SOCIAL WORK STUDENTS USE OF ADAPTED MINDFULNESS-BASED STRESS REDUCTION AS A STRESS MANAGEMENT STRATEGY

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Abstract

Stress management programs are not available or required in many social work programs and the need for programming is apparent considering NASW's self-care mandate and COVID-19 pandemic related student impacts. Using a convergent mixed methods design, the authors investigated the effects of an adapted mindfulness-based stress reduction course as a stress management strategy for social work students (n=15) during the COVID-19 pandemic to determine if there are any effects on students' level of stress and mindful self-care behaviors. Three, five-week courses consisting of synchronous meetings and asynchronous practice materials were conducted. The Perceived Stress Scale and Mindful Self-Care Scale were administered to students as pre-test and post-test to and a focus group was conducted at the conclusion of each's course's final week. Three themes emerged: commitment and routine, practice and techniques, and accountability and Wilcoxon signed ranks test results showed no significant effects of adapted mindfulness on students' perceived stress (z= -.882, p=.378). However, mindful relaxation (z = - 3.04, p=.002), and students' self-compassion and purpose (z = -2.62, p=.009), and mindful awareness (z = -1.93, p=.054) increased. Although stress levels were not significantly affected, students' self-care improved, which aligns with NASW code of ethics mandating professionalism through self-care.
Keywords: Stress, COVID-19, Mindfulness, Education, Social Work Students.

I.   Introduction

College students experienced stress associated with the COVID-19 pandemic (Active Minds, 2020), and had varying concerning impacts as it related to their knowledge of the virus and transmission, finances, emotional and psychological well-being, and education (Charles et al., 2021; Mollock & Parchman, 2021; Zhai, 2020). One out of five United States (U.S.) students' mental health significantly worsened during the pandemic, 38% experienced trouble focusing on studies (Active Minds, 2020), and student's experienced disruptions to finances, psychological well-being, and education (Charles et al., 2021; Mollock & Parchman, 2021; Zhai, 2020). Social work students specifically abruptly adjusted to field placement changes and requirements (Council on Social Work Education [CSWE], 2020a), with 80.7% of social work students mental health being affected during the pandemic, and of these, approximately 33% mental health was very much affected (CSWE, 2020b). The COVID-19 pandemic presented a novel stressor that, combined with existing common social work student stressors, suggested a need for social work educators to promote self-care through mindfulness-based stress reduction (MBSR) exposure and practice, as part of students' formal degree seeking experience, can mitigate personal and professional stressors by providing coping strategies (Collins et al., 2010; Grant & Kinman, 2012; Roulston et al., 2018). Studies demonstrated mindfulness as an effective stress management technique) that promotes resiliency and is applicable to educational settings (Grant & Kinman, 2012; Roulston et. al, 2018; Shannon et al., 2014).

Stress is of heightened proportions among university students in general (American Institute of Stress, 2019; Beiter et al., 2015) and specific to their academic stress, these high stress levels are associated with gender, locus of control, and life satisfaction (Karaman et al., 2019). Students oftentimes may not be fully aware of the potential effects of chronic daily exposure to clients and their distressing experiences (Knight, 2010; Newell, & Nelson-Gardell, 2014). Students with pre-existing anxiety or mood disorders, or personal trauma histories were at greater risk of progressing to secondary traumatic stress (Lerias & Byrne, 2003; Nelson-Gardell & Harris, 2003; Dunkley & Whelan, 2006), which affirmed the

importance of attention to resilience, stress, and self-care early in social work students' educational journey (Grant & Kinman, 2012).

Mindfulness Based Stress Reduction

MBSR escalated to prominence in the Western world with Kabat-Zinn's 1982 study demonstrating MBSR practice improved chronic pain. This practice, shown as effectively reducing negativity (Schumer et al., 2018), reducing stress level and burnout, is a state or quality of mind that includes meditation practice that promotes, enables, and cultivates non-judgmental intentionality involving deliberate attention to moment-by-moment experiences (Kabat-Zinn, 1982) resulting in mind freedom to attend to one's own thoughts, emotions, behaviors (Shapiro, 2009). Research has demonstrated MBSR's positive effects on health professionals' overall wellbeing (Lomas et al., 2018), such as a reduced perceived stress level, reduced rumination, and reduced emotional lability and dysregulation and an increased life quality (Hill et al. 2012; Hill & Updegraff, 2012; Schumer et al., 2018). Additionally, students perceived mindfulness training as helpful to managing anxiety, improving presence with clients, reduced premature judgements in practice, and promoted feeling of safety and connectedness in the classroom (Thomas, 2017).

However, some studies showed MBSR as not effective for students' perceived stress level. A study of Master of Social Work (MSW) students' perceived stress and quality of life, after taking a 16-week elective mindfulness course that used the Quality of Life: Development of Mindfulness curriculum, which included readings, homework assignments, in-class sessions of ten-minute breathing meditation exercises, post-test results showed students perceived stress did not change, however, their quality of life improved (Bonifas & Napoli, 2014). A concurrent mixed method study, however, examined this same brief mindfulness training in 100 undergraduate social work students where students participated in 100 minutes of training over the semester of a three-hour course and found no significant differences (Thomas, 2017). Study methodology and population differences may result in different outcomes.

II.   Methods

A convenience sample of Bachelor's, Master's, and Doctor of Philosophy social work students attending a Catholic HSI in South Central United States were invited to participate in a virtual five-week mindfulness course. An invitation flyer was distributed to social work department faculty to share with students and were posted on the university social work department's social media websites, including Facebook and Instagram. Interested students emailed the authors to sign up to participate. Participants received a completion certificate and a gift card incentive.

The MBSR courses occurred Spring 2020, Summer 2020, and Fall 2021 and involved alternating weeks of synchronous meetings and asynchronous weeks (Figure 1). Two asynchronous weeks consisted of students utilizing assigned weekly material at their own discretion in time and frequency (For example, self-care kit creation, yoga video, mindful breathing video, mindful eating exercise). Two synchronous meetings were one hour in length each and included a check-in where facilitators learned participants experiences utilizing the materials, and next, a live practice of adapted MBSR followed, and last, a discussion of current session materials (For example, stress management topics, gratitude, affirmations, mindfulness progressive muscle relaxation scan, mindful breathing). This study was reviewed and approved by the authors' university institutional review board.

Figure 1. Joint Display Measures
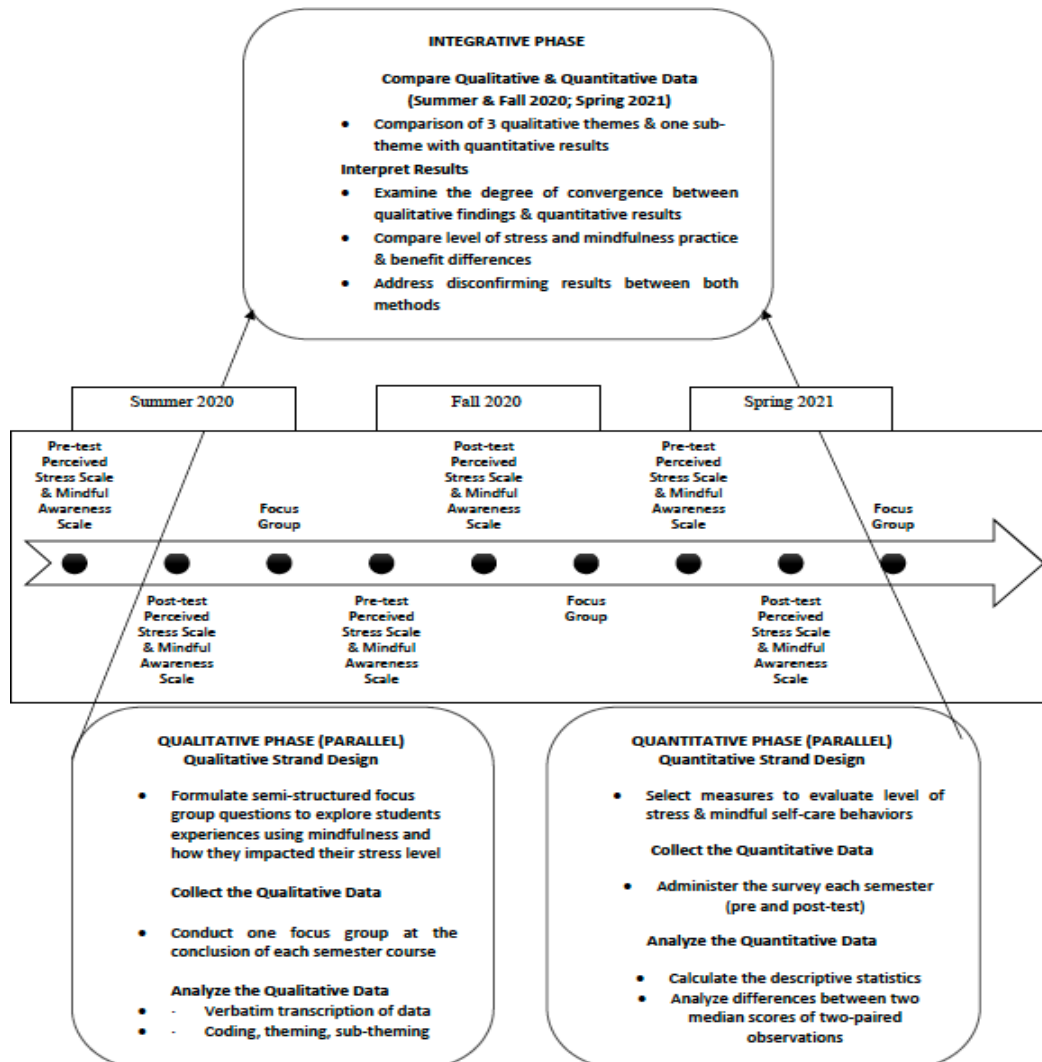
Socio-demographics. The Qualtrics survey included questions about participants raw age, gender (1=female, 2=male), race (1=White, 2=Black, 3=American Indian or Alaska Native, 4=Asian, Native Hawaiian or Pacific Islander, 5=Other), Hispanic ethnicity (1=yes, 2=none of these), marital status (1=married, 2=not married), social work employment status (1=yes, 2=no, 3=unsure), and COVID-19 related personal (1=yes, 2=no, 3=unsure), professional impacts (1=yes, 2=no, 3=unsure), essential worker employment status (1=yes, 2=no, 3=unsure), social services worker (1=yes, 2=no, 3=unsure), degree seeking level (1=BSW, 2=MSW, 3=PhD), and type of program attended (1=online student, 2=face-to-face student, 3=hybrid student). COVID- 19 impacts were further explored by surveying students through an open-ended survey question asking how COVID-19 has affected them.

Perceived Stress Scale. The survey included the Perceived Stress Scale (PSS), a widely used 10 question, ordinal scale (0=never, 1=almost never, 2=sometimes, 3=fairly often, 4=very often), that measures participants appraisal of the degree that stress impacts life situations (Cohen et al., 1983) and has been empirically validated for use with college students (Terwee et al., 2007). Cronbach's alpha was .735.

Mindful Self-Care Scale. The Mindful Self-Care Scale (MSCS) consisted of 33 items rated using a Likert scale (1=never, 2=rarely, 3=sometimes, 4=often, 5=regularly) and covering 6 domains: physical care, supportive relationships, mindful awareness, self-compassion and purpose, mindful relaxation and supportive structure (Cotton-Cooke & Guyker, 2018). Higher scores indicated better mindful self-care practiced behaviors. Cronbach's alpha was .859.

Data Sources and Analyses: Quantitative Phase

Students who enrolled in the five-week adapted MBSR courses were sent a welcome email, which included a Qualtrics pre-test survey link. The survey consisted of informed consent, sociodemographic questions, The PSS (Cohen et al., 1983) and the MSCS (Cook-Cottone, & Guyker, 2018). At the conclusion of each semester course, students were asked to complete a post-test survey.

First, this data was examined and 24 missing cases (students initiating the survey and not completing demographics or any measures questions) were removed. Descriptive statistics were used to characterize the sample. Variable central tendencies were analyzed and reported. Wilcoxon signed rank test is utilized, due to a small final sample size of 15, to examine the difference between students' median pre and post test scores. All analyses were conducted using IBM SPSS version 27 with an a priori p-value of .05 set as a threshold for statistical significance.

Data Sources and Analyses: Qualitative Phase

Qualitative data was collected through semi-structured focus groups at the conclusion of the adapted MBSR course each semester. Focus groups explicitly use group interaction as part of the method, because the interaction between participants elicits valuable information (Creswell, 2013). Groups containing 4-8 participants were asked a series of open-ended questions about their experiences in the adapted MBSR course and challenges that they encountered. At least two researchers were present at each focus group – one to facilitate the discussion and the other to take notes. All focus groups were recorded and transcribed for later analysis.

Utilizing NVivo (a qualitative software program; QSR International Pty Ltd., Version 10), researchers conducted an inductive content analysis to delineate themes within the focus groups.

Independent conceptual ideas (For example, routine, techniques, and accountability) were considered the unit of analysis. Following several thorough readings, the second author first open coded all the data for both scenarios. Conceptual ideas were then raised to meaningful organizational themes and subthemes (For example, 'routine as a primary theme, 'commitment' as a subtheme). Triangulation was utilized to enhances the credibility of the study by drawing from multiple perspectives and also kept an audit trail of each successive codebook reiteration, thereby increasing the study's trustworthiness (Lietz & Zayas, 2010).

III.   Results

Quantitative Results

A total of 15 students completed the pre-test and post-test survey (Table 1). Most were female (n=14, 93.3%), heterosexual (n=14, 93.3%), married (n=6, 40%), and Hispanic (n=8, 53.3%). They primarily were bachelor level students (n=7, 46.7%) studying online (n=9, 60.0%). Table 1

Descriptive Statistics of Sample Socio-demographic Characteristics (n=15)

	n	%	Mean
Age			41.08
Gender Female			
	14	93.3	
Male	1	6.7	
Sexual orientation Heterosexual	14	93.3	
Lesbian Marital Status	1	6.7	
Divorced	4	26.7	
Married	6	40.0	
Never married/single	4	26.7	
Separated	1	6.7	
Hispanic ethnicity			

Yes	8	56.3
No	7	46.7
Social work degree program		
Bachelor social work	8	53.3
Master social work	7	46.7
Degree program format	5	16.7
Online student	9	60.0
Face-to-face on campus	3	20.0
Hybrid (online + face-to- Face)	3	20.0
Employed as a social service	3	20.0
Worker		
COVID-19 personal impact	11	73.3
COVID-19 professional impact	7	46.7

The mean student age was 41.08 years old. Most participants endorsed personal impacts by COVID-19 (73.3%) and 46.7% experienced COVID-19 professional impacts. The Wilcoxon signed ranks test result (Table 2) showed no statistically significant difference in perceived stress among social work students who participated in the adapted MBSR course (z = -.882, p=.378). Median stress score rating for pre-tests were 21.93 and post-test, 21.00.

Table 2. Measures Mean and Standard Deviations Within Groups (n= 15)

	Perceived Stress Scale				Mindful Self-Care Scale			
	Baseline score Mdn (SD)	After intervention Mdn score	Wilcoxon Z (p value)	Effect size (SD)	Baseline Mdn score (SD)	After intervention Mdn score (SD)	Wilcoxon Z (p value)	Effect size
Measures								
Perceived Stress	21.93 (6.45)	21.00 (.097) (.378)	-.882 (.378)	.228				
Mindful self-care behaviors								
Mindful relaxation					16.00 (3.94)	21.00 (4.61) (.002)	3.04	.78
Physical care					24.00 (6.66)	26.00 (4.77) (.267)	-1.11	.29
Self-compassion & purpose					16.20 (5.28)	24.00 (6.23) (.009)	-2.62	.68
Supportive relationships					17.00 (3.43)	19.00 (4.23) (.096)	-1.67	.43
Supportive structure					14.00 (4.03)	15.00 (3.70) (.123)	-1.54	.40
Mindful awareness					13.00 (4.89)	15.00 (2.50) (.054)	-1.93	.50

Students' mindful relaxation, physical care, self-compassion and purpose, supportive relationships, supportive structure, and mindful awareness examined to determine if there

was a significant increase in mindful self-awareness behaviors after session participation. Wilcoxon signed rank tests revealed no statistically significant differences between pre and post results for mindful relaxation (z = -3.04, p=.002), and students' self-compassion and purpose (z = -2.62, p=.009), and mindful awareness (z = -1.93, p=.054). Mindful relaxation pretest median was 16.00 and posttest median was 21.00. Self-compassion and purpose pretest median were 16.20 and posttest median were 24.00, and adapted mindfulness awareness pretest median score was 13.00 and post-test, 15.00. Results suggest the adapted MBSR course resulted in an increase in some mindful self-care behaviors among social work students.

Qualitative Findings
Commitment and Routine

The largest number of responses focused on a discussion surrounding how they could commit to being mindful and incorporate adapted MBSR practices into their everyday routine.

Commitment and routine examples include: "Being reminded to be mindful, to be in the moment, and to take the time to be in a moment of being mindful." "I think just signing up for the course made me begin to make a commitment to trying to be mindful about being mindful." "Making sure that I consciously think mindfulness and to integrate it into my week." Seeking Out Mindful Experiences in Their Everyday Life. Within the discussion surrounding commitment and routine a subtheme emerged; many responses focused committing to seeking out mindful experiences in their everyday life as part of their routine. Seeking out mindful experiences in their everyday life examples include: "I find that I look for time in my day to be mindful." "I look forward to looking for that time to give myself and to reward myself at least couple of minutes in a day… I am looking for any little time in my day that I can just step away and put on one of those videos, one of the meditations, one of the breathing exercises."

Practices and Techniques

The second largest number of responses focused on specific practices or mindful techniques that they are trying to incorporate into their routine. Specific techniques that were identified include: breathing techniques, yoga practices, relaxation techniques, positive self-talk, and meditation videos. Examples quotes regarding practices and techniques include: "I liked the whole thing in general, but I think what I really liked was the relaxation techniques that we did after each session, because I actually would practice those on my own." "The positive self-talk really helps me, especially stressful situations." "I'm very mindful of doing breathing techniques now. At times when I feel stressed, I take a moment to myself to breathe and take a break for a second." "Motivational self-talk and really just telling yourself you're going to get through this one day at a time."

Accountability

The responses of some students indicated that they appreciated the group focus of the series. Many of the participants talked about accountability and the group providing them with the tools to be accountable for practicing adapted MBSR. Specific examples of student quotes include: "I'm grateful for not only the resources that you guys provide, but the resources that we're able to share with each other." "It's a great program to just re-instill the value of it, and to keep us accountable by meeting." "And then I love the Group Me, because at least I'm reminded at least once a day because someone will post something."

Mixed Results

Convergence analysis of results similarities showed students quality of life improved, as noted by a participant stating: "I look forward to looking for that time to give myself and to reward myself at least couple of minutes in a day." This aligned with quantitative results demonstrating students increased mindful awareness, mindful relaxation behaviors, self-compassion, and purpose behaviors increased.

Divergence, or where results differed, were with levels of stress. Students endorsed

less stress during focus groups. However, quantitative results showed no change in student perceived stress levels at pre-test and post-test and no change in physical care, supportive relationships, supportive purpose, and mindfulness awareness behaviors. Focus group findings differed showing students increased physical care, supportive structure, supportive relationships, and mindfulness awareness as evidenced by commitment and routine that included seeking out mindful experiences and utilization of practice techniques.

I. Discussion

Discussion of Quantitative Results

Students in this study did not experience a decrease in level of stress, which aligns with some previous research findings (Bonifas & Napoli, 2014). A study of adults' barriers to the use of mind-body practices during the early pandemic showed some experienced a lack of motivation, some experienced their mind wandering, had schedule irregularities, and had a low mood which affected their use of these practices (Hellem et al., 2021). There were some studies with mixed results concerning stress level outcomes as some researchers (Hill & Updegraff, 2012; Schumer et al., 2018) did find students perceived stress reduced (Grant & Kinman, 2012). Thomas (2017) conducted a study that showed students exposed to 100 minutes of brief mindfulness training over the semester of a three-hour course did not have less stress levels (Thomas, 2017), and another study (Bonifas & Napoli, 2014), which occurred over 16 weeks found students perceived stress levels did not change, however, students' quality of life improved. University students tend to have heightened stress levels even during non-crisis times (Beiter et al., 2015) suggesting although stress levels may not decrease, students were exposed to a positive coping strategy, which may have implications for overall wellbeing (Medlicott et al., 2021; Rava & Hotez, 2021).

Students' mindful relaxation, mindful awareness, and self-compassion and purpose behaviors increased, which were important to students addressing their own personal and emotional needs (Figley, 2002; Stamm, 1999; National Association of Social Workers, 2009; Newell, & Nelson-Gardell, 2014). These students' quality of life improved, which was a similar finding in Bonifas and Napoli's (2014) and Rava and Hotez's (2021) studies.

Discussion of Qualitative Results

The results from the focus groups revealed insightful findings of the student's gained awareness and application of mindfulness practices. The identified themes provide awareness that the students were able to implement mindfulness techniques to address challenges they were experiencing as well as stress. The students discussed experiences of reframing their mindset on experiences by focusing on strengths as well as using positive affirmations and positive self-talk. They also provided examples of how their reappraisal process of stress by sharing the use of mindfulness practices created positive noticeable changes that impacted their overall well-being and health.

The students reflected on ways they were able to establish routines that worked best for each of them. The routines involved some focusing-on meditations and breathing techniques while others included mindful walks and mindful eating. During the focus group students discussed the initial challenges in developing habits to practice self-care and mindfulness but shared their success when they were able to develop a practice that allowed them to destress and find relaxation.

In reviewing the results, it became apparent that the students valued the support and connectivity from their peers throughout the series, which aligns with previous research findings from (Thomas, 2017). Connectivity encouraged students to share their routine and progress in practicing self-care and mindfulness. Sharing resources that focused on better sleep, affirmations, meditations, yoga, and gratitude with peers allowed other students to develop helpful tools to practice self-care and mindfulness.

Furthermore, in contribution to previous research Bonifas & Napoli (2014), findings in this study provided students reflections on a better quality of life and self-compassion by using mindfulness practices. This quality of life was reflected in their self-reports of better sleep habits, decrease in pain, lowered stress levels pertaining to school course work and

fulfillment in taking time to practice self-care. They expressed no longer feeling guilty for taking time for themselves and being mindful to practice self-care.

Lastly, an insightful finding emerged from the focus group, that inspired the researchers. Although this was a research study many of the students considered the series to be a course. This brought awareness of the opportunity to provide a future series and future opportunities to develop curriculum and potentially a course to focus on mindfulness and self-care practices. In hopes to provide students with further self-awareness and the tools needed to combat compassion fatigue and burnout in a demanding career field.

Discussion of Mixed Methods Results

Mixed methods findings are similar to Bonifas and Napoli's (2014) results showing no stress level changes, however, the students experienced some positive changes in the quality of their life as discussed in Rava and Hotez's (2021) study, such as themes of positive wellbeing and a mindful shift from negative sentiments to positive sentiments. This study's results showed student gains in some aspects of their experiences as they perceived benefits to utilizing mindfulness, which is affirmed in other research showing students qualitative feeling improved mood (Thomas, 2017), which aligns with research demonstrating quality of life improvement (Hill & Updegraff, 2012; Schumer et al., 2018). Mixed methods results align with previous research showing mixed results whereby students did not experience a decrease in stress despite accountability and a sense of commitment to participate in sessions and homework tasks. This may be explained by student resiliency as social work students tend to be more reflective, self- confident, and resilient (Grant & Kinman, 2012).

Implications and Limitations

O'Neill et al., (2019) showed that regardless of the self-care techniques used, daily self- care strategies are crucial to social work students' stress coping. Social work programs can be encouraged to develop curriculum that offers face to face and online activities within curriculum that allows students to develop self-care techniques and practice mindfulness. Individual faculty can incorporate MBSR related practices and resources into the course materials and assignments to engage students in MBSR related experiences, which aligns with the purpose of the NASW Code of Ethics and CSWE Educational Policy and Accreditation Standards.

This study includes limitations as follows: 1) sample size, 2) limitations of generalizability of results, 3) the study authors facilitated synchronous sessions which may have had an effect on participants use, practice, and reporting on mindfulness techniques (social desirability bias), and 4) fidelity and dosing as there were likely variations in individual students' frequency of utilization of mindfulness techniques that were difficult to measure using the scales employed in this study and these were not controlled. Despite these limitations, findings can be utilized to inform future research, social work educators, and practitioners.

Future studies are suggested to continue with a mixed methods design to understand the complexities of using mindfulness as a stress management strategy and should attempt to replicate previous research studies to compare findings with previous similar studies. The findings from this study highlight the value of incorporating self-care and mindfulness concepts and practices into social work student's education. Furthermore, incorporating these skills and techniques into social work curriculum, such as each faculty person utilizing MBSR activities and resources in the face to face or online classroom, has the potential to empower students to develop self-care stress reduction practices to prevent compassion fatigue and burnout during their time in the social work program as well as in their careers as future social workers.

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