer. The caregiver's experiences of stress and burnout substantially increase the likelihood of this response. Thus, In order to avoid this, the motivation to care must be sustained and replenished. "The one-caring must be maintained, for she is the immediate source of caring. The one-caring, then, properly pays heed to her own condition" (Noddings 2013, p. 105).

Part of giving care is taking time to care for oneself. If self-care is ignored, the caregiver risks losing the motivation to continue caring for others. Self-care can renew the caregiver and replenish emotional resources that are depleted from constantly feeling with others' unpleasant emotions and expending energy to meet others' needs (Shapiro, Brown, & Biegel 2007). After participating in mindfulness trainings, many caring professionals noted a shift in their orientation toward self-care. Where previously they may have overlooked the importance of self-care or sacrificed their own well-being to constantly care for others, these caring professionals began to see that self-care was a necessary part of caring for others. One nurse noted, "When I can't take care of myself I cannot take care of others. So when I'm tired, not listening, it's not very helpful"

(Irving et al. 2014, p. 67). A therapist similarly stated, “I think it’s more like take care of oneself (first), and then it’s easier to be in a relationship and take care of that dynamic” (Christopher et al. 2011, p. 331). Interestingly, both of these quotes reflect Noddings’ (2013) view of self-care as not an end in itself, but a means to caring for others more fully. Through their mindfulness trainings, these caring professionals were able to allow themselves to take time for self-care without feeling guilty or selfish.

Not only did mindfulness trainings highlight the importance of self-care for many caring professionals, but they also offered mindful awareness practices which could be used as forms of self-care. For example, one teacher described how a mindful walking practice helped her replenish energy. “[W]hen I’m walking, I try my best to set aside at least 20 minutes a day to just be in that moment of nothing… and try to gain some strength and energy from that” (Napoli 2004, p. 38). A therapist discussed how yoga also had an energizing effect. “I was stretched out more, my circulation was better, and I had more energy” (Christopher et al. 2011, p. 326).

Many caring professionals are not directly trained in self-care skills during their graduate coursework or certification programs, but as demonstrated by the interview excerpts, mindfulness training can highlight the importance of self-care in caring for others. Simply reminding caring professionals of the importance of self-care would be a valuable outcome of mindfulness training on its own. Yet, most trainings also offer a range evidence-based techniques for self-care in the form of mindful awareness practices that caring professionals can utilize to restore their caring resources (Bauer-Wu & Fontaine 2015). Where self-care can help caring professionals maintain and replenish vital emotional resources, another aspect of mindfulness, emotional awareness, can help caring professionals gain a better sense of how they expend these resources.

Emotional Awareness

Noddings (2013) regarded emotion as the physiological, cognitive, and behavioral responses to an event, which largely occur automatically or outside of the individual's conscious awareness. She distinguished emotion from "affect," however, in that the latter is consciously and reflectively experienced. Affect involves "looking at ourselves feeling – that is, of our being aware of ourselves feeling" (p. 132). She argued this conscious awareness of emotion is a component of caring more so than one's automatic emotional response. "Engrossment is not completely characterized as *emotional* feeling. There is a characteristic and appropriate mode of consciousness in caring" (p. 33, emphasis in original). Thus, caring is not merely taking on the emotional experiences of others, but involves a reflexivity of that experience. This awareness of one's own, as well as the others' emotions is key to the caregiver's motivational shift toward the other.

Emotional awareness is a skill that frequently shows up in mindfulness-related literature, as mindfulness cultivates a present-moment awareness of both external and internal experiences, including one's thoughts, sensations, and emotions (Bishop et al. 2004). Consequently, caring professionals repeatedly identified emotional awareness as an outcome of their mindfulness training or personal practice.

Some caring professionals identified a growing emotional awareness by noticing the presence of certain sensations in the body and their accompaniment with emotions. As one teacher stated, "I think [the mindfulness training] helps you make that connection between your physical feelings and your mental state of being" (Schussler et al. 2016, p. 137). A therapist further related:

> One of the other things that came out of the whole experience is a much more direct awareness of my own emotions as expressed in physical sensations. So I would be aware that I was feeling anxious because of how my body felt, I would be aware I was feeling angry because of what my body was saying to me. Where before that, I was pretty blind, deaf, and dumb to the signals my body was giving me. And that was a pretty profound change (Christopher et al. 2011, p. 327).

Numerous caring professionals reported that they deliberately took time throughout the day to check-in with their internal states, using body scan techniques or metaphors from trainings such as paying attention to one's emotional elevator.

Other caring professionals described paying closer attention to what triggered their emotions, like this nurse who stated, "suddenly, if I felt irritability… I would question its cause and was able to free myself from it" (dos Santos 2016, p. 94). Another nurse described gaining new perspectives on difficult emotions like anger. "I've realized it's ok to be angry, to acknowledge it and not take it on… before I used to brew and brew on it – I don't do that anymore" (Foureur et al. 2013, p. 121). As opposed to ruminating on the anger, this nurse learned to become aware of its presence without being overwhelmed by it.

Much like noticing judgments as they arose in the mind, these caring professionals described how they became better at noticing emotions as they were triggered. A major reason for the increased attention to their own emotions was a growing appreciation for how emotions impacted their behavior and interactions with others. Fortunately, in addition to increasing caregivers' emotional awareness, mindfulness trainings also provided techniques to regulate emotional experiences and respond more skillfully to the persons and events triggering these emotions.

Responsiveness

"Clearly we cannot remain perpetually in the receptive mode… we, in caring, must respond: we express ourselves, we make plans, we execute" (Noddings 2013, p. 36). After receiving the other and heeding the call of "I must do something," the caregiver then responds to the other in some way – to meet the expressed need, or if it is not within the caregiver's power to meet the need, to respond in some way that will maintain the caring relation. Noddings holds that appropriate caring responses come from one's affective feelings (emotional awareness) and rationality, whereas inappropriate responses occur from a "degradation of consciousness," when one's non-reflective emotional reactivity takes over.

Emotion Regulation / Non-reactivity

"When we give over control to the inappropriate mode, we may properly speak of a degradation of consciousness; … we become irrational … unfeeling and unseeing" (Noddings 2013, p. 35). When a caregiver is overwhelmed by an emotional experience or if she is not consciously aware of the presence of an emotion, she will likely act in a way that does not skillfully meet the demands of the situation. The emotion might prevent her from truly feeling into the other's suffering, cloud her ability to clearly see the other's needs, or impair her planning and execution of a response that would meet the other's needs. What makes professional caring so challenging, though, is that caregivers' emotions are constantly triggered by difficult patients, clients, students, etc. and emotionally charged events (Huynh, Alderson, & Thompson 2008). Thus, caring professionals require a special set of skills which allow them to navigate these emotional fluxes. The previous section discussed how mindfulness helped caregivers first gain a better understanding of the emotional dynamics of their occupations. This section provides some evidence that mindfulness training can support caring professionals in regulating their emotional

experiences, whether through specific techniques or by changing their perspective on events or persons that trigger difficult emotions, so they can respond and provide care more skillfully.

Caring professionals repeatedly identified using specific techniques they learned in their mindfulness trainings to regulate emotions in challenging situations. One nurse spoke about the STOP technique (Stop, Take a breath, Observe current state of mind and body, Proceed) (Bauer-Wu 2011) to regulate emotional reactions in the moment. “Before I let my feelings escalate, STOP helped me, and allowed me not to be agitated” (Moody et al. 2013, p. 281). Several others identified simply taking deep breaths as a way to regulate emotions, like this teacher recounting a difficult encounter with a student’s parent. “I chose to breathe and walk quietly back into my classroom and continue teaching… being able just to let it go, to breathe and not feel like defending myself was actually going to take care of myself” (Sharp & Jennings 2016, p. 214).

In addition to the practical techniques for regulating emotion, many caring professionals described a general change in their overall levels of emotional reactivity. Another teacher from the Sharp and Jennings (2016) study noted, “I don’t have this rollercoaster of emotions like up and down and I don’t know, kind of like freaking out over things that – if someone spills milk or something it’s like oh well” (p. 214). A social worker similarly reported, “I’m able to deconstruct some of the issues that present and not get so emotionally high or low because of the content but rather just peacefully attend to the issues” (Crowder & Sears 2017, p. 25). Others used the word “equanimity” to describe this emotional composure.

Several caring professionals distinguished between responding to a situation and reacting, and, like this therapist, felt mindfulness “ends up allowing you be more responsive rather than reactive to what’s happening” (Keane 2014, p. 697). The distinction is that reacting to a situation involves an automatic or impulsive emotional behavior, whereas responding involves regulating

any emotion that was triggered and the initial tendency to react, so that the caregiver can more accurately see the situation and determine and enact an appropriate course of action. Taking a brief pause or deep breath before acting allowed caregivers to respond rather than react. Or as this teacher described, “I try to bring myself into the moment and calm myself down sometimes before I deal with some of the conflict situations that I have happening” (Napoli 2004, p. 37).

It is critical to note that for many caring professionals, this lowered emotional reactivity was not merely a standalone outcome of the mindfulness training, but a means to caring more skillfully for others. Lowered emotional reactivity helped caring professionals to avoid causing further harm to their clients and more accurately meet their needs. One nurse stated, “Before [the mindfulness training] I would get stressed … and could hurt people, but I wouldn't apologize. Now I think before speaking so I don't hurt people” (dos Santos et al. 2017, p. 94). A teacher similarly shared,

> It’s not taking it personally when somebody gets you mad. It allows me to get my emotions out of the way so that I can help them [students] and I’m not worried about how I’m reacting to them being in that place (Schussler et al. 2016, p. 137).

Many caring professionals described being less defensive in interactions with others, as well as remaining calm and maintaining control of themselves during challenging situations following their training in mindfulness.

The emotion regulation and non-reactive components of mindfulness allowed caring professionals to employ their growing emotional awareness in their interpersonal relations with those in need of care. Because caring relations often evoke strong emotions in both caregivers and ones seeking care, these processes of emotion regulation and non-reactivity appeared to be especially useful applications of mindfulness to the caring relation. It is also worth highlighting

that the theme of emotion regulation / non-reactivity appeared more frequently than any other theme across the reviewed studies which suggests its prime importance for mindfulness in the caring professions (See table 2).

Discussion

The present review synthesized qualitative research from 16 studies across four disciplines to illustrate how engagement with mindfulness can enhance teachers', nurses', psychotherapists', and social workers' professional caring practice. Findings from the collection of studies aligned considerably well with Nodding's theory of caring to demonstrate how mindfulness supports the caring processes of receptivity, motivation, and responsiveness. In addition to expounding a previously understudied relationship between mindfulness and caring as a professional practice, the review highlighted important mechanisms involved in mindful caregiving through caring professionals' rich qualitative accounts of the ways mindfulness enhanced both intrapersonal and interpersonal dimensions of their professional practice. Emotional awareness and regulation were the themes most frequently present in the reviewed studies, which speaks to the prominence of caring as an emotional labor (Henderson 2001; Isenbarger & Zembylas 2000) and the ability of mindfulness to support emotional mastery in professional caring practice.

A wealth of previous experimental research has shown that mindfulness can support caring professionals' motivation to care by mitigating experiences of stress and burnout (Irving, Dobkin, & Park 2009; Lomas, Medina, Ivtzan, Rupprecht, & Eiroa-Orosa 2017; Luken & Sammons 2016). The findings presented in the current review aligned with these findings and shed light on how this occurs. Through trainings and prolonged engagement with mindful awareness practices, caring professionals developed an appreciation for self-care as a part of

their professional roles and acquired specific self-care techniques to replenish caring resources. Mindfulness also helped caring professionals develop greater awareness of their emotional experiences by identifying the presence of emotions as bodily sensations, gaining familiarity with how emotions are triggered by events and persons, and appreciating the impact of emotions on their professional practice. The enhanced emotional awareness coupled with regulation strategies helped caring professionals navigate the emotional ups and downs of their work more skillfully and respond, rather than react, to the many emotionally charged situations they faced daily. This combination of skills and attitudes reduced the level of burnout symptoms caring professionals experienced and helped maintain their motivation to work in such demanding roles.

Though much of the experimental work on mindfulness for caring professionals has focused on stress and burnout, emerging evidence suggests that mindfulness can also support the behavioral and interpersonal components of professional caring practice, such as receptivity and responsiveness. A recent RCT found that mindfulness training increased teachers' abilities to establish a warm emotional classroom climate and meet students' academic and social-emotional needs as measured by a third-person observational tool (Jennings et al. 2017). The current review demonstrated how mindfulness would lead to such changes. Mindfulness supports teachers' presence and compassion, which help them form deeper emotional connections with students and gain a better understanding of students' needs. Mindfulness also helps teachers regulate their emotions, which contributes to the overall emotional tone of the classroom and their ability to be responsive to events in the classroom.

Implications for Future Research

Jennings et al.'s (2017) findings, coupled with those of the current review, provide strong evidence that mindfulness can improve teachers' professional practice and how it might occur.

Yet, much more research is needed to 1) strengthen the link between mindfulness and professional caring practice, and 2) establish this relationship using data sources beyond participant self-report. Jennings et al. employed an observational measure of the quality of teacher-student interactions that is frequently used in teachers' performance evaluations (e.g. Classroom Assessment Scoring System; Pianta, La Paro, & Hamre 2008). Thus, similar measures could be used to investigate how mindfulness relates to the quality of nurse-patient or therapist-client interactions. Findings of the current review could provide guidance for which caring processes might show effects following a mindfulness intervention.

More research is also needed to investigate how mindfulness and related components of professional caring practice actually lead to improved educational, health, or treatment outcomes. Grepmair et al. (2007) found that psychotherapists in training who received a nine-week mindfulness intervention had better treatment outcomes than control therapists as measured by their patients' assessments of the quality of therapy sessions, perceived personal behavioral change, and reduction of physical and psychological symptoms. Grepmair et al. did not investigate what changes in the therapists or in their approach to patients specifically led to the differential treatment outcomes, but it is possible that some caring processes were involved. Future research should investigate how indicators of caring, such as the themes presented in this paper, might mediate the effects of mindfulness training on the outcomes under investigation.

Naylor, Munro, and Brooten (1991) stress the importance of clearly linking processes of caring to specific outcomes of care in order to best understand and improve the quality of care. Therefore, mixed methods research might provide opportunities to examine both processes and outcomes of caring. Additionally, researchers will need to be very intentional in the selection of outcome measures that will likely be sensitive to a mindfulness-based intervention. For example,

it may not be realistic to expect a nurse's experience with a mindfulness-based intervention to impact patients' mortality rates, but measures of patients' satisfaction with care or their timeframe for returning to independent functioning may be more likely impacted. Due to the diversity of potential outcomes to measure across the four caring professions and the variety of theoretical, political, and practical issues involved in these decisions, it is not within the scope of this review to suggest which outcome measures might be most useful. However, the current authors do suggest that outcome measures be selected carefully to align with the mechanisms of mindfulness and care articulated in this review.

Implications for Mindfulness-based Interventions for Caring Professionals

Findings of the current review suggest that the value of mindfulness for caring professionals goes well beyond reducing stress and promoting resilience. Mindfulness also cultivates specific attitudes and skills that are imperative to the job demands of caring professionals – in essence, mindfulness can make for more receptive, motivated, and responsive caring professionals. If research continues to support this claim, trainings should focus more heavily on mindfulness as a professional development tool for caring practice. This approach will likely increase investment from stakeholders allocating resources for professional development as well as buy-in from training participants. While stress management and sustaining the motivation to care is critical for these professions and should remain a key component of the trainings, findings of the review suggest that trainings will be of most value if they additionally attend to the direct applications of mindfulness to professional practice and specifically address the emotional labor of these professions.

Basic mindfulness trainings such as Mindfulness Based Stress Reduction (MBSR) are useful for caring professionals to learn foundational concepts and practices of mindfulness they

can personally apply to their professional lives, but there may be added value in contextualizing trainings to fit the occupational experiences of specific professions. Learning from mindfulness trainers with experience working in those professional contexts, learning with fellow trainees who share similar professional experiences, and having opportunities to apply training content to commonly-faced occupational situations might facilitate the integration of mindfulness with professional practice. This review provides themes and lessons that were commonly discussed by caring professionals in their experiences with mindfulness, which could serve as key learning objectives in future trainings.

Recent research is showing which mindfulness and compassion practices cultivate the various skills presented in this review. Hildebrandt, McCall, and Singer (2017) found that attention-based training modules, which included awareness of breath meditation and body scan, led to increases in skills of observing, non-reacting, and presence. Yet, compassion-based modules, including loving-kindness meditation, gratitude, and emotion skills training, had the same effects as the attention-based module, but additionally increased participants' acting with awareness, non-judging, and compassion for self and others. Thus, trainings for caring professionals should not overlook, and perhaps even emphasize, compassion-based practices, as they appear to cultivate skills that are particularly valuable for professional caring practice. Training developers must also be very intentional in the way they present content to increase the likelihood of participants finding value in training components and applying them to their professional practice. Because so many of caring professionals' occupational demands are interpersonal in nature, they will likely find value in and benefit from the compassion practices that cultivate these relational skills.

Implications for Caring Organizations

Lastly, it is imperative to pay attention to how institutions support or hinder a mindful caring approach. Noddings (2013) argues that organizational structures, values, rituals, hierarchies, etc. can impede the caring process by too narrowly defining the limits of acceptable practice. Effective caring requires intuition, flexibility, and highly-contextualized knowledge that might clash with institutions' prescriptions for professional practice or definitions of the professional's role. For example, Noddings (2012) explains how teacher evaluation systems based on students' standardized test scores can undermine teachers' caring because they so greatly constrict what is valued and expected of teachers.

One study included in the review (e.g. McGarrigle & Walsh 2011) explored how participants discussed their workplace contexts in relation to mindfulness, self-care, and reflection. Organizational factors that appeared to play a role in participants' experiences with the mindfulness training related to the availability of personal time throughout a work-day, permission given by the organization to attend to self-care needs, and a space to practice. They also felt that whether or not the institution valued their personal well-being played a prominent role in whether they were motivated to engage in the mindfulness training. Thus, an important aspect of mindfulness in caring professions is attending to how certain structures can create organizational climates to support mindful caring.

Limitations

There are a few limitations to the review worth noting. For one, there are obvious shortcomings in synthesizing literature across four disciplines. Teachers, nurses, therapists, and social workers all share a commitment to care for others, but each profession operates with a unique purpose, population of persons seeking care, duration of interaction, and physical setting, among a host of other contextual differences. In addition to the variability of cross-profession

contexts, there is an equal degree of variability within each profession. For example, there are stark differences in the occupational demands of kindergarten vs. 12th grade teachers, ER nurses vs. nurses working primarily in outpatient settings, clinical vs. administrative social workers, etc., so the review was unable to tease apart how mindfulness relates to specific job demands or the moment-to-moment interactions of a given profession. However, the excerpts included in the review all spoke to an underlying thread of caring, as described by Noddings, and participants from all four professions similarly related their caring practice to their experiences with mindfulness. Such similarities suggest that despite the different contexts in which each of these professions operate, there is a fundamental dynamic of caring, which was shown to be enriched by mindfulness.

Another limitation is that most of the included studies did not share the same overarching research question as the current review. Where this review aimed to understand how caring professionals describe the relationship between mindfulness and their professional practice, most of the reviewed studies focused on participants' experiences with mindfulness-based interventions. All of the studies included some narrative data about mindfulness in relation to professional practice, but this was not the primary focus of most studies. Many were either qualitative studies conducted as part of a larger experimental study of an MBI or a qualitative phase of a mixed methods intervention trial. Only four studies were not part of an intervention trial (e.g. Brenner & Homonoff 2004; Cigolla & Brown 2011; Gill et al. 2015; Keane 2014). Similarly, most studies examined the experiences of novice mindfulness practitioners who recently completed a mindfulness-based intervention, whereas only four studies (the non-intervention studies mentioned above) investigated the experiences of participants with multiple years of personal mindfulness practice. Future work should study individuals with multiple years

of mindfulness practice to increase the likelihood of participants have sustained a regular practice, made deeper connections between mindfulness and their professional practice and are able to clearly articulate those connections.

Lastly, this review was only able to gather and synthesize data from the published manuscripts of the 16 studies, but did not have access to the data corpuses of each study. The interview quotes and journal excerpts which the original authors chose to include in their manuscripts likely represents only a small fraction of the entirety of qualitative data collected across the collected studies. Thus, the included data may not fully represent the range of caring professionals' experiences with mindfulness, but rather, more narrowly reflect the researchers' original research questions, theoretical orientations, and biases. Due to the difficulties of obtaining a study's entire qualitative data corpus for confidentiality reasons, this may simply be an inherent limitation of reviewing of qualitative studies.

Another potential concern of this review is that study participants may have merely echoed concepts presented in their trainings or only discussed ideas they heard from training facilitators. If this were the case, findings would only be a reflection of training developers' conceptions of mindfulness. However, the authors are confident this was not the case. For one, there was a high degree of similarity in findings across the reviewed studies, even though they represented a wide range of mindfulness trainings (i.e. MBSR, CARE for Teachers, generic mindfulness trainings, etc.). Additionally, the themes presented in this review all had high levels of frequency across the 16 papers and across disciplines. Further, findings from studies of long-term mindfulness practitioners aligned closely with those of novice participants. Lastly, the richness of participants' descriptions of mindfulness in their professional practice provides the

authors confidence that findings do in fact reflect participants' lived experiences of mindful caring practice.

Conclusion

Despite these limitations, the review demonstrates numerous similarities in how professionals from four different disciplines describe the relationship between mindfulness and their professional practice as it relates to Noddings' (2013) theory of caring. It identifies some key ways teachers, nurses, psychotherapists, and social workers integrate mindfulness into their professional practice, and indicates that engagement with mindfulness can enhance caring processes of receptivity, motivation, and responsiveness. The findings demonstrate that mindfulness can be particularly useful for caring professionals to not only prevent stress and burnout but to also improve their professional practice.

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Table 1. List of reviewed studies and characteristics

Profession	Authors and date	Type of study	Sample size (or *n* for qual. data if mixed methods)	Participants' level of experience with mindfulness at time of study	Qualitative data collection method	Approach to data analysis
Teaching						
	Napoli (2004)	QUAL	3	novice - completed 8-week training	semi-structured interviews	none specified
	Schussler et al. (2016)	QUAL	44	novice - completed 6-week training	focus groups	axial coding
	Sharp & Jennings (2016)	QUAL	8	novice - completed 6-week training	semi-structured interviews	inductive thematic analysis
Nursing						
	Cohen-Katz et al. (2005)	MM	25	novice - completed 8-week MBSR training	evaluation forms, interviews, focus group	thematic analysis
	Foureur et al. (2013)	MM	10	novice - completed one-day modified MBSR workshop with 8-weeks of daily practice	focus groups or interviews	content analysis
	Moody et al. (2013)	MM	20	novice - completed 8-week mindfulness-based course	journals	none specified

	Irving et al. (2014)	QUAL	26	novice - completed 8-week modified MBSR	focus groups	grounded theory
	dos Santos et al. (2016)	MM	7	novice - completed 6-week training	focus group	content analysis
Therapy						
	Cigolla & Brown (2011)	QUAL	6	intermediate-expert (4-20 years of practice)	semi-structured interviews	interpretive phenomenological analysis
	Christopher et al. (2011)	QUAL	16	novice - completed graduate level counseling course integrating contemplation / mindfulness 2 to 6 years prior to interview	semi-structured interviews	content analysis
	Keane (2014)	MM	40 (phase 1) 12 (phase 2)	novice-expert (1-40 years of meditation practice)	open-ended survey questions (phase 1) semi-structured interviews (phase 2)	thematic analysis
	Gill et al. (2015)	QUAL	7	expert (20-42 years of meditation practice)	semi-structured interviews	grounded theory (inductive constant comparison analysis)
	Darby & Beavan (2016)	QUAL	6	novice - completed 8-week training	semi-structured interviews, workbooks	thematic analysis
Social Work						

	Brenner & Homonoff (2004)	QUAL	10	intermediate-expert (5-24 years of practice)	semi-structured interviews	grounded theory
	McGarrigle & Walsh (2011)	QUAL	12	novice - completed 8-week training	semi-structured self-reflective journaling, focus group	grounded theory
	Crowder & Sears (2017)	MM	14	novice - completed 8-week modified MBSR training	two semi-structured interviews	grounded theory

Table 2. Theme Frequencies

	Teaching	Nursing	Psychotherapy	Social Work	Total
Receptivity					
Therapeutic Presence / Presence	1	2	3	2	8
Listening	-	2	1	2	5
Non-judgment / Acceptance	-	3	5	1	9
Motivation					
Compassion	1	1	4	1	7
Self-care	2	3	2	1	8
Emotional Awareness	2	5	5	1	13
Responsiveness					
Emotion Regulation / Non-reactivity	3	4	4	3	14

Manuscript 3:

The Influence of Mindfulness on Teachers' Professional Practice: A Qualitative Case Study

Anthony A. DeMauro

Abstract

Research has consistently demonstrated that mindfulness training for teachers can lead to a number of intrapersonal benefits including reduced stress and improved well-being. Evidence is also beginning to show that mindfulness training can have interpersonal benefits for teachers as well by improving the quality of their interactions with students. However, very little research has examined how this occurs or what elements of mindfulness are particularly useful for teachers in their professional practice. This qualitative case study of three teachers who regularly practice meditation and yoga explores how their engagement with mindful awareness practices influences their teaching practice. Findings show that the teachers maintain a mindfulness practice to support their well-being and manage the emotional distress of teaching. Regular engagement with mindful awareness practices also cultivates a state of mindful awareness in their teaching practice, which involves a heightened attention to external events as well as one's inner thoughts and emotions while teaching. Mindfulness also helps teachers regulate emotions triggered in the classroom and respond purposefully to the events. There were some differences in how teachers applied mindfulness to their professional practice based on the unique contexts in which they taught.

Mindfulness is commonly defined as "the awareness that emerges through paying attention, on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p. 145). This enhanced state of awareness can be developed through mindful awareness practices such as meditation and yoga, with the intention of bringing mindful awareness into one's everyday life. Mindfulness can help individuals develop greater awareness of their mental processes and emotions, particularly those that lead to distress, so they can regulate these experiences and navigate their daily lives more skillfully (Bishop et al., 2014). Meta-analyses have shown mindfulness-based programs to be beneficial for adults' psychological health (Khoury et al., 2013), stress-management (Chisea & Serretti, 2009), and cognitive and emotion skills such as attentional abilities, affective experiences, and emotion regulation (Eberth & Sedlmeier, 2012). Sustained engagement in mindful awareness practices has also been shown to lead to a range of beneficial outcomes like greater patience, trust, and compassion (Bishop et al., 2004).

A few educational scholars (e.g. Roeser, Skinner, Beers, & Jennings, 2012) saw the benefits of mindfulness to be particularly useful for K-12 teachers and began developing mindfulness-based interventions (MBI) designed specifically for teachers. Early pilot programs showed promise in alleviating teacher stress, which led to growing interest to implement and evaluate the programs (Meiklejohn et al., 2012). Subsequent randomized trials have consistently shown MBIs to be effective in reducing teachers' stress symptomology, including negative affect, depressive symptoms (Kemeny et al., 2012), anxiety (Benn et al. 2012), burnout (Jennings et al. 2013; Roeser et al. 2013), and teachers' physiological responses to stress (Harris, Jennings, Katz, Abenavoli, & Greenberg, 2016), while also improving aspects of teachers' well-being such as positive affect (Harris et al., 2016), self-compassion, and personal growth (Benn et al. 2012).

Research has also showed positive effects on teachers' empathy, forgiveness (Benn et al., 2012), compassion, and problem-solving skills (Kemeny et al., 2012).

Most recently, Jennings et al. (2017) found one MBI to improve the quality of teachers' interactions with students, as measured by the Classroom Assessment Scoring System (Pianta, La Paro, & Hamre, 2007), on dimensions of positive climate (teachers' warmth, respect, and shared enjoyment with students), teacher sensitivity (teachers' responsiveness to the academic and social-emotional needs of students), and productivity (how smoothly classroom activities and routines run). This suggests MBIs may have positive outcomes for more than just teachers' well-being but may also enhance students' experiences in the classroom by improving the quality of their interactions with teachers. Yet, little empirical work has examined how mindfulness training leads to these changes or the specific elements of mindfulness that facilitate higher quality teacher-student interactions. Mindful awareness practices are largely intrapersonal exercises. So how does repeated engagement with them improve teachers' abilities to build relationships with students, respond to their needs, or run a classroom efficiently?

Much of the research to-date has used quasi-experimental or experimental designs to test if MBIs are beneficial for teachers, predominantly studying teachers' stress and well-being with self-reported survey data. While important, these studies only provide a narrow window into understanding *why* mindfulness is particularly useful for teachers or revealing the underlying mechanisms of mindfulness in its application to teaching. Numerous scholars (e.g. Schonert-Reichl & Roeser, 2016; Shapiro, Rechtschaffen, & de Sousa, 2016) have identified the shortcomings in the predominance of experimental studies of mindfulness for teachers and call for more qualitative explorations of the processes, contexts, and subjective experiences of teachers engaging in mindfulness to gain a richer understanding of the phenomenon.

Though scant, recent qualitative work has begun to uncover some of the mechanisms of mindfulness as a resource for teaching practice. Sharp and Jennings (2016) conducted interviews with teachers who participated in an MBI, and participants described gaining a greater emotional awareness from the training. This helped them recognize emotions, such as frustration or anger, as they were triggered by events in the classroom, and they learned skills to regulate these emotions before they negatively impacted their responses to the events. One emotion regulation strategy they described was *reperceiving*, which involves observing the content of one's own thoughts and emotions as they are triggered by some situation, then disidentifying with the thoughts to regulate the emotion and see the situation with greater clarity and objectivity (Shapiro, Carlson, Astin, & Freedman, 2006). For example, one teacher noticed she was getting upset about the noise level in her classroom and caught herself reacting punitively to the situation. "I could feel myself getting ready to be like, 'Okay, no recess for the rest of your lives,' kind of thing, but I took a moment and I just thought, okay. Step back and think about it" (Sharp & Jennings, 2016, p. 213). Reperceiving is thought to be cultivated by engagement with mindful awareness practices, which often involve techniques of observing the content of one's own thoughts. In addition to lessening the teachers' emotional reactivity to events, Sharp and Jennings (2016) found reperceiving also helped teachers feel more compassion for students as they learned that their students, too, experienced difficult emotions, which greatly impacted their behavior. The mechanisms of emotional awareness and regulation, reperceiving, and compassion described by the teachers are all skills prevalent throughout the broader literature on mindfulness and are thought to be cultivated by regular engagement with mindful awareness practices (Bishop et al., 2004). Schussler, Jennings, Sharp, and Frank (2016) conducted focus groups with additional teachers participating in the same MBI, and they also discussed emotion regulation as

a key outcome of their training. They additionally felt the MBI gave them a deeper appreciation for the need for self-care in teaching, and they reported learning new strategies for self-care in the form of mindful awareness practices.

These findings provide preliminary evidence regarding the relationship between mindfulness and teaching practice. Yet, more empirical work is required to develop a deeper understanding of the phenomenon. Conducting further interviews and focus groups with teachers engaging with mindfulness will certainly afford more opportunities to identify how mindfulness can influence teaching practice. However, the qualitative research can be strengthened by also including observational fieldwork. No published study to-date has employed qualitative fieldwork to corroborate teachers' reports of the changes they experience from mindfulness trainings or collected empirical data describing how a teacher's state of mindful awareness manifests in their daily teaching practice. Further, most of the previous research has examined short-term outcomes of MBIs on teachers with little to no prior background in mindfulness. These participants may not have had adequate time to establish a personal mindfulness practice or fully integrate lessons learned from trainings into their daily teaching practice.

The current study offers a logical next step to the existing body of research by exploring the phenomenon with interviews and fieldwork. The study attempts to illustrate the lived experiences of teachers through narrative accounts of classroom processes coupled with teachers' descriptions of their internal experiences during the events to reveal what mindful awareness in teaching actually involves. The study also captures "expert-level" perspectives of the relationship between mindfulness and teaching by studying experienced teachers with years of regular mindfulness practice.

Providing a practitioner's perspective on mindfulness for teachers is another way the current study extends the existing literature, as research to-date has largely relied on top-down, deductive methodologies, applying conceptualizations of mindfulness derived from clinical health fields. Hence, there has been much focus on the intrapersonal psychological mechanisms and benefits of mindfulness. Yet, considering the tremendously interpersonal nature of teaching, there are likely more relational elements of mindfulness that teachers find particularly useful, and thus, teachers' interactions will be a point of focus. The study attempts to provide new conceptual insights into mindfulness for teachers and its applications to professional practice.

Research Questions

- How does regular engagement with mindful awareness practices influence teachers' professional practice?
- How does mindful awareness manifest in teachers' daily teaching practice (i.e. interactions with students, moment-to-moment decisions, etc.)?

Methods

Research Methodology

The study operated in the interpretive paradigm (Lincoln, Lynham, & Guba, 2011), which assumes that one cannot understand the social world with a set of universal principles. Human beings interpret the world and their experiences in unique ways, which create innumerable truths/realities in the social world. Because there are infinite realities constantly being constructed by humans, the epistemological goal of research is to simply understand these realities and how they are created through individuals' meaning-making. Individual's subjective realities are best studied through naturalistic observational fieldwork, interviewing, hermeneutical text analysis, and inductive approaches to understanding the social world.

To answer the research questions, I used a qualitative instrumental case study design (Stake, 1995), where studying the experiences of select teachers is instrumental to understanding a broader phenomenon of mindfulness in its application to teaching. Case studies provide in-depth and concrete exemplars of social phenomena and are especially useful for studying *praxis*, or the enactment of context-dependent judgment (Flyvbjerg, 2001). Aiming to explore mindful awareness in teachers' praxis and its application to both the small moment-to-moment contexts of teaching (e.g. multidimensional events occurring in the classroom, histories with particular students, etc.) and the larger global contexts of teaching (e.g. teaching as a profession, occupational challenges, etc.), the instrumental case study design was most appropriate.

Conceptual Framework

Symbolic interactionism (Blumer, 1969) served as the conceptual framework of the study. Symbolic interactionism is a micro-level sociological theory outlining how individuals interact with objects, events, ideas, others, and themselves based on the meaning they ascribe to those things. These meanings arise out of social interactions and constantly change based on repeated interactions. Assuming that humans uniquely construct meaning of the world and their own identities through repeated social interactions, the methodological aim of symbolic interactionism is to study the interpretive experiences of individuals in order to understand the larger social world or a social context such as teaching. The aim of the current study was to explore teachers' experiences with mindfulness in relation to their professional practice, which is a highly interpersonal endeavor. Thus, symbolic interactionism appropriately guided the study into the interpersonal mechanisms of mindfulness, where teachers' meaning-making of mindfulness emerged through interactions with their students and their reflections on those interactions. Bolster (1983) argued the symbolic interactionist approach can produce research

that is most useful for teachers and their professional practice because it is grounded not in universal, context-independent theories, but in situational, context-dependent knowledge, which closely resembles how teachers make sense of their professional practice.

Participants

Recruitment criteria included teachers having at least five years teaching experience and five years (or >1,000 hours) experience with mindful awareness practices. The criteria were set to increase the likelihood of expertise in both areas and increase the possibility that participants have found ways of integrating the two. Both sitting (i.e. meditation) and movement-based forms (i.e. yoga, tai chi) of mindful awareness practices were included in the criteria. However, if participants' primary mindfulness practice was movement-based, I ensured their approach to their practice was more oriented toward mindful awareness as opposed to physical fitness or aerobic exercise (which is common in many Westernized forms of yoga). I sought participants from a variety of school and classroom contexts in order to obtain a diverse representation of teachers' experiences related to their unique contexts. I relied on snowballing strategies to recruit participants, using my network of connections with teachers and mindfulness practitioners.

Mrs. Green[5]

Mrs. Green is in her 27th year of teaching and has worked in settings from kindergarten to sixth grade in public schools on the East Coast and Mid-Atlantic regions of the United States. She has been in her current teaching role as a third-grade teacher at Endor Elementary School for the last five years. There are 21 students in her current classroom.

Endor is a public PK-4 elementary school in a small mid-Atlantic city. Endor's student population is roughly 50% White, 30% Black, 10% Asian, 5% Latinx, and 5% two or more

[5] All names and places have been replaced with pseudonyms

races. About 40% of students receive free/reduced price lunch. In 2017 Endor's math and reading state standardized test scores closely resembled state averages of 75-80% proficiency.

Mrs. Green has been practicing yoga for 20 years and meditating consistently for the past five years. Her current routine of mindfulness practice involves sitting meditation at home every morning before school for 5-10 minutes. She also practices Hatha yoga four days per week for about an hour either after school or on weekends at a recreation center. Mrs. Green stresses that her yoga practice is not primarily for fitness, but as a mindful movement exercise incorporating awareness of breath and body in different postures. While she has been practicing yoga for 20 years total, she admits that the regularity of her practice has been inconsistent over the years based on life events such as having young children. However, now that her children are adults and no longer live with her, she has much more time and space to commit to maintaining her routine of meditating each day and practicing yoga four times per week.

Mr. Sohlasile

Mr. Sohlasile has been teaching for 24 years. He began teaching middle school in his home country of South Africa. After seven years, he moved to the United States to teach high school. Since 2008 he has been working in his current school, Wade Wilson Middle School, where he teaches seventh-grade social studies. During the semester Mr. Sohlasile participated in this study, he was teaching three 90-minute blocks with class sizes ranging from 18-26 students.

Wilson is a public 6-8 middle school in a suburb of a small Mid-Atlantic city. Wilson's student body is roughly 50% White, 20% Black, 15% Latinx, 10% Asian, and 5% two or more races. About 40% of students qualify for free/reduced price lunch. The school's standardized test scores fall within a 70-80% proficiency range for all math and reading assessments.

Mr. Sohlasile has been practicing mindfulness and yoga for the past five years, but he said that in the last year his routine of practice has become much more rigorous and consistent. He currently practices yoga every morning before school for about 45 minutes to an hour. Then he practices yoga again after school for about 60 to 75 minutes. He practices yoga either at a yoga studio or in his home using guidance from online videos. He does not ascribe to a particular tradition of yoga but mentions many of the classes he attends follow the Hatha yoga style.

Ms. Fuller

Ms. Fuller is in her 30th year of teaching. She has taught in various special education classrooms throughout the East Coast and Mid-Atlantic regions of the United States, as well as outside the continental U.S. in Guam and Alaska. She also taught English as a Second Language for eight years in Egypt. She is now in her first year as a special education teacher at Westbrook High School. Ms. Fuller's current role as resource room teacher involves pull-out instructional support for students with both learning disabilities and/or emotional disturbances. There are typically 3-5 students in her classroom throughout the day, and she is not responsible for leading all students through the same lesson but provides individualized academic support to each student throughout the 90-minute block they are with her.

Westbrook High is a "public charter school" in a small Mid-Atlantic city serving students grades 9-12. Westbrook students are roughly 80% White, 10% Latinx, 5% Black, 5% American Indian/Alaskan Native, and 1% Asian. About 25% of students receive free/reduced price lunch. In 2017, Westbrook students scored in the 60-90% proficiency range for all math and reading state assessments.

Ms. Fuller has been practicing yoga for about 20 years. Yoga began as a fitness exercise for Ms. Fuller, initially serving as a substitute for her preferred exercise of running, which was

limited by a back injury. About eight years ago, however, she began approaching yoga as less of a fitness routine, and more of a mindfulness practice. She began doing Yin yoga, where single poses are held for a few minutes at a time with the goal of integrating breath and body awareness. Ms. Fuller continues to practice Yin yoga every day after school either at a recreation center or at home for about an hour. She also occasionally uses yoga nidra, or a method of relaxation, to help her fall asleep at night.

Data Collection

This study was approved by the university's IRB, as well as each participant's school district and school principal. Informed consent was obtained from all participants. Data collection occurred concurrently for all three teachers between October and December.

I conducted three, one-hour semi-structured life world interviews (Kvale, 1996) with each participant to access their meaning-making of the phenomenon of mindfulness and its application to teaching. Interviews were recorded with an audio recorder and transcribed by a third-party service. Interviews allowed participants to share their reflections on the various ways mindfulness influenced their teaching practice and also provided opportunities to discuss events that occurred during observations. Interviews were a critical part of the study because mindful awareness is a largely internal experience consisting of cognitive, metacognitive, and affective processes (Bishop et al., 2004; Shapiro et al., 2006). Thus, in order to explore how the internal experiences of mindfulness influenced the external aspects of the teachers' professional practice, I needed to gain insight into what thoughts and emotions they experienced during particular classroom events, as well as how mindfulness may have influenced their decisions and actions.

I observed each participant in their classroom for a total of 10 hours in order to study their behavior in their professional contexts. Observations ranged in length from one to two-and-

a-half hours and took place during different days of the week and times of the day for each participant. I remained strictly as an observer in the classroom and took detailed field notes of what occurred with pen and pad, adding inferences to the written record of events based on my sense-making of what occurred (Schwartz-Shea & Yanow, 2013). Due to the study's inductive methodology, I did not use a pre-determined observation rubric, but as data collection proceeded, topics discussed in interviews began to inform what I looked for in observations. Immediately following observations, I compiled field notes into a detailed narrative along with additional commentary and inferences. This process concluded with writing analytic memos as a means of preliminary data analysis and further informing the direction of the study in an inductive manner.

Data Analysis

Throughout the data collection process, I looked for emerging patterns in teachers' behavior and linkages between their meaning-making of mindfulness and their teaching practice using Erickson's (1986) method of analytic induction. Upon identifying preliminary patterns and relationships in the data, I began to develop working assertions to offer provisional answers to the research questions. Working assertions informed the direction of future data collection (e.g. discussing observed events in interviews or looking for particular behaviors in observations that teachers discussed in interviews), while I continually remained open for new patterns and connections to develop into additional working assertions. As data collection and analytic memoing proceeded, I continually sought disconfirming and confirming evidence of the working assertions. In the case of disconfirming evidence, I either rejected the assertion or modified it to accommodate the disconfirming evidence. During interviews I also checked with participants about how my interpretation of the data aligned with their own, and in the cases of participants' sense-making not corresponding with my own, I either rejected or modified the assertion.

Once all data collection was complete and working assertions were finalized, I conducted a final comprehensive analysis of the data corpus to search for disconfirming evidence of the working assertions. I also presented the final working assertions to participants to ensure the findings aligned with the teachers' own experiences and meaning-making. Once no disconfirming evidence could be found for the working assertions, I was left with a final set of empirical assertions describing the phenomenon of interest (see Table 1), with evidentiary warrants from interview excerpts and field note descriptions of events observed in the classroom.

Throughout the entire study I kept a methodological reflexive journal to document the natural progression of inquiry and continuously reflect on how my biases potentially impacted the study. The reflexive journal, along with member checks and the final report comprised of assertions, interview excerpts, narrative vignettes from observations, interpretive commentary, and theoretical discussions are all identified by Erickson (1986) as criteria to determine the validity and trustworthiness of the study.

Results

Assertion 1: Teachers engage with mindful awareness practices as a form of self-care, which maintains their well-being and supports their teaching practice

All three teachers discussed mindfulness in relation to self-care and well-being. They felt their daily mindfulness routines improved their mood and quality of sleep, energized their minds and bodies, replenished energy after a difficult day, and even nurtured and healed physical health ailments. Both Mrs. Green and Ms. Fuller discussed how their initial attraction to mindfulness was not as a method to improve their teaching, but simply a way to take better care of themselves. Mrs. Green spoke about how this is still the primary intention behind her mindfulness practice. She stated, "Mostly I do it just for me, to take care of me… making that

time for myself. I think you have to have some time for yourself. And in teaching, you can forget about that sometimes." Here, she stresses the importance of dedicating time to self-care, but also refers to what she feels is a tendency for teachers, who are in constant service to the needs of others, to neglect their own needs. To avoid this pitfall, though, she commits to her routine of meditation and yoga to ensure her own needs are consistently met.

The importance of mindfulness practice as a form of self-care becomes clearer through Ms. Fuller's reflection on what would happen if she were unable to stick to her daily yoga routine. "I would not be happy. My back would hurt. I wouldn't be sleeping half as well as I do. I enjoy coming [to school] every morning, and I would not enjoy coming here." She later added, "If I'm not happy, [the students] aren't happy." This is important because it begins to show that the benefits of self-care are not limited to teachers' inner well-being, but taking care of their own needs has an impact on their interactions with students as well. Mrs. Green's thoughts on the importance of self-care and well-being for teachers' professional practice echoed similar ideas.

> If I'm taking care of myself, I feel better. On many levels, I feel better. I have energy, I have space in my mind, my body feels good in different ways. Yeah. If I'm feeling crappy, and I'm feeling a lot of things on my mind, no, I'm not as effective. I'm not as good. I'm not as patient. I'm not as willing to listen. I'm not as observant, because I'm clouded by other things.

Mrs. Green felt her capacities for patience, listening, and observation of her students are much greater when she takes care of herself. These inner resources are essential for her teaching practice, and without self-care they are depleted. Later in the paper, the listening and observing dimensions of teaching Mrs. Green mentioned, and how they relate to mindfulness, will be

discussed in much greater detail. Yet, it is important to show here how the participants saw self-care playing a role in cultivating both intrapersonal and interpersonal elements of teaching.

Assertion 2: Regular engagement with mindful awareness practices influences the way teachers make meaning of their professional practice, which reduces their experiences of emotional distress

Another process all three participants identified was that regular engagement with mindful awareness practices led to a change in how they interpreted certain classroom events, as well as how they generally viewed their teaching practice. The teachers discussed how over time, they began making meaning of situations differently, or cognitively reappraising[6] them (Lazarus & Folkman, 1984), to where they experienced less distress from occupational challenges they faced. All three described events that used to really bother them in the classroom, but after coming to mindfulness, they no longer viewed the same events as problem. These included students fidgeting in their seats, moving furniture in the classroom, or even dropping pencils on the floor. The teachers made it clear that mindfulness was the source of the shift, and not some other change in their teaching. Mrs. Green shared,

> I think it allows you to see what's more important, what matters. It allows you to look at the big picture instead of worrying about all the little things that don't really matter. When I think about my children, it doesn't matter where they're sitting, how they're sitting, what they're using to write. I mean it should be a pencil but if it's something else, what is important? I think it allows you to bring important things to the forefront.

Mrs. Green further described how she used to feel bothered or annoyed by many inconsequential issues in the classroom and would expend a lot of mental and emotional energy on trying to fix

[6] Though similar to reperceiving, reappraisal is a slightly different cognitive process that does not necessarily involve observing the content of one's thoughts

them. Yet, after seeing these issues as less important than other aspects of her teaching, they began to cause her less distress. Focusing less on trivial issues also freed up her mental and emotional resources to address the events that did really matter.

One example of how a teacher's meaning-making of an event can determine how much energy they expend was visible in the following observation from Mr. Sohlasile's classroom.

> *Mr. Sohlasile begins his review lesson on World War I by presenting a newspaper article to the class from the front of the room. He calls over to a few students seated in the back of the room to move closer so they can read the article. The students move their chairs slightly closer, but they are still not close enough to read the text. "Stand up, come closer to the board," Mr. Sohlasile encourages them, "I want you to see this newspaper article." But the students remain where they are. Mr. Sohlasile waits for a few more seconds. "OK, Desirea, can you describe what you see from there?" Desirea, who is among the students in the back of the room, describes seeing a few men surrounding a car in the picture accompanying the article. Then Mr. Sohlasile asks Clarence, another student in the back, to describe what he sees. Clarence adds a few details about the men wearing uniforms and holding guns. Then Mr. Sohlasile asks the class what event this picture is showing and the students identify it as the assassination of Archduke Franz Ferdinand, which leads to a discussion of how the event sparked World War I.*

Here, the students clearly did not follow Mr. Sohlasile's directive, and as the teacher, he could have pressed the issue on students moving closer. However, had he done this, the event would have likely turned out much differently than it did. There could have been a power struggle between Mr. Sohlasile and the students, or perhaps he would deliver some consequences for students not following his directive. Either of these alternatives would have required Mr.

Sohlasile to expend additional energy in dealing with the situation, and he would have perhaps experienced some level of frustration from their reluctance to move closer. However, in this moment, Mr. Sohlasile reassessed what was important in the lesson. "I realized at that point, 'Why am I fighting on something that I know is so tiny?' In terms of the significance of the lesson, it's small. And I can get it with a picture." He continued,

> Seriously, [the text] was not the focus. That was just a little intro so they can remember the stuff… But the point was not that. So the mindfulness can sort of remind me of– make me go back to my original focus. What is it that I'm trying to get on here?

Similar to Mrs. Green, Mr. Sohlasile felt mindfulness allowed him to pay attention to what is important. In this case, what was important was that students were reminded of the event that sparked World War I, and in order to accomplish that, the students did not actually have to read the newspaper text. So rather than get into a power struggle with students over how close they were to the board, he simply allowed the students to participate from where they were. In the end, he was still able to accomplish his goal of reviewing the World War I event.

It is important to note that for these teachers, their reappraisals of events and the reduced emotional distress they experienced was not a result of becoming numb, aloof, or carefree to what happened in the classroom. Mr. Sohlasile made this clear by stating, "Things still hit you, but it's just how you relate to those events and what you walk away taking from it." The teachers still felt frustration, anger, or sadness from events in their classrooms, but mindfulness and their meaning-making of events lessened the impact of these emotions and the distress they caused.

Mindfulness not only helped teachers reappraise discrete events in the classroom, but also contributed to a shift in how they generally viewed their role as a teacher. This showed up most notably in how they discussed the idea of control in the classroom. Mr. Sohlasile shared,

> I remember myself when I was beginning to teach, or before I sort of exposed myself to a lot of mindfulness. I wanted many things in class. I wanted control. I wanted the things to look easier even if they're difficult. I was worried about that.

All three participants identified that earlier in their careers they felt a need to control their students or fix all of their problems, and they experienced emotional distress when they failed to do this. Mindfulness, though, contributed to a change in how they viewed their professional practice, and when they began let go of their need for control, teaching became less stressful.

Similar to self-care, the benefits of reappraisal showed up in both the internal and external realms of teaching practice. Participants' internal experiences of distress changed with their shifting interpretations of classroom events, and they made in-the-moment reappraisals of student behavior to avoid conflict and focus on what was important in their lessons. Additional internal and external elements of mindfulness in teaching are described in the next assertion.

Assertion 3: Regular engagement with mindful awareness practices cultivates a state of mindful awareness in teaching, which involves a heightened attention to both external events and internal experiences

The teachers discussed how continual engagement with mindful awareness practices built their capacity to be mindfully aware of the present-moment in their teaching practice. They described how mindful awareness manifested in their daily teaching practice as a heightened attention to what happens in the classroom, along with a simultaneous awareness of their own thoughts and feelings. Mr. Sohlasile explained, "When I think of mindfulness, it's really a true awareness of sensing when things happen around you. And when things have an influence on your day, your emotions." Mrs. Green similarly shared,

> [Mindfulness] is quiet, it's introspective. At the same time, I still need to be aware of everybody else... It's combining those two. It's being quiet and looking, and listening, and thinking about other people, but sometimes it's just about me. Seeing everything that's here right now.

This heightened awareness of the present moment, and the outer and inner processes occurring therein, is not necessarily a constant consciousness of every minute occurrence in the classroom and within themselves. Yet, the teachers felt that continual engagement with mindful awareness practices *enhanced* their ability to pay attention to students and their own experiences, so they would be more likely to notice and respond to what was happening.

External awareness

A large part of teaching involves paying attention externally – most notably to students and their learning, behavior, emotions, etc. – and the teachers discussed how mindful awareness supported their ability to observe and listen to their students. As they were more attuned to their students' experiences, they could better understand and meet their needs. Mrs. Green explained,

> It allows my teaching, my explicit teaching on how to do something, more targeted. Because I've listened to them, I've watched them, I've looked at their papers. I've looked at their doodles, or how they are figuring something out. So, it can allow for the actual instruction to be more targeted, it gets to more of the root of what they– what I need to see them doing. It allows you to see what the mistakes are, so then I can address those, but it also allows me to see where they are really strong.

Mrs. Green described her teaching as "more purposeful" when she paid closer attention to students. I asked what her teaching was like before coming to mindfulness, and she stated,

> It was more about looking at the pacing guide, looking at what am I supposed to teach, and just kind of following that, and not always taking advantage of listening to them; to say, 'Oh wait, I know it says I'm supposed to teach three syllable words, but they're not straight on the single syllable words.'

Mrs. Green felt mindfulness helped her attend more to the present-moment, situational demands of the classroom, so she could better identify and meet students' needs. The following sections highlight specific aspects of what Mrs. Green described, with vignettes and interview excerpts illustrating the process in more detail.

Observing. Looking closely at students and what they are doing is one important way teachers identify students' needs. This vignette displays Mrs. Green's observational skills, which she feels are enhanced by her continual engagement with mindful awareness practices.

> *Mrs. Green is working on a math activity with a small group of students at the back table. After she gives the students a problem to solve independently she scans the room to check on other groups of students working at separate tables. She calls over to a table of eight students toward the front of the room and praises Isaac and Lamar for their focus and hard work. She then asks Anna, who is at the same table, "Anna, is there something you need help with?" Anna nods and then walks to the back table and shows Mrs. Green she is stuck on one of her math problems. Mrs. Green looks at her worksheet. "Did you carry your one?" she asks Anna. Anna begins writing on her sheet and Mrs. Green continues to observe. She quickly stops Anna, "Wait wait, we're doing plus here." Anna corrects her mistake, and then Mrs. Green confirms she now has it correct.*

What was interesting about this event was that Mrs. Green suspected Anna needed help with a math problem without Anna ever asking for help and without Mrs. Green being able to directly

see Anna's worksheet from across the room. When I asked her about how she knew Anna needed help, Mrs. Green said,

> Maybe I was a little bit lucky, but I can tell when someone– when they're working on a math problem, and they are happily solving it, and using their strategies, their face is peaceful, and it's not full of stress, but I can tell by maybe how their eyes look, or maybe the color of her– she's very light, so she tends to get a little bit red.

Looking closely at students' faces was something Mrs. Green said she did often, not just to see if they are struggling with math problems, but to gauge their emotions, energy levels, and overall engagement. By reading students' faces, she could gain a better sense of their needs.

The above vignette also displays how Mrs. Green paid close attention to students' computational work. By observing Anna try to solve the problem, she was able to notice an error and provide further support to meet her instructional needs. Throughout observations in Mrs. Green's room I regularly saw her circulate the room as students worked independently or in small groups and stop to work with students to provide specific, targeted feedback. She also provided comfort or reassurance when needed. It was evident Mrs. Green constantly observed her students so she could respond appropriately to their instructional and social-emotional needs.

Ms. Fuller also demonstrated observational skills that supported her ability to meet her students' needs. The following vignette describes a brief exchange with Frank, a student with severe emotional disturbance who struggles to verbalize his needs.

> *As Ms. Fuller is working with Jeff, she looks over and sees Frank pacing by the door with a strained look on his face, but he isn't saying anything. "Are you starving?" Ms. Fuller asks. "Yeah," Frank says hesitantly. Ms. Fuller then gets some cheese crackers out of the filing cabinet beside her and gives them to Frank.*

Observation is particularly important for identifying students' needs when they struggle to verbalize them, as was the case with Frank. Similarly, Mrs. Green had an ELL student, Aliyah, who in the 10 hours I spent in the classroom, did not speak once. Yet, Mrs. Green was consistently able to identify Aliyah's needs, like seeing when she was having trouble finding a work partner on her own or when she was unclear about what to do after completing an activity. When she saw Aliyah was in need of help, Mrs. Green responded accordingly.

Listening. When I asked Ms. Fuller what mindfulness looks like in teaching, she said, "Listening. I think a lot of listening that goes on… Just listening to what's going on with [the students]." At the beginning of each class before assigning any work, Ms. Fuller checked in with students to ask them about what was going on in their lives, how much sleep they got the previous night, what their mood was like. This was not simply a cursory greeting, but she attentively listened to their answers so she could meet students where they were. If they were having a particularly difficult day or facing challenges at home, she would provide students with caring support. She would also at times take a gentler approach to assigning work, but still had expectations the student would work during her period. The following vignette illustrates her listening and responsiveness.

> *Jay enters the room and sits on the couch. Then Ms. Fuller sits with him to check in and create a work plan for the period. Jay tells her, "I can barely focus today. There's some home stuff going on that's bugging me." Ms. Fuller listens attentively, then responds, "Yeah, it's hard to focus in school when home stuff is on your mind." She waits to see if Jay shares anything else, but he doesn't. She then asks, "Is there anything really easy you can work on, like English, that you'll be able to do even though other things are on your mind?" Jay replies, "Yeah, I can probably work on that," and he gets to work on his*

> *own... Later in the period, Jay finishes his work, and Ms. Fuller praises him for his hard work. Then she asks him again about how he's feeling. Jay begins discussing how he hasn't been getting much sleep lately, and Ms. Fuller sits closer and listens. Jay never reveals the specific problem going on at home, but Ms. Fuller asks him questions about how he's handling the issue and what he might be able to do to remedy the situation.*

During an informal conversation I had with Ms. Fuller while her students took a break, she told me about how many of her students faced very difficult home situations, such as parents in jail or living in group homes, which had a major influence on their school performance. Therefore, she had to learn about what was going on in their lives so she could adjust her approach to getting them to work in her class. Paramount to this process, was her ability to listen to students.

Mrs. Green also discussed how mindful awareness in teaching involves listening to students, along with the value of listening for her teaching practice.

> I let them talk and just listen, without trying to correct what they're doing, but try to hear their thought process before I jump in. To find maybe one little thing that they do understand. And I can kind of hook into that.

Here, Mrs. Green discusses how listening supports her instructional feedback and stresses the importance of listening over correcting students. Listening allows her to get a better sense of how students are thinking about the content so she can provide more purposeful feedback that builds on what they do know. Having students explain their thinking was a strategy I observed Mrs. Green frequently use in class, and her feedback typically related to what the student shared.

Mr. Sohlasile offered a humorous example of what happens when he fails to listen. A few years ago, he had a student who was frequently disruptive in class and caused him a lot of frustration. One day, as Mr. Sohlasile was delivering instruction the student raised his hand. Mr.

Sohlasile, assuming he was going to make a silly comment, told him to wait. A few minutes later, the student raised his hand again, this time giggling. Now with the student giggling, Mr. Sohlasile was certain he was only trying to be silly, and he again told him to put his hand down. Later, the student raised his hand once more, now with other students giggling. Mr. Sohlasile, annoyed and confused, asked "What is it!?" The student told Mr. Sohlasile his pants zipper was down.

Mr. Sohlasile laughed as he recounted the event and discussed how he reflected on the situation. "It was like, 'Wow, look at that.' I can't even hear the things that I need to hear because I have my story that I'm telling myself of why he's raising his hand." Having been introduced to mindfulness at the time this event occurred, Mr. Sohlasile was able to notice his lack of awareness on this occasion when he reflected back on the event. He saw how his prolonged frustration with the student and his interpretation of the student's behavior were interfering with his ability to listen and understand the student's actual motivation for raising his hand. Seeing this error, Mr. Sohlasile recognized the need to listen more carefully to his students and also bring more awareness to how his own thoughts and emotions impacted his teaching. He added, "I just started to pay attention and I started to pay attention more for him. I wanted to figure out what does he want." This interplay between the internal and external attention is exactly what teachers felt continuous engagement with mindfulness afforded them. Such enhanced awareness and flexible attention provided more clarity about what actually happened in their classrooms versus what their judgments, biases, and emotions led them to believe. How continual engagement with meditation and yoga fostered the teachers' heightened awareness of their thoughts and emotions is explained in the next section.

Internal awareness

Mr. Sohlasile's story about misinterpreting his student's motivations for raising his hand demonstrates the importance of teachers being aware of their thoughts and judgments about what happens in the classroom. What is also important is recognizing how underlying emotions, like frustration in the case of Mr. Sohlasile's story, can contribute to misinterpretations of students' behavior. The teachers in this study frequently talked about the importance of their emotions in teaching, and how mindfulness supported their emotional awareness. Participants discussed many facets of emotional awareness they felt were enhanced by their engagement with mindfulness, including a greater recognition of the impact their emotions had on their teaching, an awareness of emotions in their bodies, and noticing when events triggered emotions in them.

Mr. Sohlasile spoke often about how his emotions affected his students and the overall classroom climate. "I'm walking in the class knowing how I'm feeling and knowing that what I have can influence the students, will influence the students." Therefore, he stressed the importance of having some awareness of how he felt going into school each day. His yoga routine allowed him to pay attention to his inner experiences each morning to see if he was carrying anything from the previous day into a new school day, or if any personal issues at home were causing him distress. He did not feel he *had* to be happy every day to be a successful teacher but understood that if he was feeling irritable or angry, he needed to be extra careful that those emotions did not drive his interactions with students.

Ms. Fuller discussed how her yoga practice supported her ability to notice emotions she was carrying in her body. She felt her Yin yoga practice, which calls for focused attention on bodily sensations in different postures, was especially conducive to her heightened bodily awareness. "I can tell when I'm mad. My blood pressure really– blood pressure just squeezes and I get sweaty," she shared. In interviews Ms. Fuller described challenging situations not just with

students, but also parents and administrators, that triggered strong emotions in her. Once she identified the bodily sensations and the accompanying emotions, she was able to use deep breathing to regulate the emotional experience (the process of emotion regulation and its importance to teaching will be discussed in Assertion 4).

It is important to reiterate that mindfulness does not completely eliminate all distressing emotions from teaching. The participants still reported experiencing frustration, anger, sadness, etc. What mindfulness did for them was bring more awareness to their emotional experiences, so their emotions would not unknowingly impact their interactions with students – as was the case with Mr. Sohlasile's misinterpretation of why his student was raising his hand. Having a more conscious awareness of their internal experiences, the teachers could see how their emotions influenced their thoughts about students, their ability to accurately identify students' needs, and how they were able to maintain warmth in their interactions. Their growing emotional awareness was also essential for their ability to regulate the emotions they experienced in the classroom.

Assertion 4: Mindfulness assists teachers in regulating emotions triggered by classroom events, which helps them respond, rather than react, to the events

The teachers had to first notice an emotion was triggered before they could take measures to prevent it from negatively impacting their teaching. Yet once they did notice they were feeling annoyed or angry, they employed strategies to regulate the emotion. Emotion regulation is the ability to manage or moderate an emotional experience, or in other words, have some control over the intensity and duration of an emotion (Gross, 1998). Teachers discussed how they were able to regulate emotions in two ways: (1) with deep breathing and (2) through reperceiving, a process of observing and deidentifying with their thoughts to see an event with greater clarity.

All three teachers identified deep breathing as a strategy for emotion regulation. Mr. Sohlasile described how deep breathing assisted him in responding to difficult situations in the classroom such as students being disruptive or arguing with one another. "Are you still able to create that space between when that happened and your reaction? Just a little space. Maybe stop and breathe three times. Like, 'Okay, what do we do now?'" Numerous times in observations I observed Mr. Sohlasile pause and take a deep breath when students were being disruptive, rather than immediately try to stop their behavior. At times, the students would stop being disruptive on their own. At other times, Mr. Sohlasile would take action, as illustrated here:

> *Mr. Sohlasile continues leading the class through questions about the document they're analyzing. Clarence and Desirea begin talking to one another while Mr. Sohlasile delivers instruction. "Hey guys, that's not gonna work for me," Mr. Sohlasile says in an attempt to redirect the talking. For a second, they stop talking, but after Mr. Sohlasile continues teaching they begin talking to each other again. Then Mr. Sohlasile stops and waits, taking a breath. After a few seconds he says, "I'm trying to figure out what to do with you guys." He spends another second or two in silent thought. Then he sends Clarence to a table to his right and Desirea to a different table. He also moves Jaylen and Janelle, who were also talking, to separate tables. Then he continues with instruction. Throughout the remainder of the lesson, the four students he moved do not require any additional redirection for disruptive behavior.*

In this vignette we see how the deep breath helped Mr. Sohlasile stay calm despite the students' repeated disruptions, and he took a moment to assess the situation. Then he chose a purposeful course of action, which in the end proved to be effective. The pause and deep breath, as Mr. Sohlasile described it, created a space between the event and his reaction, so that he could clearly

see what was going on, and take his time to make a purposeful decision that addressed the specific demands of the situation.

Even when students' behaviors would trigger unpleasant emotions, Mr. Sohlasile felt he was able to notice the emotions, as well as accompanying thoughts about their behavior, then regulate the emotions. He shared, "Some days I catch myself being mad. I'm like, 'What? Calm down. Remember this is not about you. It's about the kid.'" Here, he refers to his emotional awareness and the ability to catch himself being mad. He also points out his thoughts of personalizing students' behavior, or making it about him as the teacher, and reperceiving such thoughts to remind himself not to take students' behavior personally. Telling himself, "this is not about you" allows Mr. Sohlasile to take a step back from the situation and view it with more objectivity, as the feelings of being attacked are removed.

He and Ms. Fuller both discussed how before practicing mindfulness, they used to take students' defiance or disruptive behaviors very personally – thinking it was a direct attack on them or the result of their poor teaching. Yet, with mindfulness, their perspective shifted to see students' disruptive behavior as a natural part of their schooling and an inherent occupational challenge. When they no longer felt personally attacked by students' misbehaviors, they did not have the same emotional reactions to their behavior, and they could respond to what the student was doing instead of simply punishing the student for making them angry. "Deal with the kid for the crime that the kid did, not for disrespecting you as a teacher. When you do that, you're much more clear about what you're saying," Mr. Sohlasile stated. I observed numerous disruptive behaviors from students during my time in Mr. Sohlasile's classroom, and he never lost composure or displayed anger toward students. Even when he sent students out of the room for

repeated disruptions, he did so very calmly and matter-of-factly, telling them they simply cannot stay in the classroom because they were disrupting others' learning.

This process of emotion regulation was very similar for Ms. Fuller, and it was most readily seen in her interactions with Frank, a student who had frequent intense emotional outbursts. The following vignette displays how his outbursts typically played out, as well as Ms. Fuller's response to them:

> *Ms. Fuller and Frank are laying out his work plan for the day. Today, Frank has to complete an English assignment and bake a pizza for his life skills class. Frank is trying to negotiate doing his pizza and English projects simultaneously, but Ms. Fuller tells him he will need to devote separate time for both. Frank's emotional level escalates quickly. "Ms. Fuller, I can write while the pizza bakes! I've cooked many many times before!" he yells, waving his arms emphatically. "Just let me do it that way!" Ms. Fuller does not immediately respond and remains calm. "I can see you're frustrated, Frank," she tells him, "but you need to work on them separately." Frank shakes his head and folds his arms as he turns away from Ms. Fuller. Seeing Frank has closed himself off to any further discussion, Ms. Fuller moves over to Jerry to create his work plan for the day. As she's working with Jerry, Frank quickly types his English assignment. A few minutes later, Ms. Fuller checks back in with Frank, who is now watching YouTube videos. Before Ms. Fuller says anything, Frank snaps at her, "Geez! I typed the thing, what do you want?" Ms. Fuller pauses, her affect remains calm. "Are you angry, Frank?" He sighs, "I don't know, you just keep… arrgghh!" he lets out in a strained tone. Then Ms. Fuller, with the same calm, warm tone replies, "OK, well if you've finished it I'm going to email the English teacher so she knows it's done and she can take a look at it."*

Exchanges with Frank like this occurred in all but one observation with Ms. Fuller. She would give Frank a simple directive or work demand, and he would reply to her in a very harsh manner, either trying to escape the demand or make it known he did not like what she was asking of him. Not once did Ms. Fuller's outward emotional state change during these interactions, and she never came back at him with any emotionality or harshness.

Ms. Fuller contrasted her current approach with how she would have responded to Frank's outbursts before she began practicing mindfulness. "In probably years past I might have said, 'Wait a minute.' And raised it up to a level that I don't need to." Yet, now, she uses strategies to stay calm amidst Franks' emotionality. "I'll take a breath or I'll just say, 'It's not me.'" Similar to Mr. Sohlasile, Ms. Fuller identified both deep breathing and reperceiving strategies for emotion regulation, which prevent emotionally charged situations from escalating further. The deep breathing helps regulate her physiological response to the stressful event, which prevents her own emotionality from driving her response to his behavior. As Mr. Sohlasile described, the breath also creates a space between the stimulus and response: Frank's outburst and Ms. Fuller's response. The space allows for a more purposeful action to come through Ms. Fuller's response, as opposed to an emotional reactivity. Further, she tells herself, "it's not me," which is a reperceiving strategy. She elaborated, "It's not me, it's him. That whole mindfulness of thinking, what is his behavior? Is his behavior me? It's not me. I always used to think every behavior that walked in the room was because of something I did." Like Mr. Sohlasile, Mrs. Fuller is able to step back from the emotionally charged situation to prevent herself from feeling personally attacked. Thus, feelings of defensiveness and anger are less likely to be triggered and impact her response, and she can respond from a place of calmness and clarity.

Assertion 5: Teachers make unique applications of mindfulness to their teaching practice based on their specific teaching contexts

One intention of recruiting participants from various teaching contexts was to explore differences in how teachers applied mindfulness to their professional practice based on their grade level, general education versus special education, and broader school characteristics. The following findings indicate some unique aspects of mindfulness in teaching based on the various classroom contexts in which the participants taught.

Time urgency in third grade

A recurring concept that came up in Mrs. Green's application of mindfulness to her teaching related to her experiences of time urgency in the classroom, or a feeling of being pressed for time to cover content. She spoke of the urgency to cover all the content of one lesson within a single class period, to complete entire curriculum units in a limited time span, and to cover the entire curriculum, including test preparation, over the course of an academic year. She also described how she felt pressure from administrators around coverage and getting things done quickly. She discussed how this time pressure created the tendency to rush through content or stick to the pacing guide to ensure she covered all the curriculum. However, she felt her third-graders' learning depended on them having time to explore the world around them, and paying too close attention to coverage took away from these opportunities. What she felt was helpful about mindfulness, though, was that it helped her slow down her teaching and stay focused on what her students were working on in the moment. This allowed her to attend more closely to her students' experiences and less on what she had to cover next. She emphasized that she still thought about coverage and making sure she was meeting the curriculum requirements, but she

felt less pressured by time and she was much more flexible with her instructional decisions if she felt something needed more time than what the pacing guide provided.

> In math, everything builds. For me, I have to think about just what they're doing right then. Are they working? Are they on task? Are they focused? Are they problem solving? Are they just persevering? Are they really trying? And not really worried about where I'm supposed to get them in June. That looming [standardized] test. I try really hard to not think about it at all because they'll get there, but right now, I have to worry about today.

This quote highlights the present-moment orientation of mindfulness and all of the important matters Mrs. Green attends to beyond the pacing guide. During observations I frequently observed Ms. Green tell students to "slow down" and that she values accuracy over speed. Mrs. Green practiced what she preached and never appeared to rush through anything in her teaching. In her interviews she also stated how she was fine with sacrificing one part of a lesson or unit if students were showing high levels of engagement with another.

She did, however, speak to the tension she felt between this approach to teaching and what she felt was the common tendency in her school's culture to value coverage over students' deep understanding of the content. "That's not the structure of the school system, so sometimes I often take a little heat for [not following the pacing guide]. I do. Oh well." Here, we see the interplay of multiple contextual forces, including grade level, standardized testing procedures, and her school administrators' values. Even though Mrs. Green's approach to teaching did not align with the widespread culture of test-preparation and her administrators' valuing of speed in teaching, she felt confident in her abilities to carry out her own professional goals and felt mindfulness supported her in resisting the tendency to rush through her teaching.

Providing space for peer-to-peer interactions in seventh grade

Mr. Sohlasile frequently spoke of his students' needs for social connection and acceptance, which he felt were particularly important in seventh graders' development. Therefore, he was intentional about providing opportunities for his students to engage socially in his classroom. This was apparent in the numerous cooperative learning activities he provided to students and also in the first few minutes of each class period. He typically allowed students to come into his classroom and talk to one another without trying to quiet them down and begin instruction right away. He did discuss how taking this approach made it a bit more challenging to gather students' attention when he was ready to start the lesson because they were often so engaged in their social conversations, but he felt mindfulness helped him stay patient while students wound down and brought their attention to him.

I observed how Mr. Sohlasile would move to the front of the classroom and call to the students it was time to begin class. On most occasions students would not immediately stop talking and give him their full attention. It typically took a couple minutes, and while students began to settle, Mr. Sohlasile would sit and wait patiently. When I asked him about getting students focused and ready to start the lesson, he described his approach, as well as what is going through his mind during that time of waiting for students,

> When I just sit like that, it's like the modeling of what I think I want to happen in class. I'm not by any way worried about anything. I'm just relaxed, I'm waiting to start the class. There's a language in it, in me. It's like, "Give them a chance to finish their little conversations and remember that they're in class."

If conversations lingered too long, Mr. Sohlasile would eventually provide reminders to students still talking that it was time to start class, but these were done gently by saying, "have your seat please" or "it's time to start class now." He also relied on students holding each other

accountable for their behavior by telling each other when they needed to shift their focus to Mr. Sohlasile or stop talking. He felt students holding each other accountable for their behavior was another important developmental aspect of seventh-graders where many students were much more likely to listen to and follow their peers than an adult figure. In observations I witnessed numerous instances of students redirecting one another or quieting each other down when Mr. Sohlasile was delivering instruction. It is evident that this approach required a certain degree of patience and flexibility with students, and Mr. Sohlasile really felt his mindfulness practice fostered these qualities, which ultimately helped him meet his students' developmental needs. He also related this approach to his letting go of the need to control his students and thus did not attempt to quiet students down forcefully or with threat of punishment.

Managing the added stressors of teaching students with emotional disturbances

In the various teaching positions Ms. Fuller has held in the last 30 years, she reported feeling her current role was her most challenging, largely due to a few of her students' intense emotional difficulties. However, she did not feel as stressed as she has in other teaching roles because her mindfulness practice has really supported her ability to manage the emotional ups and downs of her current role. She stated, "If I didn't have this mindfulness in my pocket, I think I'd be pulling my hair out. I really do. I think I wouldn't feel like I had the skills necessary to do this job." Clearly, an important skill in Ms. Fuller's role is to stay regulated amidst the emotional swings of her students, and it was evident that she was able to do this consistently. She spoke about how she used to lose sleep from thinking about her teaching and interactions with students, analyzing all the ways she could have prevented disruptions. However, now she no longer loses sleep because of students' behavior, not because she has stopped caring about them, but because her continual engagement with mindfulness has helped shift her perspective on their behavior.

> And a lot of days, even if you try your best, it's not going to come out pretty. Somebody might just yell at you. And even days that somebody yells at you, you can just, like you said, take a breath and know that you're doing what you can do. That's all you can do.

She understands there will be emotional outbursts throughout the day, and she no longer takes them personally or beats herself up about them. Rather, she is able to stay calm during these times and then quickly move on from them to continue supporting her students and continue finding joy in her teaching.

Discussion

The first goal of the present study was to broadly explore how teachers' regular engagement with mindful awareness practices influenced their professional teaching practice. Findings showed the primary ways this happened were by cultivating well-being through self-care, shifting their meaning-making of their teaching, and cultivating a state of mindful awareness in teaching. For one, teachers' felt their routines of mindfulness practice offered them a means of caring for themselves and maintaining their well-being, which ensured they consistently had the physical, mental, and emotional resources they needed to carry out their professional responsibilities. Jennings and Greenberg (2009) argue that teachers' well-being is essential for their ability to create supportive learning environments, and participants in this study described various ways their self-care routines, which consisted of mindful awareness practices, cultivated their well-being. In turn, when the teachers were happy and energized, they felt they were better equipped to teach. They felt better able to attend to what happens in the classroom and maintain warmth and patience with students, which might explain why Jennings et al. (2017) found improvements in teachers' abilities to foster emotionally supportive classrooms following an MBI. Where previous research has only identified the relationship

between teachers' mindfulness and well-being through the mechanism of self-care (e.g. Schussler et al., 2016), the current study extends this research by showing how mindfulness can also support aspects of teachers' professional practice through the mechanisms of self-care and well-being.

Additionally, participants felt their engagement with mindfulness helped them shift their meaning making of classroom events and their general approach to teaching. While teachers' well-being can enhance their teaching practice, greater experiences of emotional distress have been shown to impair teachers' professional practice (McLean & Connor, 2015; Wong, Ruble, Yu, & McGrew, 2017). Teachers in this study described how mindfulness helped them experience less emotional distress when they reappraised the significance of situations that used to bother them. This finding aligns with Jennings et al.'s (2013) study showing an MBI had significant effects on teachers' self-reported abilities to reappraise emotional experiences, as well as research on non-teacher samples showing that mindfulness and positive reappraisals of life events reciprocally enhance one another and contribute to a reduction in emotional distress (Garland, Gaylord, & Fredrickson, 2011). The current study also showed how teachers' reappraisals enhanced their teaching practice by helping them preserve energy and avoid conflict with students as they felt less compelled to address minor events in the classroom.

Participants also described how regular engagement with mindful awareness practices built their capacity to employ mindful awareness in their teaching. The purpose of most meditation and yoga practices is not only to enter a state of mindful awareness during the practice, but to also bring that enhanced state of awareness into one's everyday life (Kabat-Zinn, 2013). Findings revealed the numerous ways teachers brought mindful awareness into their teaching practice, which was the second aim of the present study.

They described mindful awareness manifested in teaching as an enhanced outer and inner awareness. The heightened outer awareness allowed them to observe and listen more closely to their students in order to better understand and meet their needs, which can explain Jennings et al.'s (2017) finding that an MBI improved teachers' sensitivity and responsiveness to students' needs. The increased attunement to inner experiences helped teachers identify their emotions and see the impact their emotions had on their teaching. In a qualitative exploration of an MBI for teachers, Schussler et al. (2016) identified teachers' increased emotional awareness as a primary outcome, with teachers describing their growing ability to identify the presence of emotions in the body very similarly to the teachers in the current study. The emotional awareness teachers developed through engagement with mindfulness was necessary for their ability to regulate emotions triggered in the classroom, which was another important finding of the current study.

When teachers felt the onset of unpleasant emotions or when emotionally charged events occurred in the classroom, they employed strategies of deep breathing and reperceiving to regulate their emotions. Emotion regulation skills have consistently been discussed in the broader mindfulness literature (e.g. Chambers, Gullone, & Allen, 2009; Corcoran, Farb, Anderson, & Segal, 2010) and have been identified as a significant outcome of various MBIs for teachers (Jennings et al., 2013; 2017; Taylor, 2016). Deep breathing has long been held as a common regulation strategy (Grossman, 1983), but the process of reperceiving is unique to the field of mindfulness and contemplative practice. Reperceiving was demonstrated in Mr. Sohlasile's and Ms. Fuller's language of "it's not me." They observed their own thoughts and feelings of being personally attacked by students' behaviors and disidentified with such thoughts. Letting go of the feeling of being personally attacked, they became less emotionally reactive and were able to then see the situation with more clarity. The process of reperceiving described by

teachers in this study closely resembled the experiences of teachers in Sharp & Jennings' (2016) study, which suggests the metacognitive mechanism of reperceiving may be a particularly useful mindfulness strategy for teachers and their ability to regulate emotions in the classroom.

Lastly, the study revealed some contextual differences in how the teachers made sense of mindfulness in relation to their teaching practice. Teaching in third grade, Mrs. Green reported experiencing some time urgency in the classroom but felt her mindfulness practice supported her in not rushing through content and staying attuned to what students really needed. Jennings et al. (2011; 2013; 2017) found reductions in teachers' feelings of time urgency following an MBI and interestingly, all three of these studies involved mostly, or solely, elementary-level teachers. However, no existing evidence suggests time urgency is a phenomenon limited to elementary-level teaching, so more research is needed to explore this relationship.

Mr. Sohlasile's approach to his seventh-graders' social behaviors reflected his understanding of their developmental needs. While previous research showing how mindfulness training can improve teachers' sensitivity and responsiveness to students' needs was conducted with elementary student teachers (Jennings et al., 2017), the current study suggests this may be the case for middle-school teachers as well.

Ms. Fuller felt her mindfulness practice was particularly useful for her role of working with students with emotional disturbance. Previous research has found significantly higher rates of burnout in special education teachers working with students with emotional disturbance compared to other disabilities (Nicholas & Sosnowsky, 2002; Wisniewski & Gargiulo, 1997). Therefore, findings from this study suggest mindfulness training may be particularly valuable for teaching students with emotional disturbance – not only for teachers' self-care and well-being, but also for regulating their own emotions triggered by their students' emotional outbursts.

Limitations and Implications

There is an inherent challenge to studying the complex cognitive, metacognitive, and affective processes of mindfulness, such as attempting to understand the breadth of one's awareness, the depth and direction of one's focused attention, one's ability to observe the contents of one's own thoughts, or one's dynamic emotional states. Many researchers have used brain imaging technology, lab-based behavioral tasks, and bio-physiological assessments to measure such processes. There is an added challenge of studying how the mechanisms of mindfulness play out in one's daily life beyond the lab, and researchers mostly rely on self-report measures, phenomenological interviews, and experience sampling methods (Csikszentmihalyi & Larson, 1987) to investigate individuals' subjective experiences of mindfulness. More difficult still, is the endeavor of studying mindfulness in an applied, highly relational context such as teaching, where individuals' cognitive, meta-cognitive, and affective experiences influence their interactions with others. Such was the ambitious aim of the current study, which in the end was successful in revealing some of these processes. The use of both interviews and observations, along with the conceptual framework of symbolic interactionism, demonstrated the interplay between teachers' internal and external experiences of mindfulness in the classroom and their meaning-making in action. Teachers were able to describe their internal experiences during events observed in the classroom, and they explained how their engagement with mindfulness related to the way they interpreted events and made sense of their teaching practice. Thus, similar methodologies should be employed for future studies of mindfulness for teachers.

However, there were some limitations to what the study was able to capture. For one, the teachers felt their regular engagement with mindful awareness practices cultivated a state of mindful awareness in their teaching, which involved a heightened attention to external and

internal experiences. Yet, they did not claim to hear and see every single occurrence in the classroom, nor be attuned to every thought and emotion they had in a given day. Thus, the question remains: how much, or to what degree, does practicing mindfulness enhance a teacher's outer and inner attentional abilities, and does this enhanced attention actually have any meaningful impact on the quality of their teaching? The teachers in the present study all felt the changes were meaningful, and the observational evidence demonstrated the manifestations of mindful awareness in teaching would have a noticeable impact on the quality of their interactions with students, but with the methodology employed in this study it was impossible to know how consistently or how deeply teachers maintained a state of mindful awareness in their teaching. Brain-imaging technology and behavioral tasks are likely best for studying the consistency and depth of one's attention, but such techniques may be unrealistic in applied settings.

One might also ask, how much does a teacher have to engage in mindful awareness practices (i.e. frequency/duration of practice, years of practice, etc.) before there are any changes in their teaching practice? No meaningful comparisons came out of the current study in regard to participants' personal histories with mindfulness or the frequency, duration, and type of mindfulness practice (meditation vs. yoga). Mrs. Green and Ms. Fuller had more years of experience with mindful awareness practices than Mr. Sohlasile, but it was not apparent they were any *more* mindful than he was in the classroom. So, the various dimensions of mindfulness practice and the process of growth and development occurring with teachers' continual engagement in mindful awareness practices are still unclear. A longitudinal study of teachers' professional practice after receiving mindfulness training and consistently engaging in mindful awareness practices could elucidate this relationship.

Despite their varying years of experience with mindfulness, all three discussed how mindfulness influenced their teaching in very similar ways; so again, it may be a matter of consistency and depth of mindful awareness in teaching. Yet, it is important to reiterate how Mrs. Green felt she was less able to listen to and observe her students when she did not meditate and practice yoga regularly. Therefore, the regularity of one's mindfulness practice may relate to the consistency and depth of one's mindful awareness in teaching. The current study was unable to provide solid data on this relationship, as all teachers maintained their routines of practice throughout the duration of the study, but perhaps a future study could compare teachers' experiences when they maintain a regular routine of practice versus when they do not, using data collection strategies such as experience sampling or a daily diary method.

The current study offers some additional directions for future research. By uncovering important mechanisms in the influence of mindfulness practice on teachers' professional practice, this study identified potential mediators to be tested in quantitative investigations of MBIs for teachers. These include self-care, well-being, reappraisal, emotion awareness, and emotion regulation. Studying these mechanisms may be key to further understanding how mindfulness training improves the quality of teachers' interactions with students. Additionally, most research to date has been conducted on novice mindfulness practitioners, but this study showed how repeated engagement with mindfulness awareness practices (5+ years) can cultivate a sustained state of mindful awareness in the classroom and the various ways it manifests in teaching. Therefore, an additional potential mediator of the relationship between mindfulness and the quality of teachers' interactions with students would be the degree of teachers' personal engagement with mindful awareness practices.

Findings from the current study also contribute to existing theories on both mindfulness and teaching. Shapiro et al.'s (2006) theory of mindfulness proposes that one's (1) *intention*, or reason for practicing mindfulness, (2) *attention* to inner and outer experiences, and (3) *attitude* of acceptance, openness, and compassion lead to a shift in perspective, or reperceiving, of one's moment to moment experiences. The current study showed how teachers' abilities to reperceive events in the classroom played a significant role in how they regulated emotions. However, Shapiro et al.'s theory mostly focuses on the cognitive, phenomenological processes of mindfulness and does not extend much into the relational, interpersonal dimensions of human experience which are fundamental to the practice of teaching.

Noddings' (2013) theory of caring outlines both internal and relational components of teaching practice, including teachers' (1) *receptivity* to students and identifying their needs, (2) *motivation* to provide care, and (3) *responsiveness* to their needs. Findings from the current study demonstrate how continual engagement with mindful awareness practices can support a teacher's ability to care for students. Teachers felt their mindful awareness in the classroom enhanced their abilities to listen to and observe students to better understand their needs; their motivation to teach was maintained through self-care in the form of mindful awareness practices and through their reappraisal of events which reduced the emotional toll of their teaching; and their emotion regulation abilities allowed them to respond more purposefully to students' needs. While the mechanisms of mindfulness in teaching fit well into Noddings' framework, the theory does not fully capture the more cognitive and meta-cognitive processes involved in mindfulness such as how teachers' interpretation of events can influence the degree of emotional distress they experience, how continual engagement with mindful awareness practices can actually enhance

their abilities to listen to and observe students, or how reperceiving their thoughts about student behavior regulates emotional reactions.

Thus, the field would benefit from a theory that more fully integrates mindfulness with the specific occupational demands of teaching, including both the internal and relational, personal and professional dimensions of mindfulness in teaching uncovered in this study. A rigorous grounded theory study of teachers with varying levels of experience with mindfulness could more systematically develop a model of mindfulness in teaching.

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Table 1

Empirical Assertions

Assertion 1	Teachers engage with mindful awareness practices as a form of self-care, which maintains their well-being and supports their teaching practice
Assertion 2	Regular engagement with mindful awareness practices influences the way teachers make meaning of their professional practice, which reduces their experiences of emotional distress
Assertion 3	Regular engagement with mindful awareness practices cultivates a state of mindful awareness in teaching, which involves a heightened attention to both external events and internal experiences
Assertion 4	Mindfulness assists teachers in regulating emotions triggered by classroom events, which helps them respond, rather than react, to the events
Assertion 5	Teachers make unique applications of mindfulness to their teaching practice based on their specific teaching contexts